A proposed framework for how the internal auditor   deal with the IT environment

Dr. Atallah Alhosban, Associated Professor, Accounting, Aqaba University of Technology

Dr. Mohmaamed Alsharairi, Assistant professor, Accounting, Irbid National University

Abstract

The aim of the study was to develop a proposed framework for internal auditing on how internal auditors deal with information technology, and to show the new functions of internal auditing in the IT environment. The study was based on the theoretical framework of books and studies to obtain study data. The study focused on the role of internal auditor in dealing with computer networks, IT risks, and accounting information security. The most important results of the study: There are new functions of internal audit in the IT environment such as: Ensure the reliability of computer networks, and ensure the security and confidentiality of information, and the risks of new risks and benefits can be achieved through dealing with IT tools, To deal with the risks of information technology and how to use the benefits to achieve the objectives of the company

1. Introduction

The computer is nowadays the main means of processing data in various aspects of economic activity in public and private institutions. With the increasing use of computers and thus the information technology, and the growing awareness that the data depends on the continuity of the operations of the institutions and the certainty that the information derived from these data paints the image of the institution and its environment and future , There were increasing concerns about the lack of sufficient control over the work of computers and information technology. Thus, the widespread use of information technology in the public and private sectors led to the need to keep up with the internal control system technology.

The accounting profession, like other important professions, started using technology at the beginning of its appearance. It was employed in the accounting system in such a way that the implementation of the accounting cycle is a mechanism of speed and precision. However, despite the advantages of this technology, there are serious disadvantages that accompanied it as the possibility of penetrating it or manipulating its inputs. In this sense, it is necessary to keep pace with the internal control systems of this technology and the changes it has made to the accounting system so that it becomes a computerized system lacking some factors of trust and credibility

This study is designed to propose a method for how the internal auditors deal with the latest developments in IT tools, as they have imposed new functions on

the internal audit profession such as ensuring the reliability of computer networks, dealing with computerized accounting programs,
Accounting information security policies and prevention of penetration

1.1 The study Problem

The use of IT tools imposed risks and advantages on the internal audit profession. The risks represented the possibility of violating the accounting data and modifying them illegally. This means that they can be penetrated. The advantages were the rapid delivery of data and accounting information to several parties. So This study proposes a methodology for dealing with IT tools in terms of: how internal auditors deal with computer networks, information security,and computerized accounting software.

1.2 The importance of studying

The use of IT tools has become a challenge facing most commercial and non-commercial professions. The auditing profession is one of the most professional professions that use IT tools because of the need for speed and accuracy in confirming and transferring financial and accounting data between related parties. The internal audit function serves as an information base for the various departments and divisions in companies or business organizations, which makes them need to provide technological tools capable of providing the information required to take administrative decisions at the right time.

1.3 Objectives of the study

This study aims at creating an applicable theoretical framework based on linking the internal audit profession with IT tools. It also aims at identifying how information technology tools can be used to achieve internal auditing objectives

Previous studies

1-abu dalbooh study (2018) " **The impact of accounting information systems risks on the internal control systems in the Jordanian commercial banks**"

The objective of this study is to identify the impact of accounting information systems on the effectiveness of administrative control systems in commercial banks. It also investigates the impact of accounting information systems on the effectiveness of accounting control systems in Jordanian banks and the impact of accounting information systems on the effectiveness of internal control systems In Jordanian commercial banks,

In order to arrive at more positive results, the researcher used the analytical descriptive method, which is defined as a method of research that deals with events, phenomena and practices that are available and available for study. The study and analysis of the data by converting the qualitative variables into measurable quantitative variables in order to deal with them in selecting hypotheses and showing the results of the study And recommendations.

One of the important findings of the researcher is that Jordanian commercial banks are exposed to the risks of accounting information systems in the medium term, so that the risk of data entry is one of the most likely risks facing banks, while the risks of the outputs of the accounting information systems are less likely.

2- Alhosban, Al-Sharairi (2017) " Role of Internal Auditor in Dealing with Computer NetworksTechnology -Applied Study in Islamic Banks in Jordan" The aim of the study was to identify Role of internal auditor in dealing with computer networks technology - Applied study in Islamic banks in Jordan -. The objectives were to identify the role of the computer networks that are installed for the first time in addition to the role of the auditor in the physical components of computer networks and maintenance. The study community consists of internal auditors in Islamic banks or financial institutions, a total of 101 questionnaires were distributed and 89 questionnaires were retrieved for statistical analysis. A single sample test was used to test the hypotheses of the study. The arithmetic mean and the alpha test were used to find the internal consistency rate of the study sample. The most important results of the study: the presence of the impact of computer networks on the internal audit work environment both in the installation of the computer for the first time or provide the physical components of computer networks. The most important recommendations: The need to hold seminars and conferences using technology tools and their effects on the environment of internal auditing or external auditing or accounting environment in general.

3- Menna , etals (2017) " The implication of information technology on the audit profession in developing country: Extent of use and perceived importance This study aims to explore the impact of implementing IT on the auditing profession in a developing country, namely, Egypt.

Design/methodology/approach: This study uses both quantitative and qualitative data. A survey of 112 auditors, representing three of the Big 4 audit firms as well as ten local audit firms in Egypt, is used to gather preliminary data, and semi-structured interviews are conducted to gather details/qualitative-pertained information. A field-based questionnaire developed by Bierstaker and Lowe y(2008) is used in this study. This questionnaire is used first in conducting a pre-test, and then, the questionnaire for testing the final results is developed based on the feedback received from the test sample. Findings: The findings of this study reveal that auditors' perception regarding client's IT complexity is significantly affected by the use of IT specialists and the IT expertise of the auditors. Besides, they perceive that the new audit applications' importance and the extent of their usage are significantly affected by the IT expertise of the auditors. The results also reveal that the auditors' perception regarding the client's IT is not affected by the control risk assessment

4- **Veerankutty , etals (2018) " Information Technology Governance on AuditTechnology Performance among Malaysian Public**

Sector Auditors"
this study intends to investigate the impact of IT governance on audit technology performance. IT governance is a mechanism to stimulate anticipated behavior in the use of technology among the employees of an organisation. Surveys using closed-ended questionnaires were distributed to approximately 309 Malaysia public sector auditors. The results show that IT governance mechanisms such as IT strategy and management support significantly influence the audit technology performance. IT governance does play a significant role in assuring the successful utilisation of audit technology.

5- **Mustafa(2017) " Information Technology in Audit Processes: An Empirical Evidence from Malaysian Audit Firms**

 This paper attempts to highlight the usage of information technology for auditors at different levels and positions in audit firms in Malaysia. Factors influencing the usage of information technology in the audit processes are also investigated. Questionnaires were distributed to external auditors in Klang Valley. Descriptive statistics and regression analysis were carried out to analyze the data. Telephone interviews were also conducted to support the results. The result indicates that information technology is widely used in the audit processes. Information technology is especially used to generate the audit working papers and audited financial statements and to select samples during audit processes. The results indicate that information technology is mainly used by the senior auditors and audit managers in their organizations. The results appear to suggest that the auditors are motivated to use information technology because it helps to shorten the time of the audit process and get their job done in a more efficient manner.

2.Theoretical frame work

An IT audit is the examination and evaluation of an organization's information technology infrastructure ,policies and operations. Information technology audits determine whether IT Controls protect corporate assets, ensure data integrity and are aligned with the business's overall goals. IT auditors examine not only physical security controls, but also overall business and financial controls that involve IT systems.(Rouse , 2018)

2.1 Impact of information technology on risk assessment and analysis
Internal control is more concerned with risk and risk assessment than ever before. The main reason for this is the possibility of changing the circumstances surrounding the company and the technological developments affecting the activities and the nature of the company's business. Risk is defined from the point of view of internal control as "the circumstances of uncertainty about things having a significant impact on the objectives of the company, and these

risks are measured by the repetition formula or the great probability of occurrence." The risk is certain to occur in an IT environment when: (AlHosban , 2009)
- The skills in the company do not affect them.
- The probability of occurrence depends on a large number of observations.
- The regulatory system is weak.

The most important audit work in general and internal control in particular in the IT environment is the identification of high-risk sites for the organization. The auditor should engage with management in the risk assessment process to ensure consistency of views on those risks. Evaluate risk analysis priorities first by analyzing the risk from the auditor, then assessing the likelihood of exposure and finally determining the costs of those risks.(Rushell , 2011)

Information security aims at protecting the interests or benefits of such information for the benefit of the company, as well as protecting the information and communication systems that contribute to the delivery of such information to the concerned parties and to preserve it from weakness or footprints resulting from the failure to provide such information, confidence or integration. The following conditions must be met:(Roomny, 2015)
- Systems should be prepared and used on demand only.
- Data and information should be disclosed to authorized persons, or only those entitled to access it.
- Data and information should be protected against unauthorized modification by defining powers in the internal control system or by the company's management.

The company's audit body must have the resources to assess information security and the ability to respond to its risks. Therefore, the IT department and internal corporate control system can take the following actions to ensure information security:(Guzu, 2011)
- Safety awareness and awareness: It is made by ensuring that information technology security is under control and assess the extent to which employees know the policies and standards, and determine whether the risks of information technology are ongoing or not.
- Integrity of procedures: through the implementation of the control and documentation of information technology, and determine the authorized persons change in the data, and determine how the employee can meet the emergency in information security if occurred
- Ensuring documentation: It is done by limiting the powers to specific persons and establishing control over the operators of the systems.
- Safety passwords: The length and complexity of those words are done and not written on the sites known to employees

Most companies currently use the central computer center circuit to integrate computer networks and then link them to the employees' personal computers.

This means that the information owned by the company is authorized to any employee, whether or not it is allowed. This in turn creates or increases the risks related to computer networks, This means that it is more difficult to audit it by computer network auditors. The risks related to this type of security can be mitigated by the existence of policies and procedures that support the audit and management process and controls access to sensitive information both in terms of user and art. And control communications and data modification.(Arens , 2012)

As for the role of the internal control system in auditing the physical components of computer networks, the internal auditor must first understand the basics of networking and data communication and learning about the components of computer networks by asking technical staff questions about network design or reference to books And relevant references, and must understand that network components are constantly changing. The role of the internal auditor on the components of computer networks can be drawn from the above: (Meiryani, 2014)

- Identify the main components of computer networks and ensure that these components are in the company's stores.
- Confirm the presence of components and ensure that access to those components is only for staff authorized to access those components.
- Determine whether these components are consistent with published standards for networks and assess the development of these networks and ensure that there is strong control over them.
- Know where the maintenance process takes place inside or outside the company?
- A review of previous matters by the IT auditor gives an indication that the core components of computer networks are protected against accidental and intentional threats, and that networks can adapt to the emergency conditions surrounding the company

However, the auditor should be aware of the risks that may arise as a result of such access to information from outside the company and the possibility of leakage of information through them, in addition to the need to ensure that they are performing the duties assigned to them only and not to access prohibited sites, which means putting procedures to avoid those risks. To identify users of computer networks to increase security measures and try to mitigate risks related to computer networks and technology related to them.(dehani , 2016)

IT accounting programs can be performed by providing best practices to the auditor's work by designing those programs and selecting approved and authorized sources. Accounting programs should therefore contain information technology that:

- Providing information and data protection.

- Facilitate technology compliance with management requirements.
- Provide physical security of information through networks, determine the number of users and put passwords so that they are long and complex while trying to change them constantly.
- Identification of data security management.
- Determining the responsibility of the data user.

Auditors should be aware of the need to know how to design, develop, process, and test programs in order to ensure the sustainability and continuity of programs in the company and to determine how long these programs can remain relevant to the company's activities and activities. To determine the duration of maintenance required and to ensure the availability of suitable spare parts in addition to the periodic review to ensure the continuation of these programs as well as to identify changes that occur in the company and the surrounding environmental conditions.(Zeidi , 2012)

The internal auditor should ensure that the accounting programs have a period of maintenance and assurance and try to increase them as much as possible, as well as making sure that the necessary pieces are available for operating the accounting programs of the company and the market and the possibility of identifying the risks that may arise from dealing with these programs and the extent to which these programs are compatible with changes in activities and activities The company and ensure the security policies of information and suitability to those programs and that these programs achieve the interest of staff and provide the ability to get cadres to work and continue with these programs are ready accounting.(Abu Kamil , 2012)

3. Conclusion

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- The purpose of information security is to maintain certain benefits and use such information, information and communication systems that help to deliver this information in a timely manner, and to preserve it from the foot that often results in incompatibility, mistrust or lack of integration. The most important of which is accountability and understanding of its importance.
- The technological developments make accounting programs always need to be modified and developed to suit the nature of the company's business and developments in the environment in which it operates, which means the need to rely on the providers of programs and increase the guarantee and the possibility of modification if necessary and increase the maintenance period.
- IT has created significant activities and processes that have increased the importance of internal audit and control. The increase in business and transactions has led to the risk that the Internal Auditor will not be able to

audit all operations. This in turn requires increased training of staff in general and internal control personnel in particular.

- All information requires tools to be transferred among employees or authorized to receive and deliver such information. Information technology requires that such information be communicated to the relevant parties in a timely manner so as not to lose its validity. Therefore, the best way to transmit such information is to verify the computer networks. Of their reliability and suitability for information and information security.

- The instructions issued to the internal auditor should be clear and understandable and focus on issues affecting the job, such as: the impact of globalization on the company, the impact of information technology, and the expansion of services provided against official certificates.

- The Department of Internal Audit recognizes that its most important needs are the human resources which have the scientific knowledge of the audit rules and the personal competencies assigned to the audit authority. As the use of information technology increases and its impact becomes more important, And extends to understanding the components of financial programs and the use of information networks.

- Technological developments have emphasized the need for specialization in a particular field. This means that people who are familiar with auditing and information technology can be found and have a number of skills so that they can quickly identify the opportunities and risks of technology to the company. In general, the specialists in accounting and auditing, especially in the field of information technology Both for internal and external auditors.

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