



## **The control Governance of information technologies and its reflection on the credibility of the financial statements**

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### **Abstract**

The aim of the research is to identify the role of the control governance of information technology in achieving the credibility of the financial statements in Iraqi banks, and the research dealt with the existence of a statistically significant relationship for the principles of control governance for information technology and internal control in the level of credibility of disclosure in the financial statements. The existence of a statistically significant relationship in the level of credibility of disclosure of the financial statements is attributed to several variables, as the study adopted the descriptive analytical approach to suit the nature of the study. The researcher used the questionnaire method as a tool for collecting data and information. A stratified sample of 19 managers in Iraqi banks was selected. The researcher relied on the Statistical Packages for Social Sciences (SPSS) program to analyze and present the data, Using frequencies, percentages, and one-way analysis of variance test to test the hypotheses, and after testing the significance of the phrases, the following results were drawn: Information technology governance fulfilled some formal conditions without taking into account the banks of the research sample with many legal frameworks, so its role is still limited in achieving the goals that were formed from Its purpose is to strengthen supervisory governance, as well as the humility of the knowledge and skill side of managers about the level of their evaluation of the degree of application of the principle of (support and delivery) in banks. The study also recommended the need to adopt the modern frameworks represented by the COBIT framework, as they are considered appropriate to keep pace with the rapid changes and developments of banking activities under the traditional and automated systems .

**Keywords: information technology control governance / financial statements**

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### **Introduction**

The global financial crises had a negative impact on the global economy in general and on the American economy in particular, and one of its

reasons was the weakness of the internal control systems applied in the economic units and the degree of risks they face, which negatively affected the credibility of the financial statements, and this makes the information contained in them misleading and does not meet the requirements of their users, which led to taking the necessary measures to issue rules, laws, and instructions to guide and follow up on economic units, and after the adoption of the (SOX) law, the US Securities Exchange (SEC) imposed on departments to base their assessment of the internal control system based on a recognized frame of reference, hence the importance of the framework COBIT5 for Information Technology Management and Governance, being global reference frameworks that can be adopted in any environment for their role in enhancing internal control and IT governance, and thus contributing to adding credibility to the financial statements. In view of the importance of this topic, which has become an advantage for the international business environment in general, and our local environment in particular, to achieve the sustainability of our economic units by removing the problems they suffer, which should be designed within a control framework that defines appropriate methods of data access and application, provided that it is characterized by ease of management and auditing. It must be designed flexibly leaders must guarantee that information technology is flexible enough to adapt to any changes that occur in the business environment. operates as effectively as possible, to help them achieve their goals and those of the business unit .

### **The first topic: research methodology**

#### **First: the research problem**

The Iraqi economic units in general, and banking in particular, suffer from weakness and shortcomings of the traditional internal control systems and their unsuitability for business environments in light of that boom in the information technology environment. Information technology is an essential part of the internal control system in the economic unit, and because of its role in raising and ensuring the support of business objectives and managing operations appropriately for risks and opportunities, so the research problem can be explained by the following question :

Does the level of governance of information technology affect the internal control systems, which is reflected on the level of credibility of the financial statements in the Iraqi private commercial banks (the research sample) .

#### **Second : the importance of research**

The importance of research comes through the uncertainties that the world is witnessing today at all times as a result of intense competition and the development taking place in all levels and economic fields, and

internal control frameworks and their updates should be the most important challenges that are among the priorities of economic units, and the control governance of information technology is a guarantee Urgency in economic units and necessity in the midst of competing competition for information .

### **Third: Research objectives**

The research aims to demonstrate the level of verification of credibility in the financial statements in private commercial banks (the research sample) according to the IT governance framework, which creates a single point of reference for information technology governance and management through its five principles, as well as evaluating the extent to which information technology governance is applied in private commercial banks. (The research sample ) .

### **Fourth: the research hypothesis**

The research hypotheses are as follows:

1. The principles of information technology control governance and internal control affect the reliability of the financial statements .
2. There are differences in the application of the principles of control governance on the credibility of disclosure in the financial statements due to the variables of educational level, job title, years of experience, job grade and training courses.

### **Fifth: The limits of the study**

**Spatial boundaries:** The spatial boundaries of the study are represented by the banks registered in Iraq, where the study community is represented by all Iraqi bank employees. The study sample included three Iraqi banks (Trans-Iraq Bank - Iraqi Credit Bank - Al-Mansour Investment Bank)

**.Temporal limits:** The temporal limits were for the period covered by the study in 2021 AD.

### **Sixth: Data collection methods**

In the theoretical aspect, the researcher relied on international sources and references from books, research, articles, letters and theses, as well as laws and instructions issued by the Iraqi Stock Exchange. In the practical aspect, the researcher relied on the laws and instructions in force related to banking supervisory work, as well as the annual report of the economic units of the research sample. As well as the questionnaire, which was designed to include the research variables and then distributed to a selected sample of the managers of branches, departments and divisions in Iraqi banks (the study sample).

## **The second topic: the theoretical side**

### **First: the concept of IT governance**

The concept of information technology arose in 1988 by the Information Technology Governance Institute in the United States of America, as a

result of the international need to control information and technology associated with it in institutions (Van, 2008) .

It is defined as (governance that consists of a set of procedures, policies, responsibilities and structures for an effective decision-making support process that helps in reaching the desired behavior and the right design) (Mirbaha, 2008).

COBIT is an acronym for Control Objectives For Information And Related Technologies, which is primarily based on the control objectives of ISACF, and has been complemented by worldwide standards that are evolving in the technical, professional, regulatory, and industry sectors. Control goals as a result were set for the applications of approved information systems at the enterprise level. The term 'generally accepted and appropriate' is used explicitly in the same sense as GAAP (Pauwels, 2006) .

### **Second: Components of the Internal Control Framework according to (COBIT)**

The following are the main components of the COBIT framework concerned with information security in an environment that uses information technology:

A - Characteristics of information In order to implement these characteristics, the information must meet the basic requirements, and its characteristics must comply with international standards related to the characteristics of information, which are seven characteristics:

- Effectiveness: that is, the information is relevant to the work, delivered in a timely manner, and used in a consistent and correct manner.
- Efficiency: ie, the optimal use of information.
- Compliance: that is, the information is consistent with and complies with the laws, regulations, and regulations.
- Availability: the availability of information when needed as well as maintaining the necessary resources and associated capabilities.
- Confidentiality: is the protecting information from being disclosed.
- Integrity: that is, the According to the standards and principles of the workplace, the information is correct and comprehensive.
- Reliability: the reliability of information.

B - Information Technology Operations: It consists of thirty-four objectives divided into four sub-axes (domains), these objectives are the controls or procedures that must be available within the information technology operations, and they are as follows: (Zhang & Le, 2013)

#### **1. Planning and organizing.**

This level consists of a number of control sub-objectives, as it includes a wide field of strategic planning for information technology and the formation of engineering An architecture of information related to the organization to the management of

specific projects, such as IT investment management, human resource management, risk assessment, quality management and others .

## 2. Ownership and execution.

After planning, the organization needs to obtain and implement information systems, and this level consists of six objectives of control such as change management, design and selection of systems, development and control of procedures and access to infrastructure technology for the organization and others .

## 3. Presentation and support

Information technology projects are distinguished by the fact that they become visible after their implementation. This level has thirteen objectives of control, including operations management, management of facilities provided to operations, data management, problem and accident management, customer assistance and advice, configuration management, and ensuring systems security. (Zhang & Le, 2013)

## 4. Monitoring (follow-up and evaluation)

This means that establishments must monitor their operations, ensure a reasonable level of internal control, obtain appropriate guarantees to perform their tasks, and ensure the existence of an independent and efficient audit.

### **Third: the concept of financial statements**

There are two basic concepts of financial statements, namely the the income statement and the statement of financial position concepts, and from these two concepts (the lists) two other statements are derived and prepared, namely, the statement of change in equity and the statement of cash flows . Each of the two basic concepts of financial statements includes secondary concepts of the components of those statements such as (assets, liabilities, expenses, revenues..) and that the purpose of this tabulation is to extract the largest possible amount of useful information for users of financial information (Hanan & Nizar, 2015) .

The International Accounting Standards Board (IASB) defines the elements of financial statements and establishes generally agreed accounting terminology and language , It issued the first international accounting standard to define the elements of financial statements that are directly related to measuring the performance and financial condition of the company. In principle, the ten financial statements items can be grouped into two groups: five items related to the income statement, and

five items related to the statement of financial position, and according to the following: (Kieso, E, & J, 2018) .

**Income statement items :**

1. Revenue
2. Expenses
3. Gains
4. Losses
5. Income

The components of the statement of financial position are as follows:

1. Obligations
2. Asset
3. Ownership right
4. Owner investment
5. Distributions to owners

The financial statements are regarded as the accounting products' final result and a channel for informing the beneficiaries. One way to ensure that the financial statements accurately and clearly reflect the company's actual financial situation is to offer ongoing follow-up on all financial events inside the organization.

To ensure accurate and appropriate access to information for the categories used, and to help them make the most efficient decisions, it must be characterized by a set of characteristics. There are many definitions of financial statements, including the following:

Financial statements are defined as: “the primary means of communicating accounting information to external parties, although financial statements may contain information from sources outside the accounting records.” (Hammad, 2004) .

The financial statements were defined as “a structural presentation of the financial position of the economic unit and its performance during a certain period, as they aid the owners of the economic unit in determining if the management's use of the economic unit's resources was enough and are acceptable for the various sorts of consumers of the lists. (Hammad, 2004)

It was also defined as “the final product of the accounting system, as it summarizes all the financial operations that occurred in the economic unit A set of generally accepted accounting rules (GAAP) govern the preparation of financial statements and the information that must be included in them during the reporting period. (Zwyalif, 2013) .

The researcher believes that the financial statements are the final product that is released at the conclusion of the fiscal year or the accounting system's financial period, it contains both financial and non-financial information, and it serves as one of the mechanisms of informing the

appropriate parties. The financial statements are included in the financial reports. When financial reports may provide you with additional information that you need and the financial statements can provide you with some key information.

There are other reports related to the sources of funds of the economic unit as well as its resources that are not recognized in the budget based on the International Financial Reporting Standards (IFRSs). As for the reports that are presented outside the scope of the financial statements - such as financial reports prepared for the purposes of internal management uses, environmental reports and value-added lists, they are outside the scope of the International Financial Reporting Standards (IFRSs).

#### **Fourth: The credibility of the financial statements**

The characteristic of credibility is related to the integrity and reliability of the information, and the degree of the information's dependability is a direct reflection of the factual data or reliable measuring techniques that were used to support it. From bias (Hammad, 2004) The credibility of the financial statements is one of the basic characteristics of the financial statements. It is also one of the criteria for recognition and measurement of those statements, as defined by the International Accounting Standards Committee.

The credibility or reliability of the financial statements means that they can be relied upon by the beneficiaries, especially decision makers. To achieve this, three secondary characteristics must be present: (Hanan & Nizar, 2015)

- a. The validity of the information in the representation of the phenomenon in question: that is, the nature of the financial transaction must be consistent with the numbers of the information provided.
- b. Objectivity or verifiability: Measuring when a re-measurement is made by any accountant or other auditor, the same conclusion is reached.
- c. Neutrality: that is, the absence of bias in favor of one group at the expense of another, and the interest of one group does not prevail over another. That is, the information must be free from any material errors or any bias and that the main manifestations of credibility are honest representation, priority of substance over form, impartiality and careful prudence. And through what has been shown about the reality of internal control as one of the tools of information technology governance in banks, the research sample to demonstrate the credibility of the financial statements, despite the fulfillment of the information technology governance of some formal conditions without taking into

account the banks of the research sample with many legal frameworks, Therefore, its role is still limited in achieving the objectives for which it was formed, which is to strengthen regulatory governance. This casts a great deal of doubt about the effectiveness of information technology governance and its role in achieving credibility for the financial statements, which requires with it the need to develop work mechanisms for information technology governance. And to be subject to updating, modification or addition, and in order for this step to be successfully passed, the banks must be aware of the seriousness of the existing situation for them. And she has conviction and a desire to confront. Its structure should be from the perspective of serving its beneficiaries in the first place, and this is the result of one of the reasons for achieving transparency and credibility in the financial statements of investors.

### **The third topic: the practical side**

#### **First: the scale of the study tool**

The five-stage Likert Scale was chosen, as it is one of the most widely used scales for measuring opinions and responses, due to its ease of understanding. The members of the study sample subject to the test indicate their agreement with each of the items of the questionnaire according to the mentioned scale, as follows:

very agree	agree	neutral	Not agree	Very not agree
(5) degrees	(4) degrees	(3) degrees	(2) degree	(1) degree

A scale was adopted for the degree of the three levels are as follows: The cut-off score was calculated by dividing the sum of the differences between the highest value on the scale ((5) and the lowest value in it (1) on three levels, meaning that the cut-off degree is as follows:  $(5-1)/3 = 1.33$ ). The study sample was evaluated for the dimensions of the level of information technology governance, which were divided into three levels.

- A. Low degree of agreement (1-2.33) .
- B. Medium degree of agreement (2.34 - 3.67).
- C. High degree of agreement (3.68-5)

While the For the purpose of diagnosing the negative and positive reactions of the research sample members, the test standard of (3) and the result were calculated by dividing the sum of the greatest value of the scale (5) and the lowest value in it (1) by the number (2), that is,  $((5+1)/2=3)$ :

- A. The limits of the negative response are (1-2.99)
- B. The limits of the positive response are (3-5).



C. Accordingly, the administration of the study in its final form and directed to the individuals of the study sample in the banks, the research sample, consists of (70) paragraphs.

### **Second: the stability of the tool**

The stability coefficient of the entire tool was (0.923), which is very high in order to accept the findings of this study as the acceptable percentage for generalizing. The researcher used the reliability coefficient represented by (Cronbch Alpha) to calculate the stability coefficients for the variables of the tool for the purpose of (measuring the internal consistency of the paragraphs of the resolution):

**Table (1)**

**The results of the study tool stability test (the internal consistency of the questionnaire items)**

<b>Variables (IT Governance)</b>	<b>number of paragraphs</b>	<b>Cronbach Alpha (Stability Coefficient)</b>	<b>stability ratio</b>
<b>Planning and Organizing</b>	<b>17</b>	<b>0.819</b>	<b>81.9%</b>
<b>owning and executing</b>	<b>13</b>	<b>0.625</b>	<b>62.5%</b>
<b>Support and Delivery</b>	<b>19</b>	<b>0.709</b>	<b>70.9%</b>
<b>Follow-up and evaluation</b>	<b>10</b>	<b>0.805</b>	<b>80.5%</b>
<b>Guidance and follow up</b>	<b>11</b>	<b>0.732</b>	<b>73.2%</b>
<b>total tool</b>	<b>70</b>	<b>0.923</b>	<b>92.3%</b>

### **Second, the results of statistical analysis and hypothesis testing**

The following is a detailed description of the estimates of the study sample members about each of the principles of the COBIT framework and its clauses in the research sample banks, as follows:

1- Principle of Planning and Organizing:

The results shown in the following table No. (2) indicate that the general arithmetic mean of the principle (planning and organization) increased, as it reached (4.04) with a standard deviation of (0.30), and it was found that the arithmetic average is greater than the test standard of (3) out of (5) degrees. . This result indicates that the interest of the study sample members in the research sample banks for the mentioned principle was (positive), which means that the level of their evaluation of the degree of application of the principle of (planning and organization) in the mentioned banks was a (high) degree from their point of view.

**Table (2)**  
**the paragraphs' mathematical averages and standard deviations**  
**(planning and organizing) principle (n = 19)**

No .	vertebrae	Arithmetic average	standard deviation	rank	degree of application
1	There is a definition of an IT strategy plan within the bank.	3.74	0.65	16	High
2	There is a clear definition of the structure of the information to be obtained in the bank.	4.32	0.47	2	High
3	In the bank, technological trends are identified	4.16	0.60	6	High
4	Information technology and other parties are related in some way	4.37	0.59	1	High
5	The investment in IT is managed effectively.	3.95	0.62	11	High
6	Administrative objectives are communicated and directed internally	4.21	0.54	5	High
7	Human resource management is linked to information technology	4.00	0.75	10	High
8	Compliance with external requirements is guaranteed	3.89	0.74	13	High
9	Risks are evaluated efficiently and effectively	4.11	0.66	7	High
10	Projects are managed and developed internally	4.26	0.56	4	High
11	Quality is managed and adhered to.	3.94	0.62	12	High
12	The demands of shareholders and the decisions that are made on governance and management are intertwined.	3.73	0.73	17	High
13	Stakeholder requirements and operational objectives are connected (enterprise goals, IT related goals and COBIT enablers goals)	3.79	0.63	15	High
14	The value is realized from IT	4.10	0.57	8	High
15	All laws, regulations and frameworks are complied with.	4.31	0.48	3	High
16	All IT risks are addressed	3.84	0.60	14	High
17	Planning by management for information security and confidentiality policies:	4.03	0.70	9	High
A	The bank management practices effective methods in	4.05	0.71	2	High

	<b>maintaining the security and confidentiality of information</b>				
<b>B</b>	<b>The management determines the duties and responsibilities of auditors working in the information security environment</b>	<b>3.68</b>	<b>0.75</b>	<b>4</b>	<b>High</b>
<b>C</b>	<b>The Bank's management assists the internal auditors in dealing with information security rules.</b>	<b>4.42</b>	<b>0.60</b>	<b>1</b>	<b>High</b>
<b>D</b>	<b>Information security-related changes in the information technology environment are dealt with by the internal audit department.</b>	<b>3.95</b>	<b>0.70</b>	<b>3</b>	<b>High</b>
<b>-</b>	<b>The average and the wide standard deviation</b>	<b>4.04</b>	<b>0.30</b>	<b>-</b>	<b>High</b>

2- The principle of ownership and implementation:

The data in Table 3 below demonstrate a rise in the global arithmetic mean of the principle (possession and execution), which reached (4.00) with a standard deviation of (0.24), and it was found that the arithmetic mean is greater than the test standard of (3) out of (5) degrees, and this result indicates that the interest of the study sample members in the research sample banks for the mentioned principle was (positive), which means that the level of their evaluation of the degree of application of the principle of (ownership and implementation) in the mentioned banks was a (high) degree from their point of view.

It is clear from the results shown in Table No. (4-2) the tendency of all the arithmetic averages for the paragraphs of the (owning and implementation) principle to rise, from the point of view of the study sample members in the research sample banks, where these averages ranged between (3.63-4.32), where paragraph (19) meaning: (The bank management is keen on developing and maintaining procedures) ranked first in the order of priorities and interests of the study sample members, The bank's management is eager to acquire and maintain the information technology infrastructure, according to paragraph (20), which was rated thirteenth and last on the list of priorities and interests of the research sample members, with a mean of (3.63) and a standard deviation of (0.48). (0.60). These results indicate that the sample members have a clear vision about each paragraph of the principle (ownership and implementation), which indicates that the level of their evaluation of the degree of application of the paragraphs of the mentioned principle was in varying degrees ranging from (medium and high) from their point of view.

**Table (3)**

**Arithmetic averages and standard deviations of (possession and implementation) clauses (19=n)**

No.	vertebrae	Arithmetic average	standard deviation	rank	degree of application
18	The IT infrastructure is owned and maintained.	3.90	0.74	7	High
19	The administration of the bank is committed to creating and upholding processes.	4.32	0.48	1	High
20	The Bank's management is keen on acquiring and maintaining the information technology infrastructure.	3.63	0.60	13	medium
21	The Bank's management is keen to maintain and develop plans	4.05	0.41	5	High
22	Systems and software have legitimate and authorized licenses installed and loaded.	3.95	0.71	6	High
23	Emergency changes are managed through a contingency plan.	3.84	0.69	11	High
24	By enforcing a strategy, modern technologies may be invested in.	3.74	0.73	12	High
25	provides a setting for running effective and versatile IT operations.	4.11	0.57	4	High
26	The Bank rehabilitates and trains employees and manages their institutional performance	4.21	0.63	2	High
27	Adequate staff for the IT department	3.84	0.69	10	High
28	IT quality assurance is monitored	3.79	0.71	11	High
29	The information that is processed is secured in the best way.	3.89	0.56	8	High
30	The role of qualifying the IT auditor with skill and efficiency in information security and confidentiality:	4.19	0.59	3	High
A	The IT auditor has the necessary experience and knowledge in the field of information security	4.16	0.60	3	High
B	The IT auditor verifies the	4.42	0.50	1	High

	<b>reliability of the bank's computer networks</b>				
<b>C</b>	<b>The auditor of IT systems has the flexibility to adjust with the most recent advancements in information security practices.</b>	<b>3.89</b>	<b>0.74</b>	<b>4</b>	<b>High</b>
<b>D</b>	<b>The IT systems auditor verifies the information security policies based on IT tools</b>	<b>4.26</b>	<b>0.56</b>	<b>2</b>	<b>High</b>
<b>-</b>	<b>The arithmetic mean and the general standard deviation</b>	<b>4.00</b>	<b>0.24</b>	<b>-</b>	<b>High</b>

### **3- The principle of support and delivery:**

The results shown in the following table No. (4) indicate a high general arithmetic mean of the principle (support and delivery), which reached (4.11) with a standard deviation of (0.22), and it was found that the arithmetic average is greater than the test standard of (3) out of (5) degrees This result indicates that interest of the study sample members in the research sample banks for the mentioned principle was (positive), which indicates that the degree of their assessment of the degree of application of the principle of (support and delivery) in the mentioned banks was a (high) degree from their point of view.

It is clear from the results shown in Table No. (4) the tendency of all the arithmetic averages for the paragraphs of the principle (support and delivery) to rise, from the point of view of the study sample members in the research sample banks, where these averages ranged between (3.74 - 4.37), where the paragraph ( 31) Which means: (service levels are determined and managed) on the first rank in the priorities of the study sample members. And their interests, with a standard deviation of 0.50 and a mean of (4.37), whereas (32) which means: (The services of external parties are managed) ranked nineteenth and last in the list of priorities and interests of the study sample members, with an average of (3.74) And a standard deviation of (0.56) and these results indicate that the sample members have a clear perception about each paragraph of the principle (support and delivery), which indicates that the managers' evaluation of the research sample for the principle (support and delivery) and all of its paragraphs were (positive), which indicates that their assessment of the extent to which the aforementioned articles were applied was principle was a (high) degree from their point of view.

**Table (4)**  
**Standard deviations and averages in mathematics of (support and conduction) items (n=19)**

No.	vertebrae	Arithmetic average	standard deviation	rank	degree of application
31	Service levels are defined and managed	4.37	0.50	1	High
32	Outside-party services are managed	3.74	0.56	19	High
33	Outside-party services are managed	4.21	0.63	8	High
34	The bank's management is keen to ensure continuous service	4.00	0.58	15	High
35	The management of the bank is keen to ensure the security of systems and information	4.26	0.56	5	High
36	The management of the bank is keen to determine and allocate costs	4.21	063	9	High
37	The management of the bank is keen on educating and training users	4.26	0.56	6	High
38	The management of the bank is keen to help prayer and provide advice	4.32	0.48	3	High
39	The management of the bank seeks to have a management for specifications and to abide by their standards	3.89	0.66	18	High
40	The management of the bank seeks to have a presence in the management of problems and events	4.11	0.46	11	High
41	The management of the bank seeks to manage and maintain data periodically	3.95	0.40	16	High
42	The bank's management aims to maintain effective and continuous service while managing the facilities.	4.05	0.62	13	High
43	Operations are managed in an efficient and fast manner	4.31	0.67	4	High
44	Flexibility is available for businesses to obtain information	3.94	0.91	17	High
45	Existence of requirements	4.05	0.40	14	High

	<b>for control and control of information</b>				
<b>46</b>	<b>Success of all IT projects related to IT</b>	<b>3.84</b>	<b>0.69</b>	<b>19</b>	<b>High</b>
<b>47</b>	<b>Information technology helps maintain the sustainability of the organization</b>	<b>4.21</b>	<b>0.42</b>	<b>10</b>	<b>High</b>
<b>48</b>	<b>Clarity of the role of information technology</b>	<b>4.26</b>	<b>0.45</b>	<b>7</b>	<b>High</b>
<b>49</b>	<b>How important are the following outputs for IT governance?</b>	<b>4.11</b>	<b>0.66</b>	<b>12</b>	<b>High</b>
<b>A</b>	<b>Costs of effective use of information technology</b>	<b>3.95</b>	<b>0.71</b>	<b>4</b>	<b>High</b>
<b>B</b>	<b>Using information technology effectively to achieve growth</b>	<b>4.11</b>	<b>0.66</b>	<b>2</b>	<b>High</b>
<b>C</b>	<b>Effective use of information technology to use assets</b>	<b>4.00</b>	<b>0.67</b>	<b>3</b>	<b>High</b>
<b>D</b>	<b>Effective use of technology to achieve flexibility</b>	<b>4.37</b>	<b>0.60</b>	<b>1</b>	<b>High</b>
<b>-</b>	<b>The arithmetic mean and the general standard deviation</b>	<b>4.11</b>	<b>0.21</b>	<b>-</b>	<b>High</b>

#### **4- The principle of follow-up and evaluation:**

The results shown in the following table (5) indicate a high general arithmetic mean of the principle (follow-up and evaluation), which reached (4.07) with a standard deviation of (0.40), and it was found that the arithmetic average is greater than the selection criterion of (3) on a scale of (5) degrees. This finding suggests that the research sample's interest was high. members in the research sample banks for the mentioned principle was (positive), which means that the level of their evaluation of the degree of application of the principle of (follow-up and evaluation) in the mentioned banks was a (high) degree from their point of view.

**Table (5)**  
**Standard deviations and arithmetic averages of the (follow-up and evaluation) items (n = 19)**

<b>No.</b>	<b>vertebrae</b>	<b>Arithmetic average</b>	<b>standard deviation</b>	<b>rank</b>	<b>degree of application</b>
<b>50</b>	<b>The process is actively monitored</b>	<b>3.95</b>	<b>0.71</b>	<b>6</b>	<b>High</b>
<b>51</b>	<b>The adequacy of internal control is assessed</b>	<b>4.32</b>	<b>0.58</b>	<b>2</b>	<b>High</b>
<b>52</b>	<b>Independent confirmation is obtained</b>	<b>3.90</b>	<b>0.74</b>	<b>7</b>	<b>High</b>

<b>53</b>	<b>Independence is provided for audit</b>	<b>4.05</b>	<b>0.71</b>	<b>5</b>	<b>High</b>
<b>54</b>	<b>Ease of verifying that business processes are secure and validated</b>	<b>4.21</b>	<b>0.54</b>	<b>3</b>	<b>High</b>
<b>55</b>	<b>Ensure that the institution complies with applicable legislation, laws and regulations</b>	<b>4.37</b>	<b>0.60</b>	<b>1</b>	<b>High</b>
<b>56</b>	<b>COBIT provides benefits and creates an optimal balance between risk and benefit</b>	<b>3.74</b>	<b>0.81</b>	<b>10</b>	<b>High</b>
<b>57</b>	<b>Shareholders are evaluated for business investments</b>	<b>3.84</b>	<b>0.76</b>	<b>9</b>	<b>High</b>
<b>58</b>	<b>The electronic guide's role in assisting the internal auditor in adjusting to the information security technology environment</b>	<b>4.16</b>	<b>0.71</b>	<b>4</b>	<b>High</b>
<b>59</b>	<b>The bank uses the electronic guide to prove and record transactions</b>	<b>4.11</b>	<b>0.74</b>	<b>3</b>	<b>High</b>
<b>A</b>	<b>The electronic guide in the audit process helps mitigate the risks of information security technology</b>	<b>3.95</b>	<b>0.71</b>	<b>4</b>	<b>High</b>
<b>B</b>	<b>The electronic guide helps the internal auditor to accomplish his tasks accurately.</b>	<b>4.32</b>	<b>0.74</b>	<b>1</b>	<b>High</b>
<b>C</b>	<b>The existence of databases helps to preserve and secure information</b>	<b>4.26</b>	<b>0.65</b>	<b>2</b>	<b>High</b>
<b>D</b>	<b>The arithmetic mean and the general standard deviation</b>	<b>4.07</b>	<b>0.40</b>	<b>-</b>	<b>High</b>

It is clear from the results shown in Table No. (4-4), the tendency of all the arithmetic averages for the paragraphs of the (follow-up and evaluation) principle to rise, from the point of view of the study sample members in the research sample banks, where these averages ranged between (3.74-4.37), where Paragraph (55) to the effect: (Ensuring that the institution complies with the applicable legislation, laws and regulations) ranked first in the priorities and interests of the study sample members, while paragraph (57) received a mean of (4.37) and a standard deviation of (0.60), Its significance is as follows: (COBIT system produces benefits and strikes a balance between risks and optimal benefit) on the tenth and bottom rung of the study sample members' priority and



interest scale, with a mean of (3.74) and a standard deviation of (0.81). These findings show that people understand each of the principle of (follow-up and evaluation paragraphs) clearly, proving that the managers' assessments of the principle of (follow-up and evaluation) and all of its paragraphs in the sample banks were accurate (positive), and this means that the level of their evaluation of the degree of application of the principle's paragraphs The aforementioned was a (high) degree from their point of view.

### **5- Principle of Guidance and Control:**

The results shown in the following table (6) indicate that the general arithmetic mean of the principle (guidance and control) increased, as it reached (3.95) with a standard deviation of (0.27), and it was found that the arithmetic average is greater than the test standard of (3) out of (5) degrees. . This result indicates that the interest of the study sample members in the research sample banks for the mentioned principle was (positive), which means that the level of their evaluation of the degree of application of the principle of (guidance and control) in the mentioned banks was a (high) degree from their point of view.

**table (6)**

### **Standard deviations and averages in mathematics of (guidance and control) items (n=19)**

No.	vertebrae	Arithmetic average	standard deviation	rank	degree of application
60	Governance framework settings are checked and adjusted	3.94	078	6	High
61	Advantages of delivery are confirmed	3.78	0.71	10	High
62	It is ensured that the risks are optimally reduced	4.26	0.73	2	High
63	Transparency is guaranteed to shareholders	3.89	0.66	8	High
64	Business risk management contributes to preserving assets	3.89	0.66	8	High
65	For shareholders to profit, financial transparency is a crucial component.	4.05	0.71	4	High
66	Information-based decision-making strategy	3.79	0.63	9	High
67	Optimization of service provision expenses:	4.21	0.42	3	High
A	Resource consumption is optimized through the use of business process expenses.	3.84	0.76	3	High
B	Compliance with	3.89	0.57	2	High

	<b>international laws</b>				
<b>69</b>	<b>Assessment of information security and confidentiality threats by a team:</b>	<b>4.02</b>	<b>0.70</b>	<b>3</b>	<b>High</b>
<b>A</b>	<b>Internal auditors and staff from different departments collaborate when using technologies for information security and preservation.</b>	<b>4.05</b>	<b>0.70</b>	<b>3</b>	<b>High</b>
<b>B</b>	<b>The management of the corporation instructs the internal auditors to employ cutting-edge technological techniques to ensure the security and privacy of its information.</b>	<b>4.16</b>	<b>0.76</b>	<b>2</b>	<b>High</b>
<b>C</b>	<b>The usage of information technology tools is coordinated by internal audit professionals.</b>	<b>4.42</b>	<b>0.61</b>	<b>1</b>	<b>High</b>
<b>D</b>	<b>When doing electronic audit work with the intention of maintaining information security, information technology instruments document the ties of collaboration and integration.</b>	<b>3.90</b>	<b>0.74</b>	<b>5</b>	<b>High</b>
<b>E</b>	<b>The auditor attends seminars and conferences on the evidence of information security and safety</b>	<b>4.00</b>	<b>0.75</b>	<b>4</b>	<b>High</b>
<b>F</b>	<b>There are several specializations that guarantee the management of internal audit, which helps in the optimal use of information within the bank</b>	<b>3.58</b>	<b>0.61</b>	<b>6</b>	<b>medium</b>
<b>70</b>	<b>The Function of Governmental Laws and Regulations in Facilitating Internal Auditors' Adaptation to Information Technology:</b>	<b>3.70</b>	<b>0.73</b>	<b>11</b>	<b>High</b>
<b>A</b>	<b>Government regulations and guidelines frequently change in response to advancements in information security technologies that are relevant to the audit</b>	<b>3.68</b>	<b>0.87</b>	<b>3</b>	<b>High</b>

<b>environment.</b>					
<b>B</b>	<b>There is cooperation between the Internal Audit Department and the Iraqi Certified Public Accountants Association in reviewing state laws</b>	<b>3.74</b>	<b>0.66</b>	<b>2</b>	<b>High</b>
<b>C</b>	<b>Governmental bodies with specific responsibilities are looking at how the accounting profession is structured in light of information security technologies.</b>	<b>3.58</b>	<b>0.61</b>	<b>4</b>	<b>medium</b>
<b>D</b>	<b>Government regulations and instructions help keep pace with the technology environment</b>	<b>3.79</b>	<b>0.78</b>	<b>1</b>	<b>High</b>
<b>-</b>	<b>The arithmetic mean and the general standard deviation</b>	<b>3.95</b>	<b>0.27</b>	<b>-</b>	<b>High</b>

From the perspective of the study sample members in the Table No. 6 findings, it is evident that all of the arithmetic averages for the principle's paragraphs (guidance and control) have a tendency to increase. research sample banks, where these averages ranged between (3.70 - 4.31), where the paragraph ( 63) which means: (the optimal investment of resources is guaranteed) is ranked first in the priorities and interests of the study sample members, while paragraph (70) has the meaning of with a mean of (4.31) and a standard deviation of (067): (The role of government laws and legislation in Helping the internal auditor to adapt to the information technology environment) ranked eleventh and last in the priorities and interests of the study sample members, with a mean of (3.70) and a standard deviation of (0.73). These results indicate that the sample members have a clear vision and perception about each of the paragraphs The principle of (guidance and control), which indicates that the evaluation of managers in the research sample banks for the principle of (guidance and control) and all of its paragraphs was (positive), and this indicates that from and their point of view, the level of their appraisal of the degree of implementation of the aforementioned principle's paragraphs was in varied degrees ranging between (medium and high).

After the researcher has completed the detailed description of the paragraphs of the principles of the COBIT framework, the relative importance of the estimates of the study sample members about the degree of application of the principles mentioned should be determined, and the following table No. (7) shows the arithmetic averages, standard deviations, and the order of relative importance of the estimates of the

study sample members of the managers about the degree of application of the principles of the framework COBIT in research sample banks.

**Table (7)**

**Averages and standard deviations in mathematics, and order of relative importance to the degree of application of the principles of the COBIT 5 framework and related to COBIT 5 in the research sample Listed on the Iraqi Stock Exchange are banks from the point of view of the study sample members (19 = n)**

No.	COBIT Framework Principles	Arithmetic average	standard deviation	Relative importance	degree of application
1	Planning and Organizing	4.04	0.30	3	High
2	owning and executing	4.00	0.24	4	High
3	Support and Delivery	4.11	0.22	1	High
4	Follow-up and evaluation	4.07	0.40	2	High
5	Guidance and control	3.95	0.27	5	High

The results shown in the previous table (7) showed that the principle of (support and delivery) came in (first place) the research sample banks' managers' study sample members were evaluated based on a scale of priorities, with a mean of (4.11) and a standard deviation of (0.22), With a mean of (4.07) and a standard deviation of (0.40), the principle of (follow-up and evaluation) came in (second place) on the scale of priorities for ranking the importance of the study sample participants, and the principle of (planning and organization) came in (third place) on the scale of assessment priorities. The study sample's participants rated the study's significance with a mean of (4.04) On the scale of priorities for ranking the study sample's participants in terms of their significance, the principle of (ownership and execution) came in (the fourth position), with a mean of 0.30 and a standard deviation (4.00). Finally, with a mean of (3.95) and a standard deviation of (0.24), the principle of (guidance and control) placed last (in the fifth rank) on the scale of priorities for ranking the research sample participants' importance (0.27). However, the findings showed that all of the arithmetic averages derived for the earlier concepts exceeded the test criterion of (3) out of (5) degrees. These findings show that managers in the research sample banks were evaluated favorably for the extent to which the aforementioned principles were applied, indicating that the managers were fully persuaded of the value of implementing the aforementioned COBIT framework principles in the aforementioned banks and that the degree of their application was (high) from the perspective of the study sample participants.

### **Third: hypothesis testing**

In this aspect, the researcher tested the research hypotheses using multiple regression for each hypothesis. The (t) test was used for one

sample and the finding of (F) values, where the hypothesis is accepted or rejected using the level of significance (sig) at (1%) is accepted when the value of morale is less From (0.001) and at (5%) it is accepted when the significance value is less than (0.005), as this indicates the significance of the model as a whole.

Testing the first hypothesis: The principles of regulatory governance for information technology and internal control affect the credibility of the financial statements.

**Table No. (2) Results of a multiple regression analysis to determine how internal control and regulatory governance for information technology affect the financial statements' reliability**

independent variables	regression coefficient	std. Error	t . test value	probability value
The level of application of the principle of planning and organization in accordance with the framework of COBIT	0.828-	0.063	13.064-	0.000
The level of application of the principle of ownership and implementation according to the COBIT framework	0.436-	0.065	6.714-	0.000
The level of application of the principle of support and delivery according to the framework of COBIT	0.830	0.057	14,552	0.000
The level of application of the monitoring and evaluation principle according to the COBIT framework	0.570	0.040	14.092	0.000
The level of application of the directive and control principle according to the COBIT framework	0.861	0.078	11.038	0.000
<b>F=101284.34 (sig =0 .000)</b>			<b>R2= 99%</b>	

**Source: the researcher from the field survey (2021 AD)**

The results in Table No. (2) indicate the significance of the model as a whole at the level of statistical significance of 1%. The results also indicate that the principles of information technology control governance that were included in the model explain 99% of the variance of the dependent variable, the level of credibility of the financial statements, according to the coefficient of determination ( $R^2$ ).

It is also clear from the results of the table that the principles of information technology regulatory governance represented in (the level of application of the principle of support and delivery according to the COBIT framework, the level of application of the principle of follow-up and evaluation according to the COBIT framework, and the level of

application of the principle of guidance and control according to the COBIT framework) have a positive, statistically significant impact on the level of credibility of the lists. Finance according to the T-statistic at a level of significance of 1% . We also find that the level of application of the principle of planning and organization according to the framework of COBIT and the level of application of the principle of planning and organization according to the framework of COBIT negatively affects the level of credibility of the financial statements at the level of statistical significance of 1%.

Among the values of the regression coefficients, we find that the level of application of the principle of guidance and control according to the COBIT framework comes at the forefront of the ranking in terms of the relative impact on the level of credibility of the financial statements, where the value of the regression coefficient has reached 0.860.

It is clear from this that there is a positive effect (with statistical significance) on the level of internal control in the credibility of the disclosure of the financial statements.

Second hypothesis test: There are differences in the application of the principles of regulatory governance on the credibility of disclosure in the financial statements due to the variables of educational level, job title, years of experience, job grade and training courses.

**Table (3) The results of the one-way analysis of variance test for differences in the level of internal control on the credibility of the financial statements according to the variables of educational level, job title, years of experience, job grade and training courses**

Variables	The source of the difference	sum of squares	degrees of freedom	mean squares	value (q)	probability value
Educational level	between groups	2.82.857	3	0.952	2.588	0.054
	within groups	90.513	246	0.368		
	the total	93.370	249			
Job title	between groups	29.850	3	5.970	22.93	0.000
	within groups	63,520	246	0.260		
	the total	93.370	249			
Years of Experience	between groups	4.214	3	1.053	2.895	0.023
	within groups	89.156	246	0.364		
	the total	93.370	249			
Functional	between	12,721	3	2.120	6.388	0.000

<b>class</b>	<b>groups</b>					
	<b>within groups</b>	<b>80,649</b>	<b>246</b>	<b>0.332</b>		
	<b>the total</b>	<b>93.370</b>	<b>249</b>			
<b>training courses</b>	<b>between groups</b>	<b>9,467</b>	<b>3</b>	<b>3.156</b>	<b>9.252</b>	<b>0.000</b>
	<b>within groups</b>	<b>83.904</b>	<b>246</b>	<b>0.341</b>		
	<b>the total</b>	<b>93.370</b>	<b>249</b>			

Source: the researcher from the field survey (2021 AD)

It can be shown from Table No. (3) that the factors of educational level, job title, years of experience, work grade, and training courses have a substantial impact on applying the degree of internal control on the credibility of the financial statements. The value (q), the probability value, and the outcomes were determined using a one-way analysis of variance test for differences in order to test this hypothesis. The outcome of this process is shown in Table (3).

It is noted that the variable of years of experience in the bank has its probabilistic values at 5% significant and for the variable, job title, job grade and training courses at the level of morality 1% are statistically significant and answers indicate that the majority of the respondents sample of bank employees agree, according to the standard of the level of internal control, on the credibility of the financial statements from The respondents' point of view, and the optional (p) value was highly, indicating agreement with a statistically significant degree at the significance level ( $\alpha > 0.010.05$ ). Accordingly, the researcher noticed that all the values of the arithmetic averages of the phrases are higher than the hypothetical mean value, and therefore the conclusion is that there is approval of the statements by the respondents in the study sample, where there are statistically significant differences in the level of internal control over the credibility of the financial statements.

We also find that there are statistically significant differences in the level of internal control over the credibility of disclosure in the financial statements due to the variable of training courses at the level of morale of 5%. It is noted from Table No. (3) that there are statistically significant differences on the credibility of the financial statements due to the variables of job title, job degree and training courses at the level of morale of 1%. We also find that there are statistically significant differences on the credibility of the financial statements due to the variable years of experience in the bank when 5% morale level.

#### **Fourth topic: conclusions and recommendations**

##### **First: the conclusions**

1- The effectiveness of information technology governance and its role in achieving the credibility of the financial statements ,this casts a great deal of skepticism, as it requires the development of information technology governance work mechanisms, and that they are subject to updating, modification or addition. In order to pass this step successfully, banks must be aware of the seriousness of the existing situation for them, and have conviction and a desire to confront. Their structure should be from the perspective of serving its beneficiaries in the first place.

2- The principle of credibility in the financial statements, as the financial reports issued by the bank include complete accounting information that covers the aspects of the interests of its users, and it is rare that there are errors and contradictions in the financial reports issued by the current system, considering that the information used in preparing financial reports honestly for the purpose for which it was prepared or expresses As the data extracted from the current system is characterized by its validity and safety from distortion.

3- The results of the first hypothesis show that the principles of regulatory governance for information technology in accordance with the COBIT framework, represented in (the level of application of the principle of support and delivery, the principle of follow-up and evaluation, and the principle of guidance and control) have a positive and statistically significant impact on the level of credibility of the financial statements according to the T statistic. And this is at a morale level of 1%. We also find that the level of application of the principle of planning and organization according to the COBIT framework and the level of application of the principle of planning and organization according to the framework of COBIT negatively affects the level of credibility of the financial statements at the level of statistical significance of 1%, where we find that the level of application of the principle of guidance and control according to the framework of COBIT It comes at the forefront of the ranking in terms of the relative impact on the level of credibility of the financial statements, and it is clear from this that there is a positive impact of the application of some principles of regulatory governance (the principle of support and delivery, the principle of support and delivery, the principle of follow-up and evaluation, and the principle of guidance and control) with statistical significance) on the level of internal control in the credibility of Disclosure of the financial statements.

4- The results of the second hypothesis test show that there is a significant effect of applying the principles of information technology control governance on the credibility of the financial statements due to the variables of educational level, job title, years of experience, job grade and training courses. Where the one-way analysis of variance test for differences was used and to find the value of (p) and the probabilistic



value, it was concluded that the variable of years of experience in the bank has its probabilistic values at 5% significant, and for the variable, job title, job grade and training courses at a significant level of 1%, which is statistically significant as the direction of expressions agree according to The criterion of the level of internal control over the credibility of the We find that there are statistically significant differences in the level of internal control over disclosure in the financial statements due to the variable of training courses and the variable years of experience in the bank at the level of morale. financial statements from the respondents' point of view, and the value of the optional (q) was very high, Where it indicates an agreement with a statistically significant degree at the significance level ( $0.010.05 >$ ). The factors of work title, job grade, and training courses at the level of morale of 1% also contribute to statistically significant variations in the application of regulatory governance principles on the credibility of the financial statements.

## **Second: Recommendations**

1- The necessity of adopting modern frameworks represented by the COBIT framework in the Central Bank of Iraq, as they are considered appropriate to keep pace with the rapid changes and developments of banking activities in light of traditional and automated systems, and provide an appropriate framework for taking decisions in a timely manner and achieving optimal preparedness to confront and reduce operational risks and information technology risks.

2- The extent of the effectiveness of information technology governance and its role in achieving transparency and credibility of the financial statements. This casts a great deal of doubt, as it requires directing banks to the necessity of applying the work mechanisms of information technology governance.

3- The necessity for bank managements to pay attention to the principle of (ownership and implementation) similar to the other principles of the COBIT5 framework due to its importance in applying the principles of regulatory governance of information technology in banks towards better performance.

4- The necessity of setting strategic objectives for the Information Technology Department, in order to support the regulatory governance of Information Technology, through:

A- Seeking the assistance of advisory bodies in the strategic field.

B - Re-drafting the message and vision of the banks in line with the objectives of supporting regulatory governance to achieve credibility in the financial statements.

C- Seeking the assistance of specialists in the field of information and communication technology to raise the efficiency of control systems.

5- The necessity of paying attention to internal control and developing its elements in line with the modern versions of it, as it is one of the most important defenses against the failure of economic units, because it is an important driver of business performance, and because it is an integral part of the governance system.

6- The need to take into account that the full implementation of the COBIT framework for information technology governance because it will contribute to strengthening the entire banking governance system in order to achieve the credibility of the financial statements.

7- The use of contemporary monitoring software and recognized worldwide frameworks for control by internal auditors is required to ensure the security and confidentiality of their information and to enhance financial statement disclosure.

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