

Role of Accounting Information Systems in Control of Public Funds - Case Study

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ABSTRACT

The study problem is weak interest of public institutions on applying the accounting information systems in the control of the public funds as well the misuse of the public resources of the country.

The study aim is to identify the role of using accounting information systems in protecting public assets, the role of using accounting information systems in test accounting data in public sector, and knowing the impact of use the accounting information systems on increasing the efficiency and effectiveness of public financial control of the country, and the impact of using accounting information systems in encouraging compliance with fiscal policies.

The study concluded that: The use of accounting information system helps to protect the public assets and properties, the use of accounting information systems has a major role in test accounting data in public sector, the use of accounting information systems positively affects the increase in efficiency and effectiveness of the public financial control, the use of accounting information systems positively to encourage compliance with the public financial policies.

The study recommended as following: necessity of applying the accounting information system that helps in protecting the state's public assets and properties, the need to train and qualify accountants and auditors to use accounting information systems in order to increase the efficiency and effectiveness of financial control over public resources, the need to use accounting information systems in state institutions for their contribution to testing Accounting data, the necessity of using accounting systems to encourage compliance with the public financial policies.

INTRODUCTION

The study problem is the weak interest of public institutions in applying accounting information systems in controlling public money. The study aim to : Knowing the role of using accounting information systems in protecting the state's public assets and properties, knowing the role of using accounting information systems in examining accounting data in the state's public sector, knowing the impact of using accounting information systems on increasing the efficiency and effectiveness of the state's public financial control, knowledge The effect of using accounting information systems in encouraging compliance with the state's general financial policies. The study tests the following hypotheses: The use of accounting information systems helps protect the state's public assets and properties, The use of

accounting information systems helps in test accounting data in the public sector, There is a statistically significant relationship between accounting information systems and increasing the efficiency of financial control, There is a statistically significant relationship between the use of accounting information systems and the promotion of compliance with the state's public financial policies.

Previous studies:

Abeer Abdullah (2011)

The study problem is defining and measures the role of accounting information systems in supporting administrative decisions. The study aimed to define the role and importance of accounting information in developing commercial banks and the ability to rely on accounting information systems to support

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KEYWORDS: Accounting Information Systems - Control of Public Funds

decisions. The assumptions of the study are: reliable accounting information systems are effective in obtaining appropriate information to make appropriate decisions. Providing appropriate accounting information systems in and helped in addressing decision-making problems within the economic establishment. The study found that accounting information systems help in providing appropriate accounting information and accounting information systems help in addressing decision-making problems within the economic establishment. The study recommended working on developing computerized accounting information systems to suit and meet the needs of various departments with information and reports upon request in commercial banks. The need to pay attention to providing accounting information systems in a timely manner by loan to take advantage of them in taking appropriate decisions.

Ayman Ahmed (2011)

The problem of the study was that the proliferation of computers in the process of data processing and analysis led to a heavy dependence on modern technology, which helps in developing accounting information systems and their use in a large way. The study aimed to identify the problems facing accounting information systems in light of the use of electronic commerce to identify the changes that electronic commerce has brought to the business environment. study examined the following assumptions, the use of accounting information systems that limit safety risks in electronic commerce transactions The use of accounting information systems reduces assertion risks in electronic commerce transactions The use of accounting information systems reduces musical risks in electronic commerce transactions. The study reached several results: The electronic commerce of a very advanced technology affected all the fields concerned in general and the accounting and auditing professionals in particular. The electronic commerce operates in a unique way in which all the processes through which intangible processes take place become the mechanism Success in its lowest stages The accounting theory in its current form could not address the mechanism of investigation and recognition of the revenues generated through electronic commerce operations. The study recommended several recommendations, the most important of which is the accreditation of the audit institute of a technology institute to implement the policies and procedures of the company's accounting system arranged in electronic commerce. Qualifying all accountants and auditors and educating them for information technology in general and in electronic

commerce transactions in particular. The need to reconsider accounting theory and update its concepts in line with the trade environment. What is new in the electronic commerce environment is the need to alert governments to seek or contribute to the creation of international legislation governing electronic commerce transactions

Manal Nour El-Din (2012)

The research problem was the difficulty of determining the VAT receptacle in establishments that do not apply accounting information systems in preparing their financial records and reports on which the tax examiner relies on audits and examinations. The study aimed to know the role of accounting information systems in measuring the VAT vessel. The study assumptions are as follows: The application of accounting information systems helps reduce the cost of measuring the VAT receptacle. Accounting information systems affect the measurement of the value-added tax pool in terms of procedures and means. It enables accounting information systems that work correctly to measure the tax base on Accurately added value. The study reached several results confirming the validity of the previous assumptions: the use of accounting information systems reduced the time period required for the operations of measuring and the tax bowl of the value-added tax, it is not possible to follow the traditional methods in the operations of measuring the value-added tax pool for establishments that use accounting information systems due to the absence of The course of the audit, the use of accounting information systems in measuring the VAT receptacle has led to a significant increase in the effectiveness of the internal control system in the Bureau, as imposing a tax on taxpayers has led to a reduction in tax evasion, the failure to activate the VAT Act 1999 in relation to With the sanctions item, it helped to spread tax evasion and increase its rate annually. The study recommended the following: Urging the taxpayers who use in their facilities the accounting information systems, to provide all the documents required to complete the audits and tax checks, work to train and qualify the cadres working in the tax office so that in the future they can have the available capabilities in the audits and tax checks, work to reduce evasion Tax activation of the value-added tax law of 1999 with regard to the item of sanctions and penalties.

Abdul Salam Musbah (2012)

The problem of the study was the introduction of an electronic computer system in internal audit procedures that helps in performing operations and health outputs to a high degree and to qualify and train auditors on electronic systems that help raise the

efficiency of the internal audit process within the organization. The study aimed to know the impact of accounting information systems on information systems Electronic Accounting Establish a scientific framework for defining and developing accounting information systems, and technological development remains. The study assumptions are as follows: the introduction of an electronic system in internal audit procedures helps in performing operations and the health of the outputs to a high degree, qualifying and training auditors on electronic systems helps to raise the efficiency of the internal audit process within the organization, and there is a relationship between the efficiency of electronic accounting systems and the efficiency of the internal audit process within Organization, the researcher's knowledge of correctly applying the standards and standards of professional performance in Libya for the internal audit profession, and the presence of local controls for the internal audit profession. The study reached several results: The extent of the awareness and awareness of the researchers about the effective performance of the accounting information systems within the organization as well as the difficulty of implementing the electronic operating system without effective systems. As such, the primary purpose of operating data is not different to the accounting system, whether that operation was done manually, to or electronic. The difference is in the methods used, and the loan does not have the accuracy of the data extracted from the operation of the electronic system. The recommendations of the study are: Training the auditors in a way that is commensurate with the electronic study. The auditors' participation in designing data processing systems electronically to ensure that the system includes the provision of documents that allow for review and includes sufficient internal controls to implement good accounting standards so that deviations and errors are minimized. The internal auditor places the plans and Procedures to implement from among the whitening of reports and the weight of the accepted accounting principles, and in what happens the best use of resources in order to achieve the goals of the unit.

Theoretical framework

Accounting information system

➤ **concept:** It is a group of resources designed to transfer accounting data to accounting information that is transferred to many decision makers by computer networks (Dr. Hafnawi-2001). Also defined as a framework within which resources are coordinated to convert inputs into outputs to achieve the goals (Dr. Al-Dahrawi -2005). Also known as a system that provides the necessary information for planning, control and

administrative decision-making, as well as preparing financial statements for parties outside the project. (Dr. Debian-1991)

Also known as an integrated structure within the unit that uses the available resources and other parts by converting accounting data into accounting information (Dr. Salem-2004)

- **Accounting Information System Scope:** The scope of the accounting information system is limited to measuring the historical and accounting information for the purpose of preparing reports for the external parties related to the establishment because it consists of an integrated system of material and human resources that work to provide all the necessary information for the purpose of achieving the optimal use of the available resources. In external parties such as the return on investments in the project from profit and distributions, as well as the rights of the various parties within the project at different administrative levels by evaluating performance and determining (Al-Dahrawi -2003)
- **Accounting information systems characteristics:** The accounting information system has a set of features and characteristics that distinguish it from other systems and achieve the desired effectiveness. The most important of these characteristics can be presented as follows: harmonization, integration, differentiation, human element, scientific method, flexibility, response: the accounting information system is its ability to respond to changes that The organizational structure of the economic unit, changes in the economic environment surrounding the unit, or changes that may occur in the competitive environment of the economic unit (Al-Sajai -2010).
- **The objectives of the accounting information system:** The goals are as follows: Daily operations support: Any economic unit that performs daily a number of activities and events called operations, process operations: includes processing accounting and non-accounting operations through the main records of accounting by specific procedures, decision-making support: the second important goal of systems Accounting information is the provision of information for the decision-making process that usually must be taken in proportion to the operations of the economic planning and control unit and that this goal is often called information processing. Completion of management-related obligations: The importance of the obligations is determined by providing the necessary information to

external users of economic units (Prof. Al-Janabi -Dt),

The accounting information system also aims to the following: formulate strategic resources, long-term plans, planning and controlling operations and activities, resource allocation decisions, decisions regarding product profitability and others, measuring and evaluating performance and includes comparison between actual and planned results, providing results and information And the results necessary to meet the needs of people at all levels in order to get acquainted with the business results and the financial position of the economic unit, the system includes the two types of control resistances, organizational control and standards control, providing data and information required by external parties, and it must be characterized by accuracy and proper timing, ability To deal with the future, including the circumstances of uncertainty, the accountant's reliance on quantitative measures is a prerequisite for providing accounting information that enables him to direct scarce resources towards optimal use (Dr. Ahmed Noor -2003).

Control of Public Funds

Its purpose is to preserve public funds from misbehavior, by making sure to follow the procedures and work rules specified previously - as well as to ensure the soundness of determining the results of business units and their financial positions. Performance control: Its goal is to ensure that the set goals are achieved and not deviate from the performance rates stipulated in the plan. Adequacy control: its purpose is to identify opportunities to improve the performance rates drawn and what follows from modifications to the plan. In general, the content of financial supervision and its purpose is to preserve public money from misbehavior, by making sure that the procedures and work rules specified previously are followed, as well as ensuring the safety of determining the results of business units and their financial positions (Dr. Kamal Hussein -1988)

➤ **Financial control objectives:** Financial Control generally aims to preserve public funds, protect them from tampering, and ensure their proper use in the form required economically and legally. For this purpose it includes a set of key points, which are as follows: Verify that the resources have been collected in accordance with the laws, regulations, and rules issued And to disclose any violations or shortcomings, to verify that the spending was in accordance with what was planned and to ensure the proper use of public funds for the purposes allocated to them without wastefulness or deviation, and to disclose what is

happening in this regard of violations, follow up the implementation of the plan in place and evaluate performance In the units to make sure that the implementation becomes in accordance with the established policies and to know the results of the work and to identify the extent of achieving the set goals and to detect the deviations and what may be in the performance of the deficiencies and the reasons for this to take the necessary corrective measures and identify opportunities to improve performance rates In the future, motivating employees to perform well and adhering to laws and regulations by highlighting the positive aspects of their business and not focusing on the negative aspects only, identifying problems and obstacles that hinder Adhering to her work and working to deal with these problems and removing obstacles, providing the legislative authority in the state with sound information and reports in order to verify her from applying what she agreed to with regard to the general budget, which means using the credits in the aspects that were allocated to them and collecting revenue according to the regulations In addition to that, make sure to implement the texts of public and private systems and regulations, that is, which are formulated for special purposes suitable for specific administrative units (Dr. Ramli -2011) .

➤ **Types of accounting financial control:** Control takes two basic types or two. Documentary control: It is the control of documents, records and financial books to ensure that the resources have been spent within the limits of the credits allocated to them and that they are sound and in accordance with the numbers mentioned in the records. They are control by accounting methods and may be before disbursement and may be after Exchange and the purpose of this type of control is to ensure the safety of the methods of spending and the authenticity of documents, and some call them account control or traditional control that has arisen since the emergence of the people's right to approve the budget and thus review the accounts of their implementation and the approval of the final account for this implementation. Performance control: It is those processes that measure current performance and lead to specific goals predetermined. This monitoring requires the presence of predefined goals to measure actual performance and a method to compare the achieved performance with the planned goal because on the basis of the results of this comparison the performance is directed so that it is consistent with the goal or standard Specific to this performance before it is also called

evaluation control, and this type of control does not achieve the desired goals without documentary control confirming the validity and integrity of the data used as tools for analysis. This economic control, along with its interest in accounting tools such as budgets and typical costs, aims to review the activities of the authorities The public in order to follow up on what has been done of the works, what extravagance the implementation owner may have, and the extent to which the targeted results are achieved (Dr. Ramli-2011)

- **Elements of accounting financial control:** It is based on the following basic pillars: Presence of predetermined objectives: It is recognized that oversight exists only where there are predetermined goals that may be in the form of a plan, policy, standard, pattern, or ruling decision. Financial regulations and budget linking laws and their rules Controls, as well as typical costs and standard performance rates, predetermined goals on the basis of control, actual performance measurement: actual performance is usually measured or estimated based on data and information provided by accounting systems and statistical methods, and trained workers must be provided to do these work with Using the developed machines, when appropriate, to quickly display the results of the measurement or report to those who have the authority to make changes and make their own decisions, the speed factor has an effect on the effectiveness of the control system, compare the actual performance with the target: the achieved performance has been compared to the target to determine the error and the deviation is not This is only to enable the administration to predict future results and make it able to confront errors in the future in order to make the necessary

correction, and monitoring should focus on important deviations and that there is a rows of generating On accounting and statistics it leads to a speedy detection of deviations and facilitating comparison between the achieved results and the set goals, taking the necessary decisions to correct deviations: The decision-making to correct deviations depends on the data and information available on the pre-determined goals and measuring the actual performance and comparing that compared to the achieved performance With the planned goal, analyzing the deviation and explaining its causes helps to assess the situation and take the appropriate decision that must be in the right time and clearly define the type of correction required taking into account all the circumstances surrounding the decision(Dr. Fayadh Hamza -2011).

Field study

- **Society and sample study**

he studies community means the total group of elements that researchers seek to generalize the results related to the studied problem, the original study community consists of all employees at the Sudanese National Audit Office.

As for the study sample, it was randomly chosen from the study community, where the researchers distributed a number (49) questionnaire to the target audience from some quarters. (49) individuals responded and returned the questionnaires after filling them with all the required information, i.e. approximately (100%) of Targeted.

- **Hypotheses test:**

The first hypothesis: The use of accounting information systems helps protect the state's public assets and properties.

Table No (1): Results of the Chi-square test to indicate differences between answers for each of the first hypothesis phrases

No	phrase	Chi-Squire	DF	Median	sig	DS
1	he good use of the accounting information system works to protect the state's public assets and properties.	23.551	2	4.00	0.00	I agree
2	Providing good accounting information that helps protect the state's public assets and properties.	1.653	1	4.00	0.19	I agree
3	Effective and continuous financial control works to protect the state's public assets and properties.	0.184	1	5.00	0.66	strongly agree
4	Good handling of accounting data helps protect the country's public assets and property.	1.653	1	4.00	0.19	I agree
5	The existence of an effective control system on public assets to ensure optimal use.	22.694	2	5.00	0.00	strongly agree

To test the correctness of the hypothesis, which states: "The use of accounting information systems helps protect the public assets and properties of the state." The Chi square test was used for the hypotheses and the calculated

chi-square values were as follows (23.551 - 1.653 - 0.184 - 1.653 - 22.694) and degrees of freedom (1-2)) And with the level of significance of Sig for all expressions (0.00), when comparing the level of significance of sig with the allowable level of significance (0.05), we find that the level of significance of sig is less than the level of significance, which means that there are statistically significant differences for the hypothesis phrases.

- **The second hypothesis:** The use of accounting information systems helps in test accounting data in the public sector

Table No (2): Results of the Chi-square test to indicate differences between answers for each of the second hypothesis phrases

No	phrase	Chi-Squire	DF	Sig	Median	DS
1	Good accounting information helps in the process of examining accounting data in the public sector.	46.266	3	0.00	4.00	I agree
2	Proper handling of accounting data increases the accuracy of audits and audits in the public sector.	37.286	3	0.00	4.00	I agree
3	The use of accounting information systems assists in examining and reviewing accounting entries and verifying their correct recording.	32.367	2	0.00	4.00	I agree
4	An effective financial control system leads to an accurate examination of the accounting data in the records.	22.082	2	0.00	4.00	I agree
5	The examination of the accounting data leads to the detection of any errors and fraud that may be recorded in the records.	8.122	2	0.17	4.00	I agree

To test the correctness of the hypothesis, which states: "The use of accounting information systems helps in examining accounting data in the public sector." The Chi square test was used for the hypotheses. The calculated Chi square values were as follows (46.266 - 37.286 - 32.367 - 22.082 - 8.122) and degrees of freedom (2- 3) With the level of significance of Sig for all expressions (0.00), and when comparing the level of significance of sig with the level of permissible significance (0.05), we find that the level of significance of sig is less than the level of significance, which means that there are statistically significant differences for the hypotheses.

- **The third hypothesis:** There is a statistically significant relationship between accounting information systems and increasing the efficiency of financial control

Table No (3): Results of the Chi-squared test to indicate differences between answers for each of the three hypothesis phrases

No	phrase	Chi-Squire	DF	Sig	Median	DS
1	The implementation of the accounting information system helps in the process of examination and inspection of government units.	54.102	3	0.00	4.00	I agree
2	The application of the accounting information system helps in monitoring government units and observing them while doing work.	25.020	2	0.00	4.00	I agree
3	The use of the accounting information system helps in applying reward and punishment theory in government units.	12.96	3	0.00	4.00	I agree
4	The weakness of the financial supervision system in state institutions increases the opportunities for fraud and embezzlement in public funds.	16.449	2	0.00	5.00	strongly agree
5	Continuous financial control contributes to avoiding the risks of embezzlement and tampering with the state's public funds.	16.327	2	0.00	4.00	I agree

To test the correctness of the hypothesis which states: "There is a statistically significant relationship between accounting information systems and increasing the efficiency of financial control." The Chi square test was used for the hypotheses and the calculated Kay square values came as follows (54.102 - 25.020 - 12.96 - 16.449 -

16.327) and degrees of freedom (2-3) With the level of significance of Sig for all statements (0.00), and when comparing the level of significance of sig with the level of permissible significance (0.05), we find that the level of significance of sig is less than the level of significance, which means that there are statistically significant differences for the hypothesis phrases.

- **The fourth hypothesis:** There is a statistically significant relationship between the use of accounting information systems and the promotion of compliance with the state's public financial policies

Table No (4): Results of the Chi-square test to indicate differences between answers for each of the fourth hypothesis phrases

No	phrase	Chi-Squire	DF	Sig	Median	DS
1	he implementation of the accounting information system helps in determining public spending.	36.306	3	0.00	4.00	I agree
2	The use of the accounting information system helps implement tax policies.	41.367	3	0.00	4.00	I agree
3	The use of the accounting information system helps in controlling the public debt	45.122	3	0.00	4.00	I agree
4	The use of the accounting information system helps in preparing the state's general budget	25.755	2	0.00	4.00	I agree
5	The implementation of the accounting information system helps in controlling the general revenues of the state.	53.122	3	0.00	4.00	I agree

To test the correctness of the hypothesis, which states: "There is a statistically significant relationship between the use of accounting information systems and the encouragement of compliance with the public financial policies." The Chi square test was used for the hypotheses and the calculated chi- square values came as follows (36.306 - 41.367 - 45.122 - 25.755 - 53.122) With degrees of freedom (2-3) and the level of Sig indication for all phrases (0.00), when comparing the level of significance sig with the permissible level of significance (0.05), we find that the level of significance sig is less than the level of significance, which means that there are statistically significant differences for the hypothesis phrases.

➤ **Results:**

- The use of accounting information systems helps protect the nation's public assets and properties.
- Good accounting information helps in the process of examining accounting data in the public sector.
- The use of the accounting information system aids in the application of tax policies.
- The application of the accounting information system helps in determining public spending.
- The ongoing financial control process contributes to avoiding the risks of embezzlement and tampering with the state's public funds.
- The use of the accounting information system helps in applying reward and punishment theory in government units.
- An effective financial control system leads to an accurate examination of the accounting data in the records.
- The need to train and qualify accountants and auditors to use accounting information systems in order to increase the efficiency and effectiveness of financial control over public resources.
- The necessity of using accounting information systems in all state institutions for their contribution to examining accounting data.
- The necessity of using accounting information systems in order to contribute to increasing the efficiency and effectiveness of public financial control.

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The application of an effective system of control over public assets ensures optimal use.

Recommendations:

- The necessity of applying the accounting information system that helps protect the state's public assets and properties.

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