EFFECT OF THE REGULATORY ENVIRONMENT IN PREVENTING AND DETECTING FINANCIAL FRAUD: EVIDENCE FROM JORDANIAN COMMERCIAL BANKS

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ABSTRACT

This study investigates the regulatory environment's effect in preventing and detecting financial fraud, as applied to commercial banks listed on the Amman Stock Exchange. Questions were designed to test this study's dependent and independent variables from the perspective of internal audit departments and financial departments. The results indicate that there is a positive effect on the elements of the independent variables, such as integrity and ethical values, commitment to efficiency led philosophy, processes for managing and developing, organisational structure and board members, and audit committees effectiveness, all of which relate to the prevention and detection of financial fraud. However, the fourth element, which is to determine the delegation of authority and responsibilities, had an unfavourable effect on the variable to prevent fraud occurrence and detection. Thus, this study recommends focusing on the fourth element by adopting the segregation of duties to control Jordan's financial fraud.

Keywords: Regulatory Environment, Preventing and Detecting Financial Fraud, Jordanian Commercial Banks.

INTRODUCTION

The organisation's internal control system is a structure established by the executive directors for effective oversight of the organisation's activities and is closely linked to corporate governance. The Public Company Accountability Reform and Protection of Investor Act of 2002, more commonly referred to as the Sarbanes-Oxley Act of 2002, is the legislation most regulatory departments rely on to prevent the recurrence of scandals occur throughout the world, such as those of WorldCom and Enron. So, the control environment refers to procedures and policies that reflect the directives of the board of directors and senior management, which regulate the structure and functioning of institutions. Their manner affects their employees' awareness, behaviour, and performance, including the integrity, ethical values, managerial operating style, the delegation of authority systems, as well as the processes for managing and developing people in the organisation.

In this context, the study aims to determine the effect of the regulatory environment in preventing and detecting financial fraud. Specifically, to know the effect of the components of the regulatory environment in preventing fraud and financial fraud. It also aims to address the knowledge management functions and the institutional control profile of officials and to know their attitudes behaviour regarding the internal control of the facility. The importance of this study is because it is focused on the regulatory components of the environment. These are part of the five pillars of internal control in general. The regulatory environment determines the facility and other components of the general framework of control because it is reflected positively in the design. Hence, we should first address the concept of internal control and the procedures and methods related to its effectiveness and consider who has the responsibility to prevent and detect financial fraud. Financial fraud is one of the main threats an organisation faces. Even the forms and methods, even the financial fraud practices that are immoral and illegal, such as theft, bribery, and manipulation, can affect the work, efficiency, and continuity of an organisation. The limitless use of the internet has a direct effect on the internal control function that is particularly evident in the financial sector.

There are mixed results from previous studies on fraud levels and corporate governance problems. For example, internal oversight is the leading cause of increased fraud or incompatibility between staff supervisory skills and growing numbers and acquisitions of information technology. To effectively prevent and detect fraud, there is a need to ensure accountability and good corporate governance practices. Internal control should be competent in identifying and isolating illegal and fraudulent transactions. To demonstrate a clear understanding to achieve the objectives of this study, the research questions formulated are based on prior studies. The study seeks to find answers to research questions. The main research question is, what is the effect of the elements of the regulatory environment in preventing fraud and detecting financial fraud? The main question of the study, concerning its problems, gave rise to seven sub-questions:

1. Are integrity and ethical values affecting preventing fraud and detecting financial fraud?
2. Does a commitment to efficiency prevent fraud and detect financial fraud?
3. Does the management philosophy and operating style have a role in preventing fraud and detecting financial fraud?
4. Does the delegation of authority and responsibilities lead to fraud prevention and the detection of financial fraud?
5. Does the organisational structure help prevent fraud and detect financial fraud?
6. Are the processes for managing and developing people in the organisation working to prevent fraud and detect fraud?
7. Do members of the board and audit committees have an active role in preventing fraud and detecting financial fraud?

This study contributes to the literature in several ways. First, our study is closely related to the literature, specifically focused on Jordanian banks. The banking sector in the country plays a vital role in the development of the general economy through the facilitation of financial transactions. Therefore, it is vital to ensure a safe regulatory environment drawn from the guide to financial corruption, to protect and prevent fraud, leading to the development of sturdy techniques to protect against fraud. Second, this study focuses on the seven main components that constitute one of the elements of internal control, which is the regulatory environment. This was developed to link the separate components to procedures and policies to deter and detect fraud. This has not been discussed within the studies but was referred to as the control environment component. This was taken as a single component and has not been linked to the evidence of financial corruption within the procedures and methods used to reduce and deter fraud. Finally, this study was incentivised by contributing to general managers, internal auditors, and management accountants concerning the regulatory environment and its components related to preventing and detecting financial fraud.

The rest of the study is structured as follows: section one contains introduction and background, section two reviews the background theory, associated literature, and development of the hypotheses, section three discusses the methodology used in the research, including sample selection procedures and measurement of variables, section four presents the results and section concludes.

LITERATURE REVIEW AND HYPOTHESES DEVELOPMENT

The control or regulatory environment is the basis for internal control design (Rubino et al., 2017). According to Noland and Metrejean (2013), the control environment reflects a top management attitude based on actions and policies. This is consistent with the thoughts of Mohamed and Handley-Schachelor (2014), where the control environment is a set of internal factors that reflect the internal climate in the region and the extent of interest and appreciation of the role of internal control. Kong et al. (2018) believe the control environment is the organisation’s foundation for forming all control elements and reflects the corporate culture. Trompeter et al. (2013) mention that it includes integrity, ethics, management’s attitude, which is also termed as organisational structure, the delegation of authority, management philosophy, and employees professionalism.

Furthermore, Mohamed and Handley-Schachelor (2014) state that integrity and ethical values relate to management’s commitment and those responsible for instilling tuitional control of integrity, honesty, and sincerity. They consider that the development of procedures that encourage employees to adhere to this is one of the most important foundations for providing a controlled environment that forms an umbrella for the rest of the internal control components. Hence, integrity and ethical values are essential elements of the control environment that affect the validity of the design, management, and follow-up of other components of internal control. These include management actions to remove or minimise the motivation and temptation that may prompt employees to engage in illegal and unethical procedures. While the required competence is only the workers’ knowledge and skill to accomplish their work, this includes the commitment to competence for specific jobs and how to translate these levels into the skills and knowledge required. Thus, the awareness of supervision in the establishment is influenced to 'a large extent by those responsible for supervising, i.e., internal and external auditors. This is termed as participation of supervisors.

The philosophy of management and operating style encompasses a wide range of characteristics, including the management style in receiving and following up risks, the positions and procedures of management on the preparation of financial statements, and management’s attitude towards the processing of information and accounting functions. Moreover, the facility’s organisational structure provides the framework through which the activities are planned, implemented, and reviewed (Mohamed and Handley-Schachelor, 2014).

Financial Statement Fraud

In auditing and accountancy, disciplines where fraud is considered a significant issue, it is common for scrutiny to be conducted for its detection. Over time, fraud has developed into a sophisticated and convoluted practice. Although it is incumbent upon those compiling financial statements to ensure they are correct and free from fraud and error, the very nature of fraud encourages more considerable heterogenous ingenuity in its pursuance. Asare et al. (2015) observe that fraud is harmful to organisations and the economy in general.

The International Standard on Auditing (ISA) 240 defines fraud as:

> "*An intentional act by one or more individuals among management, those charged with governance, employees, or third parties, involving the use of deception to obtain an unjust or illegal advantage*."

Occupational fraud, also called white-collar crime, is the fraud perpetrated against an organisation by an employee (Moore, 2018; Suh et al., 2019). When the fraudster commits occupational fraud, they use their position within the company for personal enrichment (Bradley, 2015). Financial statement fraud is the intentional misrepresentation of a company's financial statements to deceive the statements' users (Albrecht et al., 2015; Nindito, 2018). This fraud is mainly top-down and affects the perpetrator, the organisation, and society (Albrecht et al., 2015). Financial statement fraud occurs for various reasons. The most common motivator is the desire to avoid the consequences of publishing the company's actual financial performance (Albrecht et al., 2015). Huang et al. (2017) explain that pressure and incentive come from various sources: pressure to meet analysts' expectations, compensation bonus incentives, the pressure to obtain external financing, or pressure to conceal poor performance. Although financial statement fraud is time-consuming and expensive to detect, there are ways that organisations can prevent, identify, and manage it effectively (Tang et al., 2018). One way to limit this fraud is to alter employee incentives, making management behaviour align with shareholder goals (Albrecht et al., 2015). Furthermore, strengthening internal controls and segregation of duties prevents fraud perpetrated by a single employee and decreases risk (Munteanu et al., 2017).

Factors that Pose the Risk of Fraud

As a result of the reliance on information technology and the complexity of transactions, companies face the risk of fraud when perpetrators are faced with incentives, pressures, opportunities, values, and trends. Suppose the management does not achieve its profit objectives. In that case they resort to manipulating financial statements, the tampering, and misuse of assets, even though management attitudes and values related to oversight and ethics can make employees justify asset misappropriation and misuse (Mohamed and Handley-Schachelor, 2014).

Consequently, across different business divisions globally, organisational reaction to fraud is responded to in many different ways. The Association of Certified Fraud Examiners (ACFE) (2010) has developed a practical means of controlling fraud through several methods and procedures for fraud reporting in organisations. There is a need for organisations to respond to fraud response strategies. Biegelman and Bartow (2013) state that a hierarchical system emanating from the top should be established for reporting the detection and suspicion of fraud.

There are several positive measures available to eliminate fraud. Kapardis and Papastergiou (2016) list referral to the higher authorities, internal investigations, the establishment of effective audit committees, civil proceedings for reprimand or recovery action, settlement before the courts, immediate dismissal, enforced resignation or premature retirement.

Thus, the organisations should have their response strategy with an internal fraud investigation system, licenced to implement preventative measures, or instigate legal action.

Factors to Reduce the Risk of Financial Fraud and Corruption

According to Arens et al. (2014), many factors should reduce the risk of financial fraud and corruption that can be summarised in assessing of internal and external risks, and conducting thorough background checks. Company owners, management at the senior level, the board of directors, and senior executives should all be involved in the drawing up and implementing of their organisation's policy and guidelines against fraud. This should include monitoring of departmental and individual expenses, scrutinising sponsorship arrangements, together with travel and entertainment price control. Once agreed, the rules should be promulgated clearly and unambiguously for all personnel at all levels to understand fully the organisation policy and principles. After that, compliance should be controlled, and procedures and accounts monitored and checked on both a regular and random basis.

Responsibilities in Preventing Fraud

The responsibilities for fraud prevention within the organisation are divided between the executive board, the audit committee, and the internal audit. The board has ultimate responsibility for the implementation and prevention of fraud detection mechanisms since it is the members of the executive board who would need to provide explanations in the case of fraud. Thus, the board is responsible for preventing and detecting fraud and error (ISA 240) by applying and maintaining proper accounting and internal control systems. These systems can also reduce the likelihood of fraud and error. On the other hand, the audit committee undertakes the role of supervising the management and monitoring the efforts of the executive board to combat fraud. Finally, the internal audit department represents an effective fraud defence and has a role in risk control as well as fraud prevention and disclosure. Internal auditing is an instrument at the disposal of the audit committee, which is the only body capable of independently assessing the risks of fraud and fraud control measures. The executive board is responsible for having the experience in evaluating and designing controls, reviewing and evaluating processes and controls, and the requirement of professional care to prevent and detect fraud (Petrascu & Tieanu, 2014).

Detective Fraud Risk Management

Effective fraud prevention and curtailment are dependent upon early warning once detected. Fraud detection strategies need to be fast and efficient, according to Australian Standard (2008), and be able to detect corruption that has circumvented the organisation's conventional security measures and allow the immediate implementation of curative measures. However, fraud detection needs to be established throughout the company system, including all department and banking levels. The processes must be well-protected and fully integrated to protect them in their function so that they, in turn, cannot be corrupted. Burnaby et al. (2009) note that comparatively straightforward and easily implemented measures such as physical security, access control, and regular control tests to analyse risk are sound fraud detection measures. Dominic and Lanoue (2015); and Halbouni (2015) cite independent external and internal audits as an effective means of detecting fraud.

However, many previous studies dealt with such a subject, but from different perpectives, different environments, variables, and other statistical methods. Therefore, in our study, we look at some of these studies (Onoja and Usman, 2015; Joseph et al., 2015; Nuswantara and Maulidi, 2017; AL-Qudah**,** 2019; Hussaini et al., 2019). Scholars and professionals have been stimulated to focus on fraud after a series of cataclysmic failures of corporations and banks in recent years (Hussaini et al., 2019). In particular, they have examined the relationship between bank performance and fraud risk management and established a definite correlation between bank performance and risk management. In a similar vein, external auditors in Jordan have found with some certainty that identifying financial corruption and fraud lies within the remit of their responsibility (AL-Qudah, 2019).

Their studies show the obstacles that affect the external auditor's ability to perform their professional responsibility. Also, they find that external auditors apply and follow the methods and procedures such as the International Accounting Standard (IAS) and Jordanian laws and regulations to discover fraud and corruption cases. Furthermore, Nuswantara and Maulidi (2017) illustrate that one of the best methods that work to deter and reduce fraud significantly is to focus on all aspects related to the regulatory environment since one of the reasons that lead to the occurrence of fraud is the presence of gaps in the control system. Joseph et al. (2015) aim to ascertain the effect of internal controls on fraud prevention and detection in the National Treasury of Kakamega County, Kenya. Their study recommends the development of effective internal control policies and procedures to prevent and detect fraud within the treasury of the province and other institutions.

Moreover, Onoja and Usman (2015) mention that the local government's internal audit unit has put in place the necessary procedures and controls to reduce fraud. Still, it lacked the complete independence required to perform its function efficiently and effectively. Local government is not independent, and their study recommends that laws and legislation be implemented to grant autonomy to the internal audit unit to carry out their tasks.

They also suggest that the councils instal techniques and procedures to prevent fraud and that those adequate measures and control are brought into effect. The realisation of the problem of the study and its importance and objectives and considering the theoretical framework together with previous studies, this study seeks to test the following statistical hypotheses:

H1 *There is no statistically significant effect on the regulatory environment in preventing fraud and detecting financial fraud in Jordanian commercial banks.*

The following seven sub-assumptions are derived from the main hypothesis:

H1-1 *There is no statistically significant effect of integrity and ethical valuesin preventing fraud and detecting financial fraud in Jordanian commercial banks.*
H1-2 *There is no significant statistical effect on the commitment to efficiency in preventing fraud and detecting financial fraud in Jordanian commercial banks.*
H1-3 *There is no significant statistical effect on the management philosophy and operating style in preventing fraud and detecting financial fraud in Jordanian commercial banks.*
H1-4 *There is no statistically significant effect on the delegation of authority and responsibilities in preventing fraud and detecting financial fraud in Jordanian commercial banks.*

H1-5 *There is no significant statistical effect on the organisational structure in preventing fraud and detecting financial fraud in Jordanian commercial banks.*
H1-6 *There is no statistically significant effect on managing and developing people in the organisation in preventing fraud and detecting financial fraud in Jordanian commercial banks.*
H1-7 *There is no statistically significant effect on board members and audit committees'role in preventing fraud and detecting financial fraud in Jordanian commercial banks*.

RESEARCH DESIGN

Data and Sample

A questionnaire was used as the main means of gathering primary data. Jordanian commercial banks listed on the Amman Stock Exchange were used as the basis for the random sourcing of a specific range of general managers, management accountants, and internal auditors for selection as respondents for the survey. The response rate for the 75 questionnaires distributed was 80% (60 completed questionnaires). In total, these were duly analysed.

Measure of Variables

Measurement of variables was incorporated into the questions to elicit meaningful answers. All dimensions or propositions were covered by statements to measure all of the areas mentioned above.

Independent Variables

The study variables have been linked based on a theoretical framework, previous studies, and study problems as the regulatory environment's independent variable elements. These include seven factors, which are integrity and ethical values, commitment to efficiency management philosophy, the delegation of authority and responsibilities, processes for managing and developing, organisational structure, board members, and audit committee effectiveness.

Dependent Variables

The dependent variable is represented in the strategy of combating fraud and control policy. This includes seven factors:

1. Regulatory framework;
2. Responsibility structuring;
3. Assessment of fraud risk;
4. Promoting awareness of fraud;
5. Internal control procedures;
6. A system of notification of fraud;
7. Developing standards of conduct and disciplinary procedures.

CONCEPTUAL FRAMEWORK

Based on the literature discussed earlier, a conceptual framework is suggested, as presented in Figure 1 below, that shows the effect between the regulatory environment's elements in preventing fraud and detecting financial fraud.

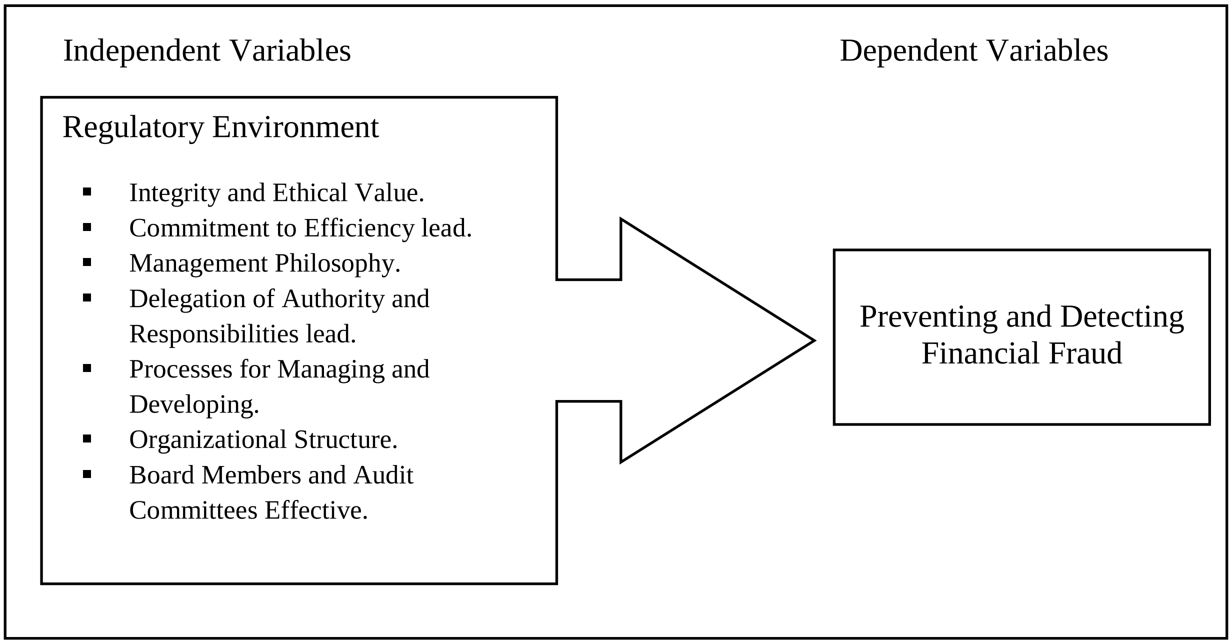

FIGURE 1
DEPENDENT AND INDEPENDENT VARIABLES

Descriptive Statistics

The questionnaire was compiled to measure all variable dimensions by a set of statements. These were to be evaluated on a scale of 1 to 5, weighted according to their perceived importance, 5 indicated being very influential, reducing to 1, which stated nil influence.

EMPIRICAL RESULTS AND ANALYSIS

Table 1
RESULTS OF TESTING THE FIRST SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-1	1	Regression	1.455	7	0.208	2.875	0.013
		Residual	3.760	52	0.072		
		Total	5.215	59			

Table 1 shows the results of testing the first sub-hypothesis (one-sample *t*-test). H1-1: There is no statistically significant effect of integrity and ethical values in preventing fraud and detecting financial fraud in Jordanian commercial banks. The first sub-hypothesis of the study was tested using simple regression analysis, when a significant level (Sig) (α) <=0.05, Table 1 shows Sig-*t* is (0.013). Hence, the null hypothesis was rejected. The substitute hypothesis was accepted, which means that there is a statistical effect between integrity and ethical values and preventing fraud and detecting financial fraud.

Table 2
RESULTS OF TESTING THE SECOND SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-2	1	Regression	1.565	7	0.224	3.428	0.004
		Residual	3.391	52	0.065		
		Total	4.956	59			

Table 2 shows the results of testing the second sub-hypothesis (one-sample *t*-test). H1-2: There is no significant statistical effect on the commitment to efficiency in preventing fraud and detecting financial fraud in Jordanian commercial banks. The second sub-hypothesis of the study was tested using simple regression analysis when a significant level (Sig) (α) <=0.05, Table 2 shows Sig-*t* is (0.004). Hence, the null hypothesis was rejected. The substitute hypothesis was accepted, which means a statistical effect between commitment to efficiency and preventing fraud and detecting financial fraud.

Table 3
RESULTS OF TESTING THE THIRD SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-3	1	Regression	2.282	7	0.326	2.672	0.019
		Residual	6.346	52	0.122		
		Total	8.628	59			

Table 3 shows the results of testing the third sub-hypothesis (one-sample *t*-test). H1-3: There is no significant statistical effect on the management philosophy and operating style in preventing fraud and detecting financial fraud in Jordanian commercial banks. The third sub-hypothesis of the study was tested using simple regression analysis, when a significant level (Sig) (α) <=0.05, Table 2 shows Sig-*t* is (0.019). Hence the null hypothesis was rejected, and the substitute hypothesis was accepted. This means a statistical effect between the management philosophy and operating style and preventing fraud and detecting financial fraud.

Table 4
RESULTS OF TESTING THE FOURTH SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-4	1	Regression	3.515	7	0.502	1.446	0.207
		Residual	18.061	52	0.347		
		Total	21.576	59			

Table 4 shows the results of testing the fourth sub-hypothesis (one-sample *t*-test). H1-4: There is no statistically significant effect on the delegation of authority and responsibilities in preventing fraud and detecting financial fraud in Jordanian commercial banks. The fourth sub-hypothesis of the study was tested using simple regression analysis, when a significant level (Sig) (α) <=0.05, Table 4 shows Sig-*t* is (0.207). Hence, the null hypothesis was accepted, and the substitute hypothesis was rejected. This means that there is no statistical effect between the delegation of authority and responsibilities and preventing fraud and detecting financial fraud.

Table 5
RESULTS OF TESTING THE FIFTH SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-5	1	Regression	2.415	7	0.345	5.233	0.000
		Residual	3.428	52	0.066		
		Total	5.843	59			

Table 5 shows the results of testing the fifth sub-hypothesis (one-sample *t*-test). H1-5: There is no significant statistical effect on the organisational structure in preventing fraud and detecting financial fraud in Jordanian commercial banks. The fifth sub-hypothesis of the study was tested using simple regression analysis, when a significant level (Sig) (α) <=0.05, Table 5 shows Sig-*t* is (0.000). Hence, the null hypothesis was rejected, and the substitute hypothesis was accepted. This means that there is a statistical effect between the organisational structure and preventing fraud and detecting financial fraud.

Table 6
RESULTS OF TESTING THE SIXTH SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-6	1	Regression	3.401	7	0.486	3.816	0.002
		Residual	6.620	52	0.127		
		Total	10.020	59			

Table 6 shows the results of testing the sixth sub-hypothesis (one-sample *t*-test). H1-6: There is no statistically significant effect on managing and developing people in the organisation in preventing fraud and detecting financial fraud in Jordanian commercial banks. The sixth sub-hypothesis of the study was tested using simple regression analysis, when a significant level (Sig) (α) <=0.05, Table 6 shows Sig-*t* is (0.002). Hence, the null hypothesis was rejected, and the substitute hypothesis was accepted. This means that there is a statistical effect between managing and developing people in the organisation and preventing fraud and detecting financial fraud.

Table 7
RESULTS OF TESTING THE SEVENTH SUB-HYPOTHESIS (ONE-SAMPLE *t*-TEST)

Type	Model		Sum of Squares	df	Mean Square	F	Sig.
H1-7	1	Regression	4.274	7	0.611	3.702	0.003
		Residual	8.576	52	0.165		
		Total	12.850	59			

Table 7 shows the results of testing the seventh sub-hypothesis (one-sample *t*-test). H1-7: There is no statistically significant effect on board members and audit committees' role in preventing fraud and detecting financial fraud in Jordanian commercial banks. The seventh sub-hypothesis of the study was tested using simple regression analysis, when a significant level (Sig) (α) <=0.05, Table 7 shows Sig-*t* is (0.003). Hence, the null hypothesis was rejected, and the substitute hypothesis was accepted. This means that there is a statistical effect between board members and audit committees'role and preventing fraud and detecting financial fraud.

CONCLUSION AND RECOMMENDATIONS

In this study, we analysed the effect of regulatory environment's elements in preventing fraud and detecting financial fraud. We found a positive effect on the prevention and detection of fraud through the element of integrity and ethical values, developed and linked to the ethical behaviour of all workers without exception. We also found it considered successful administration that works on the description of tasks for workers and their training and the application of quality and teamwork, which enhances the efficiency and the development of the employee concerned. This was reflected in the positive effect to working on the prevention and detection of fraud through a commitment to efficiency standards.

The philosophy of management and its operational pattern works to reduce the prevention and detection of fraud. The hypothesis test results demonstrate this and that there is a positive effect when the department holds periodic meetings at all levels of management and studies and evaluates the risks that prevent the achievement of objectives. Moreover, the analysis documents prove a strong negative link between the delegation of authority and responsibilities, preventing fraud and detecting financial fraud. This is contrary to all policies in the control environment in general and with the identification of powers and the existence of mechanisms and controls to prevent fraud. However, the results showed a negative effect due to the presence of a defect or weakness in some of the control tools that may allow this imbalance. So, the presence of an effective organisational structure and clarity and flexibility in the bank's management works to prevent and detect fraud, which was confirmed by the results of the tests where the effects were positive.

Human resources policies and practices are closely linked to the principle of integrity and ethical values. Hence, the positive effect on fraud prevention and discovery is evident because the human resources department's policies have a clear basis in selecting employees who are credible and efficient. Finally, we find the holding of meetings periodically, carried out by the audit committees with internal and external auditors, and the control systems of internal control help prevent and detect fraud, which is evident in the result of positive effect. On the premise that fraud detection is based on the assumption that fraud is not a random event but occurs when circumstances are appropriate, the management must improve regulatory procedures to reduce or eliminate fraudulent factors. This study found it the best defence against fraud. By contrast, internal controls alone are not sufficient to prevent fraud. Company culture and the attitudes of senior management should be encouraged to develop fraud awareness training and fraud policy to help combat fraud.

Also, techniques and tools for prevention should be developed to avoid potential major fraud risk events. A written policy is required (for example, an ethical code) describing prohibited activities and measures to be taken in case of violations, and creating an environment that raises awareness by the organisation about the existence and importance of oversight mechanisms. Another tool that can be established as an effective preventive and detective control is detective control. Adopting segregation of duties for preventive control and their ongoing review is an effective form of detective control, creating the first line of defence it minimises the risk of fraud. Future research should focus on developing countries with a variety of economic, legal, ownership, and institutional environments.

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REFERENCES

Albrecht, C., Holland, D., Malagueño, R., Dolan, S., & Tzafrir, S. (2015). The role of power in financial statement fraud schemes. *Journal of Business Ethics*, *131*(4), 803-813.

AL-Qudah, M.A. (2019). How external auditors detecting financial corruption and fraud in financial statement A case study of Jordanian companies. *Journal of Business and Economic Policy*, *6*(4), 50-58.

Arens, A.A., Elder, R.J., & Beasley, M.S. (2014). *Auditing and assurance services: An Integrated Approach*. London: Pearson.

Asare, S.K., Wright, A., & Zimbelman, M.F. (2015). Challenges facing auditors in detecting financial statement fraud: Insights from fraud investigations. *Journal of Forensic and Investigative Accounting*, *7*(2), 63-111.

Association of Certified Fraud Examiners. (ACFE). (2010). *Report to the nations on occupational fraud and abuse*. Retrieved from http://www.acfe.com/rttn2016/resources/archives.aspx

Biegelman, M.T., & Bartow, J.T. (2012). *Executive roadmap to fraud prevention and internal control: Creating a culture of compliance*. Canada: John Wiley & Sons.

Bradley, J.M. (2015). Empowering employees to prevent fraud in nonprofit organizations. *Cardozo Public Law. Policy and Ethics Journal, 13*(1), 711-738.

Burnaby, P., Howe, M., & Muehlmann, W. (2009). Detecting fraud in the organization: An internal audit perspective. *Journal of Forensic and Investigative Accounting, 3*(1), 195-233.

Dominic, P.R., & Lanoue, N. (2015). Cutting fraud losses in Canadian organizations. *Journal of Financial Crime, 22*(3), 295-304.

Halbouni, S. (2015). The role of auditors in preventing, detecting, and reporting fraud: The case of the United Arab Emirates (UAE). *International Journal of Auditing, 19*(2), 117-130.

Huang, S.Y., Lin, C.C., Chiu, A.A., & Yen, D.C. (2017). Fraud detection using fraud triangle risk factors. *Information Systems Frontier, 19*(6), 1343-1356.

Hussaini, U., Bakar, A., & Yusuf, O. (2019). The effect of fraud risk management, risk culture and performance of banking sector: A conceptual framework. *International Journal of Multidisciplinary Research and Development, 6*(1), 71-80.

Joseph, O.N., Albert, O., & Byaruhanga, J. (2015). Effect of internal control on fraud detection and prevention in district treasuries of Kakamega County. *International Journal of Business and Management Invention, 4*(1), 47-57.

Kapardis, M.K., & Papastergiou, K. (2016). Fraud victimization in Greece: Room for improvement in prevention and detection. *Journal of Financial Crime, 23*(2), 481-500.

Kong, Y., Lartey, P.Y., Bah, F.B.M., & Biswas, N.B. (2018). The value of public sector risk management: An empirical assessment of Ghana. *Administrative Sciences, 8*(3), 40-57.

Mohamed, N., & Handley-Schachelor, M. (2014). Financial statement fraud risk mechanisms and strategies: The case studies of Malaysian commercial companies. *Procedia-social and Behavioral Sciences*, *145*(1), 321-329.

Moore, J. (2018). The relationship between organization size and occupational fraud. *International Research Journal of Applied Finance, 9*(5), 248-276.

Munteanu, V., Copcinschi, L., Luschi, C., & Lăceanu, A. (2017). Internal audit-Determination factor in preventing and detecting fraud related activity to public entities financial accounting. *Knowledge Horizons. Economics, 9*(1), 55-63.

Nindito, M. (2018). Financial statement fraud: Perspective of the pentagon fraud model in Indonesia. *Academy of Accounting and Financial Studies Journal, 22*(3), 1-9.

Noland, T.G., & Metrejean, E. (2013). The importance of the control environment: Expense account fraud at blue grass airport. *Journal of Business and Economics Research, 11*(2), 98-105.

Nuswantara, D.A., & Maulidi, A. (2017). The efficacy of control environment as fraud deterrence in local government. *Management and Marketing, 12*(4), 591-61.

Onoja, E.O., & Usman, H. (2015). Internal audit techniques and fraud prevention: A case study of selected local government councils in Bauch State. *Mediterranean Journal of Social Sciences, 6(*4), 232-244.

Petrascu, D., & Tieanu, A. (2014). The role of internal audit in fraud prevention and detection. *Procedia Economics and Finance, 16*(8), 489-497.

Rubino, M., Vitolla, F., & Garzoni, A. (2017). How IT controls improve the control environment. *Management Research Review, 40*(2), 218-234.

Standards Australia. (2008). *AS8001-2008 Fraud and corruption control.*

Suh, J.B., Nicolaides, R., & Trafford, R. (2019). The effects of reducing opportunity and fraud risk factors on the occurrence of occupational fraud in financial institutions. *International Journal of Law, Crime and Justice*, *56*(1), 79-88.

Tang, X.B., Liu, G.C., Yang, J., & Wei, W. (2018). Knowledge-based financial statement fraud detection system: Based on an ontology and a decision tree. *Knowledge Organization, 45*(3), 205-219.

Trompeter, G.M., Carpenter, T.D., Desai, N., Jones, K.L., & Riley, R.A. (2013). A synthesis of fraud-related research. *Auditing: A Journal of Practice and Theory, 32*(1), 287-321.