

# **The role of the modern COSO framework in evaluating the internal control system through the mediating role of the internal auditor: (Al-Muthanna State University as a model)**

By

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## **Abstract**

The interest in internal control systems in government service and production units and government universities has increased, given the branching of services performed by these units and to ensure their commitment to the allocations approved in the budget. To achieve the internal control objectives in these units, control procedures must be carried out on these units in a way that does not conflict with the nature of their activities and the possibility of evaluating the efficiency of the activities. Therefore, the research aims to know the concept of the internal control system, its systems and types, the foundations of its management, its evaluation mechanisms, and the procedures followed in its application, and the statement of the role of internal control in raising the efficiency of public universities and developing their performance in light of the application of modern COSO components. One of the most important conclusions is that the internal control systems have faced significant challenges in light of globalization and information technologies and financial reports that reduce the expectations gap of users of financial reports as a result of many transformations and economic and commercial changes in light of the business environment and modern technologies. Among the most important recommendations is the need for public universities to adopt the internal control system in accordance with the COSO framework and to pay attention to the application of its components to achieve efficiency and effectiveness of operational processes, enhance the credibility of financial statements, and ensure that employees comply with the laws and regulations in force within these universities and follow developments that can be developed in this the field.

## **Introduction**

The internal control system is of great importance for the sound and court management of the units. The higher management and those below it should pay more attention to internal control. It is the basis on which to follow up the implementation of the drawn plans that embody its policy to reach the goals it seeks to achieve. Accordingly, the provisions of the internal control system with all its means within the unit enable to ensure the best, optimal and efficient use of the unit's human and material resources and to achieve effectiveness in its activity by controlling administrative, accounting and financial procedures, which leads to controlling its costs and reducing them to their minimum limits. However, the internal control system does

not give the administration some guarantees only, but it improves its profitability (Abd, 2019).

It is clear from the above that the internal control system is of great importance in the units due to the role of this system in ensuring the compliance of these units with the financial laws and regulations. In addition, the evaluation of internal control systems has the effect of activating and developing the internal control system and the efficiency of the use of available resources, which enhances raising the level of administrative, scientific and practical performance of the unit and its employees (Kareema, 2019). The accounting system in any unit must be based on an efficient and integrated internal control system that is commensurate with the activities of these units and takes into account the privacy of their activities. Because of the great role of the internal control system in the unit's success, we will try to study the evaluation of the internal control systems in public universities (Al-Muthanna University as a model) according to the framework of COSO (Joshua et al., 2020; Kartini et al., 2021).

## **The First Subject: Research Methodology**

### ***Research Problem***

The problem of the research lies in the lack of keeping pace with the internal control activities in government universities with the requirements of contemporary and emerging internal control, which leads to the emergence of threats that may limit its development and be influential in the weak effectiveness of the performance of internal control.

Based on the previous, the main problem of the study can be formulated in answering the following question:

- How effective are the internal control systems and their evaluation in public universities according to the COSO framework?
- How do public universities deal with the weakness of the internal control system and the errors and dangers that arise from it?

### ***Research Importance***

The importance of research highlights the need to study and evaluate the internal control system according to the COSO framework in government units due to the huge funds these units deal with and preserve them and the need for these units for accurate data.

### ***Research Objectives***

The research seeks to achieve the following goals:

1. Knowing the concept of the internal control system, its systems and types, the foundations of its management, its evaluation mechanisms, and the procedures followed in its application.
2. A statement of the role of internal control in raising the efficiency of public universities and developing their performance in light of the application of the modern COSO components.

### ***Research Hypothesis***

According to the modern COSO system, the research is based on a fundamental hypothesis: "Evaluation of the internal control system contributes to improving the quality of information and increasing work effectiveness in public universities."

### ***Research Frontiers***

1. Spatial boundaries: Al-Muthanna - Al-Muthanna University represented by its

presidency, scientific departments and service divisions.

2. Time limits: the academic year 2020/2021.

### ***Research Curriculum***

Data collection sources: To carry out the research, the following sources were relied upon:

1. Primary sources: Arabic and foreign books, local laws, regulations and instructions.
2. Secondary sources: the Internet, periodicals and academic and professional theses.

## **The second subject: the theoretical framework for research**

### ***First: Defining the internal control system***

The concept of the internal control system has undergone many developments. The internal control system was defined by the American Institute of Accountants in 1936 as “a set of methods and measures adopted by the unit to protect cash and other assets, as well as to ensure the accounting accuracy of the operations recorded in the books (Burns, 2014) .The system was defined by the French Board of Experts of Certified Accountants in 1977 as: “a set of guarantees of financial instructions, administrative decisions and accounting methods that contribute to directing the unit and aiming at ensuring the preservation of its assets and the quality and protection of information on the other hand.” The methods and procedures of each activity emerge in maintaining its , (Al-Refai, 1998) and the AICPA defines the internal control system as follows: - (It is the processes that occur in the management of economic units to provide reasonable insurance regarding) The internal control includes the accuracy and quality of the financial, accounting, and operational information prepared by its employees and expressing the activities of the governmental unit. And this is that these employees must be based on a set of basic principles this. The image of the government unit reflects its financial information presented to its external surroundings and related to the operations it carries out. Therefore this information must be free from errors, fraud and manipulations It is a process affected by the unit’s board of directors, the executive management and all relevant individuals working in the unit, intending to provide reasonable assurance about achieving many goals that fall under one or more of the goals (Al-Wardat, 2014)

### ***Second: Types of the internal control system***

#### ***The three types of internal control are:***

1. Administrative control system: It includes the organizational plan, coordination means, and targeted procedures used by the government unit to achieve the most incredible possible efficiency of service production by ensuring compliance with administrative policies, efficient economic use of resources and appropriate distribution of responsibilities and powers, and to achieve this, it depends on multiple means, such as statistical statements, time and movement studies, performance reports, quality control, estimated budgets and architectural costs, the use of maps and graphs, and various training programs for users, which are indirectly related to accounting and financial records (Badarna, 2013 )

2. Accounting control system: It is that organizational plan set by the institution. It shows the procedures followed and used to protect its assets and ensure the correctness of its data and financial accounting information to determine the degree of reliability. Its various activities and accounting evidence, and the parties responsible for this must be aware of the importance and functions of the accounting system. Accounting control methods include systems for delegating powers and granting powers, as well as separating job responsibilities related to keeping records and accounting reports and those related to operations or maintaining assets, and the functions of that the system in (Mahdi, 2010):-

A- Recording and compiling information and figures to make economic and financial

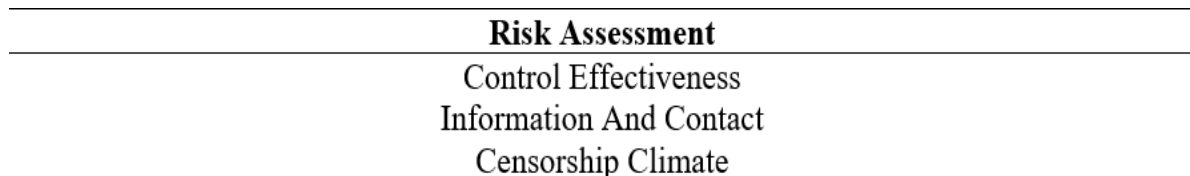
decisions.

b- Imposing control, controlling and preventing fraud and manipulation.

C - Preparing schedules and financial reports for financial analysis.

3- The internal control system: includes the organizational plan and all means of coordination and procedures aimed at protecting the assets of government units from embezzlement, loss or misuse. In achieving its objectives, internal control depends on the division of work with self-monitoring. Each employee's work is subject to the review of another employee who participates in implementing the process. It also depends on defining the competencies, powers and responsibilities (Pete, 2012).

4- Watching:



**Figure No. (1)** The relationship between the components of the internal control system (Lary F. Konrath, 2001: 205).

**Third: Components of the internal control system according to COSO**

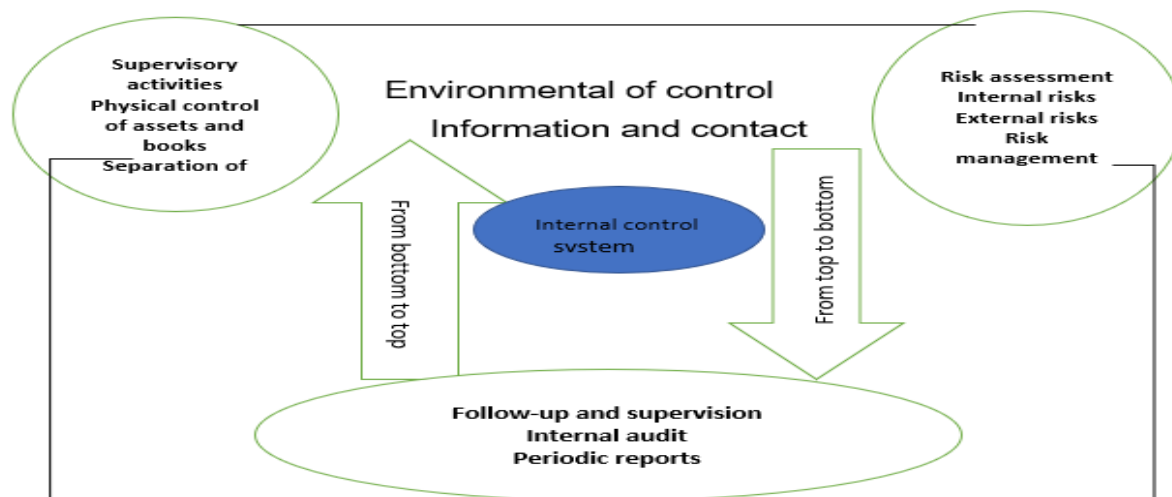
The Committee for the Protection of Organizations COSO has identified a set of features and characteristics for each component of the system to be effective in a wide area and efficient. These components are (Henry Peter, 2012; Daswani & Khan, 2021) (Table 1).

**Table (1):** These components (Henry Peter, 2012: 10-11).

Elements	Description of element	Sub-components
environment of control	The internal control base provides discipline, structure and order. It includes the attitudes, awareness and procedures of management and those charged with controlling the organization's internal control and its importance in the facility and the functions of control and management and determines the organisation's general direction that affects the awareness of its members to control.	Sub-components of the control environment: Honesty and moral values. Compliance with eligibility or authority. Management philosophy and operating style. -Organizational Chart. Assigning authority and responsibility. Human resource policies and practices.
Risk assessment	The process of identifying and responding to business risks and outcomes by an entity to prepare financial statements in accordance with the applicable financial reporting framework.	Duties to be observed; --presence or event-evaluation or distribution Presentation and disclosure -
Setting goals	The objectives must be present before the administration determines the possible events that affect their achievement. The set objectives must be consistent with the vision of the economic unit and with the desire and risk.	strategic goals -Related goals-Choice of goals-he willingness to take risks-
event identification	It means identifying the internal and external event that affects the achievement of the economic unit's objectives, distinguishing between risks and opportunities.	events-Influencing Factors-Event Correlation-Distinctive risks and opportunities. -
information and communication system	Procedures and records established to direct, record, process, prepare reports and maintain responsibility for assets, liabilities and shareholders' rights.	The audit objectives associated with financial operations must be achieved; - (Existence, classification, timing, migration and authorization).
Activities of control	Policies and procedures that help ensure the implementation of management procedures.	Categories of control activities Adequate separation of duties--Appropriate licensing of financial operations and activities. -Actual control over assets and books -
Follow-up (watching)	The management's continuous assessment or periodic assessment of the quality of internal control performance to determine whether the control is being implemented in accordance with the design established for it or to determine whether there is a need to amend the internal	Follow-up and control of compliance with the internal control system in the governmental organization.

**Fourth: The relationship between the components of the internal control system.**

Figure No. (2) Shows the overlap between the components of the control system, which cannot be separated. According to COSO, the control system consists of the integrated components (control environment, risk assessment, objective identification, event identification, control activities, communication and information, follow-up and supervision). To achieve the most significant degree of commitment to the policies, rules and administrative instructions to achieve the institution's objectives.



**Figure No. (2)** Interaction between the components of the internal control system

These components are reflected in administrative control through the fact that the process of developing these procedures takes into account all the influences related to the control environment in terms of management philosophy, human resources policy, and ethical values, as it is not possible to adopt administrative procedures or accounting rules that contradict these influences, on the other hand, It is possible to dispense with assessing the risks associated with these procedures, whether administrative, accounting, or internal control procedures, to determine their validity and the size of errors and deviations in them and correct them. According to periodic or continuous periods, it cannot be achieved without the availability of well-designed follow-up and supervision, and this is as required by the needs of the organization within the institution.

On the other hand, the process of communication and information transfer is one of the most important components that should be designed in a way that allows the transfer of information according to clear communication channels that transfer the necessary information about those administrative and accounting procedures to view and use it according to the needs of decision-makers in the institution.

**Practical side:**

The examination method was relied upon to study and analyse the extent to which governmental institutions adopted the COSO model in building their control systems because this method was distinguished by privacy within large governmental institutions. Therefore, other means do not reflect the correct image or maybe lengthy and thus affect the personal judgment in the process of study and analysis. For this purpose, a survey list was designed and distributed to a number of arbitrators to test its validity.

The use of the survey can achieve great benefit and more accurate results if values are

given in its various elements, i.e., numerical values are given for each answer to be in total the standard values of all internal control. These standard values are called (the denominator). The given values (the numerator) are attributed to the judgement on the degree of effectiveness of the internal control system at the university in accordance with the framework of COSO.

The degree of effectiveness is calculated according to the following equation:

$$\text{Degree of effectiveness} = \frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100 \%$$

### *Sum of the standard field values*

It is difficult to determine the estimated value of each question, as these questions vary in the degree of their importance from the supervisory point of view. As the weights of the examination questions were determined based on impartiality and without any bias in relation to the weights, and weight of (5) degrees was given to each question (based on the opinion of the arbitrators) and equally for all questions and using the supporting evidence for the answer. As for judging the degree of effectiveness of internal control, it is according to the following percentages: from 50% - 59% is acceptable, from 60% - 69% is medium, from 70% - 79% is good, from 80% - 89% is very good, 90% and above is excellent.

The examination model that was adopted in the research was organized based on the research model, which consists of eight axes according to the COSO model and as follows:

The first axis: the environmental of control

The second axis: setting the goal

The third axis: identification of events

Fourth Axis: Risk Assessment

Fifth Axis: Responding to Risks

The sixth axis: activities of control

Seventh Axis: Information and Communication

The eighth axis: follow-up (monitoring)

The internal control is examined according to the following stages:

The first stage: the administrative examination of the internal control at the university, according to the examination forms distributed to the employees working in the concerned departments and obtaining answers from them. As shown in Table No. (2), the following:

**Table (2).** *Number of employees in some related departments*

DEP	NO.of Employees	Middle School	Preparatory School	Diploma	Bachelor Of Accounting	Bachelor Other	Master
Financial	15	-	5	2	5	-	3
Managerial	17	-	-	2	6	6	3
Internal Audit	20	-	-	3	10	3	4

The second stage: the use of evidence of compliance tests to achieve two main goals:

1. Verify the accuracy of the answers to the examination form.
2. Verify the university's commitment to applying the components of the COSO model.

After completing the study and analysis of the components of internal control through the examination form, the information in this form was sufficient, after making sure of the answers through observation, examination, observation and inquiry as much as possible, due to the large number of data obtained from the research sample and to determine the strengths. The weakness is clearly, as the data of these forms have been emptied into special tables for each axis, which reflects the following information:

The first column: the estimated value of the questions.

The second column: the sequence of questions asked.

Third column: questions.

Fourth column: the numerical values of the answers.

As each question was answered with (yes) a certain degree within the range after confirming it through the evidence, either the answer with (no) or (I don't know), its degree was neglected, and it was given zero. The answer with (yes) indicates that the procedure exists and is implemented, and the answer with (no) indicates that the procedure does not exist or is not implemented. The answer with (I do not know) indicates that the employee cannot be sure of the answer.

***Study and analysis of the results of the checklists for the internal control elements at the university:***

The examination came to cover the procedures followed by the university about the components of control according to the COSO model, which have a significant impact on the internal control system. Through the tables of examination forms (1-8), the strengths and weaknesses of each component were identified by studying and analyzing the set of questions based on the evidence to verify them through interview, inquiries, observation and observation, and as follows (Table 3):

**Table (3).** *Examination Form of Control Environment Factor*

<b>The first axis / Environmental of control</b>			
<b>NO.</b>	<b>estimated value</b>	<b>Questions</b>	<b>yes No I don't know</b>
1	5	Is there a continuous development of the skill and professional competence of employees?	5
2	5	Is there encouragement to adhere to integrity and own moral values at the university?	5
3	5	Is there a positive philosophy for management to accept risks and work to overcome them?	5
4	5	Is there a special philosophy and a positive operating pattern for the administration towards the financial, administrative and audit tasks?	5
5	5	Is there an internal control system in the university that contributes to controlling the performance of employees?	5
6	5	Are the powers commensurate with the responsibilities?	5
7	5	Are there written rules that define the duties and responsibilities of employees?	5
8	5	Are there effective policies for human resources management at the university, such as recruitment, promotion, and training?	5
9	5	Does the university care about the internal control system and its continuous development?	5
10	5	Is the organizational structure appropriate to the nature of the university's activity?	5
			20 30

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$

Sum of the standard field values

Effectiveness =  $20/30 * 100\%$

= 66%

Through the values of the previous table (3), the following results were obtained:

There is no continuous development of employees' skills and professional competence in the university's various departments, so there must be continuous development through the participation of employees in continuous courses, for example, computer skills.

The university encourages commitment to the integrity and moral values of employees by preparing a list of the rules of conduct for state employees for the year 2006, as well as the State Employees Discipline Law for the year 1991, which confirms that the employee is committed to performing his duties with honesty, sincerity and diligence, and reporting this behavior to all employees under a written pledge indicating That the employee was aware of these rules and that they bind him.

Recruitment, promotion, training. There are no effective policies for human resources management at the university. Therefore, sound and appropriate policies must be developed for the appointment of employees. The selection of employees should be according to competence and efficiency while working to involve them in training and qualification courses and periodic evaluation procedures.

There is a special philosophy and a positive operational pattern in the administration towards the financial, administrative and audit tasks.

The organizational structure is consistent with the nature of the university's activity, size, and legal form and is characterized by simplicity and clarity.

The authorization of powers does not agree with the job description guide. According to the job description, the powers granted are compatible with the tasks and responsibilities entrusted to the employees. In contrast, according to official administrative orders, the powers authorised to the employees are not compatible with the tasks and responsibilities entrusted to the employees, affecting the working personnel's efficiency.

There is no internal control system that contributes to controlling the performance of university employees.

**Table (4).:** *Goal setting form*

<b>The second axis/goal setting</b>			
<b>NO.</b>	<b>estimated value</b>	<b>Questions</b>	<b>yes No I don't know</b>
1	5	Are there specific goals for the university according to its internal system that it seeks to achieve, while identifying the events facing the university that may affect the possibility of achieving those goals? Whether they are external goals (eg goals related to competitors) or internal goals (eg goals related to the efficiency of employees)?	5
2	5	Are there goals consistent with the vision of economic unity and with the desire to take risks?	5
3	5	Are the internal and external risks faced by the university identified and assessed when achieving its goals?	5
4	5	Do the related goals, and plans include targeted performance measures and indicators?	5
5	5	Do clear goals encourage consistency in planning and decision-making over time?	5
			10 15

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$   
 Effectiveness =  $10 / 15 * 100\%$   
 = 66%

Through the values of the previous table (4), the following results were obtained:



There are specific goals for the university according to its internal system that it seeks to achieve while identifying the events facing the university that affect the possibility of achieving those goals, whether they are external goals related to competitors, represented by the creation of colleges and other departments, where the university worked with all its energies to achieve its goals, which resulted in the university obtaining Multiple certificates.

As for the internal goals, they relate to the efficiency of employees and the development of their skills

The internal and external risks that the university faces when achieving its goals, which negatively affect the success of the unit, are not identified and evaluated.

There is encouragement by the university for clear goals to coordinate the planning and decision-making process over time.

**Table (5).** *Events determination form*

<b>The third axis/determination of events</b>				
<b>NO.</b>	<b>estimated value</b>	<b>Questions</b>	<b>yes</b>	<b>No I don't know</b>
1	5	Is there an update of the internal events (e.g., operational events, shortages and weaknesses of the operational staff)?	5	
2	5	Is there a limitation of external events (events related to competition)?		5
3	5	Is there a limitation of events related to technological developments of equipment and machinery?	5	
4	5	Are there events related to organizational and legal aspects that help achieve the university's goals?	5	
5	5	Is there a distinction between risks and opportunities?		5
6	5	Is there a definition of internal and external events that affect the achievement of the university's goals?		5
7	5	Are risks identified through a formal structuring process that considers the sources of risk and areas of influence?		5
			15	20

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$

Sum of the standard field values

Effectiveness =  $15 / 20 * 100\%$

= 75%

Through the values of the previous table, the following results are obtained:

There is a limitation of internal events, for example (operational events, shortages and weaknesses of functional staff)

There is no limitation of external events (events related to competition).

There is a determination of events related to technological developments of equipment and machinery.

There are events related to organizational and legal aspects that affect the achievement of the university's goals so that it seeks to identify and define them accurately to distinguish between them

The internal and external events that affect the university's goals must be identified. A distinction must be made between risks and opportunities, where opportunities are redirected in management strategy or goal-setting processes.

Identifying risks should be a formal structuring process that considers the sources of risk, areas of influence, potential events, their causes and consequences. There is also no distinction between the risks to the university, which should be addressed, and what represents an opportunity for the university.

**Table (6): Risk assessment form**

<b>Fourth Axis / Risk Assessment</b>			
NO.	estimated value	Questions	yesNo I don't know
1	5	Is assessing the risks to which the university is exposed as a means of measuring the likelihood of the impact of financial and non-financial events and transactions on achieving the university's goals?	5
2	5	Is there identification, study and analysis of risks to determine how to manage them?	5
3	5	Are mechanisms in place related to identifying risks emanating from internal sources?	5
4	5	Are mechanisms in place related to identifying risks emanating from external sources?	5
5	5	Is the probability of the risk being assessed?	5
6	5	Are the risks of internal and external factors identified and their impact on achieving the goals, and the existence of a risk management department within the university's organizational structure?	5
7	5	Are both drivers and pressures considered when assessing fraud risks?	5
8	5	Is there a basis for determining how the university's activity should be managed when the treated events occurred, not to be exposed to them in the future while developing a set of appropriate procedures and methods that reduce those risks?	5
9	5	Are there alternative solutions in the event of failure of some aspects of the implementation of the plans?	5
10	5	Is there electronic archiving as well as paper archiving to provide more security?	5
11	5	Are the risks associated with the irregularity of the educational process, and what affects the quality of education evaluated?	5
12	5	Is there a strategic plan to raise the quality of public education to the required international quality level?	5
			15 45

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$

Sum of the standard field values

Effectiveness =  $15 / 90 * 100\%$

= 16%

Through the values of the previous table, the following results are obtained:

It is necessary to assess the risks to which the university is exposed, and thus it is considered a means of measuring the possibility of the impact of financial and non-financial events and transactions on achieving the university's goals, and this is not seen in the university

There is no identification, study and analysis of risks to determine how to manage and work with them.

Mechanisms related to identifying risks emanating from internal sources are not being developed, nor are mechanisms related to identifying risks emanating from external sources.

Motives and pressures are not considered when assessing fraud risks.

There is electronic archiving as well as paper archiving for greater security.

There is no basis for determining how the university's activity should be managed during the period in which the events occurred to address the lack of exposure to them in the future, with the development of a set of procedures and methods to reduce those risks.

There is also a strategic plan to raise the quality of public education to the required international quality level.

The risks associated with the irregularity of the educational process and what affects the quality of education are evaluated.

**Table (7): Risk response form**

NO.	estimated value	Questions	yes	No	I don't know
1	5	Are risks being responded to avoid their occurrence in the future?	5		
2	5	Is there a set of appropriate measures by coordinating the risks that the university is exposed to with the directions it is working on?	5		
3	5	Are there design and implementation of effective internal control systems for the university?	5		
4	5	Does management test response to risks to avoid, accept or reduce risks?		5	
5	5	Is there a set of procedures to coordinate the risks and determine the willingness to bear them?		5	
			10	15	

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$

Sum of the standard field values

Effectiveness =  $10 / 15 * 100\%$

= 66%

Through the values of the previous table (7), the following results were obtained:

It is necessary to respond to risks to avoid their occurrence in the future, and when they do occur, efforts are made to reduce and limit their effects.

There is a set of appropriate procedures by coordinating the risks that the university is exposed to with the trends it is working on (risk reduction, risk acceptance, risk sharing with others, avoiding risks) and thus designing and implementing effective internal control systems the university.

There is no change in the supervisory activities and procedures followed within the university, which indicates the risks, and the basis of which measures are taken to modify the supervisory activities.

**Table (8): Activities of control Form**

The sixth axis/control activities					
NO.	estimated value	Questions	yes	No	I don't know
1	5	Is there monitoring of the estimated policies and procedures with separation of responsibilities?	5		
2	5	Is the performance of employees evaluated with integrity and accuracy?	5		
3	5	Are responsibilities and duties separated between employees?		5	
4	5	Are there performance reports for the quality of the institution?	5		
5	5	Is there a separate policy for the protection of assets, documents and important documents?		5	
6	5	Is there an evaluation of the employees' performance of the workflow while ensuring the adequate flow of achieving the university's goals at the level of the activities it engages in?	5		
7	5	Are policies and procedures developed and implemented to ensure an effective response to risks?		5	
8	5	Does the internal audit department audit the inventories?	5		
9	5	Do the participants of the inventory process have nothing to do with the inventory holding and the inventory records?		5	
10	5	Are control activities defined in two categories, preventive and revealing?		5	
11	5	Does the unit use the pre-numbering system for documents and records?		5	
12	5	Are responsibility and accountability defined for implementing policies and procedures?		5	
13	5	Are there sufficient protection means for stores and workshops?		5	
			30	35	

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$

Sum of the standard field values  
 Effectiveness =  $30 / 35 * 100\%$   
 = 85%

Through the values of the previous table (8), the following results were obtained:  
 There is oversight of the established policies and procedures with separation of responsibilities.  
 There is a special policy for the protection of assets, documents and important documents.  
 There is an evaluation for the employees to ensure the progress of work while ensuring the adequate flow of achieving the university's goals at the level of all the activities it engages in.  
 There are no physical controls related to the protection and security of assets and records.  
 There is no separation between the conflicting tasks, such as separating the function of authorizing the movement from the function of its relay or the job of the computer operator from the job of the programmer.  
 The inventory lists are audited by the Internal Audit Department by forming asset inventory committees and matching them with records and inventory results.  
 The participants of the inventory process have nothing to do with the inventory holding and the inventory records.  
 There are insufficient means of protection for warehouses and workshops.  
 Control activities are not defined in two categories, preventive and detective.  
 The university does not have a systematic plan to change employees at periodic intervals for all employees to know the relevant competencies in the department and in a manner that does not affect the workflow, as it was noticed that the employees work for the same place for a long time.

**Table (9): Information and communication form**

<b>The seventh axis/information and communication</b>			
<b>NO.</b>	<b>estimated value</b>	<b>Questions</b>	<b>yes No I don't know</b>
1	5	Is there effective communication by identifying information related to the university through the presence of multiple communication channels (electronic information systems)?	5
2	5	Is there a flow of information and its flow through the organizational levels of the university in pursuit of the goals, i.e., obtaining reliable and timely information?	5
3	5	Is the information updated first, Powell to become appropriate?	5
4	5	Does the university know about complaints from employees or external parties?	5
5	5	Does the university respond to the communications of external parties (represented by government agencies or those interested in education) in an appropriate and timely manner?	5
6	5	Is there a mechanism for coordination and communication between the university departments and the ministry?	5
7	5	Is there a direct connection with educational institutions through the Internet?	5
8	5	Are all necessary documents and information accessed at the time of need?	5
9	5	Does the university develop a strategy to control its information?	5
10	5	Are there effective procedures to achieve tight information exchanges at the university (sharing practices, meetings, and websites)?	5
11	5	Does the economic unit internally communicate information?	5
			25 30

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{30} \times 100\%$

Sum of the standard field values  
 Effectiveness =  $25 / 30 * 100\%$   
 = 83%

Through the values of the previous table, the following results were obtained:

There is effective communication by identifying the relevant information in the university through the presence of multiple communication channels, for example (electronic information systems).

The aim of the flow of information and its flow through the organizational levels of the university in pursuit of the goals, i.e., obtaining reliable information on time.

It is providing communication channels that enable employees to communicate information about any violation and breaches.

There are appropriate contacts with external parties represented by government agencies or those interested in education. Still, they are insufficient through what was observed that the university did not receive an answer to the books it sent and did not follow up on the correspondence results by sending a delegate as a activating communication with those bodies.

There are effective procedures to achieve a tight exchange of information at the university.

Existence of mechanisms for handling and following-up communications from external parties. They are determining the information on the internal environment of the university and preparing its reports.

The economic unit does not internally communicate information, including the objectives and responsibilities of internal control, necessary to support the work of other elements of internal control.

**Table (10): Follow-up form**

<b>The eighth axis/follow-up (monitoring)</b>				
NO.	estimated value	Questions	yes	No I don't know
1	5	Is there continuous monitoring by the university of all financial and non-financial transactions?	5	
2	5	Are modifications to pre-established plans checked and monitored?		5
3	5	Is there a continuous and effective evaluation of the university between the plans laid down and the actual results achieved, and to diagnose deviations and work to address them?	5	
4	5	Does the university respond appropriately and on time to the findings and recommendations of the Board of Supreme Audit regarding internal control?	5	
5	5	Are there corrective measures for some instructions and regulations?		5
6	5	Are the causes of shortcomings and failures in the follow-up of the university identified and corrected?		5
7	5	Is the control system followed by the Control and Audit Division periodically checked?	5	
8	5	Is the role of self-monitoring activated among employees (the employee was responsible for the tasks assigned to him)?		5
9	5	Is monitoring carried out to manage risks in the university as a whole and making adjustments as necessary?		5
10	5	Is monitoring accomplished by managing ongoing activities, separate evaluations, or both?		5
11	5	Are continuous or separate evaluations of the internal controls tested, developed and conducted?		5
12	5	Are deficiencies evaluated and reported to those responsible for corrective actions?		5
			25	35

Degree of effectiveness =  $\frac{\text{Sum of the values given for domain questions}}{\text{Sum of the standard field values}} \times 100\%$

Sum of the standard field values

Effectiveness =  $25 / 35 * 100\%$

= 71%

Through the values of the results of the previous table, the following results were obtained:

There is continuous monitoring by the University of all financial and non-financial transactions.

There is no examination and control of modifications to the pre-established plans.

There is a continuous and effective evaluation of the university between the plans developed and the actual results achieved, and the diagnosis of deviations and work to address them.

Monitoring is carried out through controls designed within the ordinary course of operational activities and are applied effectively and in real-time and are flexible in responding to any changes in the surrounding conditions.

The control system followed by the Control and Audit Division is checked periodically through a set of control activities, performed separately from the conduct of operational operations and are carried out later after the completion of operations. Internal auditors usually carry out these assessments.

The university is subject to inspection visits by the ministry to see the educational situation, and the university responds appropriately and on time to the results of the reports prepared by-government agencies seeking to maintain the level of education, as well as all the observations made by the Board of Financial Supervision.

## **Conclusions**

- 1- Internal control systems have faced significant challenges in light of globalization and information technologies and financial reports that reduce the expectations gap of users of financial reports due to many transformations and economic and commercial changes in light of the business environment and modern technologies.
- 2- The study showed the importance of providing the components of the control environment to achieve the goals of the internal control system in public universities, as it constitutes the practical basis that leads to serving those goals and thus achieving the goals of public universities.
- 3- The study showed the necessity of defining the specific goals of the university according to its internal system, which it seeks to achieve while identifying the events facing the university that may affect the possibility of achieving those goals, and working to identify and evaluate the internal and external risks facing the university that may negatively affect its success
- 4- The study showed the necessity of defining the internal events represented by operational events, and the occurrence of shortage and weakness of the active cadres, as well as the lack of identification of the external events as events related to competition, and there must be a distinction between risks and opportunities.
- 5- The study showed the need to analyze and assess the risks to which the performance of public universities is exposed due to the importance of this matter in achieving the objectives of the internal control system and protecting the university from the risks that disrupt its work.
- 6- The study showed the need to respond to risks to avoid their occurrence in the future and the existence of appropriate measures that can be followed and that may help reduce response to risks that occur in public universities.
- 7- The study showed the importance of having the necessary mechanisms to carry out oversight activities in public universities due to its importance in achieving the objectives of the internal control system as it is the core of the control work.
- 8- The study showed the importance and necessity of having a strong system of information and communication systems in public universities due to the importance of this matter in achieving the objectives of the internal control system.
- 9- The study showed the importance and necessity of monitoring the internal control system in public universities, considering that this element constitutes the umbrella that contains

the rest of the elements, which works to achieve the goals of internal control.

- 10- The study showed the importance of integrating the internal control elements according to the COSO framework and the necessity of applying them collectively to achieve the control objectives.

### **Recommendations**

1. The need for public universities to adopt the internal control system in accordance with the COSO framework and to pay attention to the application of its components to achieve the efficiency and effectiveness of operational processes, enhance the credibility of financial statements, and ensure that employees adhere to the laws and regulations in force within these universities and follow developments that can be developed in this field.
2. Working on analyzing and estimating the risks that pose a threat to achieving the goals of universities, especially the risks of stopping the funding and the risks of non-compliance with laws and regulations, which may result in administrative and financial violations, as well as the necessity of obligating public universities to audit their accounts by auditors accredited by the Ministry of Interior.
3. Work to strengthen control activities, which represent a primary pillar of the internal control system, and this is represented in the interest in providing an appropriate separation between similar tasks, providing specific powers for each administrative level, providing effective control over the assets and resources of the organization, providing physical and electronic protection of assets and records, and the presence of performance control, by persons independent of the persons responsible for preparing the data.
4. Follow up on the interest in information and communications and update it continuously in light of the changes that may occur and ensuring the existence of a strong system for electronic information systems within the organization and providing mechanisms for obtaining information in the surrounding external environment and providing communication channels that enable employees to communicate information related to any violations and breaches.
5. Increasing attention to the control component, which is related to the process of evaluating the quality of control over the internal control system through continuous assessments, as well as separate assessments that are achieved based on the assessment of risks and the effectiveness of continuous control procedures, where the control component plays an important role in achieving control objectives.
6. The necessity of considering the academic qualification of those who hold the position of an accountant or an internal auditor in public universities so that graduates of financial specialties fill these positions.

### **References**

- Abd, W. K. (2019). . Audit Program Proposal for Local International . . *Journal of Innovation, Creativity and Change*, , pp. 201-221.
- Al-Refai, K. R.-K. (1998). the scientific and practical principles of auditing accounts. . *Amman, Jordan: Future House for Publishing and Distribution*.
- Al-Wardat, K. A. (2014). Auditing Guide according to International Standards . *Dar Al-Warraq for Publishing and Distribution, Amman*.
- Badarna, M. S. (2013) . . Impact of the Effective internal Control System on the Internal Audit Effectiveness at Local Government Level. . *Journal of Social and Development Sciences*,, pp. 16-23.
- Burns, J. &. (2014). Challenges and Leading practices Related to implementing Coso s Internal
- Res Militaris*, vol.12, n°2, Summer-Autumn 2022

- Control-Integrated Framework. *Deloitte, September*.
- Daswani, B., & Khan, Y. (2021). Insights into the role of estrogens and androgens in glial tumorigenesis. *J Carcinog*, 20, 10. [https://doi.org/10.4103/jcar.jcar\\_2\\_21](https://doi.org/10.4103/jcar.jcar_2_21)
- Joshua, L. M., Huda, F., Rao, S., & Ravi, B. (2020). Clinicopathological significance of immunohistochemical expression of Filamin A in breast cancer. *J Carcinog*, 19, 13. [https://doi.org/10.4103/jcar.jcar\\_9\\_20](https://doi.org/10.4103/jcar.jcar_9_20)
- Kareema, A. A. (2019). The Role of Internal Auditing in. . *International Journal of Innovation, Creativity and Change*, , pp. 297-323.
- Kartini, D., Taher, A., Panigoro, S. S., Setiabudy, R., Jusman, S. W., Haryana, S. M., Murdani, A., Rustamadji, P., Karisyah, A., & Rasyid, S. H. (2021). Melatonin effect on hypoxia inducible factor-1 $\alpha$  and clinical response in patients with oral squamous cell carcinoma receiving neoadjuvant chemotherapy: A randomized controlled trial. *J Carcinog*, 20, 5. [https://doi.org/10.4103/jcar.jcar\\_19\\_20](https://doi.org/10.4103/jcar.jcar_19_20)
- Mahdi, T. M. (2010). the effect of using the electronic computer on the internal control systems. . *Qadisiyah University Journal of Administrative and Economic Sciences. Volume 12, Issue 4. ptabilite*.
- Pete, H. (2012). Internal control: evolution AND perspectives in Switzerland, Memory MBL,. *University of Geneva, Swiss law faculty*.