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# Occupational Fraud Prevention Mechanisms: Jordanian Companies Experience

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## Abstract

The purpose of this study is an attempt to understand the occupational fraud and explore the most effective fraud prevention mechanisms which are critical in reducing occupational fraud. Therefore, this study solicits the views of CFOs, internal auditors, and chief of accounting officers for the existence and effectiveness of fraud prevention mechanisms in Jordanian companies listed on the Amman Stock Exchange (ASE). Out of the 168 questionnaires distributed, only 145 were returned. The participants were chief financial officers, chief of accounting officers, and internal control and auditing managers. Statistical instruments (means and SD) used to approve and support the findings. Results show that several fraud prevention mechanisms were applied in Jordanian companies such as management's review of internal control, internal audit functions, and external audits of financial statements, which ranked the top-most fraud prevention mechanisms in terms of the percentage of existence. Moreover, mechanisms such as code of conduct, independent audit committee, and surprise audits reached, notably, high ranks in existence in Jordanian companies. While mechanisms such as formal fraud risk assessments and rewards for whistle-blowers seem to be not in existence in Jordanian companies. The study also indicated that all of the 16 fraud prevention mechanisms identified were effective. The study indicated that effective fraud prevention mechanisms should be undertaken in a collaborative way by the board of directors, audit committees, external and internal auditors, and anti-fraud specialists. By identifying the existence and effectiveness of fraud prevention mechanisms, perspective information can be provided to practitioners such as internal auditors, fraud examiners, and accountants.

**Keywords:** occupational fraud, prevention mechanisms, fraud cost, Jordan

## 1. Introduction

Fraud in accounting transactions involves intentional actions, which lead to a misstatement in the financial statements, wrongful use of a position, and misappropriation of an organization's resources. Webster's New Dictionary defines fraud as "intentional deception to cause a person to give up property or some lawful right". As stated in Farrell and Franco (1999) Federal Bureau of Investigation defines fraud as "the fraudulent conversion and obtaining of money or property by false pretences including larcenies by bailed and bad checks except forgeries and counterfeiting" (Farrell & Franco 1999).

This study focuses on occupational fraud patterns in which an employee abuses the trust placed in him or her by an employer for personal gain. For the purpose of this study and according to the Association of Certified Fraud Examiners (ACFE 2012, p.6), the definition of occupational fraud is: "The use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets". Most occupational frauds are committed by organizations' executives and employees (Commercial Angles' Newsletter 2001; Seetharaman *et al.* 2004; ACFE 2012; Omar & Abu Bakar 2012). Occupational fraud patterns fall into three primary categories: asset misappropriation (an employee steals or misuses an organization's resources), corruption (an employee violates his or her duty to the employer in order to gain a direct or indirect benefit), and financial statement fraud (an employee intentionally causes a misstatement or omission of material information in the organization's financial reports).

The remainder of this paper is organized as follows. In the next section, we discuss the literature review which consists of two sub-sections: cost of occupational fraud and fraud prevention mechanisms. In section three, we describe the research methodology which consists of three parts: the research problem, research questions, and the study's sample and the data collection technique. Section four contains the findings and analysis. In section five, we conclude with a summary.

## 2. Literature Review

### 2.1. Cost of Occupational Fraud

Although it is hard to compute precisely the cost of occupational fraud, it is important to understand the essence of the fraud problem as a phenomenon that no organization can totally avoid (ACFE 2012). Nowadays, people have heard in the news many stories of fraud committed by employees who steal property from their organizations. Unfortunately, "obtaining a comprehensive measure of fraud's financial impact is challenging

because fraud inherently involves efforts at concealment, many fraud cases will never be detected and the full amount of losses might never be determined or reported" (ACFE 2012, p.7). Also, the financial impact is difficult to quantify (Seetharaman, *et al.* 2004). Consequently, an estimation of an occupational fraud cost would be the best way to quantify the losses (ACFE 2012).

The Association of Certified Fraud Examiners (2012) conducted a survey on occupational fraud and abuse based on data compiled from a study of 1,388 cases of occupational fraud that occurred worldwide between January 2010 and December 2011. Key findings and highlights of this survey indicated that the typical organization loses 5% of its revenues to fraud each year and this figure translates to a potential global fraud loss of more than \$3.5 trillion. The median loss caused by the occupational fraud cases was \$140,000. More than one-fifth of these cases caused losses of at least \$1 million. Furthermore, the fraud detection that was reported reached a median of 18 months before being detected. The survey found that the banking and financial services, government and public administration, and manufacturing sectors were the most commonly victimized industries. The presence of anti-fraud controls is notably correlated with significant decreases in the cost and duration of occupational fraud patterns. Victimized organizations that had implemented any of 16 common anti-fraud controls experienced considerably lower losses and time-to-detection than organizations lacking these controls. Nearly half of victim organizations (49%) did not recover any losses that they incurred due to fraud. In terms of who committed fraud, the survey found that the higher levels of authority tend to cause much larger losses. The median loss from frauds committed by owners/executives was \$573,000, the median loss caused by managers was \$180,000, and the median loss caused by employees was \$60,000. The survey also found that the most common departments in which fraud perpetrators worked were: accounting, operations, sales, executive management, customer service, and purchasing. Collectively, these departments accounted for 77% of all cases reported in the survey. Regarding fraud motivations, the survey revealed most occupational fraudsters were first-time offenders with clean employment histories. Approximately 87% of occupational fraudsters had never been charged or convicted of a fraud-related offense, and 84% had never been punished or terminated by an employer for fraud-related conduct. Furthermore, 81% of the cases, the fraudster displayed one or more behavioral red flags that are often associated with fraudulent conduct. Living beyond means (36% of the cases), financial difficulties (27%), unusually close association with vendors or customers (19%), and excessive control issues (18%) were the most commonly observed behavioral warning signs.

In addition, fraud causes substantial loss to the business world and creates a negative morale and environment in the workplace (Seetharaman, *et al.* 2004; Krambia-Kapardis 2002). Fraud losses are serious problems to organizations. Therefore, reviewing and improving the internal control system is the primary defence against fraud and abuse (Omar & Abu Bakar 2012). This study is an attempt to provide evidence that a strong and effective system of internal control is a way for fraud prevention. Hence, the aim of this effort is to draw attention to the anti-fraud action and the level of security awareness for organizations by implementing fraud prevention mechanisms. In other words, this study examines the existence and the effectiveness of fraud prevention mechanisms in Jordanian companies listed in the ASE.

## 2.2. Fraud Prevention Mechanisms

In contrast to violent crime (street crime), which is traditionally handled by the police, victimized companies that are abused by their employees may depend on various mechanisms of controls for prevention (Krambia-Kapardis 2002; Simpson 2002). In fraud cases which are at the hand of an organization's authority, the organization can use internal control procedures to deal with employees who commit frauds (Holtfreter 2005). For example, organizations may set control procedures or processes to review and verify a potential employee at the stage of initial employment or to prevent fraud that may be committed by current employees (Holtfreter 2005). Such internal control procedures include, for example, background checks, anonymous reporting systems, and audits.

The nature and threat of occupational fraud is global (ACFE 2012). Fraud costs entities by hurting not only their finances but also their reputation. Therefore, entities should allocate a budget to fraud prevention. Entities must provide employees a means to report suspicious activity as a critical part of an anti-fraud program (ACFE 2012). Fraud prevention mechanisms such as hotlines should be set up to receive tips from both internal and external sources and should keep privacy and confidentiality. Entities must employ anti-fraud specialists and conduct anti-fraud training programs for employees and managers (Omar & Abu Bakar 2012). An organization's management should vigorously encourage employees to report suspicious transactions or activities as well as enact and establish a whistle-blowing policy. A survey conducted by the Association of Certified Fraud Examiners (2012) identified 16 fraud prevention mechanisms which were applied over 1,388 cases. Table 1 shows the prevention mechanisms of fraud and illustrates the percentage of existence for each mechanism in the organizations that were surveyed. In addition, they were adapted from prior research by the Association of Certified Fraud Examiners (ACFE 2010) and other research such as KPMG Australia and New Zealand (KPMG 2008) and (Bierstaker *et al.* 2006).

Table 1. Fraud Prevention Mechanisms

Mechanisms	2012	2010
External Audit of F/S	80.1%	80.9%
Code of Conduct	78.0%	74.8%
Management of Certification of F/S	68.5%	67.9%
Internal Audit/FE Department	68.4%	68.2%
External Audit of ICOFR	67.5%	65.4%
Management Review	60.5%	58.8%
Independent Audit Committee	59.8%	58.4%
Employee Support Programs	57.5%	54.6%
Hotline	54.0%	51.2%
Fraud Training for Managers/Executives	47.4%	46.2%
Fraud Training for Employees	46.8%	44.0%
Anti-fraud Policy	46.6%	42.8%
Formal Fraud Risk Assessments	35.5%	N.A
Surprise Audits	32.2%	32.2%
Job Rotation/Mandatory Vacation	16.7%	16.6%
Rewards for Whistleblowers	9.4%	8.6%

Adopted from the Association of Certified Fraud Examiners (ACFE 2012, p. 33)

According to Omar and Abu Bakar (2012), in the past, paying attention to the techniques that prevent fraud was weak or around 20%, while 80% was on the detection of fraud. Thus, they revealed that there was a need to reverse the emphasis and place 80% of the focus on prevention techniques more than detection techniques. An existing strong internal control system is a value which is notable in both preventing and detecting fraud (Omar & Abu Bakar 2012). A weak internal control system creates opportunities for fraud and about half of all frauds occur in the financial area (Vanasco 1998). Generally, the effectiveness of internal control depends basically on the management's philosophy of enhancement of integrity.

As it was stated before, the cost of fraud is not only a financial loss but a loss of spirit. It spoils the organization's culture and ethics, creates a suspicious environment, and introduces severe measures that could be avoided. Management review and continuous improvement of the internal control system are often thought of as the primary defence against fraud (Salem 2012; Seetharaman *et al.* 2004). A strong system of internal control is the most effective method of fraud prevention (Seetharaman, *et al.* 2004). Every organization must identify the internal control's weaknesses then improve the current system with new or modified control (Seetharaman *et al.* 2004). Thus, an organization must adopt and enforce a control system to reduce the opportunities to commit fraud.

Since most occupational fraud is committed by key employees, the organization must set a code of conduct to insure that rules of reliability and integrity are employed, particularly for the positions of responsibility (Vanasco 1998). The current employees by granted authorisation have the opportunity to access and use confidential information which can be used to commit fraud (Seetharaman *et al.* 2004). Therefore, organizations must take actions such as conducting background checks which should be appropriate with the level of risk associated with the position, to a certain extent, which would help to prevent fraud (KPMG 2011).

In order to improve efforts to prevent corporate fraud, the management should conduct an assessment of: the specific risks facing their company based on applicable laws, the industry in which their company operates, their amount of interaction with government's officials, and their geographic location. The Board of Directors should approve an anti-fraud policy with guidelines on accepting gifts, food and travel cost reimbursement of foreign officials, charitable giving, compliance certifications, and contracts with right-to-audit clauses and anti-bribery warranties (Bierstaker 2009). This policy should be distributed to management, announced to employees, and declared on the organization's website (Bierstaker 2009). Every employee who is in charge of sales, marketing, or purchasing should receive periodic integrity training programs about ethics and which activities and practices are acceptable or unacceptable.

Commercial Angles' Newsletter (2001) introduced a two-stage process of combat fraud: fraud prevention and fraud deterrence. First, in the fraud prevention process, organizations must ensure that any gateways to commit fraud are closed or at least that committing fraud is difficult. Second, in the fraud deterrence process, organizations must take actions to ensure that potential fraudsters believe they will be caught. The introduction and enforcement of new effective controls would reduce the opportunities for fraudsters and in terms of time and effort would consume just a little management.

The foundation of any good fraud control framework is a set of integrated prevention mechanisms. Though fraud cannot totally be avoided, the risk of its occurrence can be substantially reduced if companies design efficient

framework controls. Bowe and Jobome (2001) discussed the designation of a framework to control operational risk and unauthorized transactions fraud. A sample of 37 cases was taken for examination from financial institutions in eight countries over the period 1984-1999. The results indicated that internal controls were the primary defense mechanism against severe fraud losses. Also, setting penalties by regulatory commissions for executives and employees who commit fraud is a crucial mechanism in order to mitigate fraud loss.

This research is an attempt to explore the existence of fraud prevention mechanisms which are used by Jordanian companies listed on the Amman Stock Exchange. It also aims to examine these mechanisms and tries to assess the effectiveness of using these mechanisms in Jordanian Companies to prevent fraud that is mainly committed by employees at different management levels. The scope of the study stems from the notion that fraud is a far reaching and costly issue that no organization is immune to. The scope of research focuses on occupational fraud that is committed by employees in terms of embezzlement, understatement of liabilities, overstatement of expenses, missing documents, alterations to documents, excessive credits, and duplicate payments. Occupational fraud is defined as the use of one's occupation for personal enrichment through the deliberate misuse or misapplication of the employing organization's resources or assets (ACFE 2012, p. 2). Occupational fraud contains three mutually exclusive categories: asset misappropriation, corruption, and fraudulent financial statements.

### 3. Research Methodology

#### 3.1. Research Problem

The research problem is composed of the following statements:

- Accounting fraud, error, and abuse are problems that affect practically every organization across many dimensions. Different levels of management might be involved in fraud, raising many research problems that should be subjected to study.
- Estimating financial losses to business caused by fraud, most of the time, is so difficult because fraudsters' actions are unreported or undeclared.
- There is no holistic approach for fraud investigation to give alerts that a fraud case has been committed; and
- Sometimes procedures to detect accounting fraud can be very difficult because there are a big number of accounting transactions. Even though, there are no certain techniques that can totally prevent fraud, some prevention mechanisms may be able to mitigate certain kinds of fraud.

#### 3.2. Research Questions

Based on the ACFE's fraud prevention mechanisms which were discussed before, this study examines the existence and the effectiveness of fraud prevention mechanisms which are implemented in companies by the board of directors, audit committees, external auditors, internal auditors, and anti-fraud specialists from the perspective of the CFO, internal auditor and Chief Accounting Officer. Also, for the purpose of this study, fraud prevention variables are identified and used to assess the existence and effectiveness of the fraud prevention programs at Jordanian companies listed on the ASE. The variables were adopted from various studies (ACFE 2010; Peltier-Rivest 2009; KPMG 2008; Bierstaker *et al.* 2006).

Therefore, to provide a key solution to the research's problem, the study addresses the research questions as follows:

- (1) To what extent do the fraud prevention mechanism items exist in the organizations?
- (2) How effective are these mechanisms in preventing financial frauds in the organizations?
- (3) What is the level of the existence of preventive measures implemented by the organizations?

#### 3.3. Study Sample and Data Collection

Generally, organizations assign a department or an employee to be responsible for taking steps to prevent and detect fraud. An internal auditing and control department, audit committee, or internal auditors are examples of departments or individuals who are assigned for this task (Bierstaker *et al.* 2006; Krambia-Kapardis 2002; Hillison *et al.* 1999).

In December 31, 2012, there were 241 companies listed on the ASE. Only 168 companies were selected for the study. For each company, a questionnaire was sent to the Chief Executive Officer (CEO). The CEO identified and distributed the questionnaire to everyone who was in charge of the fraud prevention programs.

A research questionnaire was specifically developed as the main survey instrument for this study. The instrument aimed to collect data on the perceived existence and effectiveness of fraud prevention mechanisms by internal auditors, chief officer accountants, and chief financial officers of the companies listed on the ASE. The research questionnaire was also designed to collect data on the level of existence of preventive measures implemented by the companies' parties such as board of directors, audit committee, external auditors, internal auditors, and fraud specialists.

The questionnaire consisted of four sections. In the first section, three questions were designed to get relevant information on respondents' profile such as the department they worked in, designation, years of experience, and qualifications. The second section was allocated for the respondents' views of fraud and related matters, based on their experiences in the organization. The final section was allocated to the respondents' opinion on the existence and effectiveness of fraud prevention mechanisms. Perceived existence and effectiveness of prevention mechanisms were concluded from the responses of 16 fraud prevention mechanism items which are presented in table (1) and adopted from prior researches such as ACFE (2012, 2010), Omar & Abu Bakar (2012), KPMG (2011), and Bierstaker *et al.* (2006). Respondents were instructed to indicate their opinion on the degree of effectiveness of the 16 fraud prevention mechanisms based on a five point Likert-scale, ranging from "1" (strongly disagree) to "5" (strongly agree).

The final questionnaires were distributed to 168 companies. The participants were the internal auditors, chief accounting officers, and chief financial officers. Those participants were chosen because, according to Omar and Abu Bakar (2012), the accountants or any employee in charge in financial duties are ultimately responsible for the design and implementation of fraud prevention techniques and plans.

#### 4. Findings and Analysis

Fraud is a common issue for business. Fraud can be easily committed, but it is difficult to prevent and detect. ACFE (2012) classified fraud into three major categories: asset misappropriations, corruption, and fraudulent financial statements. Assets misappropriation includes the misuse or theft of assets in an organization (for example inventory fraud, payroll fraud, and computer fraud). Corruption is the wrongful use of employees' power in business transactions in order to procure some benefits for themselves or others (for example, conflicts of interest and related-party transactions). Fraudulent statements are the falsification of the financial statements of an organization (for example, unrecorded liabilities). Assets misappropriation is the main reason of fraud, with more than 85 per cent of total fraud under this category. The assets that are commonly targeted by perpetrators were cash.

The research findings are presented into four sections. Section 4.1 provides a descriptive analysis (respondents' information) of the survey. Sections 4.2 to 4.4 provide data analyses which are related to the three research questions.

##### 4.1. Descriptive Analysis of Respondents' Information

Table 2 summarizes the descriptive analysis of the study. Out of the 168 questionnaires distributed, only 145 were returned. However, 10 questionnaires were partially completed, so they were removed. The remaining valid questionnaires were 135 which represented an 80% response rate. According to the classification of ASE, respondents come from three sectors: financial (50%), service (24%) and industry (26%). The variation in the sectors is attributed to the Jordanian companies listed on the ASE representing a significant part of the Jordan economy. Regarding the respondents' educational background, 75% of the respondents hold a bachelor degree while the remaining have either a post graduate degree or a professional qualification. Out of the 135 respondents, 35% are certified public accountants (CPA, JCPA/Jordan and CPA/Arab), 18% are certified internal auditors, 4% are certified fraud examiners, 21% are certified managerial accountants, while 7% are either holding chartered accountant certificates or other certificates.

Respondents' experience is important when providing a wise and objective response. The majority of the respondents (58%) have 5 to 10 years of experience, while 27% have less than 5 years, and 15% have more than 10 years of working experience. In terms of the respondents' position in the organizations, the majority of the respondents are managers, CFOs (19%), internal auditors (31%), and chief accounting officers (36%). Notably, the majority occupy critical job positions in their companies which collectively compromised 86% of the total respondents. Consequently, it is appropriate to collect data about fraud matters from respondents who have a suitable working experience and occupy a critical job position.

Table 2. Respondents' information

Information		Frequency	Percent %
Respondents' sector	Financial	67	50 %
	Service	32	24 %
	Industry	36	26 %
Respondents' education	Master degree	28	21 %
	Bachelor degree	102	75 %
	Others	5	4 %
Respondents' holding professional certificate	Certified Public Accountant	48	35 %
	Certified Internal Auditor	24	18 %
	Certified Fraud Examiner	6	4 %
	Certified Managerial Accountant	28	21 %
	Others		
	Nothing	9	7 %
Respondents' position	CFO	26	19 %
	Internal Auditor	42	31 %
	Chief Accounting Officer	48	36 %
	Others	19	14 %
Respondents' experience	Less than 5 years	37	27 %
	5 to 10 years	78	58 %
	More than 10 years	20	15 %

#### 4.2. Examination of the Research questions

As the primary aim of the research is to provide a key solution to the research's problem, the study addresses three questions: To what extent do the fraud prevention mechanism items exist in the organizations? How effective are these mechanisms in preventing financial frauds in the organizations? And what is the level of implementation of the existence of these preventive measures by the organizations?

##### 4.2.1. Existence of Prevention Fraud Mechanisms

The respondents were asked to indicate whether the fraud prevention mechanisms existed in their organizations or not. The 16 fraud prevention mechanisms were ranked from the most frequent to the least used based on the percentage of existence in the respective organizations. Table 3 summarizes the rank of fraud prevention mechanisms that were applied in Jordanian companies listed on the ASE. Results indicated that management review of internal control, internal audit functions (a fraud examination department), and external audits of financial statements ranked the top-most fraud prevention mechanisms in terms of the percentage of existence (100% existence) in organizations as perceived by internal auditors, CFO, and Chief Accounting Officers followed by a code of conduct (95.5%), independent audit committee (91.8%), and surprise audits (88.8%) which notably reached high rank in existence in Jordanian companies listed on the ASE.

Meanwhile, fraud prevention mechanisms such as employee support programs (75.5%) and Management of Certification of Financial Statements (71%) also reached accepted existence as mechanisms of fraud prevention. However, there are three mechanisms that achieved low percentages in terms of existence of fraud prevention: job rotation / mandatory vacation (45.9%), formal fraud risk assessments from specialist professional firms (11.1%), and rewards for whistle-blowers (7%). It is obvious that the last two mechanisms do not seem to exist in Jordanian companies which may due to the internal organizational culture of Jordanian companies. In the end, it could be concluded that these fraud prevention mechanisms are widely implemented in Jordanian companies listed on the ASE based on the high rankings of percentage of existence.

Table 3. Existence of Fraud Prevention Mechanisms in Jordanian Companies

Mechanisms	Frequency	Percentage %
Management Review of Internal Control	135	100 %
Internal Audit/FE Department	135	100 %
External Audit of F/S	135	100 %
Code of Conduct	125	95.5 %
Independent Audit Committee	124	91.8 %
Surprise Audits	120	88.8 %
Employee Support Programs	102	75.5 %
Management of Certification of F/S	96	71 %
External Audit of ICOFR	94	69.6 %
Hotline	87	64.4 %
Anti-fraud Policy	85	62.9 %
Fraud Training for Managers/Executives	78	57.7 %
Fraud Training for Employees	76	56.2 %
Job Rotation/Mandatory Vacation	62	45.9 %
Formal Fraud Risk Assessments	15	11.1 %
Rewards for Whistle-blowers	10	7 %

#### 4.2.2 Effectiveness of Using Fraud Prevention Mechanisms in Jordanian Companies

The respondents were asked to indicate whether the fraud prevention mechanisms were effective in their organizations or not. The 16 fraud prevention mechanisms were ranked from the most effective mechanism used to the least based on the mean and standard deviation (SD) scores of effectiveness in the respective organizations. Table 4 summarizes the rank of effectiveness of fraud prevention mechanisms that are applied in Jordanian companies listed on the ASE.

Table 4. Effectiveness of Fraud Prevention Mechanisms in Jordanian Companies

Mechanisms	Mean	SD
Management Review of Internal Control	4.3571	.79131
Independent Audit Committee	4.1667	.96444
Management of Certification of F/S	4.1488	.87985
Anti-fraud Policy	4.1131	.69580
Internal Audit/FE Department	4.0179	.87254
Job Rotation/Mandatory Vacation	3.9940	.95715
Code of Conduct	3.9702	.99955
External Audit of F/S	3.9405	.97700
Surprise Audits	3.9321	.89530
External Audit of ICOFR	3.8530	.94853
Formal Fraud Risk Assessments	3.8457	.92455
Fraud Training for Employees	3.6607	.97164
Fraud Training for Managers/Executives	3.4235	.95661
Employee Support Programs	3.3988	1.28622
Rewards for Whistle-blowers	3.2440	1.23541
Hotline	3.2341	.981500

The mean scores of each of the 16 items were ranked in a list of the most effective (strong agree) to the least effective (strong disagree) fraud prevention mechanisms as perceived by internal auditors and fraud investigators. Generally, it was found that management review of internal control, independent audit committee, management of certification control of financial statements, anti-fraud policy, internal audit or fraud examination department, job rotation/mandatory vacation, code of conduct, external audit of financial statements, surprise audits, formal fraud risk assessments which can be conducted by specialist professional firms, fraud training and prevention program for managers and employees, employee support programs, rewards for whistle blowers and fraud hotlines have a mean score ranging from 3.2341 to 4.3571 (effective). It is obvious, from the forgoing results that all prevention mechanisms from the point views of the respondents are effectively implemented in Jordanian companies listed on the ASE. Therefore, from the point of view of the CFOs, internal auditors and chief accounting officers, the management review of internal control (mean 4.3571) is the most effective fraud prevention mechanism while the fraud hotline mechanism received the lowest effective mean rating (mean 3.2341).

To sum up, the analysis of the results that are listed in table (3) and (4) should be read together with respect to the ‘existence-effectiveness’ of fraud prevention mechanisms. Notably, there are five mechanisms classified into the high ‘existence-effectiveness’: management review of internal control (frq. 135, mean 4.3571), internal audit or fraud examination department (frq. 135, mean 4.0179), and external audit of financial statements (frq. 135, mean 3.9405), code of conduct (frq. 125, mean 3.9702), independent Audit Committee (frq. 124, mean 4.1667). Some of mechanisms are classified into low existence and high effectiveness such as the job rotation/mandatory vacation. While, there are some mechanisms that are classified into low existence and some effectiveness, such as rewards for whistleblowers. Figure (1) depicts a comparative analysis of the perspective of ‘existence-effectiveness’ of fraud prevention mechanisms in Jordanian companies listed on the ASE.

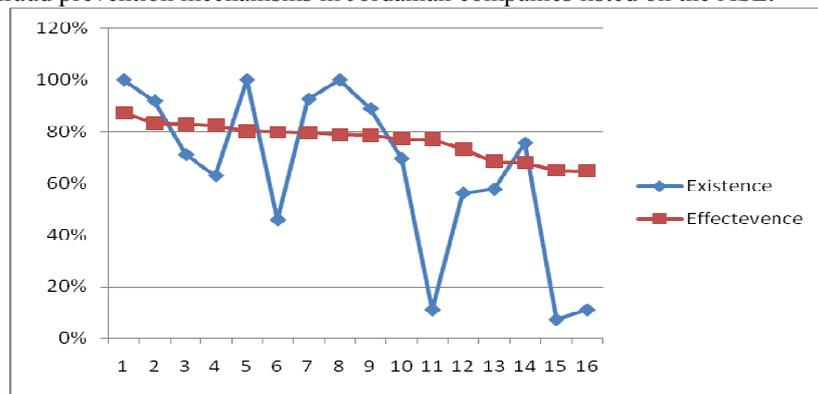


Figure 1. ‘Existence-effectiveness’ of Fraud Prevention Mechanisms

Numbers showed in figure 1 as follow: (1) management review of internal control, (2) independent audit committee, (3) management of certification of F/S, (4) anti-fraud policy, (5) internal audit department, (6) Job rotation, (7) code of conduct, (8) external audit of F/S, (9) surprise audit, (10) external audit of ICOFR, (11) formal fraud risk assessments, (12) fraud training for employee, (13) fraud training for manager, (14) employee support program, (15) rewards for whistle-blowers, and (16) fraud hotline.

### 5.2.3 Assessment the level of the existence of preventive measures implemented by the organizations

The respondents were asked to rate the level of the existence of fraud preventive measures implemented by the organizations on a five–point Likert scale. CFOs, internal auditors, and chief accounting officers were asked to express their opinions based on the 10 preventive processes which include: recommended actions to ensure the quality and integrity in preparing financial statements (mean 3.5660), mitigate risk and control (mean 3.4523), report fraud detection to top management and audit committee (mean 3.3571), enhance business culture of ethics (mean 3.2110), review and develop anti-fraud system of control (mean 3.1253), review high risk accounts and transactions (mean 2.9440), perform surprise testing to expose fraudulent activities (mean 2.9187), conduct proactive auditing for any potential occupational fraud (mean 2.6508), implement real time monitoring (mean 2.4556), and provide staff with knowledge regarding fraud (means 2.4201).

## 5. Conclusion

The cost of occupational fraud in terms of finance and the organization’s reputation can be a severe disaster. The nature and threat of occupational fraud is truly universal. Though our research noted organizational approaches to preventing it, existence and effective policies for individuals to report suspicious activity is a critical part of an anti-fraud program.

The main objective of this study was to identify the existence and the effectiveness of fraud prevention mechanisms utilized by Jordanian companies listed on the ASE. Apart from that, this study also attempted to examine the level of effectiveness of these prevention mechanisms and to detail and assess the level of existence of preventive measures implemented in the companies.

The results indicated that management review of internal control, internal audit functions (a fraud examination department), and external audits of financial statements ranked the top-most fraud prevention mechanisms in terms of the percentage of existence (100% existence) in organizations as perceived by internal auditors, CFOs, and Chief Accounting Officers. Also, the mechanisms such as code of conduct, independent audit committee, and surprise audits reached notably high rank in existence in Jordanian companies listed on the ASE. While mechanisms such as formal fraud risk assessments from specialist professional firms and rewards for whistle blowers seem not to exist in Jordanian companies which may due to the internal organizational culture of Jordanian companies.

Out of the 16 fraud prevention mechanisms, respondents considered management review of internal control, independent audit committee, management of certification control of financial statements, anti-fraud policy,

internal audit or fraud examination department, job rotation which can be applied by mandatory vacation, code of conduct, external audit of financial statements, surprise audits, formal fraud risk assessments which can be conducted by specialist professional firms, fraud training and prevention program for managers and employees, employee support programs, rewards for whistle-blowers and fraud hotlines as effective.

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