

Studying the Impact of Internal Control Systems on the Effectiveness of Electronic Accounting Information Systems with Application

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Abstract

Institutions and companies are witnessing intense competition in light of the rapid development in production processes and the transition to modern concepts in manufacturing and services, where economic and technological progress led to the emergence of large projects in all industries and the intensification of competition, and this in turn reinforced the interest in internal control as a system that helps the management of the institution to achieve plans and Objectives drawn, Al-nazmi and Al-azab

The tremendous development in Information Technology (IT) has led to different advanced systems for the electronic operation of data, which works to meet the needs of many beneficiaries efficiently and effectively, and many institutions have taken steps to provide their services to the beneficiaries, As the service institutions are considered one of the sectors most relying on collecting, processing, analyzing and providing information to meet the needs of the beneficiaries of their services, and government institutions seek to use electronic accounting information systems, with the aim of benefiting from their applications in providing services in a timely manner. Accounting information systems are the basis for rational decision-making and decision-making, and in order for the decision to be Objective and correct to some extent, it must depend on appropriate and sound information, including accounting information that takes an amount of importance no less than other information, and accounting information may be abundant within the institution, and for this They should be categorized according to what the decision makers and external parties need.

Keywords: *Information Technology (IT), Internal Control Systems, Electronic Accounting Information Systems.*

Introduction

The tremendous development in Information Technology (IT) has led to different advanced systems for the electronic operation of data, which works to meet the needs of many beneficiaries efficiently and effectively, and many institutions have taken steps to provide their services to the beneficiaries, As the service institutions are considered one of the sectors most relying on collecting, processing, analyzing and providing information to meet the needs of the beneficiaries of their services, and government institutions seek to use electronic accounting information systems, with the aim of benefiting from their

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applications in providing services in a timely manner. Accounting information systems are the basis for rational decision-making and decision-making, and in order for the decision to be Objective and correct to some extent, it must depend on appropriate and sound information, including accounting information that takes an amount of importance no less than other information, and accounting information may be abundant within the institution, and for this They should be categorized according to what the decision makers and external parties need.

The studies of electronic accounting information systems are among the most research topics that occupied the interest of many administrative and accounting levels in service institutions, and also because of their features and characteristics that differ from other economic institutions, accounting information is the means by which institutions disclose their financial status and their financial and non-financial expenditures, which must be prepared in a good and appropriate manner, as they include sufficient credibility that can be relied upon and used in making appropriate decisions. Hence, this study came to clarify the impact of internal control systems on the effectiveness of electronic accounting information systems through studying and extrapolating previous studies that dealt with the variables carried by that study and standing on that impact through application on a sample of government institutions represented in the Iraqi Ministry of Municipalities and Works through affiliated facilities for her. Through the application of the study on a sample of employees with a sample size of 400 observations, it was noted that there is a direct linear relationship between the two variables, internal control systems and the measurement of electronic accounting information systems, and this relationship has a significant statistical significance. There is also a direct significant effect of the internal control system variable on the approved electronic accounting information systems variable. There is a strong or high and medium direct relationship between the dimensions of the explanatory variable and the dependent variable. There is also a direct significant effect for each of the dimensions of the variable (internal control system, control environment, risk assessment, control activities, communication and information, follow-up) on the dependent variable (measurement of electronic accounting information systems).

Research problem: The research problem is to know the reality of internal control systems and their impact on the effectiveness of electronic accounting information systems in government institutions. To answer this question, the study included a set of sub-questions, which in their totality constitute the basis for the requirements for achieving internal control systems and electronic accounting information systems in particular. The following questions emerge to answer the problem the study((Is there a correlation between the internal control systems with its dimensions (control environment, control activities, risk assessment, information and communication, follow-up) in government institutions and electronic accounting information systems with its dimensions (appropriateness, reliability, comparability, stability) in government institutions)).

Research objective: This study Objective to identify the impact of internal control systems on the effectiveness of electronic accounting information systems for government institutions, through the following:

- Identifying the reality of the concept of internal control systems and its reflection on the elements of the accounting information systems of the Iraqi institutions under study.
- Determine the elements of electronic accounting information systems in the Iraqi institutions under study.
- The realization of those in charge of the Iraqi institutions under study of the importance of internal control systems and their impact on the effectiveness of electronic accounting information systems in government work and vice versa, and in dealing with current and prospective clients of these institutions.

The theoretical side: the concept of internal control systems: The concept of control has evolved greatly as a result of the development of the size of government units and the increase in interest in the internal control system. It is no longer just a means of preserving cash, but has developed into a group of interrelated elements or components that are established by senior management to ensure the achievement of the unit's objectives. As the existence of an effective system of internal control is one of the best ways to avoid deficiencies in the field of business, and control is necessary for any unit that contributes to supporting the implementation of policies, goals, plans and programs and at the same time is an important motive for performance in business activity as it is possible to add value to the unit and maintain it and confront Risks.(Luzon 2016 p26).

The concept of internal control has witnessed a gradual, important and effective development adapted to the rapid and successive developments and events in economic life (Al-Idrisi 2010).

As the internal control system in any government unit is the first line of defense that protects the interests of all parties related to the government unit, through the process of producing information that can be relied upon in making all kinds of decisions, The responsibility for designing internal control activities rests with senior management, in a way that enables them to achieve the set objectives and obtain reasonable assurance that the objectives have been achieved, and that the procedures that have been established help prevent and detect errors and fraud, and that the control activities that have been developed are operating efficiently and effectively.(Al-Jumhour and Al-Baldawi)

Based on the above concepts, the researcher believes that the internal control system is a set of plans and procedures set by the institutions and under the supervision of the administration in order to protect the assets of the institution from misuse, avoid the risks facing the institution, and develop ways and methods to address those problems and avoid cases of deviating from regulations and laws with the aim of delivering that institution It leads to reliable results and decisions regarding all the activities of the organization and the services it provides in order to appear to the beneficiaries of its services with high efficiency and effectiveness.

Dimensions of internal control systems: The COSO framework for internal control defines five dimensions for internal control systems: control environment, control activities, risk assessment, information and communication, evaluation and monitoring. (COSO (2013); Arwinge (2013))

This framework is a brilliant framework for internal control and has been adopted by many organizations, including the World Bank and the World Health Organization, and Figure No. (1) shows its most important components.

Figure No. (1): COSO Integrated Internal Control Framework

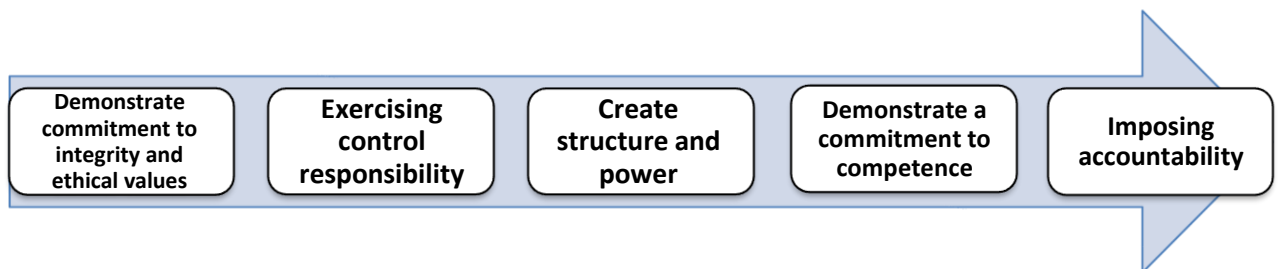


It is clear from the previous figure:

The control environment: It is the main aspect in the management of the institution, because it is a reflection of the position and policies of management with regard to the importance of internal audit in the economic unit, and it also has an impact on achieving organizational goals. It is also the basis for other components of internal control and its general structure. Sudsomboon & Ussahawanitchakit, (2009) helps The control environment helps reduce the level of fraudulent activities within organizational processes, and the quality of the internal control system of any entity or company depends on the function and quality of their control environment (Amudo & Inanga, (2009). Therefore, providing an appropriate control environment for companies is absolutely essential for the effectiveness of their operations.

There are five factors to build a distinct control environment for the organization, these factors must be interrelated and integrated with each other means that none of these factors can be dispensed with, however each of them can vary in terms of scope and priority in different entities. These factors or principles will be shown in the figure below:

Figure No. (2): Principles of Internal Control Environment



From the previous figure, the commitment to integrity and moral values is evident. The Board of Directors will be responsible for setting standards of behavior in addition to the

mechanism that employees follow. Define the procedure and all the resources of the organization in order to clarify deviations in a timely manner.

1. Risk assessment: It is the process of identifying and analyzing the risks associated with achieving management objectives Theofanis et al., (2011), similarly (Sudsomboon & Ussahawanitchakit, (2009) indicated that risk assessment is the process of identifying and analyzing relevant management risks in the preparation of financial statements that will be presented in a form fair under generally accepted accounting principle. In this case, Management should carefully select the level of risk to be accepted and should try to maintain these risks within specified levels. Therefore, companies have to frequently assess the level of risk they are exposed to in order to take necessary action. The Integrated Internal Control Framework (COSO (1994)) clarified four basic principles for risk assessment, as illustrated in Figure 3:

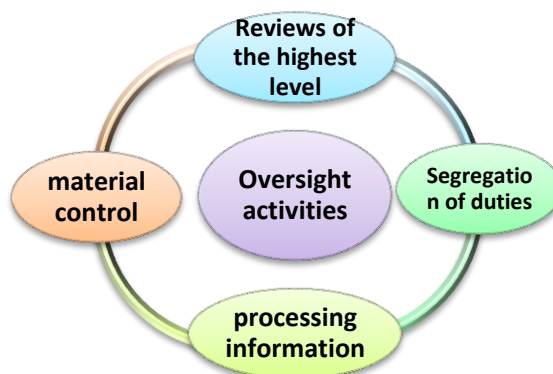
Figure No. (3): Basic principles for risk assessment



From the previous figure it is clear that setting work objectives is not really an element of internal control, but rather this activity is an important precondition or basis for risk assessment. An event is considered a business risk if it affects or even threatens the objectives of the organization. Therefore, the first objective of risk assessment is to identify business objectives, and then managers can identify risks related to the objectives and take action to manage them later within their capacity.

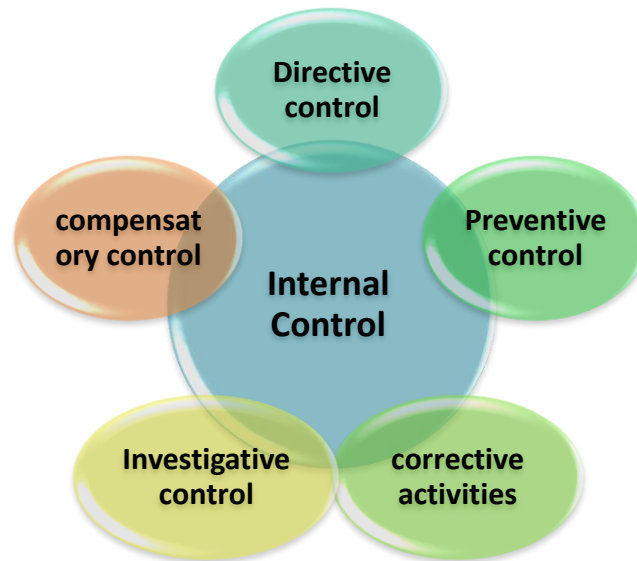
2. Control activities: They are the policies, procedures and mechanisms that help management to implement directives correctly (Aikins, (2011) ; Rezaee, Elam & Sharbatoghlie, (2001). To establish and design a control system for financial management practices (Aikins, (2011), Control activities also include taking all necessary measures with the aim of addressing risks so that organizational goals are achieved. Examples of control activities include; segregation of duties, and depositing daily cash receipts, bank reconciliations, and limiting access to stock checks, and the internal control framework of (COSO (1994) indicated that internal control has many types that can be illustrated through Figure No. (4):

Figure No. (4): Types of control activities.



Types of internal control systems: DiNapoli (2005) & Bushra and Degla (2021) explained that internal control has five types, as shown in Figure 5:

Figure No. (5): Types of internal control.



effectiveness of internal control systems: The effectiveness of internal control is related to the smoothness of the internal interaction of the systems and the extent of the roots of the system in the company's operations.

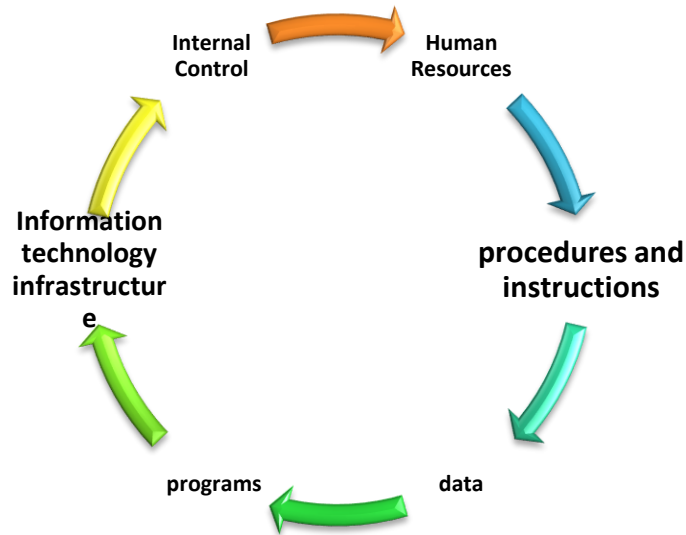
The limits of the internal control system: No matter how well the internal control is designed, the internal control system can provide reasonable assurance about the achievement of objectives (COSO (1999), due to some limitations inherent in all internal control systems (Mercer University (2015)). These limitations include:

Judgment or decision, as the effectiveness of control will be limited by decisions taken by human judgment and under the pressure of doing business based on the available information. According to Lannoye (1999), Effective internal control may be constrained by the realities of human judgment. Decisions are often made within a limited time frame, without the benefit of complete information. These judgment decisions may affect the achievement of objectives. With or without good internal control. Internal control may become ineffective if management fails to reduce the occurrence of errors, due to misunderstanding of instructions, negligence, distraction, fatigue, or other errors (Lannoye (1999).

Electronic Accounting Information Systems: The multiplicity of information technologies is one of the recent issues that began to reflect the importance of using technically processed information in the service of the business environment. The development in the use of technical means has led to an increase in interest in preparing integrated accounting programs for data processing, and this in turn led to the emergence of a new term called the electronic operating system Meeda (2009) Therefore, the accounting information systems are part of the administration and it is considered the main source of information that the audit department will depend on in its procedures. The accounting information produced by the accounting information systems helps the auditor in the control process by comparing the actual performance with the planned one to identify deviations and find paths to correct these deviations. The achievements in information technologies have led to an increase in the capacity of storage and data processing, which contributed to the accuracy and speed of audit and control procedures and the availability of effective continuity of the information system.

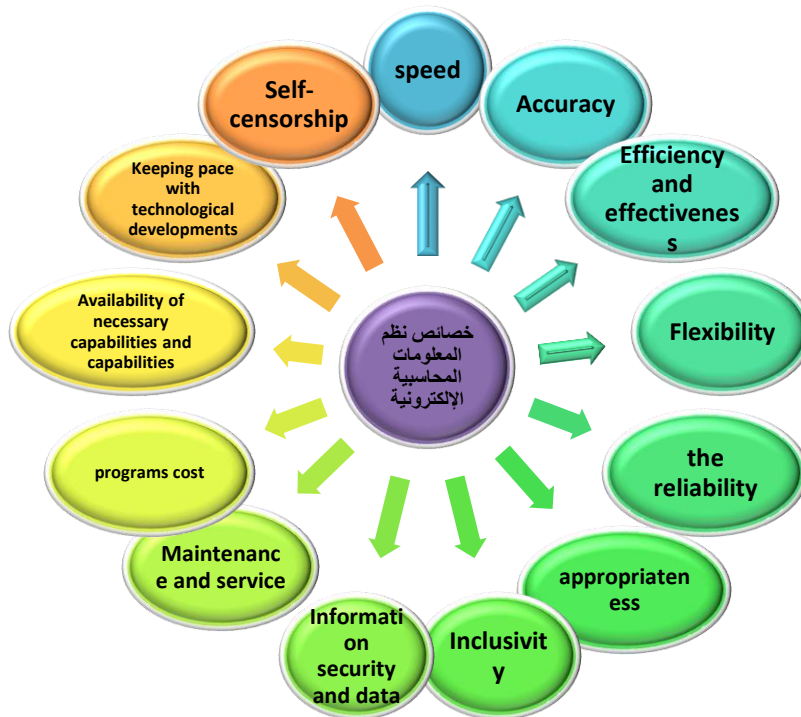
The components of electronic accounting information systems: Nowadays, many organizations depend on electronic accounting information systems, which in turn depend on the computer and its accompanying technologies. In order for electronic accounting information systems to perform their work, they must contain the following components: Wissam and Muhammad(2018)

Figure No. (6): Components of electronic accounting information systems.



The characteristics of electronic accounting information systems: Computerized accounting information systems, like other systems, must have a set of characteristics and specifications, which are a measure of comparison between these systems, as shown in the following figure Qaoud(2007)

Figure No. (7): Characteristics of electronic information systems.



The figure above shows the characteristics of electronic accounting information systems, including speed, including: (The speed of entering information into the system, the speed

of making adjustments to the entries in the system, the speed of preparing reports in the system, the speed of providing the service and its access to the end user).

The difference between manual and electronic accounting information systems:

The fundamental and essential difference between the manual and computerized accounting system lies in the mind that implements matters. By this, he means that in the manual system, a person, through the use of his mind and innate intelligence, analyzes matters and then takes decisions and implements them according to the accepted policies and procedures, and he may be right or wrong. The error is corrected when it is discovered. But in the electronic system, the electronic mind is used, which is designed by the human being. This mind carries out the orders set for it in advance by man. In other words, it cannot make mistakes. That is, this mind cannot analyze, but rather it can implement the analysis mechanism drawn for it in advance and then implement it in accordance with the policies and procedures previously drawn for it, and it cannot bypass any plans set for it by man. Hussam(2015).

The importance of electronic accounting information systems: There are many reasons that emphasize the importance of electronic accounting information systems in the organization. Munther(2016) The complexity of administrative activities due to the increase in their volume, and the transfer of data to an electronic mechanism.

Types of electronic accounting information systems: The systems used can be classified into three types: Ibrahim and Muhammad(2017), Saied (2009)

1. Large electronic accounting information systems: Large electronic accounting information systems are used to process the data of companies with a large volume of activity, as these systems are characterized by a great ability to store and operate data, by storing data on magnetic tapes, hard disks and laser cylinders, in addition to that they have With self-security means, however, large electronic computer systems need public databases, and they need individuals with distinguished experience.

2. Small electronic accounting information systems: This type of accounting information systems uses small electronic computers, personal computers, with their large and economic capabilities of general purpose. Programs and data are stored through storage methods that can be transferred and others that cannot be transferred. These computers can also be used to form an entire accounting information system or part of it. The control systems and security measures used in large electronic accounting information systems are not scientifically applicable to small systems. Small electronic accounting information systems are used to process the data of companies whose activity size is small. These systems are more flexible and less expensive than large systems. These electronic computers enable the process of sorting and tabulating input data and printing output reports. It is easy to commonize processes and obtain audit evidence, so it requires only slightly trained auditors with basic knowledge of how to operate electronic statements.

Risks of electronic accounting information systems: Electronic accounting information systems are more vulnerable to many risks that may threaten their security, there are many risks that can affect them, and these risks can be classified according to the source of their occurrence into risks related to the disappearance of records, risks of manipulation and fraud, risks of viruses, risks related to the Audit Association in the field of Electronic accounting systems, and others related to the lack of experience of users. Wissam and Muhammad (2018).

The effectiveness of electronic accounting information systems: The effectiveness of electronic accounting information systems refers to the positive contribution of accounting information systems to achieving the organization's goals, in terms of quantity, quality, and timeliness. This can be measured through users' satisfaction with the information. The volume of employees' use of information, providing information according to the

administrative level, and enabling managers to respond to changes. The effectiveness of accounting information systems can be measured through the following indicators: Nouredine(2017)

- Appropriateness of the information: It is intended that the accounting information systems be relevant or linked to the decision to be taken, that is, they affect the decision taken by the user of the information. The ineffective information represents a useless “filler” and should be excluded. For example, if we are in the process of studying cash flows, then non-monetary information is inappropriate information, and it is usually misleading, as appropriateness is defined by the ability to serve a specific decision, either by reducing the lack of knowledge of decision makers or increasing knowledge among decision makers about the position that takes the decision. about it. Shaqfa(2020)
- Information security: It is a set of procedures and preventive measures used by the organization to preserve the information as confidential, and to protect it from theft and manipulation, both before using it and after entering the information into the computer by checking the entries and keeping them in a safe place. David (2021).
- Responding to emerging changes: The interaction between the organization and other competing organizations, and the interaction between the organization and the community in which it operates, helps to benefit from experiences and expertise, which would make the integrated information system more alert and follow up on the latest developments and developments in the environment, especially as the organization operates Its activity is in an environment that is, to say the least, complex and uncertain, which means access to an information system capable of preserving the position of the organization in its surroundings, which indicates the success of the integration of information systems. Akani(2021)

Applied side: Data sources

Secondary sources: On the theoretical side, we relied on books, previous studies, and published scientific articles that are directly or indirectly related to our study.

Primary sources: We relied on a questionnaire for collecting information, which was heard based on secondary sources from previous studies, and through interviews and meetings with advanced cadres and specialists, and the instructions provided by specialists, which constitute an oral reference for us for the purpose of organizing the axes of the form and Thus, these guidelines form the basis of our work to develop our measurement network.

community and study sample: The study community, to which the results of our study will be circulated, consists of all the institutions of the Ministry of Municipalities in Iraq, which follow the municipalities only and do not go outside their scope, whether they are production, service or marketing. The researcher obtained the answers to the axes presented in the questionnaire form from the study sample for each institution and With (420) four hundred and twenty forms distributed to specialists and workers in the field of oversight in municipal institutions.

study tool: A questionnaire was prepared on "the impact of internal control systems on the effectiveness of electronic accounting information systems in the Ministry of Municipalities"

Statistical tests for the main and sub-hypotheses of the study.

The main hypothesis: The first main hypothesis of the study hypotheses, which was formulated in the null or null hypothesis, states that "there is no significant relationship between the independent variables represented by the dimensions of internal control systems (internal control system, control environment, risk assessment, control activities, communication and information, follow-up) and The adopted variable represented by the dimensions of the effectiveness of electronic accounting information systems (appropriateness, reliability, comparability, stability).

And testing the main hypothesis above, correlation analysis is used, as shown in Tables (1) and (2) below:

Table (1) represents the values of the correlation coefficient between the dimensions of the study variables.

	Electronic accounting information systems	appropriateness	reliability	comparable	constancy
internal control systems	0.729	0.681	0.701	0.699	0.812
control environment	0.705	0.728	0.639	0.726	0.743
risk assessment	0.826	0.699	0.791	0.825	0.821
control activities	0.771	0.792	0.739	0.782	0.795
Communication and information	0.800	0.781	0.767	0.801	0.865
Follow-up	0.796	0.891	0.779	0.788	0.729

It is clear from the above table that there is a statistically significant correlation between internal control systems and the effectiveness of electronic accounting information systems.

This is due to the correlation between the internal control systems and the effectiveness of the electronic accounting information systems in a direct way. The higher the quality of the internal control systems (high), the higher the effectiveness of the electronic accounting information systems (large) and vice versa.

The second main hypothesis: The second main hypothesis of the study hypotheses, which was formulated in Hypothesis Non-existent or zero, that "there is no impact of various internal control systems on the effectiveness of electronic accounting information systems.

To test the main hypothesis above, the multiple regression analysis and the analysis of variance table are used, as shown below:

Tables (2) represent the t-test and the multiple linear regression model.

Model variables	parameter estimate	standard deviation	Test	P-Value
constant	1.32	0.394	2.236	0.0188
X ₁	0.738	0.093	7.132	0.0293
X ₂	0.549	0.102	5.957	0.0281
X ₃	0.146	0.153	6.488	0.0339
X ₄	0.559	0.203	8.018	0.0284
X ₅	0.381	0.188	7.592	0.0433
X ₆	0.492	0.099	8.023	0.0271

$$Y_i = 1.32 + 0.738 X_{1i} + 0.549 X_{2i} + 0.146 X_{3i} + 0.559 X_{4i} + 0.381 X_{5i} + 0.492 X_{6i}$$

From the above multiple linear regression model, it was found that there is a significant effect for each of the dimensions of internal control systems (X₁ internal control systems, X₂ control environment, X₃ risk assessment, X₄ control activities, X₅ communication and

information, X6 follow-up) on the response variable represented by (the effectiveness of systems electronic accounting information)

Tables (3) represent the analysis of variance table and the F-test for the significance of the multiple regression model.

source of variance	sum squares	of degrees freedom	of Mean squares error	Test F	P-Value
between groups	10.345	6	1.724	143.67	0.072
within groups	4.564	393	0.012		
Total	14.909	399			

We note through the analysis of variance table that there is a significant effect of the dimensions of internal control systems (internal control systems, control environment, risk assessment, control activities, communication and information, follow-up) on the effectiveness of electronic accounting information systems, where the value of the F test was equal to (148.45) below the level Significant (0.072), which is greater than (0.05), so the estimated model is significant.

This hypothesis consists of five sub-hypotheses, each of which is tested as follows:

The first sub-hypothesis: The first sub-hypothesis of the hypotheses of the study, which was formulated in the null or zero hypothesis that "there is no effect of the control environment on the effectiveness of electronic accounting information systems." To test the above hypothesis, the researcher used the t and f test, as well as the use of simple linear regression analysis, and the results are shown in the tables (4) and (5) below:

Tables (4) represent the t-test and the simple linear regression model.

Model variables	parameter estimate	standard deviation	Test	P-Value
constant	1.306	0.902	7.547	0.407
X ₁	0.892	0.783	6.892	0.346

$$Y_i = 1.306 + 0.892 X_i$$

From the simple linear regression model above, it was found that there is an effect and a direct relationship between the control environment and the effectiveness of electronic accounting information systems.

Tables (5) represent the analysis of variance table and the F-test for the significance of the regression model.

source of variance	sum of squares	of degrees freedom	of Mean squares error	Test F	P-Value
between groups	8.025	1	8.025	1897.77	0.602
within groups	1.683	398	0.0042		
Total	9.708	399			

We notice through the analysis of variance table that there is a significant effect and relationship between the control environment and the effectiveness of electronic accounting information systems, where the value of the F test was equal to (1897.77) under the level of significance (0.602), which is greater than (0.05), so the estimated model is significant.

The second sub-hypothesis: The second sub-hypothesis of the hypotheses of the study, which was formulated in the null or null hypothesis, as "there is no effect of risk assessment on the effectiveness of electronic accounting information systems." To test the

above hypothesis, the researcher used the t and f test, as well as the use of simple linear regression analysis, and the results are shown in the tables (6) and (7) below:

Tables (6) represent the t-test and the simple linear regression model.

Model variables	parameter estimate	standard deviation	Test	P-Value
constant	1.020	0.167	0.543	0.625
X ₁	0.753	0.577	6.037	0.572

$$Y_i = 1.020 + 0.753 X_i$$

From the simple linear regression model above, it was found that there is an effect and a direct relationship to risk assessment on the effectiveness of electronic accounting information systems.

Tables (7) represent the analysis of variance table and the F-test for the significance of the regression model.

source of variance	sum of squares	degrees of freedom	Mean squares error	Test F	P-Value
between groups	7.321	1	7.321	1865.4	0.058
within groups	1.562	398	0.0039		
Total	8.883	4			

We notice through the analysis of variance table that there is a significant effect and relationship between risk assessment and the effectiveness of electronic accounting information systems, where the value of the F test was equal to (1865.4) under a significant level (0.058), which is greater than (0.05), so the estimated model is significant.

The third sub-hypothesis: The third sub-hypothesis of the hypotheses of the study, which was formulated in the null or zero hypothesis that "there is no effect of control activities on the effectiveness of electronic accounting information systems." To test the above hypothesis, the researcher used the t and f test, as well as the use of simple linear regression analysis, and the results are shown in the tables (8) and (9) below:

Tables (8) represent the t-test and the simple linear regression model.

Model variables	parameter estimate	standard deviation	Test	P-Value
constant	1.164	1.925	5.536	0.222
X ₁	0.534	0.332	6.320	0.416

$$Y_i = 1.164 + 0.534 X_i$$

From the simple linear regression model above, it was found that there is an effect and a direct relationship between control activities and the effectiveness of electronic accounting information systems.

Tables (9) represent the analysis of variance table and the F-test for the significance of the regression model.

source of variance	sum of squares	degrees of freedom	Mean squares error	Test F	P-Value
between groups	8.434	1	8.434	333.39	0.652
within groups	1.007	398	0.0025		
Total	8.434	1			

We notice through the analysis of variance table that there is a significant effect and relationship between control activities and the effectiveness of electronic accounting information systems, where the value of the F test was equal to (333.39) under a significant level (0.652), which is greater than (0.05), so the estimated model is significant.

The fourth sub-hypothesis: The fourth sub-hypothesis of the hypotheses of the study, which was formulated in the null or zero hypothesis that "there is no effect of communication and information on the effectiveness of electronic accounting information systems." To test the above hypothesis, the researcher used the t and f test, as well as the use of simple linear regression analysis, and the results are shown in the tables (10) and (11) below:

Tables (10) represent the t-test and the simple linear regression model.

Model variables	parameter estimate	standard deviation	Test	P-Value
constant	1.143	1.579	5.016	0.384
X ₁	0.628	0.441	6.516	0.139

$$Y_i = 1.143 + 0.628 X_i$$

From the simple linear regression model above, it was found that there is an effect and a direct relationship between communication and information and the effectiveness of electronic accounting information systems.

Tables (11) represent the analysis of variance table and the F-test for the significance of the regression model.

source of variance	sum of squares	degrees of freedom	Mean squares error	Test F	P-Value
between groups	9.009	1	9.009	2891.598	0.158
within groups	1.240	398	0.0031		
Total	10.249	399			

We notice through the analysis of variance table that there is a significant effect and relationship between communication and information on the effectiveness of electronic accounting information systems, where the value of the F test was equal to (2891.598) under a significant level (0.158), which is greater than (0.05), so the estimated model is significant.

The fifth sub-hypothesis: The fifth sub-hypothesis of the hypotheses of the study, which was formulated in the null or zero hypothesis, as "there is no effect of follow-up on the effectiveness of electronic accounting information systems." To test the above hypothesis, the researcher used the t and f test, as well as the use of simple linear regression analysis, and the results are shown in tables (12) and (13) below:

Tables (12) represent the t-test and the simple linear regression model.

Model variables	parameter estimate	standard deviation	Test	P-Value
constant	1.026	1.266	5.776	0.165
X ₁	0.588	0.537	6.609	0.205

$$Y_i = 1.026 + 0.588 X_i$$

From the simple linear regression model above, it was found that there is an effect and a direct relationship between follow-up and the effectiveness of electronic accounting information systems.

Tables (13) represent the analysis of variance table and the F-test for the significance of the regression model.

source of variance	sum of squares	degrees of freedom	Mean squares error	Test F	P-Value
between groups	8.165	1	8.165	2659.3	0.281
within groups	1.222	398	0.00307		
Total	9.387	399			

We notice through the analysis of variance table that there is a significant effect and relationship between the follow-up on the effectiveness of the electronic accounting information systems, where the value of the F test was equal to (2659.3) below the level of significance (0.281), which is greater than (0.05), so the estimated model is significant.

Conclusions:

- The use of a computerized accounting system contributes to the simplification of internal audit procedures and financial reports through the implementation of many financial reporting procedures with high accuracy and the fastest time to complete transactions, which provides more reliable information.
- The use of the computerized accounting system in the process of internal auditing and financial reports contributes to the preservation of available data and information and the ease of retrieval, which leads to easy access to the necessary data when needed.
- The relentless pursuit by local professional organizations related to internal control in order to keep pace with developments in that concept at the level of professional publications of international organizations such as:
 - Guidelines for the internal audit units issued by the Federal Office of Financial Supervision in the year / 2007.
 - And Audit Guide No. (4) Study and Evaluation of the Internal Control System issued by the Accounting and Oversight Standards Board in the Republic of Iraq in the year / 2000), which focused on accounting audit procedures without paying attention to the elements of internal control.
- There is a direct linear relationship between the two variables, the internal control systems and the measurement of the electronic accounting information systems, and this relationship has a significant statistical significance, as well as there is a direct significant effect of the internal control systems variable on the approved variable, the electronic accounting information systems. There is a strong or high and medium direct relationship between the dimensions of the explanatory variable and the dependent variable. There is also a direct significant effect for each of the dimensions of the variable (internal control system, control environment, risk assessment, control activities, communication and information, follow-up) on the dependent variable (measurement of electronic accounting information systems).

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