

The impact of using cloud computing on the quality of accounting information and its reflection on the development of international financial reporting standards" IFRS

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Abstract:

The research aims to study the effect of using cloud computing on the quality of accounting information and its reflection on the development of international financial reports. The research study the general framework for applying cloud computing and the most important advantages and risks faced by that apply in general and in the accounting field in particular, and to expose the impact of applying cloud computing on the quality of accounting information.

We concluded that despite the benefits of cloud computing in the field of accounting, which affects the quality of accounting information and the speed of access to it, there are risks from that application, risks related to physical capabilities, and the lack of laws and legislation in this regard, or security and confidentiality, risks of information as a result of procedural gaps in the application or risks related to the practical qualification of those in charge of application.

Keywords: Accounting, Cloud Computing, International financial reports standards.

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1. INTRODUCTION

Cloud computing is a noticeable shift in the world of technology and it depends on the transfer of processors and storage space for the computer to what is known as the cloud, it means services that are carried out through devices and programs connected to a network of servers that carry their data in a virtual cloud that guarantees their permanent connection with a number of devices represented in Computers, smart phones and others.

The need for **cloud computing** has emerged as a result of technological developments and the steady increase in the volume of data and information, which has greatly affected the ability of companies to control this information and its management and how to store it and then retrieve it and the consequent increase in the costs of storage and purchase of new software. Cloud computing emerged as an alternative solution.

Cloud computing represents the new technological direction, as it represents the environment and the basic platform for the future. This is due to its provision of secure data storage and appropriate Internet services, in addition to tremendous computing power. Despite the services and advantages offered by cloud computing, it faces many problems and challenges that can seriously affect companies' information, data, reports and business in general.

Many organizations have been interested in being exposed to these problems and dangers. For example, we find the « **Cloud Security Alliance** » Organization, which is a non-profit organization that tried to present best practices that ensure the provision of security within the cloud computing networks. (CSA, 2021, p. 1)

The information included in the financial reports of companies is an important element for evaluating the efficiency and effectiveness of companies, and the application of cloud computing in the field of accounting is tantamount to preparing the accounts and reports with the information they contain through the use of a program hosted by a third party on the Internet, Which is considered a great information and technology leap.

Companies have sought to build information systems and use modern technologies represented in cloud computing in order to be able to manage and store the large amount of information and data and this information depends on the principles and foundations represented in the international reporting standards. And here appears the need to develop international reports in line with cloud computing applications and their dangers, in order to ensure the preservation of the quality and credibility of financial reports and the information they contain.

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Cloud computing is one of the most important factors that help to keep pace with scientific and technological development and its exploitation in organizing the accounting work by relying on the Internet according to specialized systems that provide all accounting procedures for the economic unit.

Research problem:

The application of **cloud computing** faces many **problems** and **risks**, which makes it affect the quality and reliability of accounting information and financial reports, which are the final product.

What is the impact of using cloud computing on the quality of accounting information?

The purpose of the research:

The research aims to study the **effect** of using cloud computing on the quality of accounting information and its reflection on the development of international financial reports. To achieve this goal, the research is exposed to a set of sub-objectives:

- Study the general framework for applying cloud computing and the most important advantages and risks faced by companies that apply it in general and in the accounting field in particular.
- Study the impact of applying cloud computing on the quality of accounting information
- Study the need to develop accounting standards for international financial reporting in light of cloud computing and the risks involved

Hypothesis:

-The first hypothesis : The application of cloud computing affects the quality and reliability of accounting information.

-Second Hypothesis: The risks of applying cloud computing lead to the need to develop international financial reporting standards. **IFRS**

Search axes:

To achieve the objectives of the research and to test its hypotheses, we divided the research into:

The first section: the general framework for cloud computing in the field of accounting

The second section: previous studies of the topic

The third Section: Cloud Computing and the Need to Develop International Financial Reporting Standards.

The first section :

1- General framework for cloud computing and its evaluation in the field of accounting :

1-1 Emergence of Cloud Computing :

Cloud computing is not a new idea, but it dates back to the sixties of the last century and was started by the scientist John McCarthy, but the beginnings of the year 2000 are the real starting point for its implementation through **Google**, especially in 2007, by providing many applications. Then the **Nebula** program appeared, which provided a number of cloud computing services for free, and then Microsoft provided the **office** program for cloud computing and was accompanied by **Apple**, which launched its cloud computing in 2011.

1-2 What is Cloud Computing: The topic of cloud computing has received the attention of many researchers and organizations, and has been subject to evaluation, definition and analysis.

Cloud computing is defined as a technology that relies on transferring processing and storage of a computer to the cloud, and it is a server device that is accessed via the Internet, thus transforming IT programs from products to services.

There is not an unified definition of cloud computing until now, as it is a metaphor for the internet. In the cloud computing all the resources are arranged together in the cloud storage center, where users can enjoy unlimited resources and computing power as long as they use a terminal to attach the internet.

The concept of ‘cloud accounting’ was first put forward by Ping and Xuefeng (2011). Cloud accounting has been defined by them as the utilization of cloud computing in internet to build a virtual accounting information system, i.,e.; cloud computing plus accounting equals cloud accounting. (Khanom, 2017, p. 32)

What is cloud computing? Let’s start with a simple concept. Emailing information to yourself from office and then retrieving and using that information at home is an example. Most of us are doing that, therefore we are already computing in cloud. This is a cloud user’s beginners level, as cloud computing can offer a lot more than this. What else can be done with cloud computing to actually become a

“cloud user” and stay in tune with the latest trend and technology of the IT Industry?

A simple explanation for cloud computing would be not storing data and information on local hard disk or local servers, but storing it away from our physical location. When the need arises to use that data or reference that information, access is obtained via the Internet. Since access to that data and information is via the Internet, it is available from anywhere via Internet. Access to data and information is not confined to any location, and that is the essence of cloud computing!!

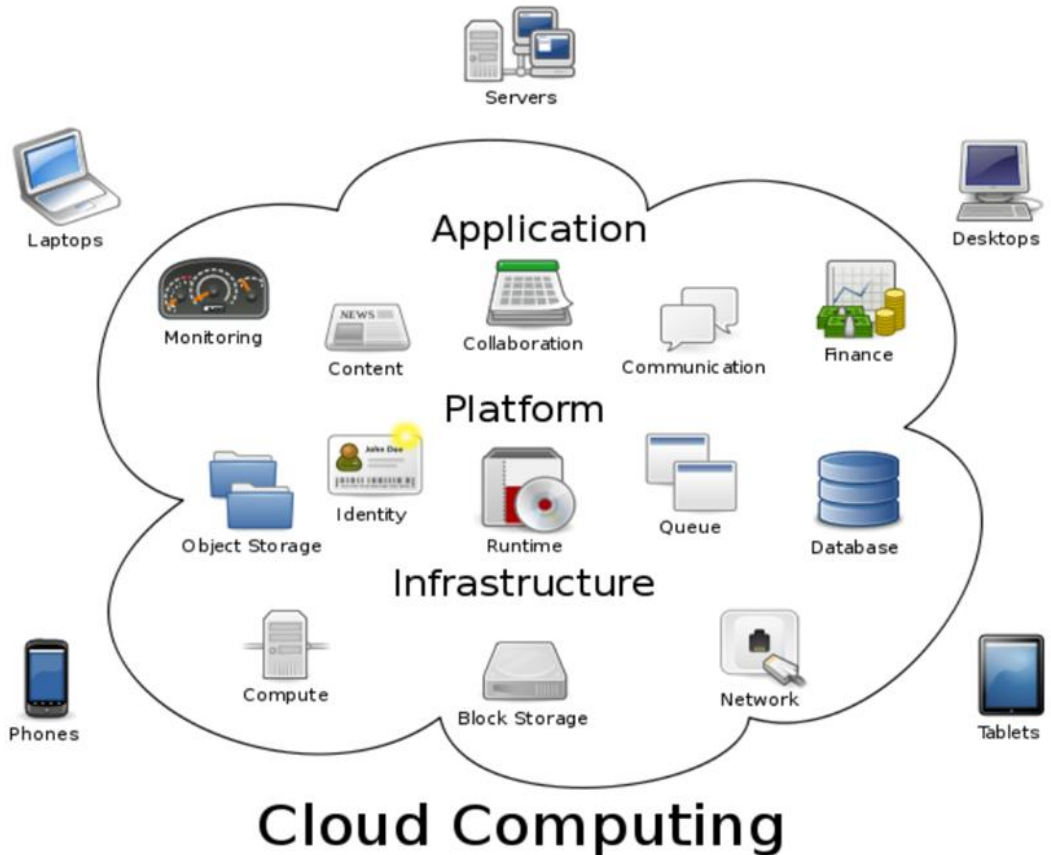
Cloud computing is a model for enabling ubiquitous, convenient, on-demand network access to a shared pool of configurable computing resources (e.g., networks, servers, storage, applications, and services) that can be rapidly provisioned and released with minimal management effort or service provider interaction. This cloud model is composed of five essential characteristics, three service models, and four deployment models. (Mell & Grance, 2011, p. 2)

Essential Characteristics:

- On-demand self-service: a consumer can unilaterally provision computing capabilities, such as server time and network storage, as needed automatically without requiring human interaction with each service provider.
- Broad network access: capabilities are available over the network and accessed through standard mechanisms that promote use by heterogeneous thin or thick client platforms (e.g., mobile phones, tablets, laptops, and workstations).
 - Resource pooling: the provider’s computing resources are pooled to serve multiple consumers using a multi-tenant model, with different physical and virtual resources dynamically assigned and reassigned according to consumer demand. There is a sense of location independence in that the customer generally has no control or knowledge over the exact location of the provided resources but may be able to specify location at a higher level of abstraction (e.g., country, state, or datacenter). Examples of resources include storage, processing, memory, and network bandwidth.
- Rapid elasticity: capabilities can be elastically provisioned and released, in some cases automatically, to scale rapidly outward and inward commensurate with demand. To the consumer, the capabilities available for provisioning often appear to be unlimited and can be appropriated in any quantity at any time.
 - Measured service: cloud systems automatically control and optimize resource use by leveraging a metering capability at some level of abstraction appropriate to the type of service (e.g., storage, processing, bandwidth, and active user accounts). Resource usage can be monitored, controlled, and reported, providing

transparency for both the provider and consumer of the utilized service. (Mell & Grance, 2011, p. 2)

Figure N°01: cloud computing



Source: (Mell & Grance, 2011)

Cloud computing is an online service model by which hardware and software services are delivered to customers depending upon their requirements and pay as an operating expense without incurring high cost. Basically cloud computing is a set of services that provide Infrastructure resources using Internet media and data storage on a third party server. It has three dimensions known as Software level service, Platform level service, Infrastructure service. (Srikumar D. U., 2013, p. 2380)

1/ 3 Cloud computing models : There are many models of cloud computing

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- ✓ **Public computing**, meaning that the cloud provides an infrastructure from which a large number of companies and government organizations benefit.
- ✓ **PRIVATE** cloud computing, meaning that the cloud provides an infrastructure that one company benefits from
- ✓ **Community Cloud**: The cloud provides an infrastructure for a specific purpose of a particular community with common interests.
- ✓ **Hybrid cloud**: It is a cloud that can provide an infrastructure composed of two or more of the above-mentioned clouds. (Kaleem & Ahmad, 2016, p. 5)

1/4 Cloud computing fundamentals :Cloud computing is based on the following criteria:

- **Customer**: It is defined as the user who receives the service and who owns a device and an operating system.
- **Infrastructure**: It is through which the service is provided.
- **Applications**: The programs and services that the customer benefits from.
- **Platform**: It is what we use in the cloud

There are three types of agreements for the service:

- a- **Platform service**: This is shown through applications: Google Apps Engine and Windows Azure, where new applications can be developed, added and published, without the need for new programs or network management.
- b- **Software service**: such as the Microsoft office software package, where applications are available to the user, as well as the operating system and the device itself so that it can be dealt with directly
- c- **Infrastructure service**: Like Amazon, it helps small businesses deal with the cloud through the Internet without having to interfere with maintenance or infrastructure monitoring. (Srikumar U. , 2013, p. 2380)

Cloud computing is an agreement between a seller (service provider) and a purchaser (service user) to provide a specific service, which is access to the service provider's programs and platforms, via the Internet without the need for devices to be located at the user's premises.

The most important service providers are:

- **Amazon**: It is known as Amazon's network services, and it provides cloud spaces to the user
- **Vmware** It provides a cloud infrastructure

- **Rack Space** Provides file storage spaces and infrastructure.
- **Google** Develops and hosts network applications in data centers.
- **Microsoft** It also provides free storage spaces through the sky drive service

1-5 Evaluation of cloud computing in the accounting field:

1-5-1 Advantages of cloud computing: The advantages of cloud computing are many, and the researcher can categorize them into two main groups:

First, the level of performance:

- ✓ The user can deal with his files and applications that include all data and accounting information through the cloud without the need to provide that through his own device.
- ✓ The possibility of providing accounting information through financial reports very quickly, which ensures that the right decisions are taken at the right time
- ✓ The possibility of self-control by considering them as independent systems that are managed transparently and thus transmit information impartially and independently.
- ✓ The high level of performance is due to the failure to download accounting data programs and files on personal computers, and the user is not exposed to delays in receiving the service as a result of operating personal computers.
- ✓ Increasing computing potential, as well as unlimited storage capacity, and this capacity can be increased at any time, and thus the cloud can contain the largest amount of data and infinite accounting information.
- ✓ The ability to access data files and accounting information from anywhere and upload them to the personal accounts of its users, which helps to conduct the necessary financial analyzes to make their investment decisions.

Second, the cost level

- ✓ Saving a lot of cost needed to publish programs, as all the user needs is a computer connected to the Internet.
- ✓ There is no need to purchase powerful and expensive equipment to use cloud computing, all processing, running applications, and setting up accounts are done inside the cloud.
- ✓ IT infrastructure costs go down
- ✓ Significantly lower maintenance costs, regardless of the number of devices and software available to the company

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- ✓ Decreased expenses for updating programs, no matter how large the volume of stored accounting data or the volume of accounting information contained in financial reports, as all programs are updated automatically. (Srikumar D. U., 2013)

1-5-2 Disadvantages and risks of cloud computing:

Despite the benefits and advantages of cloud computing, it faces many risks and drawbacks. It can be divided into four groups:

First : Risks related to physical capabilities :

- Weakness and slowness of the Internet, where the interruption of the Internet and the lack of an alternative lead to the failure to perform the required service, in some applications that need to connect to the Internet, The slow network, which is common, especially in developing countries, impedes the availability of information needed to make decisions in a timely manner.
- The shortcomings of cloud applications, as some applications are still limited and did not cover all procedures, settlements and accounting transactions.
- Lack of capabilities to help the company's database connection with cloud computing applications.
- The lack of a technological infrastructure that helps companies determine the accounting services required from cloud computing.
- The lack of measures that help the user company monitor the risks of using cloud computing, such as the risk of misrepresentation of data and information contained in reports and financial statements, or impersonation of the beneficiary.

Second: Legislation-related risks :

- The risk of not having laws or accounting standards that define the terms of the contractual procedure between the user company and the company providing the cloud computing service.
- The risk of non-availability of accounting laws or standards that determine the extent to which the two parties, whether the employing company or the providing company, comply with the contractual procedure.
- The risk of non-availability of accounting laws or standards that determine the party responsible for holding parties not committed to the contractual procedure.

- The risk of not having laws or standards to protect the privacy of data and accounting information and to ensure that no one is able to access it.
- The risk of not having laws or standards to protect the intellectual property of the accounting data and information of the company used.

Third: Risks related to procedural loopholes

It means the gaps that happen when we use cloud computing, which leads to insecurity and privacy in data, and increases risks, such as:

- ❖ The user puts all his information and accounting files with the company providing the service, which may expose them to penetration, or the company provided may sell the user's information or benefit from it in one way or another.
- ❖ The user's lack of knowledge of the place to save his information and files that contain very important and confidential accounting information, as he may keep it in a hostile country's server, which is a matter that must be controlled by the service provider company.
- ❖ Deleting files that contain accounting information on the part of the user due to a virus, and not guaranteeing their presence on the server after the deletion process, which is private information.
- ❖ Failure to protect intellectual property rights, as there are no guarantees that these rights will not be infringed or that financial information will not be accessed.
- ❖ Loss of control (dependency), where the risk of the user's accounting files and information becoming under the control of the service provider with his knowledge of the password increases.

Fourth: Risks related to the practical qualification of the work team!

- Knowledge and integration risks, as the use of the cloud requires extensive technical knowledge and experience in dealing with software on the part of users, in addition to accounting experience in recording and preparing financial reports.
- Risks resulting from incorrect entry of **accounting data** and financial statement numbers into cloud computing applications.
- Risks arising from not knowing the operating instructions related to how to use cloud computing applications.
- Risks resulting from the lack of programs to qualify and train users in raising and analyzing accounting data and preparing the necessary financial reports using cloud computing.

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In this regard, the **Cloud security alliance** came in **2013**, an organization that aims to provide best practices to ensure the provision of security within the cloud computing network. It referred to the most famous risks facing cloud computing, which it called The **notorious nine**, which were:

1. Data theft i.e. information access to competitors.
2. Data loss due to errors by the service provider or due to cyber intrusion.
3. Theft of service or account data by exploiting vulnerabilities in applications and systems.
4. Blocking the service and it occurs as a result of requesting many consecutive services, which causes pressure, which leads to a noticeable slowdown in the service or stop working completely.
5. The dangers of employees, especially those who have access to internal systems or networks, and their knowledge of its weaknesses.
6. Insecure programming interfaces and what users deal with to control their data on the cloud, and sometimes failure to deal properly leads to several risks.
7. Abuse of cloud computing services. The availability of cloud computing services to obtain services for small amounts of money may encourage some to exploit this in an improper manner.
8. Incompetence and care in use and unpreparedness in understanding all the capabilities of the cloud such as the possibility of encryption and vulnerabilities of security systems.
9. The fluctuation of common technologies as the sharing of network resources among users may make any vulnerability in use to put the entire network at risk.

(CSA, 2021)

From the previous presentation on the assessment of the application of cloud computing in the field of **accounting**, the researcher sees the application of cloud computing is a significant shift in accounting in terms of control of hardware, software and data control and applications, as well as effective use of hardware where no need to purchase or software , Which in turn reduces costs, whether they are maintenance or updating costs, and important or critical information can be kept in the company's location, but this is not applied in some types of crucial clouds. These factors are affecting the **safety, speed and quality** of financial reports and their independence

However, the multiple risks of the application of cloud computing in the field of accounting, whether they are risks related to material capabilities, or risk-related dangers for legislation and laws in this regard, safety and confidentiality risk of information as a result of conducting procedural gaps in the application or risk of

practical rehabilitation The application, all of which requires the availability of the development of financial reporting standards to cover all these risks and control the provisions of the companies provided and used when applying cloud computing and not leaving the area is open without binding rules as follows:

1. Understand the internal environment of cloud computing to determine the risk and control the application.
2. Develop policies and procedures to ensure effective risk management and threats in the transition to apply cloud computing in the field of accounting.
3. Put policies and procedures to ensure the security of applications used by internet
4. Ensure that the customer's knowledge of the consequences of publishing its financial information on the cloud means that the possibility of loss of control.
5. Confirm the shared responsibility between the service provider and user to ensure the protection and conservation of data.

The Second section :

2- Cloud computing and the need to develop international financial reporting standards

Financial reports are the final product of accounting profession as a means of delivering information for users, whether they are in financial lists or in adverse reports, and are additional reports that are optionally prepared or based on accounting recommendations from professional organizations to organize certain conditions.

Financial Reporting Objectives are :

- ✓ Provide information for business and economic decisions for internal or external users.
- ✓ Providing clear information that helps investors and creditors to predict the company's cash flows. (Miller & Oldroyd, 2019, p. 3)

2-1 Accounting Information and Financial Reports:

Financial reports are the most commonly used form of accounting information to users, they are the communication tool between accounting and user information. Therefore, the effectiveness of the information system is linked to the quality and adherence to users, and accounting information should lead to:

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- Linking the main and sub-goals with the means and tools that help to achieve them and represented in the financial reports.
- The possibility of evaluating the performance of the facility on the part of the users by displaying and analyzing the results of activities in the financial reports, which confirms that the quality of accounting information will only be achieved through quality assurance in the financial reports issued by it.

The quality of the accounting information included in the financial reports is one of the most important pillars that can be relied upon to assess the effectiveness and efficiency of the company's accounting system as a whole. (مطر، 2012، صفحة 23).

2-2 The impact of cloud computing application on the qualitative characteristics of the quality of accounting information:

There are many characteristics that measure the **quality of accounting information**, whether they are related to **decision makers** or if they are characteristics related to the **accounting information** itself.

- **Characteristics related to the decision-maker:** The decision maker must be characterized by the ability to understand the content of information and use it optimally in the appropriate decision, and to have extensive experience in dealing with various types of accounting information. Certainly, the application of cloud computing and the risks it contains have shed light on the importance of the practical qualification of the work team and the need for them to possess accounting capabilities in addition to their ability to deal with techniques related to using and uploading information to the cloud, and retrieval and analysis of information and other skills. This is despite the fact that the application of cloud computing in itself has reduced the reliance on the human element because many of the accounting practices are done through the cloud.
- **Qualitative characteristics of accounting information :** The quality of accounting information can be judged if it has two important characteristics, which are convenience and reliability.
Convenience: The information is described as appropriate if it causes a change in the user's decision and therefore if it:
 - The right timing so as not to lose its influence in decision-making.
 - The ability to predict the future
 - The ability to change and correct normal expectations

Reliability: It means the possibility of relying on information so that it is a basis for the decision-maker, and in order to be characterized by trust, the information must be:

- Neutrality and impartiality so that any user's access to it can achieve the same benefit.
- The ability to verify its validity, so that its users' dependence on the same accounting measurement methods leads them to the same results.

2-3 The role of professional accounting organizations in evaluating best practices in light of cloud computing.

In 2012, the AICPA presented a number of steps that represent the best technological practices that companies applying cloud computing must follow to obtain the best outputs represented in the form of financial reports that contain information of high quality and credibility.

- Create the best infrastructure to reach the highest level of cloud service.
- Dealing with wired and wireless devices to ensure effective operation
- Dealing with high quality hardware, software and equipment
- Relying on auxiliary means to replace paper documents
- Relying on documentary administrative systems to maximize the efficiency of digital recordings of accounting data and information
- Possess modern programs for preparing the accounting trial balance and many accounting reports
- Making the company's website available to all customers so that they can access it from their accounts
- Maximizing the efficiency and effectiveness of accounting data flow programs to and from the cloud to ensure accuracy and quality in accounting information
- Providing a good cloud accounting information system for the client to ensure the accuracy of the accounting information outputs
- Providing a good control system to ensure the safety and speed of providing accounting information

As for FASB, in its report No. 15, issued in 2018 and updated in 2020, it focused on providing best practices for companies implementing cloud computing, but in

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the field of cost reduction and other advantages of computing services. Whereas, FASB focused on two types of cost, namely the purchase of computing-related assets or the purchase of the service itself.

But the report did not focus on the accounting application of computing in general. But one of the most important points in the report is that the application of accounting contributes greatly to improving financial reports as a result of the unification of programs for preparing financial statements and reports between companies. This is reflected in the quality and credibility of the accounting information for the companies used. (Goldstein, 2020)

2-4 Benefits of applying international financial reporting standards :

Financial reporting standards are a set of accounting standards and their interpretations issued by the International Accounting Standards Board. Financial standards acquire international status if they are issued by a regulatory body so that companies in all countries use them in preparing their financial reports.

- ❖ International standards are a system of measurement and disclosure rules for all incoming information, financial statements and reports
- ❖ It leads to improving the quality of financial data, achieving accounting communication, increasing confidence and benefiting from this data
- ❖ Standards work on improving and coordinating the accounting systems, rules and procedures when preparing financial reports
- ❖ The presence of reporting standards leads to the unification of measurement and disclosure bases, which achieves the possibility of making comparisons between the financial statements. All this leads to more confidence and credibility in the accounting information emanating from the reports prepared in accordance with international reporting standards. (Brown, 2011)

2-5 Cloud computing and the development of international financial reporting standards:

The need to develop international financial reporting standards in line with cloud computing applications in the field of accounting has become an urgent necessity for the following reasons

- The successive technological developments in the field of information technology and the expansion of cloud computing applications, with the

changes they have brought about in all operational processes and accounting stages, which affect the accounting output represented in financial reports, necessitated the need to keep pace with financial reporting standards for these innovations and changes.

- The social and economic variables and the consequent necessity for the availability of a large and diverse volume of high quality and timely accounting information necessitated the expansion of cloud computing applications due to the huge storage capacity offered by the cloud. Which in turn required the creation of rules to keep pace with these new procedures, as well as rules to subject these procedures to oversight. All this led to the need to develop reporting standards to suit these innovations
- Despite the proven advantages of applying cloud computing in the field of accounting and the developments it has brought about, whether in the huge storage capacity or in the speed of entering and downloading accounting data and the speed of its operation, then obtaining accounting information and its accuracy and rationalizing costs of operations and accounting stages, but it As mentioned above, the application of cloud computing is surrounded by many risks, as follows:
 - Risks related to financial capabilities, such as the failure of some applications to cover all accounting procedures and settlements. And the lack of technological infrastructure that helps employing companies to monitor these risks
 - Legislation-related risks, and these risks are largely directed to the lack of accounting standards and their lack of development in the face of this applied technology. The standards have not yet covered the risks of non-compliance with the terms of the contract between the company using cloud computing and the company providing the service. As well as how to determine the party responsible for holding the parties that are not committed to the contractual procedure accountable. Nor have the standards been exposed to protect the privacy of data and information and to ensure that no one is able to view it
 - Risks related to procedural gaps, as the standards have not yet provided rules related to the risks of selling accounting information by the company providing computing services. Or the risks of deleting files that contain confidential accounting information. Or the risks of accessing confidential accounting and financial information and then uploading it to the cloud and inventing it from Unauthorized persons.

- Risks related to the practical qualification of the work team, as although the application of cloud computing in the field of accounting has reduced the need for the human element, the international standards for reporting have not yet provided the rules related to the minimum required qualifications and accounting experience for those dealing with computing applications cloud .As the lack of practical qualification of the work team leads to many risks at every stage of dealing with the cloud, such as the risks of entering data and numbers of financial statements in an unsafe manner or the risks of not being aware of the operating instructions and how to use computing applications and other human risks.

2-6 Cloud Computing Risk Assessment :

The four major accounting firms partnered with the COSO Committee and a number of people interested in cloud computing applications to assess the risks of this technology

These categories indicated that in order to limit the risks facing cloud computing services, it is necessary to determine what data is used, as well as defining what users are of computing services. A number of risks were discussed, which were represented in the following:

- ❖ Lack of complete control over the data.
- ❖ Lack of control over the IT infrastructure.
- ❖ The obvious interference of the service provider.
- ❖ Insecurity and failure to maintain confidentiality of information.

The COSO Committee focused specifically on the danger of considering the service provider as a third party and may have access to and manipulate confidential information, resulting in a lack of transparency and reliability. As for the four offices, their focus was on three topics:

- Data loss
- Intellectual property theft risks
- Risks of non-continuity of business and compliance with tax laws The Big Four Offices Committee explained that uploading information through the cloud increases the possibility of information breaches by some unauthorized users.

2-7 Suggestions for developing financial reporting standards in light of cloud computing

Some of the studies that were previously discussed have attempted to research some of the problems and dangers facing the application of cloud computing, and the researcher believes that the required development in reporting standards must involve the introduction of new binding standards that contribute to reducing these problems and risks, and that is as follows:

- Develop criteria to determine the terms of the procedure and contract between the company that uses cloud computing services and the company providing them.
- Develop criteria to determine the conditions for the extent to which the parties are bound by the contractual procedure.
- Develop criteria to determine who is responsible for holding non-binding parties to account.
- Develop standards to protect the privacy of data and accounting information and ensure that no one is able to access it
- Develop standards to protect intellectual property of accounting information
- Develop standards that specify the requirements that must be met for the infrastructure of companies that use and provide computing services
- Develop criteria to define metrics to help the user company monitor the risks and manipulation of the cloud-providing company in accounting information
- Develop standards that verify security measures on the accounting information stored on the cloud from driving, hacking, or selling to another company, especially since it is financial data and a calculator with a degree of privacy and computational.
- Develop standards for internal control procedures to be followed in the event that files containing accounting data are deleted, whether intentionally or unintentionally
- Develop standards for internal control procedures to determine the persons authorized to know the password and access accounting information.

3- Conclusion, results and recommendations:

Cloud computing has emerged as one of the modern technological means in the field of accounting that provides many information services via the Internet as a result of the steady increase in the volume of accounting information and the high costs of storing and managing it.

There are many models of cloud computing, and perhaps the most important of them are:

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- Public computing, which benefits a large number of companies and government organizations, private computing, which benefits a specific company, and community cloud, which provides an infrastructure for a specific goal specific to a specific community without common interests.
- There are many components upon which cloud computing is built, which are represented in the customer, who is the recipient of the service, and the infrastructure, through which the service is provided. and applications that benefit the client. The platform, which is used in the cloud
- The types of agreements to obtain cloud service vary, such as the platform, i.e. developing and adding new applications without the need to purchase new software, and software service, i.e. providing applications and operating devices, or infrastructure service and it works to help small-sized companies deal with the cloud without the need for the presence of devices at the user's premises.
- Despite the many benefits of cloud computing in the field of accounting, which positively affects the quality of accounting information and the speed of access to it. However, there are many risks that result from the application of cloud computing in the field of accounting, whether they are risks related to physical capabilities, or risks related to the lack of laws and legislation in this regard, or security and confidentiality risks of information as a result of procedural gaps in the application or risks related to the practical qualification of those in charge of application.
- The application of international financial reporting standards leads to the provision of accounting information on a degree of quality and credibility. This in turn is reflected in building rational investment decisions on the part of users of financial statements and reports.
- There is a need to develop international financial reporting standards on a permanent basis, whether to keep pace with the technological changes invested, especially the expansion of the use of cloud computing, or to face the risks that accompany the application of cloud computing.

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