

# THE CHALLENGES OF APPLICATION OF FORENSIC ACCOUNTING IN JORDAN

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## ABSTRACT

*The objective of this research is to investigate the challenges that face the application of forensic accounting to fight fraud crime in Jordan. The groups of challenges were collected through literature concerned with the use of forensic accounting to fight fraud crime. The challenges were divided into four categories: accumulative forensic accounting experience, the extent of fraud crime distribution, availability of specialized technology, and the cooperation among stakeholders. The questionnaire was a tool used for data collection. The results showed that the effective application of forensic accounting faces many challenges. The accumulative experience places the first position challenge to fight fraud crimes, then cooperation between stakeholders, the extent of fraud crime, and the last position were for the availability of technology that can be used to fight fraud crimes.*

**Keywords:** Forensic Accounting, Application, Challenges

## INTRODUCTION

The challenges to apply effective forensic accounting are very wide (Oseni, 2017). The increase of challenges is attributed to the development of the type of fraud crime in recent times. The development of technology opens the door for creative procedures to commit fraud crimes. The countries that care for fraud crimes and the use of forensic accounting face fewer difficulties to mitigate the challenges to use forensic accounting (Oseni, 2017). The type of challenges differs from developed to developing countries. Dreyer (2014) listed the history of forensic accounting in the USA by raising the increased need for this type of accounting to protect the economy. The details have shown the stages the forensic accounting passed to reach its current stage.

The care for forensic accounting in some countries started very late (Abdulrahman, 2019; Al-Sharairi, 2018; Richard et al., 2009). This causes facing challenges to apply forensic accounting. MENAFATF (2019) reported the extent of financial crimes in Jordan in 2016. The wide variety of financial crimes and the extent of crimes form a challenge with the lack of enough trained staff to fight this crime.

Other challenges related to the available technology. Ocansey (2017) reported that information technology governance and risk management tools are considered very crucial in achieving effective forensic accounting systems. This makes the availability of forensic accounting IT a very important position for specialists. This leads to a new challenge related to the share of knowledge among the stakeholders. The availability of satisfactory technology will facilitate the communication among stakeholders to exchange knowledge and experience in forensic accounting.

The challenges that face forensic accounting started from the available information about forensic accounting in the international sources to the available information about the local fraud crimes and the required knowledge of forensic accounting to fight this crime. Abdulrahman

(2019) discussed the challenges that face fraud crime-fighting in the public sector. The results showed the possibility to use forensic accounting to fight financial crime in the public sector unless the challenges to its use will be removed. Imoniana (2013) described forensic accounting and fraud detection as a game. Success in this game requires integrated knowledge about the two pillars to find solutions and reduce challenges to the success of the game.

Abdulrahman (2019) reported that the techniques used are considered a challenge to utilize the use of forensic accounting in fraud-fighting. Ragan (2008) introduced the recognition of the technique of the financial statement considered a challenge to discover fraud. He considered the technology as a good tool to reach decisions of financial statement fraud. Another research concentrate on the knowledge of forensic accounting techniques is an effective tool to discover fraud crimes (Akinbowale et al., 2020; Awolowo, 2019). Ramaswamy (2007) reported that the knowledge of accounting programs will minimize the challenges faces by the use of forensic accounting to discover fraud.

This paper will discuss the challenges facing the activation of forensic accounting in Jordan; also interpret the interaction among these challenges to apply forensic accounting.

## LITERATURE

Different literature discussed the challenges that face the use of forensic accounting in discovering fraud especially in developing countries and in countries with high financial fraud. Some of this literature is as follow:

Abdulrahman, et al., (2020) reported that the fraud increased in banking sector in UAE. They reported that the effective activities of forensic accounting are the only solution to minimize the distribution of fraud in banking sector. Forensic accounting is the tool to discover fraud in conventional accounting systems and audit systems. The results of this research indicated that forensic accounting was able to detect fraud in banking industry in UAE.

Yang & Lee (2020) discussed the importance of forensic accounting in fraud risk management. They applied balanced scorecard-based model as a strategy for forensic accounting to manage fraud risk in organizations. The results showed that balanced scorecard model to discover fraud in organizations in Taiwan.

Hamdan (2019) studied the discovering of fraud using forensic accounting in Jordan. The study was applied to on simple random sample of auditors in Jordan. The study concerned with four variable that considered the basics to qualify the accountants to practice the forensic accounting and the available environment that facilitate the use of forensic accounting to discover the financial fraud in Jordan. The study included 630 accountants from the auditing offices. The study used structural equation modeling to study the extent of the effect of four variables included in the study to determine the problems that face the use of forensic accounting in Jordan. Factorial analysis was used to measure the ability of items to measure different variables. The knowledge of the legal structure and the legal procedures were in the first position as a determinant to use forensic accounting to discover fraud, the second factors were for the experience required to practice forensic accounting to discover fraud, while the third factor was for the connection between the accounting field and the legal knowledge, and the last factors was for the tools and procedures used to practice forensic accounting. The results of this research have shown that different factors should be available to practice forensic accounting in discovering financial fraud. On the other hand, the accountants' preparation in Jordan to practice forensic accounting is not enough at the current stages. Also, the low realization of the importance of technology to practice forensic accounting makes it the final interest of accountants in Jordan.

Abdulrahman (2019) studied the use of forensic accounting to prevent fraud in the public sector in Nigeria. The study used different selected papers concerned with the use of forensic accounting in fraud-fighting from Nigeria and other countries. The study used content analysis

procedures. The results of the study showed that forensic accounting techniques are not applied in Nigeria to prevent fraud in the public sector. Moreover, a framework should be prepared to include all the parties interested in fighting fraud from private and public sectors to build the required capabilities for application.

Okoye, et al., (2019) studied the relation between Forensic accounting services and fraudulent activities. The study concentrated on studying forensic accounting services in the banking sector in Nigeria and the possibility of fraud control. The study concentrated on computer fraud and e-crimes. The questionnaire was used to collect the data. The number of questionnaires distributed was 200 ones and the retrieved were 188 ones with a high response rate. The targeted group was the accountants working in the auditing field. The results showed that the application of forensic accounting contributes to combat the fraud e-crimes. The study recommended that the individuals working in accounting should learn both computer skills and rules of forensic accounting to participate in controlling this type of crime.

Al-Sharairi (2018) studied the role of forensic accounting in fighting tax evasion in Jordan. The study was applied to the industrial public companies in Jordan. The study concentrated on studying the methods that are used by companies to evade tax-paying in these companies. The study investigated the fields in which forensic accounting is applied and introduced the justifications for that. A random sample was selected of auditors registered at the Jordanian Association of Certified Public Accountants who are in charge of auditing the financial statement of industrial public companies. The results have shown that there is not any application of forensic accounting methods to figure out the tax evasion of companies in the public sector. This is attributed to the lack of knowledge of the application of forensic accounting in checking the financial statements of large companies. The study recommended the governmental authorities play a more effective role in using forensic accounting in minimizing tax evasion in Jordan.

Khersiat (2018) investigated the effect of using forensic accounting in maintaining the public monetary system in Jordan as well as minimizing the corruption in the public sector in Jordan. The questionnaire was used as a tool to collect data. The questionnaire was distributed to 100 employees in firms, audit offices, and workers at the Accountability Bureau. The results showed that forensic accounting can be used to figure out fraud and discovering corruption in the Jordanian public sector. The study has differentiated between the external auditing and the forensic accounting roles in discovering the corruption. The results indicated the ambiguity of differentiation between the use of forensic accounting and external auditing in the accounting field.

Ocansey (2017) investigated the possibility of using forensic accounting to combat financial and economic crime in Ghana. The study emphasized the high demand for forensic accounting to fight economic crimes in all countries. The paper indicated that training and enough skills are required to use forensic accounting in combat economic crime in Ghana. The study concentrated on investigating the techniques applied to stop these crimes in Ghana. The study used a sample of technical officers and regression modeling to reach the results. The major results of this research indicated that the use of forensic accounting will facilitate the combat of financial and economic crimes. The success is connected to the establishment of specialized units that supervise the use of forensic accounting and guide its use to fight these crimes. Also, the results indicated that the cooperation between the different parties is very important to success its application.

Ehioghiren (2016) studied fraud management using forensic accounting. The author indicating that the development of the country is controlled by the level of financial fraud. The federal government in the country founded corruption institutions to minimize the level of corruption in the country. The fraud high level left a negative impact on organizations and individuals in Nigeria. The study used the questionnaire as a tool to collect the data. The number

of questionnaires distributed was 572. The results showed that forensic accounting has a direct impact on fraud detection. The author has shown that training in the field of forensic accounting is considered a challenge to practice professionally in Nigeria. Also, the study recommended that the council in the change of financial reporting should use specific formats to facilitate the discovery of fraud through the techniques applied.

Olukowade (2015) investigated the importance of using forensic accounting to prevent fraud crime in Nigeria. The author considered fighting fraud is a challenge and the use of forensic accounting is the solution to this challenge. The paper has shown the success of forensic accounting requires the preparation of accountants with high qualifications in this field to able to detect fraud in all sectors and environments. The paper indicated that the cooperation between the government and the other interesting sector will facilitate the use of forensic accounting in combat fraud crime in Nigeria.

Tawfeeq, et al., (2014) studied the possibility of using forensic accounting to reduce financial corruption in Iraq. The authors have shown that corruption is considered one of the most serious problems that affect the future of Iraq. The research indicated that corruption will slow down economic growth. The study investigated the possibility of forensic accounting applications in Iraq to discover financial frauds. The data for this research was collected through questionnaires and interviews. The results indicated that the use of forensic accounting in Iraq will minimize corruption cases. They have shown that one of the challenges facing the application of forensic accounting is represented in the lack of curriculum of any material that teaches the students the methods of forensic accounting applications. The second challenge was raised is related to the lack of knowledge among the accountants and auditors about forensic accounting. The study recommended the addition of forensic accounting to the curriculum in accounting divisions at the universities in Iraq.

Dubey (2014) explained the different components of forensic accounting. The paper raised the importance of legal proceedings to activate the use of forensic accounting. The paper insists that the use of forensic accounting without strong regulations support its use will reduce the effectiveness of its use to discover fraud. The paper introduced the objective of forensic accounting in five fields including its use to facilitate the settlement, claims, and financial debates, to discover fraud and theft, restoring public confidence in public financial systems, finding comprehensive governance policies, the last use is to create a positive environment at work. The study has limited the fraud risk management in three points: prevent, detect and respond, while the fraud risk management strategy should deal with the risk areas, developing a response strategy to risk, implement and monitor the control tools, and getting feedback to improve the strategy of fraud to control fraud risk. The paper illustrated that the procedures and techniques applied through forensic accounting should be suitable for the type of fraud that is being detected. Moreover, the papers introduced the characteristics of fraudsters showing that the complications the fraud will be made are dependent on the different demographic and educational conditions him. Also, the paper emphasized that the door should be opened to facilitate the usage of forensic accounting in different financial aspects supported by regulations.

Krstic (2009) studied the concentration on financial statements by forensic accountants to detect fraud. The study has shown that there are many causes for fraud in financial statements. The first source was related to unharmonized applied procedures to produce financial statements. The other important factor is related to the governmental bodies in charge of issuing instructions to unify the procedures used to produce financial statements in companies. The other party in charge is the lack of application of forensic accounting using effective procedures among accountants. This may be attributed to the lack of training that helps these people to take over these processes professionally.

## METHODOLOGY

The objective of this research is to investigate the challenges that face the application of forensic accounting in Jordan. To accomplish the objective of this research the questionnaire was used as a tool to collect the data. The targeted population was the accountants working in the auditing sector.

The questionnaire is composed of four parts. The first was designed to collect the demographic data, the rest of the parts introduced questions about the challenges that face the activation of forensic accounting in Jordan. The answers used five Likert scales for each paragraph. The draft questionnaire was offered for a group of specialists to revise the ideas and the language of the questionnaire.

A pilot survey was performed to measure the questionnaire reliability and detect mistakes and language ambiguity. The total number of questionnaires distributed was 300 one distributed on 150 auditing offices. The recovered questionnaires were 293 forming a 97.7% response rate. The collected questionnaire was entered into SPSS software for analysis. The descriptive statistics included frequency, percentage, means, and standard deviation were used to measure the demographic characteristics and sample trends for the different paragraphs of the questionnaire.

## RESULTS AND DISCUSSION

The reliability of the questionnaire was measured using Cronbach's Alpha. The results showed that the Alpha value exceeded 0.6 for all variables reflecting that the questionnaire is reliable for this study (Table 1).

<b>Field</b>	<b>Alpha value</b>
Forensic accounting experience	92.3
The extent of fraud crime distribution	89.3
Availability of specialized technology	84.3
The cooperation among stakeholders	81.2
Total	94.1

## DEMOGRAPHIC CHARACTERISTICS

The results showed that the sample was almost equally distributed among the management (48.3%) and the employees (51.7%). This distribution was designed to figure out the feedback from the management and the employees for the variables of this research. The highest educational level was for bachelor (91.0%) which is the minimum qualification allowed to get a license to open auditing offices, while the graduate studies formed only 9.0% of the sample.

The highest experience was recorded for less than 5 years (48.4%) followed by the experience 5 to 10 years (39.4%). The minimum distribution was for the experiences 10 to 15 years (9.0%) and more than 15 years (3.2%). The experiences that exceeded 10 years were for the managers as the experience formed a condition to get a license to manage auditing office.

<b>Character</b>	<b>Percentage</b>
Position	
Management	48.3
Employee	51.7
Educational level	
Bachelor	91
Graduate studies	9
Experience	
Less than 5 Years	48.4
From 5 to less than 10 Years	39.4
From 10 to less than 15 Years	9
Over 15 Years	3.2

The experience of forensic accounting is considered the base that is used to develop this type of accounting to fight fraud crimes. The results showed that the lack of experience was in the first position challenges facing the application of forensic accounting in Jordan (Table 3).

The lack of local sources that concerned the development of forensic accounting was the first challenge (m=4.6). The lack of these types of sources will direct the attention to use external ones which may not be compatible with the type of fraud crime in Jordan. The techniques that these sources use may be different as the crime techniques are different too.

The classification of forensic accounting is considered a challenge to develop and apply this type of accounting (m=4.3). The classification of forensic accounting will help the development of tools that meet the needs for each type of fraud crime in Jordan. Also, the results showed that there is not anybody inside Jordan that adopts the development of forensic accounting (m=4.1). This challenge will scatter the effort to find out the integrated doctrine of forensic accounting in Jordan. The last two challenges are represented in the lack of documentation (m=4.0) and the lack of specialized academic staff (m=3.9). These two challenges will make it difficult to use references and experiences to develop forensic accounting in Jordan.

The results of this research concerning knowledge availability were matchable with Tawfeeq et al. (2014) and Oseni (2017) indicating that this challenge could exist in many developing countries. Also, Al-Sharairi (2018) indicated that the lack of knowledge in forensic accounting decreases its application on financial statements to figure out the tax evasion in Jordan. Moreover, Khersiat (2018) has shown that there is a misunderstanding between forensic accounting and external auditing among the accountants in Jordan which is resulted from the lack of knowledge about forensic accounting in Jordan.

<b>Variable</b>	<b>Mean</b>	<b>Standard deviation</b>
Lack of local sources for forensic accounting	4.6	0.62
Lack of accumulative local classification for forensic accounting	4.3	0.71
Lack of higher commissions responsible for forensic accounting application	4.1	0.42
Lack of documentation of fraud crimes	4	0.65

Lack of specialized academic staff	3.9	0.81
Forensic accounting experience	4.18	0.62

The high expansion of fraud crime will decrease the capabilities to control. The report issued by MENAFATF (2019) reflected the high distribution of fraud crimes among sectors and the wide variety of financial crimes. The respondents reported that the high number of fraud crimes is considered a challenge to apply forensic accounting ( $m=3.52$ ).

The variety of the financial crimes was in the first position of challenges ( $m=3.98$ ). The distribution of financial crimes in different sectors will form a challenge to apply forensic accounting due to the different varied tools needed for the application ( $m=3.75$ ). In this regard, most fraud cases are discovered through the reporting by individuals or the exposure to financial deficiencies within the enterprises. Moreover, the lack of detailed information about the recorded crimes will form a challenge to develop forensic accounting to fight these crimes ( $m=3.44$ ).

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>
The wide variety of fraud crimes forms a challenge to apply forensic accounting	3.98	0.82
The wide distribution of fraud crimes in public and private sectors forms a challenge to apply forensic accounting	3.75	0.91
Fraud crime different sectors form a challenge to apply forensic accounting	3.54	0.75
The high number of fraud crimes increase the challenge to apply forensic accounting	3.52	0.79
The lack of information about fraud crimes is a challenge to apply forensic accounting	3.44	1.1
Fraud crime distribution	3.65	0.91

The technology formed a challenge to develop and apply forensic accounting ( $m=3.61$ ) (Table 5). The lack of proper technology will lead to use the traditional methods and procedures which will take more time and more effort to collect information and analyze it to discover the financial crimes.

The results showed that the price of technology ( $m=3.69$ ), the lack of training ( $m=3.65$ ), the lack of specialists for training ( $m=3.61$ ), and the lack of local IT companies' interest ( $m=3.42$ ) are challenges in the field of using technology to apply forensic accounting.

<b>Variable</b>	<b>Mean</b>	<b>Standard deviation</b>
The lack of knowledge of forensic accounting technology is a challenge	3.71	0.92
The price of technology for forensic accounting is a challenge	3.69	1.1
The lack of training in using technology is a challenge	3.65	0.98

The lack of specialists in forensic accounting technology is a challenge	3.61	0.93
The lack of care of local IT companies for forensic technology is a challenge	3.42	1.2
Availability of specialized technology	3.61	0.92

The existence of a national ambarella that coordinates the efforts of forensic accounting will facilitate the use of different stakeholders' experiences to develop the knowledge and application of forensic accounting in Jordan. The low cooperation among stakeholders (m=3.63) forms a big challenge to concentrate the efforts (Table 6).

Nationally, the results showed that there is anybody that cares for the application and the collection of experience of forensic accounting is considered a big challenge (m=3.99). This indicates that each stakeholder uses his knowledge to apply forensic accounting. Even among the known organizations, the cooperation is not effective (m=3.64) and the events concerned with the development of forensic accounting among stakeholders do not exist which increases the gap.

Ocansey (2017);Olukowade (2015) have shown that the cooperation among the different parties interested in fighting financial and economic crimes is very important to facilitate the usage of forensic accounting.

<b>Variable</b>	<b>Mean</b>	<b>Standard Deviation</b>
The ambiguity of stakeholder responsible to care for forensic accounting is a challenge	3.99	0.91
The low cooperation among the announced organizations looking fraud crime is a challenge	3.64	0.81
The lack of a unifying commission for all parties is a challenge	3.53	0.86
The low number of events hold among stakeholders forms a challenge	3.56	0.94
The stakeholders' lack of announcement of fraud crimes is a challenge	3.42	0.85
Cooperation among stakeholders	3.63	0.83

## **CONCLUSIONS AND RECOMMENDATIONS**

The objective of this research is to investigate the challenges that face the application and development of forensic accounting in Jordan. The questionnaire was used as a tool to collect data. The auditors were the respondents of the distributed questionnaire. The limitations of this research were the lack of including all parties that should be covered in another research.

The results of this research showed that there is a high gap facing the development and wide application of forensic accounting in Jordan. The first challenge was related to the scattered experience which makes it difficult to facilitate the development of tools and techniques to apply. The results showed that the organizations work separately that the accumulative experience that is considered the base to develop the forensic accounting is lost. The results also showed that the interest in technology application is very low due to the lack of technology, the high prices, and the absence of specialized trainers. Also, the results showed that the local IT



companies' interest is very low to develop software that helps in the application of forensic accounting.

Facing huge floods will minimize the individual ability to resist. The lack of organized efforts to face the high number of fraud crimes in Jordan will make it a challenge to apply forensic accounting in a way that minimizes financial crimes. The distribution and wide variety of financial crimes both in public and private sectors call for increasing the trained staff to apply forensic accounting which will be impossible in the short run.

The accounting staff should be trained on the application of enterprises' financial crimes and individuals' financial crimes too. The control will require much effort to organize the stakeholder efforts to facilitate the control. The study recommended the founding of a forensic accounting commission that arranges and cares for the training and data collection to develop the tools required for fraud crime control. This research would help building a national model for forensic accounting to overcome difficulties.

## FUTURE RESEARCH

The concentration on the technology applications in forensic accounting still requires further investigations to figure out the current technology level and the international levels reached to develop IT infrastructure for forensic accounting.

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