

## THE ROLE OF ELECTRONIC ACCOUNTING SOFTWARE IN STRENGTHENING THE INTERNAL CONTROL SYSTEM AND ITS REFLECTION ON THE QUALITY OF INVESTMENT DECISIONS

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A B S T R A C T	KEY WORDS
<p>The study aimed to obtain an opportunity to obtain an opportunity to obtain the results of the research, and to link them with high quality. The study population consisted of (150) employees, the study sample included (150) male and female employees working in the bank. The number of questionnaires retrieved and valid for analysis was (130) questionnaires from senior management managers, accountants, auditors, and accounting profession employees. The study concluded that the number of males in the study is greater than the number of females. The researcher attributes the high number of males compared to the number of females in the study community to the bank's interest in attracting male employees, since the majority of the work required to be implemented is field and technical work and requires physical effort, and that the level of electronic accounting programs in the Industrial Bank of Iraq was high, and that the level of quality of investment decisions was high and that The level of the internal control system was average.</p> <p>The study recommended the need to disclose the effectiveness of the internal control system and show its strength and effectiveness to ensure the credibility of electronic accounting programs and the need to update the programs used by specialists on an ongoing basis in the Industrial Bank of Iraq. And the necessity of coordination between electronic accounting programs and the work of periodic maintenance procedures for them. And the need to provide infrastructure in the Industrial Bank of Iraq. Statistical analyzes were conducted to describe the characteristics of the study sample using the statistical program (SPSS). The frequencies and percentages of the study sample, the arithmetic averages and the standard deviations were calculated. The regression equation (multiple regression analysis) was used to test the hypotheses. The Cronbach alpha coefficient was used to ensure the stability of the study tool.</p>	<p>Electronic accounting Software,strengthening the internal control system, the quality of investment decisions, Iraq.</p>

## Introduction

Our current world is witnessing a great change, and this change has been accompanied by very rapid technological progress, and the effects of this progress are reflected in all aspects of economic and social life, especially the work sectors, commodity production and service provision, which prompted an increase in competitiveness between the banking sectors in terms of technology, until technology for some banks became The basic means that enable the development and improvement of services.

The banking sectors are of high relative importance due to the active role they play and contribute to human development on a large scale, and this calls for the introduction of the role of information technology, which may constitute a scientific basis and a basic building block for the banking sector, and this calls for the creation of new capabilities within the country that will change the sectors Business at all levels, thus contributing to the development of the country and keeping pace with the world.

Iraq, in particular, and after its exit from the period of the blockade imposed on it in 2003, witnessed a set of changes that pushed towards openness to the countries of the world and keeping pace with globalization, as the widespread integration in the commercial scale and an increase in the number and diversity of institutions and an increase in their resources prompted the science of accounting, being one of the social sciences, to keep pace with that development. However, this development was not without stumbling or crises, including the financial crisis that occurred in the year 2008 as a result of mistakes, whether they were intentional represented by functional fraud and embezzlement fraud, which were called financial crimes, or unintentional as a result of a functional error, which led to the collapse of companies with weight Mali, and according to a report prepared by the United Nations in 2010, in which it declared that typical institutions lose 5% of their revenues as a result of financial crimes (Maruschak, L. 2021).

## The study Problem

The Islamic Industrial Bank suffers from the problem of poor use of information technology in the bank, which may negatively affect the quality of the outputs of the Islamic Bank of Iraq compared to other countries in the region and the world. Here, information technology contributes to the use of electronic accounting programs in improving the quality of services provided by the Islamic Bank of Iraq through a study The case of the use of information technology in the bank, as (Al-Shaher, Hussein, 2022) and (Elias, 2018) explain, due to the tremendous developments in technology, there is a need for institutions to keep pace with it, especially in the field of accounting business, as not relying on an accounting information system is based on Accounting programs on the computer lead to delays in the completion of those accounting and financial activities for the beneficiaries, and thus the lack of sufficient information for the beneficiaries.

We find it necessary to have an accounting information system that collects and processes data from its various sources and delivers information to the beneficiaries in order to exercise the function of planning and controlling accounting operations, solving accounting problems, as well as making decisions.

While (Liu, 2016) indicates that companies that apply electronic accounting work are reflected in their control systems and other means in making some changes that would provide reliable information that can be adopted by investors in building their decisions.

**Therefore, the problem can be formulated as follows:**

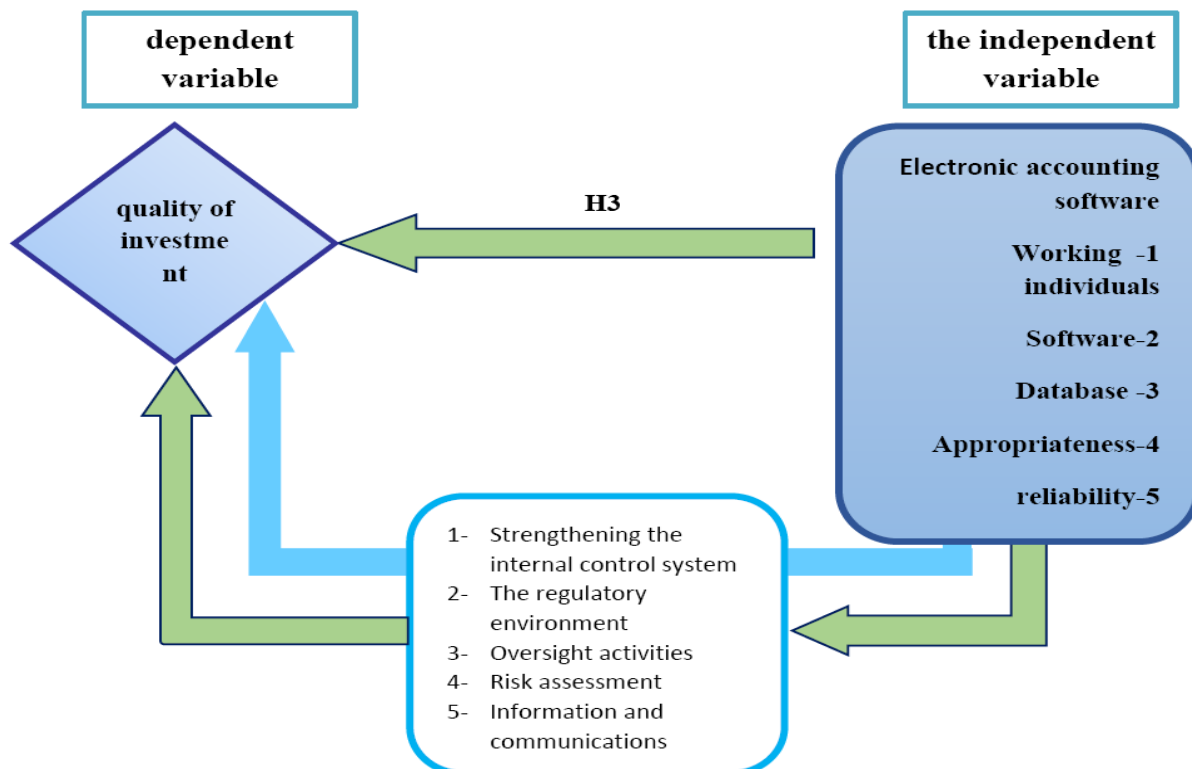
- 1- What is the extent of the role played by those in charge of electronic accounting programs in achieving the quality of investment decisions?
- 2- To what extent do those working on electronic accounting programs have the qualifications, experience and skills in resolving cases of lawsuits against institutions by investors?
- 3- What is the extent of the role played by workers in electronic accounting programs in strengthening the internal control system?
- 4- What is the extent of the relationship between the dimensions of internal control systems and the quality of investment decisions?

**Objectives of the study**

The objectives of the study are summarized in the following:

- 1- The study aims to identify the extent of the role played by those in charge of electronic accounting programs in achieving the quality of investment decisions.
- 2- The study aims to identify the extent to which employees of electronic accounting programs have qualifications, experience and skills in resolving cases of lawsuits against institutions by investors.
- 3- The study aims to identify the role played by workers in electronic accounting programs in strengthening the internal control system.
- 4- The study aims to identify the extent of the relationship between the dimensions of internal control systems and the quality of investment decisions.

**Study outline**



### **study hypotheses**

The researcher relied on a set of main and sub-hypotheses, which is a temporary answer to the questions presented and expressive of the studied problem. The hypotheses were identified as follows:

**The first main hypothesis: There is a significant effect of electronic accounting programs on the quality of the investment decision.**

**The following sub-hypotheses are derived from this hypothesis:**

- There is a significant effect of working individuals on the quality of the investment decision.
- There is a significant effect of the software on the quality of the investment decision.
- There is a significant effect of the database on the quality of the investment decision.
- There is a significant effect of appropriateness in the quality of the investment decision.
- There is a significant effect of reliability in the quality of the investment decision.

**The second main hypothesis: There is a significant effect of the internal control system on the quality of the investment decision at the macro level.**

**The following sub-hypotheses are derived from this hypothesis:**

- There is a significant effect of the regulatory environment on the quality of investment decisions.
- There is a significant effect of control activities on the quality of investment decisions.
- There is a significant effect of risk assessment on the quality of investment decisions.
- There is a significant effect of information and communication on the quality of investment decisions.
- There is a significant effect of monitoring and control on the quality of investment decisions.

**The third main hypothesis: There is a significant effect of the quality of investment decisions in the relationship between electronic accounting programs and the strengthening of the internal control system.**

### **the importance of studying**

The importance of the study is evident in two aspects:

#### **1- Theoretical side:**

The importance of electronic accounting programs lies in improving the nature of the institution by providing information to investors and those interested in the data of those institutions, as well as restoring confidence and reassurance to the investor public that there is no misleading financial reports by supporting the internal control system to achieve transparency in the disclosure of financial information.

With regard to strengthening the internal control system, electronic accounting programs help push institutions towards applying these systems fully and in all their dimensions. Thus, electronic accounting programs will have the final decision to produce information closer to reality and follow up on reports on the internal control system and the work of those systems and their effective involvement within the institution, which achieves the provision of More reliable financial reports that achieve investor confidence.

#### **2- The practical side:**

The importance of the practical study lies in the nature of the results it reached through activating the electronic accounting programs as the real party responsible for providing real information, and the electronic accounting programs have a role in helping data users for the purpose of making investment decisions in a way that guarantees the credibility and accuracy of the information.

### **The third topic: the methodology and objectives of the study**

#### **Study methodology**

The methodology of the study includes each of the study variables and their measurement methods, the study population and the sample, the data collection method, the data required for the study and its sources, and the statistical methods used in data analysis. This is as follows:

1- Study variables and methods of measuring them: The variables of this study are divided into the following:

#### **A- the independent variable: electronic accounting software**

In measuring the variable of electronic accounting programs, the researcher will rely on each of (Al-Sharida, Al-Samarrai, 2021), (Karfou' and others, 2016) and (Al-Tatter, 2015), which includes the following dimensions:

personnel, software, database, suitability, reliability.

#### **B- The mediating variable: evaluation of the internal control system**

In measuring the internal control system evaluation variable, the researcher will depend on the study tool, which is (the questionnaire), which includes the following dimensions: (control environment, control activities, risk assessment, information and communication, monitoring and control.

#### **C- The dependent variable: the quality of investment decisions**

In measuring the quality of investment decisions, the researcher will depend on the study tool, which is (the questionnaire).

#### **Terminology of study**

In the following, a theoretical introduction can be reviewed that includes the basic concepts of the research, which are electronic accounting programs, evaluation of internal control methods, and reliability of integrated reports.

#### **1- Electronic accounting software.**

(Romney M.B & Steinbart Pj, 2015) defines electronic accounting software as "a set of systems that depend on the physical and human element, to carry out operations on financial data in accordance with generally accepted accounting standards and laws in order to provide more accurate information that helps management and users to make decisions".

#### **2- The internal control system.**

The Committee Of Sponsoring Organizations (COSO) defines the internal control system as "the set of processes implemented by senior management, the board of directors and other employees within the organization with the aim of achieving goals in the following categories (Janvrin, Diane J., et al, 2011)

- Effectiveness and efficiency of operations.
- Reliability of reports.
- Compliance with applicable laws and regulations.

#### **3- The quality of investment decisions.**

These are the rational investment decisions that an audience of investors take with the aim of achieving the planned goals (Ben Rahmon, 2018).

## **The second topic: a review of previous studies**

### **Previous studies**

The researcher will review some of the literature presented in the field of research by reviewing some Arab and foreign studies that dealt with the subject of the research or some of its aspects. Identify the research gap.

### **Studies related to electronic accounting programs**

#### **A- study (Maruschak, 2021) entitled: Accounting Software in Modern Business.**

The study aimed to investigate the functions and characteristics of accounting software to facilitate the choice between a variety of similar products and analyze their pros and cons that could affect the performance of companies. The authors classify accounting software according to its capabilities to serve different administrative purposes. Because accounting software has hundreds, some even thousands, of features, the aggregation method gives the possibility to categorize similar models that may fit a company's specific requirements of size, cost, customization, formats, deadlines, models, and suppliers. Observing and comparing data has shown that cost accounting software is crucial to making the right decision. As the global accounting software market tends to abrupt change in electronic accounting, which makes it impossible to predict the future behavior of accounting software users. To determine the objectives of this research, statistical procedures are performed. The results received can help potential users of accounting software products to select the appropriate product based on the advantages and disadvantages listed among the best sellers Allocation tools, forex dealing, financial and management reporting system and analytical capabilities. The lack of previous research studies on the topic and the lack of available data greatly restricted the scope of the analysis. The obtained results gave the possibility of identifying the main elements in the formation of the list of features necessary to make the right choice of accounting software products. Facts have shown that managers, who do not think about the specific needs and features of accounting software, face the problem of inconsistency with company requirements. The research is based on theoretical and experimental data. To collect the necessary data for the research there a quantitative approach was used. The analytical method helped to analyze and evaluate the factors that can be considered and that must be taken into consideration when selecting the most appropriate accounting software process for companies. The research is dedicated to the problems associated with the uncertainty that is appearing in the accounting software market. This research adds new knowledge to the field of accounting, where there was a theoretical and practical refutation of the knowledge of accounting programs.

#### **B- study (Wahab, Maash, 2021) entitled: Accounting information systems and their role in designing cloud accounting applications and their impact on decision-making.**

The study aimed to identify the concept of accounting information systems and the important role it plays in designing cloud software applications, through easy access to the accounting and administrative data required for any level of management, and for the purpose of achieving the objectives and hypotheses of the research, a cloud accounting program was programmed and designed using databases and monitoring the results. The results of the research showed that the adoption of accounting information systems in cloud programs reduces transmission and writing errors, because the operations from entries to financial results are done automatically, and the adoption of databases in cloud programs affects the results, as the recall of the results that have been entered Be smooth and easy to use, and research recommends cloud software designers to adopt databases in cloud software design because it facilitates



### **Studies related to the internal control system**

#### **A- Study (Otero, 2021) entitled: Accounting Environment: Ranking of Internal Controls to Safeguard Accounting Information and its Integration with IT Operations.**

Cybercriminals continue to target organizations' accounting information mostly because of its sensitivity and high value. This leads to huge losses affecting the confidentiality, integrity and availability of this information. General Information Technology Controls Related to Computer Operations or GITC-CO are essential to ensuring the security, integrity, completeness and reliability of accounting information. The aim of this research is to develop an assessment methodology, based on traditional systems theory, that will appropriately address the weaknesses identified in traditional assessment methodologies, leading to more accurate selection of controls. Through case assessment, the approach has proven successful in providing a more accurate and complete assessment of GITC-CO in organizations.

#### **B- study (Al-Samarrai, 2016) entitled: (The Impact of the Internal Control System on the Quality of Financial Reports).**

This study aimed to demonstrate the effect of the internal control system on the quality of financial reports in the Jordanian pharmaceutical companies listed on the Amman Stock Exchange. The study population consisted of the Jordanian pharmaceutical manufacturing companies listed on the Amman Stock Exchange for the year (2016), which numbered (6) companies. on the Amman Stock Exchange.

### **Studies related to the quality of the investment decision**

#### **A- Study (Wang & All, 2015) entitled: Financial Reporting Quality, Free Cash Flow, and Investment Efficiency.**

This paper is based on examining the relationship between the quality of financial reports and investment efficiency and analyzing the effect of the interaction between financial reporting and free cash flow on investment efficiency. We used 3,726 samples of Chinese listed companies during the period 2008-2012 to test empirical models and found that the quality of financial reporting is negatively associated with both underinvestment and overinvestment. Moreover, we found that the quality of financial reporting is strongly associated with overinvestment for companies with large free cash flow, suggesting that the quality of financial reporting can reduce information asymmetry caused by agency conflicts between managers and investors. This research extends to the application of quality financial reporting and investment efficiency in emerging capital markets in the world. Moreover, this is the first study to analyze the effect of the interaction between financial reporting quality and free cash flow on investment efficiency.

#### **B- study (Shahera, Naziha, 2018) entitled: Improving investment decisions using the quality of financial information.**

The study aimed to identify the extent to which financial information contributes to improving the quality of investment decisions, and this is what financial information gains importance in making investment decisions. This topic aims, through the descriptive analytical approach, to try to identify investment decisions and the elements of investment decisions, its stages and objectives, as well as the factors affecting it.

### **Commenting on previous studies and identifying the research gap**

#### **Through the previous studies that were presented, the most important results can be reached:**

The researchers indicated through previous studies that they agreed in terms of variables. They used the variable (electronic accounting software) and they were applied in different fields, including public

shareholding companies, so that the researcher could start in his study in terms of the endings that were touched upon by previous studies, complementing that and relying on showing what is new and different. What the previous studies came up with and benefiting from the measurement indicators that the researchers adopted in their studies. With regard to the variable of internal control systems, many studies have been collected and applied in more than one place and dealt with many variables that have a positive and negative impact on internal control systems.

With regard to the quality of investment decisions, the research has dealt with many studies related to the variables that affect the quality of investment decisions, in addition to the impact of those decisions on the variables, that is, what you can get from the quality of investment decisions and what you can reach through it to the quality of the financial statements.

Accordingly, the researcher was able, through the previous studies, to obtain a quantity of information regarding the study variables and the measurement indicators for those variables, in addition to the goals and results reached by those studies. The gap in this study lies in the results it will reach through the method of linking the variables of the study, which is (the role of electronic accounting programs in strengthening the internal control system and its reflection on the quality of the investment decision), which was not raised in most cases in a previous study through the field of work that will be dealt with in this study. The study is a public shareholding company.

**The second chapter: The theoretical construction of the relationship between electronic accounting programs and their effects on the quality of investment decisions through the mediating role of strengthening internal control systems.**

## **1.2 The first topic: electronic accounting**

### **1.1.2 Introduction**

The nature of the world in which economic blocs prevail, the growing volume of electronic business, the magnitude of investments and the amazing progress in information technology based on the use of computers, so the electronic accounting information system is one of the important controls in technological progress, and electronic accounting has witnessed many fundamental changes and the reason for this is due To the change in the commercial and industrial environment and the technology of computer devices that have a high capacity to process a huge number of accounting operations in a short period of time, in addition to that this advanced technology, which has become available at the lowest cost, has enabled the management to save and process large-scale data used in decision-making without increasing From the production cost of the institution and during all stages, this application contributed to a significant degree in the performance of the work of the specialized auditing authority, as the auditing related authorities seek to activate the role of the profession through the accounting standard application that gives a sound and effective character to the preparation of useful reports that obligate institutions to the emerging decisions In order to follow an accurate accounting approach that guarantees success and continuity in light of major economic challenges (Haddadi et al., 2018).

### **2.1.2 The concept of electronic accounting.**

Electronic accounting has been defined as "the practical application of computer uses in the field of accounting in general, and it has made the mechanism of recording and processing operations very quickly and accurately. These uses have developed so that they have become systems linking the various components and departments of the enterprise to create integration among them and to facilitate work within the enterprise as a whole and through these Systems The procurement elements are linked to inventory, human resource management and customer service" (Al-Hussein, 2013).



Anis and Omar (2016) defined electronic accounting as a set of elements resources (individuals, equipment, machines, funds, records, and others that are linked and homogenous that interact with each other within a specific framework (without the system), working as a single unit to achieve these, or a set of goals Under general conditions (the system environment) they are routinely monitored by administrators.

The researcher believes that electronic accounting is to take advantage of technological and electronic means in data collection, storage and processing in all its forms, whether printed or intended, audio or laser-processed, and then transmitted and retrieved in order to achieve more effective and efficient management to achieve the desired goals.

### **3.1.2 The importance of electronic accounting.**

The accountant needs to expand the scope of the idea from the concept of traditional accounting to the concept of accounting using the computer, in order to be able to deal with accounting in an easier and more effective manner, and since all companies seek to improve the level of work performance in them, and these programs allow to significantly increase their efficiency, through what it provides Of special skills for all that is new in the field of accounting. There is no doubt that the principle of electronic accounting helps in increasing the accuracy of accounting data. This principle entails that the data, when entering the accounting cycle, is written once and is achieved once, after that it goes in its orbit in the accounting cycle with less Human effort without need to rewrite it again, electronic machines do not make mistakes, or at worst, the possibility of error is very weak when compared to the case of the employee who wrote it, so the principle of writing data once requires writing the same process once, and this principle excludes the possibility of human error and helps I have to achieve the accuracy of the accounting data, and there is no doubt that it helps in saving the time required to implement the accounting process (Ibrahim, 2021.)

### **5.1.2 Dimensions of electronic accounting.**

Electronic accounting has several dimensions that make it more efficient than traditional accounting. These dimensions are as follows: (Khasheef, 2022).

- 1- The feature of automation in electronic accounting on computer applications and the operation of the Internet with all its capabilities, and fetching accounting data from databases to process them by applying the advanced forms to them through the computer to achieve accounting goals.
- 2- Areas of modern knowledge based on other fields such as computer science, networks, communications, statistics, accounting and information systems.
- 3- Globalization in electronic accounting has international dimensions based on the use of the Internet information network to bring information at any time and from anywhere in the world linked to this economic network in the use of the best alternative to the method of accounting education.

**There are other dimensions of electronic accounting as follows: (Al-Taie and Mohammed, 2017)**

- 1- **Individuals:** that individuals are an essential element in the formation of any information system, and these individuals can be divided into:
  - A- Users: They are the individuals who use the system, or the information produced by the system, who can be accountants, salesmen, engineers, customers, or managers.
  - B- Systems Analysts: They design the system based on the informational requirements of the end user.
  - C- Software developers: They prepare computer programs, in light of the specifications provided by systems analysts.

**D-** System operators: They assist in monitoring, managing and operating various computer systems and networks.

**2- Hardware:** Devices mean the physical components and media used in the operations that data and information go through. Hardware or hardware components do not only include the computer, but also include all tangible media and objects on which data and information are recorded, such as: magnetic or optical disks, and the computer system. Automation, which consists of four basic components:

**A-** Input Units: - It is a set of units that are used in entering accounting data, programs and orders.

**B-** The Central Processing Unit: - It consists of the arithmetic and logic unit. This unit specializes in organizing the relationship between all computer units by directing the implementation of the data flow, processing and output. It consists of a unit of the main memory unit for processing. The output unit performs the required operations and receives the results as well.

**C-** Output units: It is a group of units through which the results extracted as a result of the operations performed on the data can be viewed, and the most common means are: the visual display (screen, printer attached to the computer, in addition to many other means.)

**D-** The additional storage unit (secondary memory): It is used to save information or results outside the computer for a long period of time, such as: CDs, magnetic disks, and others.

**3- Software:** which includes all types of instructions required in data processing, including operating system groups, which direct and control the physical components of the computer, and are called programs. There are two types of system software, which are: (Naguib et al., 2019)؛

**A-** Operating system programs: which are on the computer system and provide the required support for it, such as (Dos) and Windows (Windows).

**B-** Application programs: These are programs that direct procedures and operations for specific computer uses by the end user, such as: (statistical analysis programs, electronic spreadsheet programs, word processor programs).

**4- Data:** It is more than raw materials for information systems, and data is a resource of high value in the economic unit, so it should be invested and managed effectively in order to secure its benefit to the end user in the economic unit.

**5- Databases:** The accounting database represents a group of files that are logically linked to each other and stored in an organized manner that facilitates access to application programs in order to process the data contained in these files.

**6- Appropriateness:** In order for the accounting information system to be useful, it must be appropriate for the purpose for which it was prepared. Appropriateness is a major requirement for information to benefit from in evaluating administrative policies, drawing up plans and controlling them, and contributing to achieving the organization's goals. It is considered appropriate and important if it is disclosed or The absence of an impact on the decision of users of this information, has described the American Association of Accountants criterion of appropriateness as "the basic criterion for choosing between alternatives accounting information".

**7- Reliability:** That is, the accounting information should contain a degree of verifiability or objectivity based on sufficient evidence, or be free from bias that may result from the use of inappropriate methods in obtaining accounting information, or be prepared according to desired by the decision-maker in the organization.

## **2-2 The second topic: the quality of investment decisions**

### **1-2-2Introduction**

The concept of the quality of rational investment decisions is based on the principle of economic rationality, on which economics is mainly based, as it is assumed that the investment decision-maker is characterized by the ability to properly dispose of the available scarce resources, i.e. the process of researching how to use economic resources in the best possible use, which have many uses. Where it reaches the employment and investment of those resources in the activity or project that gives the largest possible return on investment, taking into account the opportunity cost or lost or sacrificed opportunity (Barhayili and Zubair, 2018).

The quality of investment decisions is a preliminary step for choosing the available investment alternatives in order to achieve the greatest possible return. The mechanism of the investment project decision-making process takes place through stages starting with the technical study, which include the conditions for realizing this project, and the extent to which the investment project responds to the decision to be taken, and this is in accordance with the available capabilities. As for the second stage, which is the most important stage in the mechanism of the investment decision process, and determining the financing pattern that allows the realization of the project, the final decision remains based on the first stage (Barhayili and Zubair, 2018)

### **2-2-2The concept of the quality of investment decisions**

Al-Bashir defines the quality of investment decisions as “the optimal employment or use of capital. Investment involves directing the accumulated savings or wealth to productive uses that can fill the economic need and at the same time is expected to produce a return” (Al-Bashir, 2017).

The quality of investment decisions can also be defined as “that decision that is based on choosing the investment alternative that gives the closest investment return from at least two alternatives, and that is based on a set of studies that precede the selection process and go through several stages that end with choosing the viability of this alternative for implementation within a specific methodological framework according to the objectives The investment project” (Boukouma and Osmani, 2019).

The researcher believes that the term investment and investment decisions are related to different activities, but the main goal is to employ money over a period of time to enhance the investor's wealth, and that the investment decision is a preliminary step to choosing the available investment alternatives in order to achieve the largest possible return and the lowest risk.

### **3-2-2 The importance of the quality of investment decisions.**

The importance of investment is due to the need for each individual to possess sufficient experience that enables him to achieve returns compared to the level of risk that he is willing to bear. Therefore, knowledge of investment principles and the foundations of investment portfolios helps in wealth management. On the other hand, the study of investment produces skills in a field that helps to join In the fields of jobs available in various financial institutions, we find that investment needs specialists in the field of investment to participate, for example, in the sale of new securities or mergers and acquisitions, in addition to the above, we need specialized experts for the purpose of preparing reports that are presented to customers to help them make a decision Decisions such as decisions to buy or sell securities. As for insurance companies, they own investment portfolios and need a continuous evaluation of the assets in the portfolio. Therefore, investment funds need financial analysts to evaluate

available securities and make buying and selling decisions. Therefore, studying investment helps to join a large number of jobs. In the financial institutions sector (Mukhtar, 2020).

### **3.2The third topic: internal control**

#### **1.3.2Introduction**

Due to the developments that have taken place in the field of business in general, and the areas of accounting and auditing in particular, the internal audit has evolved to become broader and more comprehensive, as it includes all areas of the company's financial and operational work, due to the large size of the companies and their geographical expansion. The complexity of operations, the decentralization of management, and the rapid technological changes, as the need has increased It is due to the external auditor's reliance on statistical samples and the occurrence of a great focus on the phenomenon of financial fraud, fraud and manipulation, and also contributed to the development of internal auditing by the financial scandals that rocked a number of major institutions in the West, such as Enron in the United States of America and Abram Company Italian machines and other companies (Shoaib et al. 2022).

The researcher believes that the function of the internal chest is one of the important functions in the organizations today, in view of the great expansion in the pilgrims, and the great developments that occurred in the financial and administrative fields, and the increase in the opponent between the organizations and through this chapter, we will be overwhelmed to an advance of the interior.

#### **1.3.2The concept of internal control**

The American Institute of Auditors defines internal auditing as “an independent, confirmatory, objective, consultative activity designed to add value to the organization and improve its operations. As for the Committee of Organizations Sponsoring the Integrated Internal Control Framework, it defined it: “It is a process affected by the board of directors of the institution, designed to give reasonable assurance about the institution's achievement of its goals in The following aspects are the efficiency and effectiveness of operations, reliance on financial reports, and compliance with applicable laws and regulations (Salhi, 2016).

(Wardat et al., 2021) is also defined as an independent evaluation activity that is established within the organization to audit operations as a service to management and works to measure and evaluate the effectiveness of other control methods.

Internal auditing is a work carried out by persons, an organization, or auditors affiliated with the establishment, in order to be reassured by the management of the establishment on a regular basis, on the proper functioning of the work and the protection of the establishment's funds, and to achieve the goals of management in the greatest possible production and administrative efficiency, and to encourage adherence to administrative policies (Abdul Razzaq et al., 2021).

The researcher believes, through these previous definitions, that it can be said that “internal audit is an independent work carried out by qualified persons or bodies belonging to the organization in order to ensure the correctness and integrity of operations and financial statements in order to achieve the goals of the organization.

### **2.3.2 Importance of internal control**

The reason for establishing an internal control system in organizations is to help them achieve their goals, and the system contains a set of policies and procedures that are designed to provide management with appropriate assurance that the basic goals of the organization will be achieved, and the report of the Audit Procedures Committee of the American Institute of Certified Public Accountants indicates The increasing interest in internal control is due to the following factors (Odeh, 2018: (

A- The increasing scope and size of organizations, which led to the complexity and complexity of their organizational structures, and in order for operations to be effectively monitored, management should rely on many reports and analyzes that have a high degree of reliability. Management bears primary responsibility for preserving the organization's assets and preventing any errors. The discovery of embezzlement, and therefore the maintenance of an efficient system of internal control, is indispensable and the administration relies on its blindness in fulfilling this responsibility.

B- From a practical point of view, it is impossible for the external auditor to conduct a detailed audit of most organizations within the limits of reasonable economic fees, and to rely on test auditing, rather than a comprehensive audit, and therefore it was necessary from the outset when dealing with operations to have the proper controls provided by the internal control system. .

The researcher believes that the importance increases with the complexity of the accounting and administrative systems, and the distance between operations and transactions from the view of the senior management, as it is difficult to control the executive departments and departments and follow them directly.

### **4.3.2 Dimensions of internal control**

We can learn about the dimensions of auditing through the following definitions, which we will summarize as follows (Al Taoist, 2019).

A- uditing is a regular process that depends on thought and logic. Therefore, it is considered an activity that must be planned in advance, and the implementation process must be systematic and not random.

-The necessity of obtaining evidence and clues that are evaluated objectively, and this is considered the essence of the audit process, and it is the basis upon which the auditor relies in expressing his opinion on the financial statements of the institution.

Auditing includes expressing an opinion or issuing a judgment. Hence, it is necessary to develop a set of standards that are used as a basis for evaluation and personal judgment. On the one hand, these standards and generally accepted accounting principles that are used as a criterion for judging the integrity of the data under study.

Communicating the results of the audit to the concerned parties. Therefore, the audit represents a means of communication in terms of examination, study and delivery to the concerned authorities on the report that includes his opinion. The auditor relies.

We note that the internal control system is based on the following dimensions (Hamidat et al., 2022)

1- Examination: that is, examining accounting data and records to ensure the correctness and integrity of the transactions that were recorded, analyzed, and classified.

2- Investigation: which is the judgment on the validity of the final financial statements for the correct expression of the result



**The fourth topic: the relationship between electronic accounting programs in strengthening the internal control system and its reflection on the quality of investment decisions**

The computer has played an essential role in the processing of accounting data, as many companies have moved to electronic accounting, depending on their activities. This is what requires auditors to be scientifically and practically qualified to carry out their job with high intention. Despite the technological developments that have taken place, auditing as a science has not changed in terms of its nature and purpose, and the burning change and the methods used to audit electronic accounting systems, and the evaluation and activation of the internal control system (Lammari and Zaidan, 2015).

Also, the auditor cannot rely on any of the auditing methods separately, but he must make an integration between the methods he uses in the light of the experiences and skills that are available in him and in the audit team, as well as in light of achieving the objectives of the audit process in the least possible time and at the lowest cost, and the nature of The electronic accounting information system in place of auditing (Lamari and Zaidan, 2015).

The objectives of the internal control system will not change, whether the method followed in data processing is manual or electronic, as the goal of protecting the assets of the unit remains present and has been added to it to protect the assets of information technologies from any misuse or theft and to take all measures that would protect and preserve them from unauthorized access With regard to the goal of obtaining accurate and sound data, it exists in an environment that uses information technologies, and that the control procedures used have paid great attention to this goal through several effective control methods, as protection measures are put in place on the data from the beginning of its entry into the system by setting procedures It would specify the persons authorized to enter the data and the persons who are allowed to make modifications and additions to it and the existence of procedures to revise it before starting the process of operating and processing it as well as setting a number of control methods that are implemented during the data processing process and that is by making sure that the approved programs are the ones that are being worked on and that the documentation process is in place In a clear and detailed way, and any modifications to programs and processes are only made with the presence of approval and authorization for specific people, in addition to the concern that the information resulting from the data processing process is not allowed to be viewed except by authorized individuals, and the goal of adherence to policies, procedures and instructions has not changed if there are methods control to carry out the task of achieving this goal through the many procedures that are used, the most important of which is the development and drawing up of policies, instructions and guidance by the unit management that the workers must abide by, in addition to the existence of a guide to job descriptions as well as one of the important procedures is the separation of jobs within the unit and the identification of powers, authorizations and responsibilities. Performance evaluation exists by monitoring the outputs and comparing them with what is required through user control. In addition to all of this, the presence of preventive, warning and remedial monitoring at all stages through which the operations go through would enhance the effectiveness of the internal control system (Al-Shuraida and Al-Samarrai, 2021).

From the foregoing, the researcher believes that the methods of internal control are the ones that have undergone change and addition. As for the objectives of internal control, they have not changed. By using information and communication technologies, achieving the objectives of the internal control system will be at the lowest time, effort, and cost. The outputs that will be obtained are characterized by a high degree of accuracy, clarity, completeness, and the required time. One of the fundamental

differences that occur in the methods and procedures of internal control is in the process of applying them, as the majority of control procedures are applied in electronic systems through physical techniques, while in light of manual systems they are applied by the human element only, and with regard to the data processing process, the use of Information technologies lead to the operation of all data in a unified manner and therefore it is less prone to errors than the manual operation of data, which is subject to the human factor.

### **3-3The study population and its sample.**

The study population consists of workers in the Industrial Bank of Iraq, as the number of employees reached (150) workers, both male and female, including expert accountants, auditors, account officials, accounting staff, a group of lawyers and professors. Higher managements are expert accountants, auditors, and accounting profession employees.

### **5-3study procedures**

To achieve the objectives of the study, the researcher conducted the following:  
Select the study population and sample members.

-The study tool was built, and its validity and reliability were verified. The study tool (questionnaire) consisted of four sections, the first section: (demographic variables), the second section: (electronic accounting programs), and the third section: (the quality of investment decisions). The fourth section dealt with: (internal control system.)

-The respondents' responses to the questionnaire were emptied into the computer's memory, and statistical analyzes were conducted using the statistical program (SPSS)

### **6-3The statistical methods used**

- 1- Statistical analyzes were carried out using the statistical program (SPSS.)
- 2- Frequencies, percentages, arithmetic means and standard deviations.
- 3- The regression equation (multiple regression analysis) was used to test the hypotheses.
- 4- The hierarchical regression equation was used.

### **2.4Describe the characteristics of the study population**

This part shows the results of the analysis related to the data related to the study population and its distribution according to demographic and functional variables, which included gender, age, scientific experience, educational level, and job title. Frequencies and percentages of the characteristics of the study population members were extracted, and the results were as shown in The following tables:

The sample of the current study was (130) male and female employees from the Industrial Bank of Iraq, and the following tables show

### **3.4Results related to the study questions**

This chapter deals with a presentation of the results reached by the researchers through the response of the study sample members about the role of electronic accounting programs in strengthening the internal control system and its reflection on the quality of investment decisions, according to the study's questions and hypotheses.

**The first question:**

What is the level of activation of electronic accounting programs in the Industrial Bank of Iraq?

To answer this question, the arithmetic means and standard deviations were calculated to activate the electronic accounting programs in the Industrial Bank of Iraq, as they were as follows:

Table (3) Arithmetic means and standard deviations for activating electronic accounting programs in the Industrial Bank of Iraq arranged in descending order according to their arithmetic averages

the level	standard deviation	SMA	The dimension	the number	Rank
high	.443	4.18	working individuals	1	1
high	.448	3.87	reliability	5	2
high	.475	3.82	convenience	4	3
middle	.862	3.46	Database	3	4
middle	1,171	3.30	software	2	5
high	.335	3.73	Electronic accounting software		

Table (3) shows that the arithmetic averages ranged between (3.30-4.18), where the working individuals came in the first rank with the highest arithmetic mean of (4.18), while the software came in the last rank with the arithmetic mean of (3.30). Electronic accounting programs as a whole (3.73)

**Second question:**

What is the level of quality of investment decisions in the Industrial Bank of Iraq?

To answer this question, the arithmetic means and standard deviations were calculated for the quality of investment decisions in the Industrial Bank of Iraq, as they were as follows:

table (5)Arithmetic means and standard deviations of the quality of investment decisions in the Industrial Bank of Iraq arranged in descending order according to their arithmetic means

the level	standard deviation	SMA	paragraphs	the number	Rank
high	.684	4.18	The investment decision includes allocating some of the economic resources currently available in order to create new .productive capacities	17	1
high	.695	4.17	Industrial The data and inputs in theRank a basic pillar for the validity of of Iraq are the results in order to obtain them inand .accurate and reliable manner	26	2
high	.609	4.03	Market analysis and forecasting the Industrial volume of revenues in the according to measuring the , Bank of Iraq gap between supply and demand in the market, are among the factors .influencing investment decisions	22	3

the level	standard deviation	SMA	paragraphs	the number	Rank
high	.821	4.01	Industrial Investment decisions in the always linked to the Bank of Iraq are .long term	31	4
high	.832	4.01	The senior management of the Industrial Bank of Iraq takes the decision-making .process	33	4
high	.698	3.91	Industrial Investment decisions in the .significant funding Bank of Iraq need	16	6
high	.707	3.89	looking for Industrial Bank of Iraq is ,sources of financing, such as borrowing issuing bonds, or issuing shares for .public subscription to increase its capital	20	7
high	.714	3.89	lead to bearing The investment decisions in the event of Industrial Bank of Iraq the expansion or replacement with fixed costs that result in raising the break-even volume to a level higher than the usual .level for a long period of time	21	7
high	.795	3.89	takes investment Industrial Bank of Iraq decisions that entail investing funds in establishing investment projects that .generate new productive energies	27	7
high	1,029	3.89	takes investment Industrial Bank of Iraq decisions that entail the replacement and renewal of current assets in order to maintain or increase current production capacities.	29	7
high	.719	3.87	The investment decision-making Industrial Bank of determines part of the for its purchase of assets for Iraq's money .long periods of time	19	11
high	.893	3.87	identifies sources Industrial Bank of Iraq for the purchase of production components and productive assets .(locally and internationally)	23	11
high	.864	3.87	usually include Industrial Bank of Iraq the elements of risk and uncertainty because these decisions are linked to the future, and therefore the expected return is uncertain.	24	11
high	.376	3.83	The risks of the investment decision lie in the difficulty of returning it without Industrial Bank of achieving gains for the	25	14

the level	standard deviation	SMA	paragraphs	the number	Rank
			This does not mean that the loss is . Iraq .possible, the return is low		
high	.932	3.75	,From the investor's point of view electronic accounting programs lead to an increase in the net return on investments.	30	15
middle	.472	3.67	Industrial The investment decision in the by its Bank of Iraq is affected .infrastructure	32	16
middle	1,216	3.62	The decision-making process is based on an integrated base that includes .electronic accounting programs	34	17
middle	.499	3.55	takes important Industrial Bank of Iraq ,investment decisions to invest money in which helps it expand projects and generate high production capacity for the project.	28	18
middle	.501	3.53	a return Industrial Bank of Iraq obtains from investment decisions that extends over a long period of time.	18	19
high	.597	3.86	quality of investment decisions		

Table (5) shows that the arithmetic averages ranged between (3.53-4.18), where Paragraph No. (17) which states "The investment decision includes allocating a measure of the economic resources currently available with the aim of creating new productive capacities" came in the first place with an average My account amounted to (4.18), and paragraph No. (18) came, which states: "The Industrial Bank of Iraq obtains a return that extends over a long period of time from investment decisions." In the last place, with an arithmetic mean of (3.53), and the arithmetic mean of the quality of investment decisions as a whole was (3.86).

The researcher explains this by the fact that the Industrial Bank of Iraq should encourage financial investment through the development of skills, and accelerate the pace of investment and productivity growth, and thus translate these gains into higher income and job creation, taking into account technological change by preparing workers for alternative employment, and increasing recognition of the importance of synchronizing national policies to develop Skills with policies related to technology, trade and the environment.

### The Third Question:

What is the level of internal control system in the Industrial Bank of Iraq?

To answer this question, the arithmetic means and standard deviations were calculated for the internal control system in the Industrial Bank of Iraq, as they were as follows:



Table (6) The arithmetic means and standard deviations of the internal control system in the Industrial Bank of Iraq are arranged in descending order according to their arithmetic means

the level	standard deviation	SMA	The dimension	the number	Rank
high	.445	3.81	Monitoring and control	5	1
high	.721	3.80	oversight activities	2	2
middle	.846	3.61	control environment	1	3
middle	.530	3.58	Information and communication	4	4
middle	.703	3.48	risk assessment	3	5
middle	.425	3.65	internal control system		

Table (6) shows that the arithmetic averages ranged between (3.48-3.81), where the monitoring and control came first with the highest arithmetic mean of (3.81), while risk assessment came in the last rank with a mean of (3.48). The internal control system as a whole (3.65).

Testing the hypotheses of the study:

The first main hypothesis: There is a significant effect of electronic accounting programs on the quality of the investment decision.

The following sub-hypotheses are derived from this hypothesis:

- There is a significant effect of working individuals on the quality of the investment decision.
- There is a significant effect of the software on the quality of the investment decision.
- There is a significant effect of the database on the quality of the investment decision.
- There is a significant effect of appropriateness in the quality of the investment decision.
- There is a significant effect of reliability in the quality of the investment decision.

#### Schedule (12)

#### Summary of the results of the study hypotheses

The result	hypotheses
accept the hypothesis	:The first main hypothesis There is a significant effect of electronic accounting software on the quality of the investment decision
accept the hypothesis	– There is a significant effect of working individuals on the quality of the investment decision
accept the hypothesis	– .There is a significant effect of the software on the quality of the investment decision
accept the hypothesis	– .There is a significant effect of the database on the quality of the investment decision
accept the hypothesis	– There is a significant effect of appropriateness in the quality of the investment decision
accept the hypothesis	– .There is a significant effect of reliability in the quality of the investment decision
accept the hypothesis	:The second main hypothesis in the relationship of strengthening the internal control system There is a significant effect .electronic accounting programs and the quality of investment decisions between

## Results

### The study concluded the following results:

- 1- The study concluded that the number of males in the study is greater than the number of females, and the researcher attributes the high number of males compared to the number of females in the study community to the bank's interest in attracting male employees, since the majority of the work required to be implemented is field and technical work and requires physical effort.
- 2- The study found that the highest percentage of the distribution of the members of the study population according to the variable of practical experience for the category of 15- less than 20 years, and the lowest percentage of the variable of practical experience for the category of less than 5 years, and this may be due to the bank's interest in preserving employees of the category Young people who have gained experience for a long period of time, thus maximizing achievement rates in this category.
- 3- The results of the study showed that the level of electronic accounting programs in the Industrial Bank of Iraq was high. The study differed with the study of (Amanamah, Alfred and Kwaku, 2016) which showed that the level of electronic accounting software was low in small and medium enterprises in Kumasi Metropolis.
- 4- The results of the study showed that the level of quality of investment decisions was high.
- 5- The results of the study showed that the level of the internal control system was medium, and this result agreed with the result of the study (Lan, Tang, 2020), which concluded that the level of the internal control system was average in computer companies. The study differed with the study of (Napitupulu & All, 2016), which showed that the level of the internal control system was high.
- 6- There is a significant effect of electronic accounting software on the quality of the investment decision, and this result agreed with the results of the study (Nwaobia, et al.2013), whose results showed a statistically significant effect between the investors' decision and the quality of financial reports in manufacturing companies listed in Nigerian stock market.
- 7- There is a significant effect of strengthening the internal control system in the relationship between electronic accounting software and the quality of investment decisions. Electronic management. It also agreed with the study of Badara, M. 2013), which concluded that an effective internal control system can affect the effectiveness of internal auditors at the local level. It also agreed with the study (Al-Samarrai, 2016), which showed that there is an impact of the internal control system on the quality of financial reports in the Jordanian pharmaceutical companies listed on the Amman Stock Exchange.

## Recommendations

Based on the findings of the study, the researcher recommended the following:

- 1- The necessity of disclosing the effectiveness of the internal control system and showing its strength and effectiveness to ensure the credibility of electronic accounting programs.
- 2- The need to continuously update the programs used by specialists in the Industrial Bank of Iraq.
- 3- The need to coordinate between electronic accounting programs and make periodic maintenance procedures for them.
- 4- The need for the availability of infrastructure in the Industrial Bank of Iraq.

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