

# The Impact Of Applying Information Technology Governance In Kuwaiti Banks To Realize The Independence Of The External Auditor

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## Abstract

This study aimed to identify the impact of applying the foundations information technology governance in realizing the independence of the external auditor working with Kuwaiti Islamic banks. The study relied on the descriptive analytical method, where the population consisted of all Kuwaiti Islamic banks, which numbered five, while a simple random sample was taken of external auditors who audit Kuwaiti Islamic banks, numbering (166) auditors. The results exhibited that the combined pillars of information technology governance (framework & laws, department & section commitment, standards & metrics, quality of service, organizational aspects & responsibilities) had an impact in realizing the independence of the external auditor working with Kuwaiti Islamic banks. The results recommended the need to establish a framework and institute laws that govern the design and launch of electronic services by providing procedures and responsibilities for designing and launching such services.

**Keywords:** Information Technology Governance, Corporate Governance, Islamic Banks, Independent External Auditor, Kuwait.

## Introduction

Business organization's financial and accounting systems have been affected using information technology, resulting in the mandatory entry of information technology into the performance of financial operations, and the emergence of concepts associated with the governance of information technology that guide, direct, and regulate the ways of dealing with financial and accounting systems when business results are tallied in an information technology ecosystem. (Deloitte, 2015).

If the needs and requirements of customers are multiple and constantly renewed, then the planned change must exist to bring about adaptation to the new ecosystem changes that surround the organization, resulting in the birth of the term IT governance, which is an integral part of electronic government and electronic administration and is considered as an integrated system, a digital space that includes electronic business to denote the electronic administration of business and electronic government to denote the electronic administration of government works. (Alkhalidi, 2021).

Information technology governance represents a two-way communication process utilizing technology to assist the administrator & regulator in good guidance and commitment to its management, as information technology governance is the future, thus nations strive to form a corruption-free government, its essence is to reach the beneficiaries, provide them services, and fulfill their needs and requirements. (Grant and Chau, 2015).

The audit process is very important and useful because it enhances the credibility of the financial information presented in the financial statements, as a result of the verification, testing and examination processes carried out by the auditor. The importance of auditing accounts is that it is considered a means that serves many groups that use audited financial statements, relying on them in making their decisions, drawing up their policies, setting current and future plans; such categories include: the company's management, current and prospective investors, banks and creditors, current and prospective lending institutions and state agencies. (Al-Hunaini, 2004).

Some research and studies have dealt with many perceptions of various parties about the necessity and importance of the independence of the audit process, as independence and impartiality are the cornerstone of the practice of the audit profession. This requires the auditor to perform the work assigned without being subjected to any pressure exerted by the company's management. In order to support the independence and impartiality of the auditor in the exercise of his profession, the Securities & Exchange Commission of New York has recommended that the right to appoint, dismiss and determine the auditor's fees is the prerogative of the general assembly of shareholders. (Al-Thunaibat, 2016).

This study seeks to shed light on the impact of applying the foundations of information technology governance in Kuwaiti Islamic banks on realizing the independence of the external auditor; and the consequent maximization of the value realized from the practices of these banks' activities; and what this entails in terms of the need to strengthen the process of auditing accounts, and enhance the skills and capabilities of those who implement them, in order to provide sufficient guarantee to persuade the management of the importance and effectiveness of the impact of governance, and then motivate them to support it.

**The problem statement of this research paper and the questions it raises.**

Governance plays a great role in establishing the independence of the external auditor by means of ensuring the transparency of the organization's transactions and the accounting and auditing processes. Governance stands in the face of one of the two sides of the corruption relationship, which leads to the depletion of the organization's resources. Therefore, the problem is that Kuwaiti Islamic banks face many challenges, and the reason for this is the widespread use of information technology and the increased reliance on it in providing banking services through electronic means. This technological challenge and the consequent possibility of corruption suspicions that need to be confronted with governance of information systems, considering it is a useful tool to ensure that the targeted information technology governance shall raise the performance levels higher than the current state. Thus, this research paper is trying to respond to the following query: Is there an impact to applying the foundations of information technology governance in Kuwaiti Islamic banks on realizing the independence of the external auditor?

**The objective of the research paper**

The fundamental objective of this research paper is to uncover the impact of applying the foundations of information technology governance in Kuwaiti Islamic banks upon realizing the independence of the external auditor.

**The significance of the research paper**

- **Theoretical Significance:** The importance of the study theoretically lies in the fact that it is considered one of the first studies in the State of Kuwait - within the limits of the researcher's knowledge - that dealt with the impact of the application of the foundations of information technology governance in Kuwaiti Islamic banks on realizing the independence of the external auditor, as it provides an important and contemporary reference that displays to the employees of these banks the importance of focus on information technology governance in an electronic business ecosystem.
- **Practical Significance:** The importance of this study from a practical point of view comes from the possibility that the Kuwaiti Islamic banks subject to the research may benefit from the outcome of the study in a way that helps them apply information technology governance in order to realize the independence of the external auditor. The outcomes arrive at a time that these banks need to raise awareness towards the importance of information technology governance, and thus recognizing the importance of the practical application of the related concepts.

**The research paper hypothesis**

The main hypothesis was formulated as follows: There is no impact to the application of the foundations of information technology governance in Kuwaiti Islamic banks to realize the independence of the external auditor. From this, the following hypotheses branch:

- **First hypothesis:** There is no impact for the framework and laws that govern the design and launch of electronic services in realizing the independence of the external auditor.
- **Second hypothesis:** Is there an impact upon the commitment of the departments and sections with the general guideline issued by the e-government in realizing the independence of the external auditor.

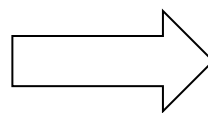
- **Third hypothesis:** Is there an impact upon the approved standards and metrics used in e-government systems in realizing the independence of the external auditor.
- **Fourth hypothesis:** Is there an impact upon the quality of service in realizing the independence of the external auditor.
- **Fifth hypothesis:** Is there an impact upon the regulatory aspects & responsibilities within the framework of launching e-government projects in realizing the independence of the external auditor.

### The research plan:

The following figure clarifies the relationship between the independent variables and the dependent variable.

#### Independent variable: Information technology governance

- Framework & law for design and launch of e-services.
- Commitment of the departments & sections to the general guidelines
- e-government systems standards & metrics
- Quality of service
- regulatory aspects & responsibilities within the framework of e-government projects



#### Dependent variable

**The independence of the external auditor**

**Figure (1):** The research plan

**Source:** prepared by the researcher based on the core foundations of the governance manual issued by the Central Bank of Kuwait during 2016 regards the independent variables; the study made by Al-Surairah (2015) was also relied upon to measure the dependent variable.

### Terminology

**Information technology governance:** Using information technology to re-organize those different operations being carried out by departments and sections, and meticulously analyzing the functions and services that are undertaken by organizations with regards their relationship with related parties in a comfortable, effective, and transparent manner (Abu Shanab, 2021). Information technology governance is measured through the following basic elements and variables:

#### 1. Framework & law for design and launch of e-services.

It is the framework that includes attention to the procedures and responsibilities related to the design, development and launch of electronic services and ensuring that they conform to the specified standards. (Basu, 2014).

#### 2. Commitment of the departments & sections to the general guidelines.

This means obtaining the administration's commitment to the general guidelines and the final design of the e-services provided by the e-government and development of e-services while adhering to the basic reference for e-government services and the techniques used to program these services. (Poon, 2014).

#### 3. E-government systems' standards & metrics.

This means defining the basis to determine how the departments and divisions in the organization will access the service automatically and adopt e-services standards for the service. (Poon, 2014).

#### **4. Quality of service.**

It is the process through which measuring the extent of satisfaction with the service by the target audience, its functional and technical aspects, and preparing the procedures related to providing the service without functional and technical defects is done. (Daft, 2018).

#### **5. Regulatory aspects & responsibilities within the framework of e-government projects.**

These are the organizational aspects and structures that help the board of directors perform the tasks assigned to them at the level of planning, implementing, and publishing e-services and measuring their success rate within the framework through which e-government projects are launched. (Basu, 2014).

Independence of the external auditor: It is the auditor's ability to work with integrity and objectivity, free from any side effects, along with the absence of undue influences and pressures in all matters related to the audit task assigned to him, not to have any conflicting interests, and to avoid any relationships that may seem to lose his objectivity and independence when carrying out his work (Al-Surairah, 2015, pg:22).

#### **Limitations**

- 1. Spatial limitations:** The current study is limited to Kuwaiti Islamic banks, numbered five Islamic banks and they are: Ahli United Bank, Kuwait International Bank, Kuwait Finance House, Boubyan Bank, Warba Bank.
- 2. Contributor Limitations:** The current study is limited to the opinions of the external account auditors that audit the accounts of Kuwaiti Islamic Banks.
- 3. Temporal Limits:** This study was conducted within the period lying between October 2021 and January 2022.

#### **Methodology**

The study adopted the descriptive analytical approach, as the researcher used a field survey distributed amongst the study population consisting of Kuwaiti Islamic banks, to reach results about the impact of applying the foundations of information technology governance in Kuwaiti Islamic banks on achieving the independence of the external auditor.

#### **The Study Population**

The study population is made up of the accounts auditing offices operating in the State of Kuwait and they number (50) audit offices licensed to practice, (Guide for auditors and auditing offices in the State of Kuwait, issued by the Kuwait Accountants and Auditors Association for the year 2020/2021). As for the study sample, it was chosen by a comprehensive survey method for the members of the inspection unit from the auditors and workers in these offices, who audit the accounts of Kuwaiti Islamic banks, numbering about (220) auditors. The researcher distributed the questionnaires using the comprehensive survey method, and 171 questionnaires were recovered (77.7%) of the total surveys distributed. After sorting, (5) questionnaires were excluded due to incompleteness. The sample settled upon (166) responses at (75.4%). The surveys were distributed through the internet.

### **Data Collection Sources:**

#### **1. Preliminary Data.**

Data collected from the field study using the survey that was designed for the current study.

#### **2. Secondary Data.**

Data that was used to form the theoretical framework of the study, where the various library sources were consulted for review, and examination of the previous literature from written & published books and scientific materials on the governance of information technology and the independence of the auditor.

### **Toolkits, Reliability & Validity**

The questionnaire was developed according to the variables of the study and based on the basic foundations of the governance guide issued by the Central Bank of Kuwait in 2016 with regard to the independent variables. Also, the study of Al-Surairah (2015) was relied on to measure the dependent variable. The Likert five-component scale was adopted for the survey responses (strongly agree, agree, agree to somewhat, disagree, strongly disagree). As for the limits adopted by the study when commenting on the arithmetic mean of the variables in the study model, the researcher identified three levels of approval and they are (weak, average, high). The researcher also tested the apparent honesty by presenting the questionnaire to arbitrators from university professors with experience and specialization in management, accounting and statistics, where the amendment was made according to their opinions. The Cronbach's Alpha coefficient was also used for internal consistency. The degree of reliability of this questionnaire reached 91.4%, and this is appropriate in such assessments in order to adopt the results of this study. (Sekaran, 2010).

### **Applied Statistical Methods**

Appropriate statistical methods were applied using the Statistical Package for Social Sciences such as arithmetic mean, frequencies, and percentages, multiple and simple regressions.

### **Previous Studies**

Al-Maghrabi's (2013) study aimed to develop a proposed accounting framework in regulating the electronic disclosure process in light of the application of information technology governance in the Egyptian environment. It turns out that there is an increasing trend by companies towards the application of information technology and the shift to electronic accounting systems, where there is a need for users of accounting information to use non-financial information in order to help them understand the processes linking events that occur within the company.

Bierstaker et al. (2013) study aimed to state of the impact of information technology governance on the audit process, and concluded that the shift from paper systems to advanced audit programs led to the completion of the application of most audit procedures, noting that information technology governance has a significant impact on each stage of the audit process, allowing audit of all client data This, in turn, will lead to huge gains in the efficiency and effectiveness of auditing.

Al-Surairah's (2015) study concluded that that the application of governance strategies with its principles of (the existence of a basis for an effective framework for corporate governance, preservation of shareholder rights, equal treatment of shareholders, the role of stakeholders, transparency and disclosure, responsibilities of the board of

directors) has an impact on achieving the independence of external audit from the point of view of external auditors of Jordanian public joint stock companies.

Gary's (2016) study aimed to state the importance of control to enhance the management of information technology governance and value addition. The study showed that less than 50% of the organizations that practically conducted the study suffer from several risks due to reasons related to external risks represented by the rules and foundations that practically built the organization. This allows for a good opportunity for the wide use of external information technology resources.

Batarissa's (2018) study aimed to identify the extent to which information technology governance is applied in Jordanian banks from the point of view of a certified public accountant. The results showed that information technology governance is applied in Jordanian banks through the axes of identifying, directing and controlling business needs, application of a business technology strategy in Jordanian banks, appointment of enough information technology qualified and trained employees, and the application of a risk assessment strategy with its means of compliance.

### **What distinguishes the current study from previous studies?**

The current study differentiates itself from previous studies as it deals with an important aspect of the applications related to the statement of the impact of the application of the foundations of information technology governance in Kuwaiti Islamic banks on achieving the independence of external auditors. Given the lack of research this subject has been exposed to, this study is a modest contribution to realizing a scientific addition in clarifying concepts and aspects related to the impact of information technology governance on achieving the independence of external auditors in Kuwaiti Islamic banks.

### **The notion of information technology governance & its foundations**

The general framework for governance includes a set of organizational relationships within the organization. This involves arrangements and laws related to accounting & auditing, in addition to an overall integrated system of standards and the multiple methods to administer joint works of which individuals and corporation are party to. Governance as such, is a method of administration and prudent judgment based on the existence of laws and standards that define the relationship between management on the one hand and shareholders, investors, stakeholders or related parties associated with the company on the other hand. (Majdoub, 2016).

The term information technology governance means using the outputs of the technological revolution in improving organizational performance levels, raising their efficiency and strengthening their effectiveness to achieve the aspired goals. This includes benefiting from the accumulation of knowledge and the technical progress accompanying it in expanding its operations, both in terms of abundance and improving the methods of its presentation by non-traditional (electronic) means that enable access to information. This is done with the aim to complete the exchanges between sections & departments and between the public & customers who benefit from the organization's products & services on the basis of equity and justice among all parties and related interests. (Al-Sherif, 2020).

The notion of information technology governance is considered one of the most prominent concepts ushered in by the information revolution and the Internet upon the operations performed by organizations; something which emerged as a result of interactive technical developments between departments. The idea of e-government is one of the new

ideas in its applications, aiming to bring about a radical development in the overall performance at the level of the organization in accordance with the standards with which the private sector works in all its competitive advantages, foremost of which is quality and gaining beneficiary satisfaction. (Grant and Chau, 2015).

Information technology governance means governance of information via the preamble and organization of relationships between the technological service provider and the users of said information whether internal or external. As for information administration, this focuses on all the internal functions and procedures related to the workings of the organization by preparing, installing and operating the systems necessary to complete the financial operations (Solomon et al., 2013).

The researcher believes that information technology governance is the use of information technology that is concerned with the processes related to the formation of the strategy of Kuwaiti Islamic banks based on informatics whose objectives coincide with the general strategy. It also provides for the processes, rules and policies that ensure that the units and departments working in information technologies do not deviate from the general strategy set by the bank, and thus serve as a means to ensure that the community pays attention to the administration and takes care of the interests of all parties.

### **Basic pillars of information technology governance**

The degree of organizations' commitment to applying the basic pillars of information technology governance has become one of the basic criteria that investors take into consideration when making their investment decisions, especially in light of economic globalization and competition between different organizations to enter the financial markets, whether local or global, for investment. Hence, organizations that apply IT governance have a competitive advantage in attracting capital over those that do not apply IT governance as they have better abilities to compete in the long run. The following is a review of the basic pillars of IT governance, which were adopted as independent variables in the current study:

#### **1. Framework & rules that govern the design and launch of electronic services.**

Success in providing electronic services is ensured in the e-government laboratories, and after these services are subjected to testing, they are launched and announced via the Internet. The different departments cannot launch any electronic services on their portal without the administration's approval because this would enhance performance efficiency, accuracy and reduce the time and cost required to complete transactions. It also guarantees integration and coordination between the various departments & sections to realize efficiency, transparency, and better performance. (Al-Muhtadi, 2019). Work teams formed of experts then classify the electronic services and install them as per the needs of the users to mirror specific events or transactions in circulation. The priority of electronic services and the extent of their need are also thus determined.

As for the government, its interventions are for the purpose of imposing specific classifications of electronic services and thus distributing them to units and departments working in the field of informatics, according to experts. As for the governance of electronic government, and during this stage specifically, governance covers all the necessary procedures to launch the services of an operational level. These procedures include obtaining approval for the service to appear on the electronic portal, automation or computation of the operations, specification of the strategies, publication of the operations and listening to the clients and communities. (Basu, 2014).



## **2. Commitment of the departments to the general master plan issued by the electronic government.**

Through the governance of electronic government, it is ensured that the services being provided electronically have been clarified to the beneficiaries and the employers to enable maximum gain from their use, and to indicate the extent of the exploitability of the opportunities available to the beneficiaries in the operational environment in order to obtain their requirements of valuable rare resources in order for them to continue to perform their tasks and activities to achieve their planned goals. (Poon, 2014). In addition, governance ensures that these services are explained technically to enable electronic services developers to better use these services as part of their approved programs roster. After this, it is possible to begin developing a technical programmer's technical guide, and the concise guide for the beneficiaries of these services, which should be done easily and securely because there is transparency to track performance for every transaction and at any time, allowing the decision maker to access the knowledge that is required to make a decision. (Haldenwang, 2014).

## **3. Standards & metrics that must be adopted by departments & sections for electronic government systems.**

This pillar is based on the board of directors undertaking the function of planning electronic services that are being provided by the government. Multiple working groups are assigned to set technical standards and metrics that must be relied upon when developing services at the level of departments and sections. The planning process also includes the various stages necessary to explore and classify services and place them within the appropriate priorities set by the government to develop skills, realize and provide the necessary infrastructure and technology to provide the services electronically, in addition to improve the level of security and protection of the information. (Moynihan, 2014).

The board of directors may use some work teams that have qualifications and experience to perform some tasks and responsibilities, such as: government procedures engineer, basic systems expert (human resources, financial resources), electronic mediation expert, confidentiality and security expert for web services, electronic services programming expert. (Freeland, 2016).

## **4. Quality of Service.**

The service may sometimes be successful technically, but at the same time irrelevant functionally, as its beneficiaries may not want to this service to be provided electronically, or it may have functional defects making these beneficiaries unwilling to access the network or the internet in order to execute the services electronically and complete the related works although the goals of using the service are clear. (Daft, 2018). Thus, governance of information technology focuses on laying the foundations and appropriate criteria to measure the extent of success in providing the service, its level of acceptance by the beneficiaries while clarifying and explaining the method, how to carry out these types of measurements upon the target audience in order to reduce administrative complications and achieve maximum levels of satisfaction among the public. (Al-Riami, 2018).

## **5. Regulatory affairs & responsibilities within the framework of launching government electronic projects:**

At the outset of the information technology governance developmental program, the administration will explore government services through by informing itself of the organizational aspects, responsibilities, functions and services performed by the various departments and sections. The committee concerned with the provision of electronic services clarifies the policies and procedures related to filling out the forms for these services according to the existing situation and showing how these services are provided to the beneficiaries and how they may be provided through the internet or the electronic universe or through any other electronic tool (Rezouki, 2016, pg:32). This committee, emanating from the Board of Directors, then establishes the database related to the provision of services so that it contains all the details indicated in the form specially prepared for that. Information technology governance at this stage is greatly concerned with organizing the relationships that exist between the exploration teams for e-government services with other departments. The committee also draws the limits that are allowed for administrative intervention between the individuals who make up the team and the information units. It also adopts a means of control because the technical systems have the capabilities of computerized and automated analysis and review of the activities that take place on the site. (Stamoulis, 2015, pg:151).

The researcher finds that these pillars of information technology governance and the organizational composition of engineers and experts helps the board of directors of Kuwaiti Islamic banks to perform the tasks and responsibilities assigned to them at the level of planning the electronic services provided by the government, leading to the implementation of these tasks and responsibilities, publishing them and measuring the success rate of these services.

### **Independence of the external auditor**

The main objective of an audit is to give confidence to the information contained in the financial statements which is considered as the green light for decision makers in acting on their investments through knowledge of the expected returns, costs and risks, contributing to the strengthening of investments. The adherence of those belonging to the audit profession to the rules of conduct and ethics of the profession is a recognition by them of the responsibility the accounting and auditing profession contribute as a whole towards society, clients and the profession itself. This is not restricted to the audit profession in lieu of other professions as the principles of honest testimony, avoiding false testimony, revealing the truth, integrity, honesty, integrity, adherence to truth, justice, control of whims, non-betrayal, sincerity in the performance of work and noble morals came about via continuous monotheistic religions concluded by Islam, where Allah says in the Quran (Say, "Do you know better, or Allah?" And who is more wrong-doing than he who conceals a testimony he has received from Allah? Allah is not unaware of what you do.) Surah al-Baqarah verse 140. Allah almighty also said in the Quran (And those who do not bear witness to falsehood, and if they pass by some evil play or evil talk, they pass by it with dignity.) Surah al-Furqan verse 72. Allah Almighty has spoken the truth.

The concept of the independence and impartiality of the external auditor in the organization whose accounts he audits has been subject to a lot of controversy and discussion between professionals, academics and others interested in the profession, due to the difficulty of developing a precise and specific definition of this concept as a result of its

connection with the mental and moral state of the auditor as well as the financial relations that link the auditor with the organization under audit. This is in addition to the confidential matters that he has access to review which may raise doubts amongst those who cannot fathom the importance and weight of the role that is being undertaken by the auditor as a result of their ignorance of professional controls, and as a result, there were many concepts that attempted to encompass the notion of auditor independence. (Al-Shemmari, 2008).

Honesty and integrity are among the most prominent characteristics of professional work, from which society derives confidence in those who undertake the profession and its outputs. In turn, honesty requires the member to be candid and sincere, although this of course does not mean or negate the absence of a miscalculation, but they deny the existence of bad faith, negligence, disregard for principles, or an attempt to distort them or make them unbearable. The auditor must be independent when performing his or her professional duties in accordance with auditing standards such as those set by the American Institute of Certified Public Accountants. He must maintain objectivity in performance and avoid conflicts that may distance him from his responsibilities. (Ray and Kurt, 2012, pg:70).

The auditor's independence is identified as an unbiased viewpoint through the performance of audit tests, evaluation of results, and issuance of the report to realize the confidence of the financial community in this independence. Independence is a cornerstone of auditing, and it is its basis and essence. Independence is one of the necessary ingredients to enable an auditor to carry out assigned duties and express professional, impartial, and competent opinion in complete freedom, without any internal, external, or regulatory restrictions or obstacles having a negative impact on the auditor's professional performance. (Jumaa, 2015).

The independence of the external auditor represents one of the ten auditing standards of the Generally Accepted Auditing Standards (GAAS) issued by the Auditing Standards Bureau (ASB) and "In all matters related to the assignment, an independence in mental attitude must be maintained". One of the audit assumptions is that "auditors should be objective when expressing their opinion independently of the facility and its management." As stated in Rule 101 of the Code of Professional Conduct at the American Institute of Accountants, which says "a member who works in the field of public practice shall be impartial in the provision of professional services, as stated in the requirements of published standards prepared by the bodies specified by the Board."

Arens and Loebbecke (2018, pg:88) found that the accounts auditor works within an ecosystem founded upon a set of often conflicting relationships and interests represented by the conflict of interests between management and owners on the one hand, and between the auditor, management, and owners on the other hand, and between what is required of the auditor and what he or she aspires to.

This multilateral conflict and trends will be reflected in the independence of the auditor as he or she acts as a mediator between related parties who are interested in financial statements on the one hand, and management on the other. Therefore, the auditor bears the responsibility and duty to express an opinion on whether the financial statements prepared by management for those interested reflect an honest and fair picture of the financial position and cash flows. Depending on that, those interested use the audited financial statements based on the auditor's opinion, which requires, with all this, the need for the auditor's independence, with everyone's awareness of such a fact. The opposite of this will reflect negatively on the added value to the audit, and upon the credibility of financial reports.

The researcher finds that the independence is the desire and ability of the external auditor to report on detected deviations, which can be considered as true independence, which is something that cannot be noticed, specified nor measured directly, as it represents a state of mind of the auditor as per the considerations that govern the available audit procedures and disclosure. Independence remains a complex and controversial concept whose dimensions cannot be determined in isolation from the factors affecting it.

### Descriptive Statistical Results For The Study Variables

#### 1. Framework & rules that govern the design and launch of electronic services.

**Table (1):** Arithmetic mean, standard deviations, and the relative importance of the variable framework & rules that govern the design and launch of electronic services.

s	Statement	Arithmetic mean	Standard deviation	Relative importance	Order
1	There are procedures and responsibilities for designing electronic services	3.272	.8266	medium	8
2	The bank has a framework that includes the development of electronic services	3.636	.8733	medium	6
3	In the bank, it is ensured that electronic services are launched and that they conform to the specified standards	3.545	.7603	medium	7
4	Coordination takes place between the different departments and sections when designing and launching electronic services	3.738	.7113	high	5
5	Work teams are formed in the bank of experts to classify and install electronic services according to the needs of its beneficiaries	3.931	.7806	high	4
6	The bank determines the priority of electronic services and the extent of their need	3.954	.9457	high	2
7	The bank covers all necessary procedures to launch electronic services at the operational level	4.045	.7273	high	1
8	The bank takes approval to appear on the electronic portal and automates and computerizes operations	3.932	.9071	high	3
Framework & rules that govern the design and launch of electronic services		<b>3.757</b>	<b>.6386</b>	<b>high</b>	

From the results, it appears that the response to the statements regarding the variable (framework & rules that govern the design and launch of electronic services) came at a high level, where the arithmetic means were between (3.272) and (4.045), with a standard

deviation of (.6386), which indicates the closeness of the responses and there is no dispersion in the responses regards the arithmetic means. The arithmetic mean is (3.757). The statement that said "The bank covers all necessary procedures to launch electronic services at the operational level" came highest with an arithmetic mean of (4.045). The statement that said "There are procedures and responsibilities for designing electronic services" came lowest with an arithmetic mean of (3.272).

## 2. Commitment of the departments to the general master plan issued by the electronic government.

**Table (2):**

Arithmetic mean, standard deviations, and the relative importance of the variable commitment of the departments to the general master plan issued by the electronic government:

s	Statement	Arithmetic mean	Standard deviation	Relative importance	Order
9	The bank management is committed to the final design of the electronic service provided by the e-government	3.670	.8934	medium	5
10	The management of the bank is interested in developing electronic services	3.636	.8733	medium	7
11	The bank's management is committed to the basic reference for e-government services	3.659	.9332	medium	6
12	The bank uses the necessary technologies to program the electronic services	3.704	.9487	high	4
13	The management of the bank is committed to clarifying the electronic services for the beneficiaries	4.000	.8141	high	2
14	In the bank, electronic services are explained from a technical point of view to enable those in charge to use them properly within the approved software	3.829	.8308	high	3
15	The management of the bank is committed to preparing the technical guide for programmers and the concise guide for the beneficiaries of the electronic services	4.068	.9321	high	1
<b>Commitment of the departments to the general master plan issued by the electronic government</b>		<b>3.795</b>	<b>.6776</b>	<b>high</b>	

From the results, it appears that the response to the statements regarding the variable (Commitment of the departments to the general master plan issued by the electronic government) came at a high level, where the arithmetic means were between (3.636) and (4.068), with a standard deviation of (.6776), which indicates the closeness of the responses and there is no dispersion in the responses regards the arithmetic means. The arithmetic means (3.795). The statement that said “The management of the bank is committed to preparing the technical guide for programmers and the concise guide for the beneficiaries of the electronic services” came highest with an arithmetic mean of (4.068). The statement that said “The management of the bank is interested in developing electronic services” came last with an arithmetic mean of (3.636), which is lower than the general arithmetic mean that was (3.975).

### 3. Standards & metrics that must be adopted by departments & sections for electronic government systems.

**Table (3):**

Arithmetic mean, standard deviations, and the relative importance of the variable standards & metrics that must be adopted by departments & sections for electronic government systems.

s	Statement	Arithmetic mean	Standard deviation	Relative importance	Order
16	In the bank, the basis for how the departments and sections in the bank can access the electronic service are determined automatically	3.977	.7128	high	1
17	The management of the bank depends on specific standards for electronic services	3.511	.8304	medium	7
18	The board of directors of the bank undertakes the task of planning the electronic services provided by the government	3.727	.8364	high	4
19	In the bank, various work teams are assigned to set technical standards and metrics that must be relied upon when developing services at the level of departments and sections.	3.829	.9967	high	3
20	The bank's planning process includes the various stages needed to explore and categorize the services that the government puts in place for skill development and achievement	3.978	.8706	high	2
21	The planning process in the bank includes providing the necessary infrastructure and technology to	3.613	.8331	medium	6

	provide services electronically through an expert programming these services				
<b>22</b>	The management of the bank is keen to provide experts on the basic systems to improve the level of security and protection of information through an expert on the confidentiality and security of web services	4.693	.9015	high	5
	Standards & metrics that must be adopted by departments & sections for electronic government systems	<b>3.761</b>	<b>.7539</b>	<b>high</b>	

From the results, it appears that the response to the statements regarding the variable (Standards & metrics that must be adopted by departments & sections for electronic government systems) came at a high level, where the arithmetic means were between (3.511) and (3.977), with a standard deviation of (.7539), which indicates the closeness of the responses. The arithmetic mean is (3.761). The statement that said "In the bank, the basis for how the departments and sections in the bank can access the electronic service are determined automatically" came highest with an arithmetic mean of (3.977). The statement that said "The management of the bank depends on specific standards for electronic services" came lowest with an arithmetic mean of (3.511).

#### 4. Quality of service at the bank

##### Table (4):

Arithmetic mean, standard deviations, and the relative importance of the variable quality of service.

s	Statement	Arithmetic mean	Standard deviation	Relative importance	Order
<b>23</b>	In the bank, the extent of satisfaction with the service is measured from its functional aspects	3.613	.9151	medium	7
<b>24</b>	In the bank, the extent of satisfaction with the service is measured from its technical aspects	3.772	.7691	high	3
<b>25</b>	The management of the bank prepares the procedures related to the transfer of the service without defects	4.068	.9321	high	1
<b>26</b>	The management of the bank has the ability to create a desire among the beneficiaries to perform services in an electronic manner	3.795	.7412	high	2
<b>27</b>	The management of the bank achieves the goals related to	3.715	.7836	high	5

	electronic services with clarity of objectives				
<b>28</b>	The management of the bank is interested in setting the appropriate foundations and criteria to measure the extent of success in providing the service and the level of its acceptance among the beneficiaries	3.693	.9867	high	6
<b>29</b>	The bank clarifies and explains the method and how to take measurements to reduce administrative complications and achieve public satisfaction	3.716	.9340	high	4
<b>Quality of service at the bank</b>		<b>3.767</b>	<b>.7547</b>	<b>high</b>	

From the results, it appears that the response to the statements regarding the variable (quality of service at the bank) came at a high level, where the arithmetic means were between (3.613) and (4.068), with a standard deviation of (.7547), which indicates the closeness of the responses and there is no dispersion in the responses regards the arithmetic means. The statement that said "The management of the bank prepares the procedures related to the transfer of the service without defects" came highest with an arithmetic mean of (4.068). The statement that said "In the bank, the extent of satisfaction with the service is measured from its functional aspects" came lowest with an arithmetic mean of (3.613).

##### 5. Regulatory affairs & responsibilities within the framework of launching government electronic projects.

**Table (5):**

Arithmetic mean, standard deviations, and the relative importance of the variable regulatory affairs & responsibilities within the framework of launching government electronic projects.

<b>s</b>	<b>Statement</b>	<b>Arithmetic mean</b>	<b>Standard deviation</b>	<b>Relative importance</b>	<b>Order</b>
<b>30</b>	The bank is concerned with the organizational aspects that help the board of directors to perform the tasks assigned to it	3.636	.9245	medium	4
<b>31</b>	The bank is interested in the structures that help the board of directors to plan electronic services	3.681	.7779	high	3
<b>32</b>	In the bank, e-services are implemented within the framework through which e-government projects are launched	3.352	.9713	medium	6



<b>33</b>	The bank's management publishes electronic services within the framework of e-government projects	3.125	.7485	medium	7
<b>34</b>	The bank's management measures the success of electronic services within the framework of e-government projects	3.704	.8990	high	2
<b>35</b>	In the bank, the policies and procedures related to filling out forms for electronic services are clarified according to the existing situation	3.568	.8699	medium	5
<b>36</b>	The bank's management has the capabilities of automatic and automated analysis and review of the activities that take place on the website	3.761	.8170	high	1
<b>Regulatory affairs &amp; responsibilities within the framework of launching government electronic projects</b>		<b>3.547</b>	<b>.6386</b>	<b>medium</b>	

From the results, it appears that the response to the statements regarding the variable (regulatory affairs & responsibilities within the framework of launching government electronic projects) came at a medium level, where the arithmetic means were between (3.761) and (3.125), with a standard deviation of (.7456), which indicates the closeness of the responses and there is no dispersion in the responses regards the arithmetic means. The arithmetic mean is (3.547). The statement that said "The bank's management has the capabilities of automatic and automated analysis and review of the activities that take place on the website" came highest with an arithmetic mean of (3.761). The statement that said "The bank's management publishes electronic services within the framework of e-government projects" came lowest with an arithmetic mean of (3.125).

#### 6. Analysis of data related to the dependent variable: independence of the external auditor.

**Table (6):**

Arithmetic mean, standard deviations, and the relative importance of the variable analysis of data related to the dependent variable: independence of the external auditor.

<b>s</b>	<b>Statement</b>	<b>Arithmetic mean</b>	<b>Standard deviation</b>	<b>Relative importance</b>	<b>Order</b>
<b>37</b>	The application of the pillars of information technology governance leads to the external auditor obtaining sufficient support to carry out work to the fullest	3.954	.8182	high	3

38	The pillars of IT governance work on giving priority to the external auditor for the interest of the bank over his individual interests	3.943	.9632	high	4
39	The pillars of IT governance contribute to the external auditor's commitment to his independence and impartiality in all matters related to the task assigned to him.	3.977	.8706	high	2
40	The pillars of IT governance enhance the ethical thinking of the external auditor	3.614	.8315	medium	8
41	The pillars of IT governance increase the credibility of the accounting information on which the external auditor expresses his opinion	3.693	.9015	high	7
42	The pillars of IT governance help the external auditor to understand the bank's problems and push it to take an interest in solving them	3.612	.7516	medium	9
43	The pillars of IT governance help the external auditor to reduce the risk of misstatement in the financial statements	3.772	.6918	high	5
44	The foundations of IT governance increase the external auditor's keenness to provide personal attention to the client by continuously identifying the needs and demands of clients.	3.704	.7879	high	6
45	The pillars of IT governance enhance the ability of the external auditor to work with objectivity and integrity	4.000	.6417	high	1
Analysis of data related to the dependent variable: independence of the external auditor		<b>3.808</b>	<b>.6832</b>	<b>high</b>	

From the results, it appears that the response to the statements regarding the variable (Analysis of data related to the dependent variable: independence of the external auditor) came at a high level, where the arithmetic means were between (4.000) and (3.612), with a standard deviation of (.6832), which indicates the closeness of the responses and there are some high deviations indicating dispersion in the responses with a lack of convergence. The arithmetic mean is (3.808). The statement that said "The pillars of IT governance enhance the ability of the external auditor to work with objectivity and integrity" came highest with an arithmetic mean of (4.000). The statement that said "The pillars of IT governance help the

external auditor to understand the bank's problems and push it to take an interest in solving them" came lowest with an arithmetic mean of (3.612). This means that the foundations of information technology governance have a clear impact on the independence of the external auditor in Kuwaiti Islamic banks. Since independence is one of the newest challenges of the audit profession, given the problems that may accompany it, such as the credibility of information and the confidence of users in what is contained in it. This entails the need to add confidence and credibility to the accounting information disclosed electronically.

### The results of testing the hypotheses of the study

Testing the main hypothesis that states that: There is no impact to the application of the foundations of information technology governance in Kuwaiti Islamic banks in order to realize the independence of the external auditor. To inspect the validity of this hypothesis multiple regression equations were applied to study this impact, and Table (7) shows this.

**Table (7):**

**Results of applying simple & multiple regression to study the impact of information technology governance in realizing the independence pf of the external auditor.**

Foundations of information technology governance	$\beta$	T	Statistical significance	R	R <sup>2</sup>	F	Statistical significance
Framework & rules that govern the design and launch of electronic services	.294	3.926	.000	.910	.954	66.19	0.00
Commitment of the departments to the general master plan issued by the electronic government	.356	7.025	.000				
Standards & metrics that must be adopted by departments & sections for electronic government systems	.331	6.607	.000				
Quality of service	.086	1.882	.063				
Regulatory affairs & responsibilities within the framework of launching government electronic projects	-.043	-.792	.431				

The table shows that there is a statistically significant effect of applying the pillars of information technology governance in enhancing transparency and disclosure. The value of the total correlation coefficient (R) is (.910). It is a statistically significant value and indicates

the degree of statistically significant correlation between the independent variables and the dependent variable. ( $R^2$ ) (-R square) valued at (.954) which is a statistically significant value, explains the ability of the foundations of information technology governance to influence the realization of the independence of the external auditor of Kuwaiti Islamic banks. This indicates that there is an impact of information technology governance and explains the ratio of (95%) from the changes in the independence of the auditor. The test value (F) was (66.197) with a statistical significance of (0.00), which is a statistically insignificant value at the significance level of ( $\alpha \leq 0.05$ ). This confirms the existence of a discrepancy in the ability of the independent variables to influence the dependent variable. Based on the foregoing, the null hypothesis is rejected, and the alternative hypothesis accepted, which means that there is an impact of the foundations of information technology governance in realizing the independence of the external auditor of Kuwaiti Islamic banks. As for the testing of the secondary hypotheses that emanate from the initial primary hypothesis, and returning to Table (7) the results were as follows:

#### **1. Results related to the testing of the first hypothesis.**

results showed that values ( $\beta$ , T) related specifically to the impact of the framework & rules that govern the design and launch of electronic services in realizing the independence of the external accounts auditor are valued at (.294,3.926) respectively, which are statistically significant values, indicating the existence of an impact for the framework & rules that govern the design and launch of electronic services in realizing independence.

#### **2. Results related to the testing of the second hypothesis.**

results showed that values ( $\beta$ , T) related specifically to the impact of the commitment of the departments to the general master plan issued by the electronic government in realizing the independence of the external accounts auditor are valued at (.356,7.025) respectively, which are statistically significant values, indicating the existence of an impact for the commitment of the departments to the general master plan issued by the electronic government in realizing independence.

#### **3. Results related to the testing of the third hypothesis.**

results showed that values ( $\beta$ , T) related specifically to the impact of the standards & metrics that must be adopted by departments & sections for electronic government systems in realizing the independence of the external accounts auditor are valued at (.331,6.607) respectively, which are statistically significant values, indicating the existence of an impact for the standards & metrics that must be adopted by departments & sections for electronic government systems in realizing independence.

#### **4. Results related to the testing of the fourth hypothesis.**

results showed that values ( $\beta$ , T) related specifically to the impact of the quality of service in realizing the independence of the external accounts auditor are valued at (.086,1.882) respectively, which are statistically insignificant values, at the significance level of ( $\alpha \leq 0.05$ ), indicating the lack of existence of an impact for the quality of service in realizing independence of the external accounts auditor.

### 5. Results related to the testing of the fifth hypothesis.

results showed that values ( $\beta$ , T) related specifically to the impact of the regulatory affairs & responsibilities within the framework of launching government electronic projects in realizing the independence of the external accounts auditor are valued at (-.043,-.792) respectively, which are statistically insignificant values, indicating the lack of existence of an impact for the regulatory affairs & responsibilities within the framework of launching government electronic projects in realizing independence of the external accounts auditor.

### Discussion of the results

The results show that there is an impact of information technology governance within Kuwaiti Islamic banks with its collective foundations (framework & rules, commitment of departments & sections, standards & metrics, quality of service, regulatory affairs & responsibilities) in realizing the independence of the external accounts auditor. The value of the total correlation coefficient was statistically significant and indicates the degree of statistically significant correlation between the independent variables and the dependent variable. The results explained the ability of the pillars of information technology governance to influence the independence of the external auditor. It was also found that the pillars of information technology governance enhance the ability of the external auditor to work with objectivity and integrity and contribute to his commitment to the independence of his thinking and impartiality in all matters related to the task assigned to him. This leads to the auditor obtaining sufficient support to fully carry out his work and giving priority to the interest of the bank over his individual interests. The results, when testing the effect of each pillar separately, showed the following:

1. There is a statistically significant impact for the framework & rules that govern the design and launch of electronic services in realizing the independence of the external accounts' auditor. It was shown that the level of significance of the framework & rules that govern the design and launch of electronic services came to a high level. It was also shown that the bank covers all necessary procedures to launch electronic services at the operational level and determines the priority of electronic services and the extent of their need. It emerges that the bank obtains approval to appear on the electronic portal and automates and computerizes operations, whilst also forming work teams of experts in the bank to classify and install electronic services according to the needs of its beneficiaries. The researcher believes that this result enhances the use of information technology and computing to set the framework, rules and policies that govern the design and launch of electronic services, with the aim of delivering the necessary services to the beneficiaries of banking services and facilitating the task by increasing and improving its performance with stimulus to participate in the governance of information technology as it enhances the independence of the auditor in Islamic banks.
2. There is a statistically significant impact for the commitment of the departments to the general master plan issued by the electronic government in realizing the independence of the external accounts' auditor. It was shown that the level of significance of the commitment of the departments to the general master plan issued by the electronic government came at a high level. It was also shown that the bank management is committed to preparing the technical guide for programmers and the concise guide for the beneficiaries of the electronic services and is also committed to clarifying the electronic services for the beneficiaries. It emerges that electronic

services are explained from a technical point of view to enable those in charge to use them properly within the approved software for them. The researcher explains the result that the commitment of the departments to the general master plan issued by the electronic government, especially Internet applications based on web-based networks that are necessary to support and enhance access to information and its delivery to the beneficiaries of the bank's electronic services, serving the business sector in the management centers of the surveyed banks and enhancing transparency and disclosure in Islamic banks efficiently and effectively.

3. There is a statistically significant impact for the commitment of the departments to standards & metrics that must be adopted by departments & sections for electronic government systems in realizing the independence of the external accounts auditor. It was shown that the level of significance of the commitment of the departments to standards & metrics that must be adopted by departments & sections for electronic government systems came to a high level. It was also shown that the basis for how the departments and sections in the bank can access the electronic service are determined automatically. It emerges that the bank's planning process includes the various stages needed to explore and categorize the services that the government puts in place for skill development and achievement. It comes to light that within the bank, various work teams are assigned to set technical standards and metrics that must be relied upon when developing services at the level of departments and sections. This confirms that the standards and metrics that departments and sections must adopt for e-government systems require finding procedures and steps to ensure that the beneficiary obtains the electronic service and computerizes all work at the various administrative levels. This leads to the ease of keeping and protecting files and makes the management centers in the Islamic banks surveyed more adaptive to the rapidly changing and diversified business environment, which is reflected in their level of transparency and disclosure.
4. There is an absence of a statistically significant impact of service quality in achieving the independence of the external auditor. It was found that the level of importance of service quality in the bank came in at a high degree, and it was found that the bank's management is preparing procedures related to transferring the service without defects, and that the bank's management can create a desire among the beneficiaries to perform services electronically. It was also found that the extent of satisfaction with the service is measured from its technical aspects in the bank. This requires Islamic banks to offer high quality services in an integrated manner available to all beneficiaries of these services and provide opportunities to beneficiaries and service recipients to obtain said services in a simple and cheap manner. Islamic banks should also provide the possibility to inform the beneficiaries of the service management sequence, which leads to the beneficiaries' satisfaction with the services provided by the Islamic banks investigated in the State of Kuwait, and thus enhances transparency and disclosure.
5. There is an absence of a statistically significant impact of the regulatory affairs & responsibilities within the framework of launching government electronic projects in realizing the independence of the external account's auditor. It was found that the level of importance of regulatory affairs & responsibilities within the framework of launching government electronic projects came at a medium range. It was found that the bank management has the capabilities of automatic and automated

analysis and review of the activities that take place on the website, as it also measures the success of electronic services within the framework of e-government projects. It has also been found that the bank is interested in the structures that help the board of directors to plan electronic services. The researcher finds that this low-level result indicates that impact of the regulatory affairs & responsibilities within the framework of launching government electronic projects are still at the early stages of implementation. The transformation of the e-government system leads to achieving goals that are consistent with the information and communication technology revolution that we are living in now. This matter will be reflected in the overall performance, level of transparency and disclosure in Kuwaiti Islamic banks, to the extent to which services are provided to beneficiaries easily and at a lower cost.

### Conclusion

This research sheds light on the impact of applying information technology governance on realizing the independence of the external auditors in the Islamic banks of Kuwait. The study has revealed several key findings and implications that we can summarize in the following table:

<b>Pillars of IT governance</b>	<b>Impact on External Auditor's Independence</b>
Framework and rules that govern the design and launch of electronic services	Statistically significant impact on the independence of the external auditors. The banks. in addition, the bank's procedures for launching electronic services had the highest support for the independence of the external auditors.
Commitment of the departments to the general master plan issued by the electronic government	Statistically significant impact on the independence of the external auditors. Bank management is committed to preparing technical guides, enhancing transparency, and disclosure.
Standards and metrics that must be adopted by departments and sections for electronic government systems	Statistically significant impact on the independence of the external auditors. Bank teams set technical standards and metrics to ensure beneficiary access and computerization.
Quality of service at the bank	No statistically significant impact on the independence of the external auditors. Service quality is important but doesn't directly impact the auditor's independence.
Regulatory affairs and responsibilities within the framework of launching government electronic projects.	No statistically significant impact on the independence of the external auditors. The impact is at an early stage of implementation, and transformation is needed for transparency and cost-effectiveness.

In addition, the study's theoretical significance stems from the fact that, to the best of the researcher's knowledge, it was among the first in the State of Kuwait to examine how the

application of information technology governance principles in Kuwaiti Islamic banks affected the realization of the external auditor's independence. Additionally, it serves as a valuable, up-to-date resource that emphasizes to the bank's staff the significance of information technology governance in an electronic business ecosystem. Moreover, from a practical standpoint, the study's findings are significant because they could assist the Kuwaiti Islamic banks that are the subject of the investigation in implementing information technology governance, which is necessary to achieve the external auditor's independence. The results come at a crucial moment for these institutions, who must emphasize the value of information technology governance and, consequently, the necessity of putting associated principles into practice.

**Recommendations:**

The researcher recommends the following to Kuwaiti Islamic banks:

1. Emphasizing the importance of adherence to the framework and rules that govern the design and launch of electronic services by providing procedures and responsibilities for designing and launching such services.
2. The necessity of the departments' commitment to the general master plan issued by the e-government, adherence to the development process and commitment to the final design of the e-service.
3. Focus on the dependance of departments & sections on the standards & metrics designated for e-government systems, inclusion of the process of planning, provision of the necessary technological infrastructure to provide services electronically.
4. Work to achieve excellence in service quality and measure the extent of service satisfaction from its functional aspects. As well as providing attention to setting appropriate standards to measure the extent of success in providing the service and the level of acceptance by the beneficiaries.
5. Increase the interest in the regulatory affairs & responsibilities within the framework of launching government electronic projects through publication and implementation of electronic services within this framework, along with clarifying the policies, procedures related to filling the forms for these services.



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