

CODE OF ETHICS FOR PROFESSIONAL ACCOUNTANTS AND CHANGE THE EXTERNAL AUDITOR: A STUDY OF THE EMERGING MARKETS

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Abstract

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To ensure the independence of auditors and the credibility of financial statements, this study investigates if Jordanian manufacturing companies change their external auditors. Moreover, assess if that change is influenced by the International Code of Ethics for Professional Accountants (ICEPA). The study figured out the viewpoints of external auditors and financial managers of public industrial companies listed on the Amman Stock Exchange. Auditor's changing data is gathered from the annual reports of (59) manufacturing firms from 2006 to 2015. (280) questionnaires were collected from financial managers and auditors of manufacturing firms to assess if auditors comply with ICEPA. The binomial test and the logistic regression analysis were used. The study showed that the change of the external auditor in Jordanian companies is significantly affected by the ICEPA. However, external auditors and financial managers have different views of the effects of the ICEPA on the change of the external auditor in Jordan.

Keywords: Code of Ethics, Professional Accountants, Changing The Auditor, The Industrial Companies, Jordan

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1. INTRODUCTION

Economic collapses and recent corporate scandals at the global and local levels have caused the public to conclude that the company's financial statements, earnings quality, and auditing standards have abruptly and synchronously broken down. When shareholders suffer substantial damages as a result of deception, fraud, or failure, you find them loudly asking about the role of the auditor in preventing

such collapses. Then all the blame fingers and complaints will be pointing out to the auditors demanding to change, hold accountable, and prosecute them.

In order to improve the credibility of the financial statements and the auditors' reports, and to ensure the independence of the auditor, the Securities and Exchange Commission and other audit authorities in many countries are beginning to issue new legislation to enhance the audit profession. It is hoped that these legislations will

contribute to organizing many cases, such as the compulsory rotation or change of the audit firms, the new requirements of the audit committees with respect to their oversight on the audit performance, and the additional restrictions imposed on providing of non-audit services to audit clients.

It is argued that the rotation of auditors is directly tied to the occurrence of economic crises. In the last few years, we have seen the fall of the American Enron Corporation and the effect it has had on the role and responsibility of the audit and accounting firms. We also saw the resulted repercussions which caused the investors' loss estimated at 460 billion dollars. This adversely reflected on the credibility of the financial statements and the audit profession consecutively (Al Farah, 2011).

After each economic downturn and the sudden corporate collapse, the question arises as to whether audit firms conform with the International Code of Ethics for Professional Accountants (ICEPA). The code of ethics is issued by the International Ethics Standards Board for Accountants (IESBA) such as independence, professional behavior, confidentiality, objectivity, integrity, professional competence, and due care. Manipulating financial records by audit firms is perceived to be definitive proof of a lack of adherence by certain audit firms to the code of ethics. This threatens the effectiveness, independence, and competence of external auditing. According to the above, companies may optionally change their external auditors, or the audit firm itself may permanently leave the market and move for liquidation (Krishnan & Gul, 2002).

This study would aim to investigate the degree to which Jordanian industrial companies change their auditors and to analyze the impact of the auditor's compliance with the ICEPA on the changing of external auditors in the industrial companies listed on the Amman Stock Exchange from the point of view of external auditors and financial managers during (2006-2015).

It is expected that this study will help provide Jordan's accounting and audit profession regulators and policymakers with a consistent outlook that will lead to the organization and implementation of regulations and the enactment of new legislation accompanying the rapid development of the accounting and audit profession. This strengthens and encourages the independence of auditors, thereby improving the invulnerability and sustainability of the audit profession, which positively reflects on the coherence and protection of the national economy and the stock market from more shocks.

As for the structure of the study, Section 2 presents the theoretical framework and previous studies. That section gives details of the code of ethics for the professional accountant and the auditors' code of ethics in Jordan. The section ends with previous studies and hypothesis development. That is followed by research design in Section 3, where details of the study sample, questionnaire, and variables can be found. The next section is the descriptive statistics of the study that explains the descriptive statistics of dependent and independent variables, multicollinearity, and reliability tests, and ends with a description of the study sample. Section 5 discusses the findings. The study ends with the conclusion in Section 6.

2. THEORETICAL FRAMEWORK AND PREVIOUS STUDIES

2.1. The code of ethics for the professional accountant

In its everyday sense, ethics refers to a collection of objective universal standards of human behavior (Flint, 1988). The Ethics Committee, a standing committee of the IFAC until 2005, was set up in 1977 to establish the Code of Ethics for Professional Accountants applicable to IFAC members worldwide. The International Audit Standard No. (1) related to quality regulation for companies that perform audit processes and historical financial information review. That standard came to regulate the quality, provide, and issue guidance standards for the responsibility of firms that provide reviewing services for historical financial information and other assurance services (International Federation of Accountants, 2009). The code of ethics is one of the quality system components for the audit process. A review practice without a code of ethics is futile or pointless and even can deceive the decision-makers. Therefore, the professional associations' interest in auditors' code of ethics and independence, and the audit profession increased in various world countries, particularly, after the Enron and WorldCom scandals (Lowensohn, Johnson, Elder, & Davies, 2007). The researchers believe that there is a strong probability that the auditor's continuance with the customer would be difficult if the auditor is not committed to the code of ethics, where some companies change the auditor due to the lack of his/her commitment to the professional code of ethics.

The audit profession code of ethics is defined as the set of moral values represented by ideal standards for the auditor's ideal behavior, which he/she must be characterized by during performing the work and dealing with the client or the rest of the auditors (Lowensohn et al., 2007). That code of ethics includes the following moral requirements.

First: *Integrity*, where the auditor must be trustworthy, fair, and he/she should follow the audit profession's laws and apply them when providing audit services to the client's facility. Having so, leads to enhancing the trust and reliability of the judgments and reports of the auditor.

Second: *Objectivity*; to be objective, the auditor should prevent prejudice or conflict of interest which can harm one of the users of the audited financial statements. He/she should not also make any activities or relations with the client that might weaken his/her professional judgment and distort the facts.

Third: *Professional competence and due professional care*, requiring the auditor to conduct the work according to an appropriate level of knowledge, skill, and experience; and to continue engaging in seminars and workshops where this can be reflected in the quality of his/her work.

Fourth: *Confidentiality*, which means that the auditor should respect the confidentiality of the client's information which he/she has told, not use them for his/her own sake or in a manner that should harm the client, and not reveal it without the client's permission.

Fifth: *Independence*, which includes the apparent and intellectual independence; thus, the auditor must avoid any actions that could impair his/her independence, such as personal relationships or

conditional fees, and not have direct or indirect financial interests that may compromise his/her independence and thus limit the quality of his/her reports and affect the users and those with interests.

Finally: *Professional behavior*, where the auditor has to comply with the laws and the relevant regulation and avoid any behavior that could offend the audit profession.

2.2. Auditors code of ethics in Jordan

Like other world countries, Jordan is concerned with the audit profession and the quality of the external auditor's work, and its adherence to the audit profession's ethics. That care is to preserve the interests of the stakeholders. It, therefore, encourages trust in accounting information, which will impact favorably on fostering Jordan's investment climate, attracting investment, and enhancing the efficiency of decision making.

To accomplish the above goals, the Jordanian Association of Certified Public Accountants (JACPA) was established in 1988 and has been granted complete responsibility for the audit profession and the external auditors. The association's instructions obliged the auditor, who would like to practice the profession, to be a registered member. It also aims to improve the auditors' scientific and professional competence by offering relevant professional qualifications and by offering training courses. In addition, the enhancement of auditing practices by encouraging the auditor's members to abide by the code of ethics of the audit profession (Al-Farah, Abbad, & AL Shaar, 2015). It is also relevant to remember that the association developed the code of ethics for the conduct of the audit profession, which involved: the auditor's objectivity, integrity, confidentiality, independence, and the necessary professional competence of the external auditor. It further obliges the auditors to adhere to these rules, since any auditor that might expose the related parties to losses or damage shall be disciplined and liable to lawsuits (Law of Organizing the Practice of the Public Accounting Profession, 2006). Article 12 of the Law of Practicing the Profession of Legal Accountancy for the year 2006 stipulates that the inspection committees established by the Board of Directors of the Association of Auditors shall check the degree to which Jordanian auditors comply with the code of ethics.

2.3. Changing and rotating the external auditor

Voluntary changing of the auditor is not a new matter, since Zeff (2003) has demonstrated that one of the most prominent American companies named "E. I. du Pont de Nemours and Company" has annually changed its auditor since its establishment in the year 1910. Barton (2002) considers that since the collapse of the Maxon Robins Company in 1938, the argument and the debate concerning rotating the auditor have still existed.

Mandatory rotation of the auditor shall entail the determination of a cap restricting the years of service of the auditor in a corporation. The most common number of years for the auditor to rotate is five to seven years. Mandatory rotation is a contentious topic, as it has been controversial for decades. It disappears and reappears every time one of the public corporations fails or goes bankrupt.

The idea of changing the external auditor passed to European countries after it spread in the United States of America; as certain Italian corporations have optionally changed their external auditor in 1974, following the issuance of the Company Law, which allows the external auditor to be changed if it is needed or mandatory to rotate him/her according to the law every nine years (Silvano, Florio, Gotti, & Mastrolia, 2015).

The external auditor's change is explicitly specified under the Sarbanes Oxley Act, which stipulates that corporations should rotate the responsible auditor every five years. The securities commissions and the American Stock Exchange have decided that the American companies listed on the American Stock Exchange must report the reasons for changing the external auditor through a particular form. Since the American companies listed on the stock exchange are obligated to disclose the reasons for changing the external auditor, there is a debate concerning changing the external auditor. Discussion is about the reasons for changing the companies to their auditors, the degree to which those reasons are reasonable and compelling, and whether the investors or the management get benefits from getting rid of the auditors who disagree with the preferences, interest, and desires of the management or vice versa.

Many scholars have studied the subject of the auditor's mandatory rotation and the voluntary change, where Ebimobowei and Oyadonghan (2011) have shown an inverse association between changing the auditor and the quality of his/her audit results. Another explanation was noticed by Lennox (1998), who showed that companies would change their auditors if the company did not receive an unqualified opinion or to prevent the auditor from discovering that the company is going bankrupt in the coming periods. On the contrary, some studies have clarified that changing the auditor could restrict the audit reports' quality. This is what Lyons (2015) pointed out. Lyons (2015) explained that retaining the auditor and override the mandatory rotating rule increases the auditor's expertise in the auditing of the client's business. That will allow making the auditor specialize in auditing that industry. Therefore, the auditor would then be in a great position to deliver results that portray the true right image of the company and fairly reflect its financial condition.

Al Saoudi's (2007) research on the reasons for changing external auditors has demonstrated that when companies change their auditors, they may refer to a series of legal or moral considerations, such as the auditor's independence, integrity, and objectivity. Other considerations related to the audit office, such as its size or worldwide affiliation, may cause the company to change its auditors. Al Habchana's (2004) analysis suggested that the corporation's management could change the auditor to meet its private goals, which the continuity of the auditor's service may preclude it to be accomplished. The researcher points out that changing the auditor has caused the financial statements' users to limit their trust and use of the external auditor's report. Besides, reduce the reliance on the auditor's opinion when making an investment or funding decision or some other decision. Changing the auditor and the causes and

considerations should not be ignored since it affects the share prices and the company's financial condition. Hackenbrack and Hogan (2002) have demonstrated that the company's share values have declined if the external auditor has changed due to fees or the presence of disagreements and disputes between the management and the auditor.

2.4. Previous studies and hypothesis development

A variety of studies have dealt with the auditor's compliance with the professional behavior codes and the auditor's change. In Turkey, Yalcin and Yasar's (2019) study showed that companies audited by a new audit firm after the auditor's mandatory change had lower discretionary accruals. Therefore, its auditing quality is also better than that of the companies that have not made a mandatory change. The literature review in this area indicates a close association between changing auditors and the quality of auditing (Silvano et al., 2015; Lyons, 2015). The mentioned studies showed a statistical relationship between changing the audit partner from the same company, auditing quality, and competence. At the same time, there is no relationship between changing the audit office and auditing quality. On the other hand, Ebimobowei and Oyadonghan's (2011) study from South Africa and Jarboub's (2008) from Palestine revealed a negative relationship between the auditor's retention, the auditor's independence, objectivity, and competence. The same results have been found in Mushtaha (2014), where the retention of auditors for a long period drives managers to use earnings management approaches.

The long contractual period led the auditor to issue a clean standard report though there are some errors. This indicates a decline in the compliance of the auditor with the professional codes of ethics. The same results were reported by Abu Ghanem (2003). The former revealed that the auditor's long period of auditing the client's financial statements adversely impacting the auditor's independence. There is an agreement that a lengthy contractual term is counterproductive to the independence of the auditor. In Belgium, Vanstraelen (2000) found that the stronger the relationship between the auditor and the client, the higher the likelihood of issuing clean reports or the lower willingness to give a qualified opinion, which negatively reflects the auditing quality process.

Mostafa and Hussien (2010) found that the lack of a regulation obliging the Egyptian shareholding companies to change the auditor has undermined the external auditor's independence, which is perceived as one of the essential codes of ethics for a professional accountant. The same findings were confirmed in Taiwan, where Chi, Huang, and Liao (2005) indicated a statistically significant relationship between the auditor's mandatory change and the quality of the auditing and the investors' decisions. Investors concluded that companies that undertake to change the external auditor have a more credible and faithful representation of the actual transactions, which increases the auditor's independence and quality of work. In contrast to the previous results, Nashwa (2004) showed no relationship between changing the auditor and the quality of the external auditor's work in American companies.

Based on the theoretical framework and the previous studies, and to achieve the study goals, several hypotheses and sub-hypotheses were formulated in their null form:

H_{01} : *The Jordanian public shareholding industrial companies listed on the Amman Stock Exchange do not change the external auditor.*

H_{02} : *The ICEPA does not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

$H_{02.1}$: *The external auditor's independence does not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

$H_{02.2}$: *The external auditor's integrity and transparency do not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

$H_{02.3}$: *The external auditor's objectivity does not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

$H_{02.4}$: *The external auditor's professional competence and due care do not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

$H_{02.5}$: *The external auditor's confidentiality does not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

$H_{02.6}$: *The external auditor's professional behavior does not have a statistically significant effect on the change of external auditors in Jordanian industrial public shareholding companies.*

H_{03} : *There are no statistically significant differences in the effect of the ICEPA on the change of external auditors from the perspective of external auditors and financial managers.*

3. RESEARCH DESIGN

3.1. Population, sample, and resources of data

The study population consists of the auditors and the financial managers of the Jordanian industrial shareholding companies listed on the Amman Stock Exchange, which counted (59) companies (Appendix). As for the study sample, (280) questionnaires were distributed to the financial managers, and the auditing offices; (255) were collected, and (11) were excluded since their data were incomplete. It turned out that (214) questionnaires were analyzable by (171) auditors and (43) financial managers, meaning that the valid percentage of the questionnaire was (76%), which is a statistically acceptable ratio.

3.2. Collection of data

As for data resources, this study relied on two kinds of data resources: secondary sources, which provided an analysis of prior studies and associated theoretical frameworks. The primary resources represented by the questionnaire are to complete the practical part by answering the study's questions and test its hypotheses. Moreover, reviewing the companies' annual reports during the years 2006-2015 with a view to exploring and measuring the dependent variable (change of external auditor) and the extent to which the companies do it.

3.3. Description of the questionnaire

Two key sections were involved in the questionnaire. The first part concerns the demographic details of the study survey respondents. The second section deals with questions reflecting the elements of the auditor's code of ethics, which are: independence, integrity, objectivity, professional competence, confidentiality, and professional behavior; where the study sample participants were asked to assess the impact of conformity with the auditor's code of ethics on changing the auditor to the Likert

five-point scale. The questions posed in the study included all codes of ethical conduct as follows:

- independence of the auditor (9 elements) (Table 1);
- integrity of the auditor (9 elements) (Table 1);
- objectivity of the auditor (6 elements) (Table 2);
- confidentiality of the auditor (6 elements) (Table 2);
- professional competence and due care of the auditor (10 elements) (Table 3);
- professional behavior (8 elements) (Table 3).

Table 1. Independence and integrity elements

No.	<i>Independence and its effect on changing auditor</i>	<i>Integrity and its effect on changing auditor</i>
1	Apparent and mental independence	Commitment of credibility and honesty
2	Financial interest of the auditor in the company	Commitment to International Standards for Auditing
3	Audit committee and dismissal and hiring the auditor	Commitment to legislation, rules, and regulations
4	Detection of risks and reduction of their consequences	Disclosure of the responsibilities toward the client
5	Social ties between auditors and their clients	The current auditor communication with the preceding auditor
6	Impartiality in the supply of information to the various parties	Financial and in-kind presents
7	Fees and audit volume	Transparency when providing information about the management
8	Detection of the exposure of the company to bankruptcy	Transparency and integrity of the auditor during the auditing procedures
9	Fees on consultancy activities and other services	Credibility of the auditor's report

Table 2. Objectivity and confidentiality

No.	<i>Objectivity and its effect on changing the auditor</i>	<i>Confidentiality and its effect on changing the auditor</i>
1	Commit to objectivity when making the task	Adherence to the confidentiality rules when providing information
2	Using statistical methods to pick an audit sample	The disclosure of the company's secrets
3	Commit to the execution of the put Action Plan by the auditor in charge	Provide information to related parties
4	Write notes in the working papers and retain them	Disclosure of information
5	Establish the principle of objectivity amongst auditors	Maintain the secrets of the client
6	Estimate the level of the materiality of the financial statement accounts and the degree of the risks that the company will encounter	Maintain the privacy of the customer

Table 3. Competence and professional behavior

No.	<i>Professional competence and due care and its effect on changing the auditor</i>	<i>Professional behavior and its effect on changing the auditor</i>
1	Holding a certificate for the practice of the profession	Performing work with integrity and honesty
2	Implementation of training programs for auditors by the audit office	Corresponding the audit fees with the time spent
3	The possession of international professional certificates	Not offending the fellow auditors
4	Choosing a scientifically and practically qualified work team	Not using propaganda methods offending to the profession
5	Knowledge of regulations, laws, and international auditing standards	Performing the work in a way that serves the interests of the company
6	The role of sanctions when the auditor's work lacks competence	Being able to equally serves all parties
7	Exerting the adequate and necessary due professional care	Not accepting conditional fees
8	Accuracy in assessment of the client risk	Being able to use the international standards
9	Existing a system for the auditors' work quality	-
10	Existing civil and criminal responsibilities	-

3.4. Study variables

The study-dependent variable is the "change of auditor" and was determined by analyzing the financial statements of the industrial companies listed on the Amman Stock Exchange, by providing (1) to the firm making the change and (0) to the companies which do not. Independent variables are the professional accountant code of ethics, represented by independence, integrity, objectivity, professional competence, confidentiality, and professional behavior, where these data have been obtained by a questionnaire.

In order to meet the research aims and test the hypotheses, the study used the binomial distribution test to determine the corporations that changed the auditor and the corporations that did not. However, the logistic regression model has been used to calculate the independent variables' influence on the dependent variable. In order to assess the relative importance of the participants' responses, several levels were used: low, medium, and high, and thus: the low level for the arithmetic mean is between (1) and less than (2.33), the medium level is between (2.33) and less than (3.66), and the high level is between (3.66) and (5.00).

4. DESCRIPTIVE STATISTICS OF THE STUDY

4.1. Descriptive statistics of the independent variables

Table 4 reports descriptive statistics for independent variables. The independent variable reflects the view of the respondents, either the auditors or the financial managers, as to the degree to which the code of ethics affects the changes made to the auditor by the public shareholding companies. Descriptive statistics present the mean value, standard deviation, rank, and relative importance.

Table 4 shows that all respondent responses, either from financial managers or auditors, were positive and high, with an average of (3.810) and a standard deviation of (0.443). The confidentiality of the external auditor came first with an average of (3.916) and a high relative value. Simultaneously,

the objectivity of the external auditor had a mean (3.693) and a high relative value in the last rank.

The table also describes the responses of the auditors; it shows high relative importance with an average value of (3.812) where the confidentiality of the external auditor was of the first rank with an average of (3.898) and high relative importance. At the same time, objectivity was at the last position with an average of (3.680) and a high relative value.

Finally, in terms of relative importance, the response of financial managers was high as the average hit (3.799) when the confidentiality of external auditors came first with an average value of (3.988) and high relative importance. In comparison, integrity had a mean (3.698) and high relative importance in the last rank. The researchers see that all respondents of the sample members agreed on the importance of the professional behavior rules and their important effect on changing the auditor.

Table 4. Descriptive statistics

No.	Auditors' code of ethics	Financial managers			External auditors			Total			
		Mean	Rank	Relative importance	Mean	Rank	Relative importance	Mean	S. D.	Rank	Relative importance
1	Independence	3.739	5	High	3.791	5	High	3.781	0.506	5	High
2	Integrity	3.814	2	High	3.882	2	High	3.869	0.55	2	High
3	Objectivity	3.744	4	High	3.68	6	High	3.693	0.528	6	High
4	Professional competence and due care	3.809	3	High	3.8	4	High	3.802	0.491	3	High
5	Confidentiality	3.988	1	High	3.898	1	High	3.916	0.728	1	High
6	Professional behavior	3.698	6	High	3.822	3	High	3.797	0.548	4	High
Total		3.799		High	3.812		High	3.81	0.443		High

4.2. Descriptive statistics of the dependent variable (Changing the external auditor)

The dependent variable is considered to be a binary variable where (0) is allocated to the companies which did not change their auditors during the period of 2006-2015 and (1) to the companies which changed their auditors during the same period. Table 5 reports the distribution of the industrial

companies according to changing the external auditor's situations.

Table 5 shows that from 2006 to 2015, (36) of the companies in the sample changed their external auditor with a percentage of (66.7%), while (18) companies did not change their external auditor during that period with a percentage of (33.3%). Consequently, the cases of changing the external auditor are more than the case of not changing the external auditor.

Table 5. Distribution of the study sample according to changing the external auditor's

Classification of companies	Frequency	Percent
Not changing the auditor	18	33.3
Changing the auditor	36	66.7
Total	54	100

4.3. Multicollinearity test

The multicollinearity test was used to examine the interrelationship between the independent variables. Table 6 shows the value of the multicollinearity coefficients among the independent variables; it indicates that the highest correlation coefficients were between the integrity of

the external auditor and objectivity of the external auditor, which reached (0.741) and this might indicate that there is no multicollinearity phenomenon among the independent variables; since the value of the correlation coefficient which exceeds (0.80) is an indicator of the existence of the high multicollinearity problem (Gujarati, 2004, p. 359).

Table 6. Correlation matrix for independent variables (code of ethics)

No.	Variable	Independence	Integrity	Objectivity	Professional competence and due care	Confidentiality	Professional behavior
1	Independence	1					
2	Integrity	0.681**	1				
3	Objectivity	0.655**	0.741**	1			
4	Professional competence and due care	0.673**	0.689**	0.714**	1		
5	Confidentiality	0.362**	0.483**	0.293*	0.380**	1	
6	Professional behavior	0.279*	0.362**	0.266	0.445**	0.381**	1

Note: (**) at a significant level of 0.01, (*) at a significant level of 0.05.

4.4. Reliability test of the study tool

Table 7 presents the internal consistency test results for the study instruments; it reveals that the values of Cronbach alpha coefficients of the study tool sections were all higher than (0.709), and they

reached (0.806) in all sections. This is an indication of the consistency among the sections of the study tool and the reliability of this tool, in addition to the possibility of relying on it to make the statistical analysis (Sekaran, 2003).

Table 7. The internal consistency coefficients of the study tool's

No.	Code of Ethics for Professional Accountants	Alpha value
1	Independence	0.709
2	Integrity	0.772
3	Objectivity	0.819
4	Professional competence and due care	0.787
5	Confidentiality	0.750
6	Professional behavior	0.884
7	Total	0.806

4.5. Description of the study sample characteristics

Table 8 shows the frequency distribution of the respondents according to a job; it clarifies that the percentage of external auditors reached (78.9%)

of the study sample, while financial managers represented (21.1%) of the sample; this is due to an increase in the number of audit offices, which audited industrial companies during 2006-2015, while there is one financial manager in every company.

Table 8. Distribution of the respondents according to the job

Type of job	Frequency	Percent	Financial manager percent	Auditors percent
External auditor	171	78.9	15.78	63.12
Financial manager	43	21.1	4.22	16.88
Total	214	100	20	80

5. ANALYSIS AND DISCUSSION

5.1. First hypothesis test

The first hypothesis was tested by applying the binomial test, in which the companies of the sample were divided into companies that changed the external auditor and companies that did not, and the reference mean value is (50%) was approved.

Table 9 shows that about (67%) of total respondent public companies changed their external

auditor during the study period with a significant level ($Sig = 0.020$). The binomial test shows that the actual distribution of observations differs from the virtual distribution of the binomial, which means that there is no significant difference between the number of external auditors changing and not changing. We, therefore, reject the first hypothesis and accept the alternative hypothesis that: *Jordanian industrial shareholder companies listed on the Amman Stock Exchange change the external auditor.*

Table 9. The results of a binomial test of the first main hypothesis

Classification of companies	Frequency	Percent	Sig.
Not changing the external auditor	18	0.33	0.02
Changing the external auditor	36	0.67	
Total	54	100	

5.2. Second hypothesis test

Table 10 presents the goodness-of-fit test of the logistic regression model for the second hypothesis and its sub-hypotheses. The findings show that Chi-square value of the second hypothesis reached (73.670) and it is significant at (0.05), which

indicates that the independent variables of the codes of ethics for a professional accountant (independence, integrity, objectivity, professional competence, confidentiality, and professional behavior of the external auditor) have an important impact and statistically significant contribution in changing the external auditor. It turned out also that

the independent variables interpreted (74.4%) (using Cox & Snell R^2), and (93.1%) (using Nagelkerke R^2 coefficient). In addition, all independent variables

achieved an overall classification percentage of (94.3%), which indicates how well the model matches the data.

Table 10. Logistic regression goodness-of-fit test for the second hypothesis

Measures of model's goodness-of-fit test	Chi-square	-2Log likelihood	Cox & Snell R^2	Nagelkerke R^2	Classification percentage
H_{02-1}	54.046*	19.624	0.632	0.85	94.40%
H_{02-2}	61.616*	12.054	0.681	0.914	98.10%
H_{02-3}	50.032*	23.639	0.604	0.811	90.70%
H_{02-4}	50.613*	23.057	0.608	0.817	96.30%
H_{02-5}	11.716*	61.955	0.195	0.262	70.40%
H_{02-6}	6.513*	67.157	0.114	0.153	63.00%
H_{02}	73.670*	11.252	0.744	0.931	94.30%

Note: (*) at a significant level of 0.05.

5.2.1. Independence sub-hypothesis test

Table 11 shows that the external auditor's independence has a substantial influence on the external auditor's change, where the magnitude of the regression coefficient was ($B = -14.426$), and the value of ($Wald = 11.253$) and is considered to be significant at the level of one percent. Another fact to be noted from the table above, is that the value of ($Exp(B) = 5.413E-07$) showed the probability of changing the external auditor while proving its independence, and this is a very low ratio. Therefore, the first sub-hypothesis of the study was not supported, and the alternative hypothesis was accepted, confirming that there is a statistically significant impact of the independence of the external auditor on the change of the external auditor in the industrial companies of Jordanian public shareholding.

5.2.2. Integrity sub-hypothesis test

Table 11 indicates a substantial impact of the external auditor's integrity on the change of the external auditor, where the value of the regression coefficient was ($B = -18.506$), and the value of ($Wald = 9.042$) was significant at the (5%) level. On the other hand, the value of ($Exp(B) = 9.201E-09$) suggested the probability of changing the external auditor after his/her integrity has been proved, and this ratio is very poor. Therefore, the second sub-hypothesis of the study was thus rejected, and the alternative hypothesis was approved, confirming that the integrity of the external auditor has a statistically significant effect on the change in the external auditor of the Jordanian public shareholding industrial firms.

5.2.3. Objectivity sub-hypothesis test

Table 11 indicates the important impact of the external auditor's objectivity on the change in the external auditor, where the value of the regression coefficient was ($B = -11,925$) and the value of ($Wald = 12,793$) was considered to be significant at (1%). The results also reveal that the value of ($Exp(B) = 6.623E-06$) suggested the probability of changing the external auditor when its objectivity is shown to be very limited. The third sub-hypothesis was thus rejected and the alternative hypothesis was accepted confirming that there is a statistically important impact of the objectivity of the external auditor on the change of the external auditor of the Jordanian public shareholding industrial firms.

5.2.4. Professional competence sub-hypothesis test

Table 11 indicates that there is a substantial impact of the professional competence of the external auditor on the change of the external auditor, where the value of the regression coefficient was ($B = -9.961$), and the value of ($Wald = 14.981$) and was considered to be significant at (1%). The findings show that the probability of replacing the external auditor as his/her integrity is shown to be very low, where the value of ($Exp(B) = 4.721E-05$) suggested a low ratio. The fourth sub-hypothesis was thus not supported, and the alternative hypothesis was accepted, confirming that there is a statistically significant impact of the professional competence of the external auditor on the change of the external auditor of the Jordanian public shareholding industrial firms.

5.2.5. Confidentiality sub-hypothesis test

Table 11 confirms a significant effect of the external auditor's confidentiality on changing the external auditor, where the value of the regression coefficient was ($B = -2.112$) and the value of ($Wald = 9.453$) is found to be significant at the five percent level. The results reveal that the value of ($Exp(B) = 0.121$) value indicated a possibility of changing the external auditor when his/her confidentiality is proven, which is a very low ratio. Therefore, the fifth sub-hypothesis was rejected, and the alternative hypothesis was accepted, confirming that there is a statistically significant effect of the external auditor's confidentiality on changing the external auditor in the Jordanian public shareholding industrial companies.

5.2.6. Professional behaviour sub-hypothesis test

Table 11 indicates a significant effect of the external auditor's professional behavior on changing the external auditor, where the value of the regression coefficient was ($B = -1.985$) and the value of ($Wald = 5.392$) and it is found to be significant at a (5%) level. The results indicate that the value of ($Exp(B) = 0.137$) showed a possibility of changing the external auditor when his/her professional behavior is proven, which is a very low ratio. Therefore, the sixth sub-hypothesis was rejected, and the alternative hypothesis was accepted, confirming that there is a statistically significant effect of the external auditor's professional behavior on changing the external auditor in the Jordanian public shareholding industrial companies.

Table 11. Logistic regression test results of hypotheses (H_{02-1} - H_{02-6})

Dependent variable	Sub-hypothesis	Independent variable	Regression coefficients (B)	Wald value	Sig.	Exp(B)
Changing the external auditor	H_{02-1}	The auditor's independence	-14.426	11.253	0.001	5.43E-07
		Regression constant	54.152	10.842	0.001	3.30E+23
	H_{02-2}	The auditor's integrity	-18.506	9.042	0.003	9.20E-09
		Regression constant	68.048	8.827	0.003	3.57E+29
	H_{02-3}	The auditor's objectivity	-11.925	12.793	0	6.62E-06
		Regression constant	44.566	12.563	0	2.26E+19
	H_{02-4}	The auditor's professional competence and due care	-9.961	14.981	0	4.72E-05
		Regression constant	36.779	14.981	0	9.39E+15
	H_{02-5}	The auditor's confidentiality	-2.112	9.453	0.002	0.121
		Regression constant	8.264	9.955	0.002	3882.9
	H_{02-6}	The auditor's professional behavior	-1.985	5.392	0.02	0.137
		Regression constant	7.795	5.735	0.017	2427.7

5.2.7. Second hypothesis conclusion

Table 12 shows the result of the logistic regression model analysis of the second hypothesis together; it indicates that there is a negative effect of all the code of ethics when studying the impact of the whole variables, and it is found to be significant at the (1%) level, except for the variables (auditor's confidentiality, professional behavior) since they

showed a non-significant effect where their significance level was more than (0.05). Therefore, the second main hypothesis was rejected, and the alternative hypothesis was supported, confirming that there is a statistically significant effect of the code of ethics for a professional accountant on changing the external auditor in the Jordanian public shareholding industrial companies.

Table 12. The results of the logistic regression model analysis of H_{02}

Dependent variable	Independent variable	Coefficients	Error	Wald value	Sig.	Exp(B)
Changing the external auditor	Independence	-15.375	3.916	15.415	0.00	2.10E-07
	Integrity	-17.606	5.438	10.482	0.00	2.26E-08
	Objectivity	-12.738	4.113	9.591	0.00	2.94E-06
	Professional competence and due care	-13.839	4.444	9.698	0.00	9.77E-07
	Confidentiality	-1.692	0.934	3.282	0.069	1.84E-01
	Professional behavior	-2.519	1.763	2.042	0.094	8.05E-02
	Regression constant	19.626	4.007	23.99	0.00	3.34E+08

5.3. Third hypothesis test

The job variable (auditor and financial manager) was used in the logistic regression model to test the third hypothesis.

Table 13 provides the findings of the logistic regression model goodness-of-fit test for the third hypothesis; indicates that the Chi-square value has reached (75.303) and is shown to be significant at the (0.05) level, suggesting that the independent

variables have an impact and a statistically significant contribution to the change of the external auditor. The table also reveals that the independent variables interpreted (75.2%) (using Cox & Snell R^2 coefficients) and (94.5%), respectively (using Nagelkerke R^2 coefficients). The independent variables also achieved an overall classification percentage of (94.9%), which shows how well the model fits the data.

Table 13. Logistic regression goodness-of-fit test for the third hypothesis

Measures of model's goodness-of-fit test	Measure	Chi-square	-2Log likelihood	Cox & Snell R^2	Nagelkerke R^2	Classification percentage
	Value	75.303*	19.237	0.752	0.945	94.90%

Note: (*) at a significant level of 0.05.

Table 14 demonstrates the logistic regression model results for the hypothesis three test; it shows a significant effect of the job variable on changing the external auditor, where ($B = -1.664$) value indicated that there is a negative effect of the job variable on changing the external auditor. The job variable is binary; the financial manager job was coded with (1) and the external auditor (2). Since the effect was negative, it refers to the existence of the code of ethics of professional accountants' impact on the change of the auditor, and this indicates that the financial managers see the necessity of changing the auditor at a greater percentage than the external auditors. The results suggest that the code of ethics' significance did not differ when

studying the effect of all variables combined after including the job variable, compared with the second main hypothesis test results. Accordingly, the results concluded that all professional code of ethics' effect was significant at a (5%) level, except for the two variables (external auditor's confidentiality and professional behavior), since they showed a non-significant result. Therefore, the third main hypothesis was rejected, and the alternative hypothesis was accepted, confirming that there are statistically significant differences among the viewpoint of both (external auditors and financial managers) regarding the code of ethics of professional accountant's effect on changing the external auditor.

Table 14. Analysis results of the logistic regression model of H_{03}

Dependent variable	Independent variable	Regression coefficients (B)	S. E.	Wald value	Sig.	Exp(B)
Changing the external auditor	Independence	-14.153	3.873	13.354	0.00	7.14E-07
	Integrity	-19.076	5.654	11.383	0.00	5.19E-09
	Objectivity	-15.006	4.381	11.732	0.00	3.04E-07
	Professional competence and due care	-11.671	3.841	9.233	0.00	8.54E-06
	Confidentiality	-2.377	1.277	3.465	0.054	9.28E-02
	Professional behavior	-3.258	1.999	2.656	0.072	3.85E-02
	Job	-1.664	0.659	6.377	0.012	0.189
	Regression constant	21.451	4.007	28.659	0.00	2.07E+09

6. CONCLUSION

This study aimed to investigate the degree to which Jordanian industrial firms change their auditors and to analyze the impact of conformity with the ICEPA on the change of external auditors from the point of view of external auditors and financial managers of public industrial holding companies.

The results show that during the study period, Jordanian public shareholding industrial firms listed on the Amman Stock Exchange changed their external auditors, and this is the first study to investigate the change of external auditor in Jordan, according to the researchers' knowledge. Furthermore, this result validates the investigation if that change is affected by codes of a professional accountant from the perspective of financial managers and auditors.

The results also reveal a significant negative influence of all codes of ethics for auditors (independence, integrity, objectivity, professional competence, confidentiality, and professional behavior) on external auditors' change in Jordanian public industrial firms. Furthermore, the outcomes revealed that there are statistically significant differences among the viewpoint of both (external auditors and financial managers) regarding the code of ethics of professional accountant effect on changing the external auditor, where it indicates that financial managers feel the need to change the auditor at a higher percentage than external auditors.

The results of the analysis affirm the findings of Lennox (1998), Vanstraelen (2000), Hackenbrack and Hogan (2002), Al Khsharema and Al Omari (2000), Al Habchana (2004), Al Saoudi (2007), and Hussein (2008), which suggested that the Code of Ethics for Professional Accountants has an impact on the change of auditor. However, they contradict

those of Chi et al. (2005) who did not find an effect of the code of ethics on changing the auditor.

The findings indicate that Jordanian public corporations are replacing their independent auditors. Accordingly, researchers urge and encourage the Higher Council for Accounting Professionals, the JACPA, and the Securities and Exchange Commission to adopt new regulations requiring companies to provide explanations for the change in auditors by filling out a clear form and announcing it to the public in order to shed light on the triggers for the switch in auditors. Furthermore, mandatory rotation legislation is more important to strengthen the code of ethics and increase financial statement trust.

The analysis findings concluded that auditors and financial managers are conscious of the value of conformity to the code of ethics by their external auditors, as shown by the outcome of the third hypothesis. On the other hand, the third hypothesis suggests that the financial manager shows the need to replace the auditor who does not conform with the code of ethics more than the external auditor. Thus, the researchers urge auditors to dedicate themselves to the rules of professional ethics that would support them, increase the efficiency of the audit procedure, and decrease the chances of changing them through public shareholder firms. Also, the study encourages the governing bodies of the auditing profession in Jordan to track and implement enforcement by auditors with the code of ethics, to be stringent in issuing licenses and certificates of practice from the Professional Council, and to extend sanctions and fines to auditors who breach professional ethics and behavior. In return, auditors' reputation and financial reporting would be improved, impacting favorably on the audit profession and the whole Jordanian economy.

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APPENDIX

Table A.1. Sample details

No.	Company number	Symbol	Company Name
1	141002	JPPC	JORDAN POULTRY PROCESSING & MARKETING
2	141003	APCT	ARAB COMPANY FOR INVESTMENT PROJECTS
3	141004	JODA	JORDAN DAIRY
4	141005	GENM	GENERAL MINING CPMPANY PLC
5	141006	AALU	ARAB ALUMINIUM INDUSTRY/ARAL
6	141009	ICAG	THE INDUSTRIAL COMMERCIAL & AGRICULTURAL
7	141010	ACDT	PREMIER BUSINESS AND PROJECTS CO. LTD.
8	141011	NAST	NATIONAL STEEL INDUSTRY
9	141012	DADI	DAR ALDAWA DEVELOPMENT & INVESTMENT
10	141014	JOWM	NATIONAL STEEL INDUSTRY
11	141017	JOPC	JORDAN PAPER & CARDBOARD FACTORIES
12	141018	JOPH	JORDAN PHOSPHATE MINES
13	141019	JOPI	THE JORDAN PIPES MANUFACTURING
14	141023	APHC	ARAB CENTER FOR PHARM. & CHEMICALS
15	141026	JOIC	JORDAN CHEMICAL INDUSTRIES
16	141027	UNIC	UNIVERSAL CHEMICAL INDUSTRIES
17	141029	GENI	GENERAL INVESTMENT
18	141038	WOOD	JORDAN WOOD INDUSTRIES/JWICO
19	141039	WIRE	NATIONAL CABLE & WIRE MANUFACTURING
20	141042	JOCM	THE JORDAN CEMENT FACTORIES
21	141043	APOT	THE ARAB POTASH
22	141052	UMIC	UNIVERSAL MODERN INDUSTRIES
23	141054	NATC	NATIONAL CHLORINE INDUSTRIES
24	141055	JOIR	JORDAN INDUSTRIAL RESOURCES
25	141059	JNCC	MIDDLE EAST SPECIALIZED CABLES COMPANY/MESC_JORDAN PLC
26	141061	ELZA	EL-ZAY READY WEAR MANUFACTURING
27	141065	RMCC	READY MIX CONCRETE AND CONSTRUCTION SUPPLIES
28	141070	JOST	JORDAN STEEL
29	141072	AEIN	ARAB ELECTRICAL INDUSTRIES
30	141073	MPHA	MIDDLE EAST PHARM & CHEMICAL IND. & MEDICAL APPLIANCES
31	141074	UTOB	UNION TOBACCO & CIGARETTE INDUSTRIES
32	141081	PERL	PEARL-SANITARY PAPER CONVERTING
33	141084	NATP	NATIONAL POULTRY
34	141086	INOH	COMPREHENSIVE MULTIPLE PROJECTCOMPANY
35	141091	NATA	NATIONAL ALUMINIUM INDUSTRIAL
36	141094	NDAR	NUTRI DAR
37	141097	MECE	MIDDLE EAST COMPLEX FOR ENG., ELECTRONICS & HEAVY INDUSTRIES
38	141098	ASPM	ARABIAN STEEL PIPES MANUFACTURING
39	141103	NAPT	NATIONAL PETROLEUM
40	141130	JMAG	JORDAN MAGNESIA
41	141141	JVOI	JORDAN VEGETABLE OIL INDUSTRIES
42	141170	SLCA	INTERNATIONAL SILICA INDUSTRIAL
43	141202	SIRD	AL-SALHIAH INVESTMENT AND REAL ESTATE DEVELOPMENT
44	141203	TRAV	TRAVERTINE COMPANY LTD
45	141204	JPHM	THE JORDANIAN PHARMACEUTICAL MANUFACTURING
46	141208	AQRM	AL-QUDS READY MIX
47	141209	MBED	THE ARAB PESTICIDES & VETERINARY DRUGS MFG. CO.
48	141210	HPIC	HAYAT PHARMACEUTICALS
49	141213	CJCC	JORDAN CLOTHING COMPANY P.L.C
50	141214	ASAS	ASSAS FOR CONCRETE PRODUCTS CO. LTD
51	141215	UCIC	UNITED CABLE INDUSTRIES
52	141216	JOSE	NATIONAL OIL AND ELECTRICITY PRODUCTION FROM SHALE COMPANY
53	141217	IPCH	INTERMEDIATE PETROCHEMICALS INDUSTRIESCO. LTD.
54	141219	PHIL	PHILADELPHIA PHARMACEUTICALS
55	141220	MANS	UNITED IRON & STEEL MANUFACTURING CO. P.L.C
56	141222	SNRA	SINIORA FOOD INDUSTRIES PLC
57	141223	APHC	ARAB CENTER FOR PHARM. & CHEMICALS
58	141224	NCCO	NORTHERN CEMENT CO.
59	142041	JOPT	JORDAN PETROLEUM REFINERY