



The Risk of Cloud Accounting on the Quality of Financial Statements

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Abstract: Cloud computing represents a significant advancement in technology, involving the migration of computer processors and storage areas to a virtual environment known as the cloud. In the realm of computing, including devices such as computers and smartphones, etc. The financial reports of companies contain crucial data for assessing the efficiency and effectiveness of these companies. The utilization of cloud computing in accounting involves the preparation of accounts and reports, including their information, through the use of an accounting program hosted by a third party on the Internet. This practice was not previously common. The former issue pertains to the informational and technological risks associated with the use of cloud computing in building information systems and preparing financial reports. The researcher concluded that the research hypothesis is valid, as evidenced by a correlation coefficient of 0.741. However, the researcher also noted that companies tend to overlook the potential risks involved in utilizing modern technology in cloud computing. Therefore, the researcher recommends the importance of considering and addressing these risks. Create financial reports using cloud computing apps and assess associated risks to assure the integrity and reliability of the reports and the information they include.

Keywords: Cloud Computing, Risks, Financial Reports

1. Introduction

As technology has advanced and Internet speeds have improved, many institutions have started offering their applications through the Internet using a technology called cloud computing. This technology offers users various benefits, including cost savings and the ability to provide services to a larger global audience. Beneficiaries refer to the services that are performed using hardware and software connected to a server network. These services store their data in a virtual cloud, ensuring a continuous and uninterrupted connection. Users can access these services from various devices, such as computers, tablets, and smartphones, by entering a specific code to unlock the network. This allows them to access the services from anywhere and at any time.

In recent years, researchers have been interested in the issue of the quality of financial reports and the factors affecting them. Accounting as a science suggests many variables that are indicators of quality, including the amount of voluntary accrual in the financial statements, the administration's adoption of special policies for the recognition of profits, the degree of transparency, and the appropriate timing.

Therefore, the introduction of cloud computing procedures in accounting operations and the accompanying risks of financial

reporting and thus affect their quality. The use of technology in accounting procedures may reduce cost, time and effort, making it compatible with many concepts and foundations, but at the same time there are many risks so it must. When applying this requires us to use the principle of cost-benefit.

The Study Problem

The increasing volume of competition between companies has caused the need for methods and methods that shorten their work. Given the importance of financial reports in attracting investors, companies have sought to adopt technology, including cloud computing, in their accounting work of processors and preparing reports, but this application was accompanied by many risks, including security and reliability, so the problem lies in how Are the risks resulting from the application of cloud computing in the preparation of financial reports reduced?

Objectives of The Study

The study aims to shed light on the concept of cloud computing and explain its characteristics and risks of using it and its reflection on accounting procedures and thus affects the financial reports and information quality on the one hand and on the part of the beneficiaries on the other hand.

The Importance of Studying

The importance of this study lies in the fact that it deals with a topic related to the most important element in accounting, which is financial reports and their quality, as well as a great deal of importance in which companies are accelerating in light of intense competition in the local and international markets in the use of modern technology available, including cloud accounting and how to address it.

Research Premise

The study is grounded on the hypothesis that there exists a statistically significant correlation between the accounting approach to cloud computing and the influence of its risks on the accuracy and reliability of the financial statements.

The Notion of Cloud Computing

Cloud computing is a technological approach that involves moving the computational and storage capabilities of a computer to a remote server known as the cloud, which may be accessed over the internet. The transformation of information technology programs from products to services is facilitated by the utilization of cloud computing infrastructure, which relies on sophisticated data centers that offer extensive storage capacities to users. Additionally, this infrastructure offers certain programs as services to users, leveraging the capabilities provided by Web 2.0 technologies [1].

A cloud computing model is characterized by its ability to offer easy and continuous network connectivity, allowing for the sharing of a wide range of computerized resources. These resources may be deployed and accessed with minimum effort or interaction with the service provider [2].

Cloud computing is a technology that involves transferring computer processing and storage to remote servers, known as the cloud, which can be accessed over the Internet. This allows programs to be delivered as services rather than products, enabling users to access them online [3].

Literature Review

Components of Cloud Computing [4]

1. Applications: Software and services that may be operated by the customer in the cloud. With Software as a Service, the user's responsibility for maintaining and developing the software has been reduced.
2. The client refers to the user who utilizes their device (such as a mobile phone or computer) to take use of the service. The user may have an operating system that is compatible with cloud services or only relies on a web browser.
3. Infrastructure: The cloud infrastructure is offered as an Infrastructure as a Service (IaaS).
4. Platform: The cloud platform you utilize, such as Python Django, Java, or Google Web Toolkit.
5. Service: The cloud service you utilize, specifically referring to Software as a Service, which involves transforming computer products into services.

Cloud computing refers to the provision of services through a network of servers that store data in a virtual cloud. This allows for continuous and uninterrupted access to the data from various devices, such as computers, tablets, and smartphones. Access to the network is granted by entering a specific code. Therefore, it may be accessed from any location and at any point in time. And sequentially, the following operations: [5]

The user must access a computer cloud on a website to utilize a system like the Domain Name System (DNS). This system is crucial for establishing geographical locations, allowing the system to guide the user to various nearby sites related to their search query.

The user is unable to directly access the server. Instead, they must input the tracking log, which is kept as a unique ID number. This ID number allows the user to get the session's identity and their browser information.

The user can access the content he gets on his webpage using web servers that facilitate the execution of programs with interactive interfaces. The user can engage with these programs by issuing commands through mouse clicks, file uploads, and sending activities.

Web servers process commands and fetch data from the database to provide users with updated web pages. This synchronization of data globally allows users to access and interact with varied information anytime and anywhere.

Cloud computing operates by enabling users to store their data on remote servers, rather than on their personal devices. This service allows users to access their files and data from any location with an Internet connection [6].

Cloud computing workspaces: [7]

1. Amazon's Network Services, also known as AWS, offers users the ability to rent virtual machines for running computer applications. Additionally, AWS provides a web service that allows users to create virtual machines using Amazon Virtual Machine Images. Amazon refers to this as a "model" that encompasses all the required software. The user has the ability to build, initiate, and terminate server instances, for which he is billed on an hourly basis for active servers.
2. Rackspace is a provider of online application hosting and cloud platform services. They provide a cloud-based network called cloud sites, which is built on computational utility principles. Rackspace also provides cloud file storage and infrastructure through their cloud servers.
3. Vmware is a fundamental component of virtual infrastructure and cloud computing.
4. GoGrid is a cloud infrastructure service that hosts virtual machines for both Linux and Windows. These virtual machines are administered using a multi-server control panel and are based on the same hosting space.
5. Salesforce is a San Francisco-based cloud computing firm that provides corporate software and runs applications remotely. It is renowned for its CRM solutions.
6. Google is renowned for its expertise in cloud computing, particularly for its online Google Docs and Google Apps editing. These tools are used for creating and hosting web applications on Google's data centers.

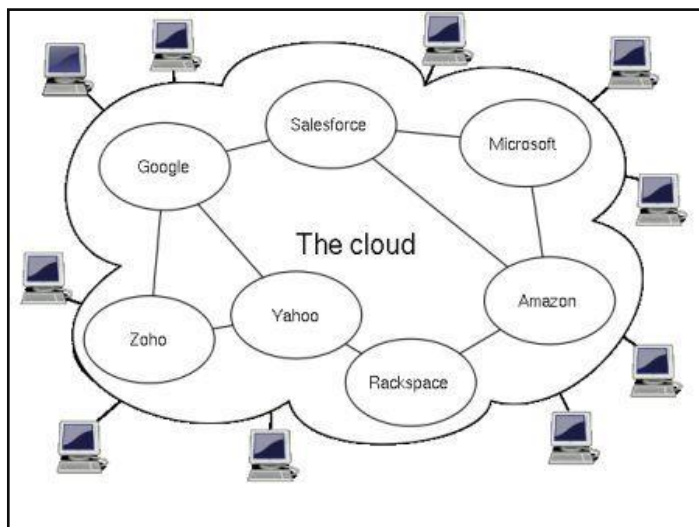


Figure 1. Computing Use

Beneficiaries of “cloud computing”: [9]

1. Small and medium-sized companies, as well as large companies, benefit the most from this new technology. They utilize an outsourcing system that is supported by a computing model. This model enables them to efficiently utilize their infrastructure and achieve their desired objectives. Consequently, they can redirect surplus labor towards fostering creativity in order to effectively adapt to new technology.
2. Cloud computing is an essential component of the data and information center sector. It plays a crucial role in optimizing energy consumption and reducing thermal emissions, which is a major problem for resource management in companies.
3. Cloud computing is a renowned and creative phenomenon that offers services and applications in a straightforward and convenient manner.

Advantages of Cloud Computing: [10]

1. The proliferation of cloud computing systems has enabled users to abandon traditional methods of data storage and instead consolidate all their digital files into a single, huge cloud that is stored on the Internet.
2. Cost: The cost was reduced due to decreased equipment purchase prices and a change in the application license scheme. The service is now provided on a subscription basis.
3. Cloud services and websites hosted on a cloud hosting company possess the capacity to expand as needed and are consistently accessible to consumers.
4. There are no restrictions on computer power and storage capacity. In principle, there are no constraints on storage and processing capabilities in the cloud. However, practical limitations do exist.

5. Prioritize core business over IT: Business owners should prioritize their main business activities instead of attempting to handle and oversee IT operations.
6. Offering resources in a dynamic manner: It grants users access to the necessary computing resources at any given moment, in a flexible and responsive manner.
7. Increased efficiency: The physical location of your equipment is irrelevant; what matters most is its optimal functioning and the availability of the service.
8. Cloud computing and the virtual environment play a significant and efficient role in advancing the "Green IT" trend. Green technology and cloud computing are interconnected, as cloud computing is a virtual technology that aims to minimize the usage of physical machinery and devices, so contributing to the advancement of green technology. Additionally, it aids in conserving electricity [11].

Disadvantages of Cloud Computing: [12]

1. Security: The issue of information security and privacy arises due to consumers' concerns about the potential disclosure of their personal information to unauthorized persons.
2. Privacy and data ownership: Users of these services are concerned about the protection of their intellectual property rights. There are no assurances that users' intellectual property rights will not be infringed upon.
3. Ensuring the level of service: The issue of Internet availability is a significant concern, particularly in developing nations. The service needs a consistent and uninterrupted Internet connection for its usage.
4. Is it feasible to seamlessly go from one cloud service provider to another without necessitating modifications to the content and working environment? Verification or assessment of compliance is currently unavailable. In order to adhere to compliance requirements such as HIPAA and SOX, we will need to make significant efforts to install apps on the cloud.

Financial reports and their relationship to cloud computing and its risks:

The concept of financial reporting and its historical development:

It may be difficult to draw a line between the financial statements and the financial reports, because each of them is a final product of accounting products and a means of communicating information to its beneficiaries. Outside the project, while the financial reports, in addition to the financial statements, contain a lot of financial and non-financial information that is not found in the financial statements. The financial reports also contain the report of the board of directors, the executive management report, and the auditor's report [13].

Financial reports are characterized by flexibility and responsiveness to the changes that have occurred and are occurring in economic and social life, where the development was taking place with the aim of achieving a goal sought by the users of those reports. The utilization of sophisticated information technology results in a constant evolution in the technology used for gathering, processing, and distributing accounting data and information. These advancements have brought about significant transformations to the instruments employed. The conventional approach to managing accounting data and information has played a significant role in enhancing the efficiency and capabilities of the system.

The accountant's role in processing data and generating financial reports is distinguished by efficiency and impartiality. Information technology has greatly enhanced the potential for improving the performance of accounting information systems. It has facilitated the development of various elements such as individuals, structures, and tools. This is due to its diverse capabilities and the associated risks, benefits, and costs of information. The primary trends in the influence of cloud computing on the caliber of financial reporting may be succinctly characterized as follows: [14]

1. Cloud computing is a cost-effective solution for streamlining operations, reducing labor requirements in production, and minimizing the size of the administrative structure, particularly middle management. Additionally, it results in decreased accounting expenses.
2. Cloud computing enables top management to broaden their authority by facilitating expansion. The distribution of the decision-making process within the executive management signifies a shift towards both centralization of control and decentralization. Decision-making is a process that combines the benefits of two techniques simultaneously, resulting in both flexibility and precision. The accounting information system has generated financial reports that have received a significant level of reaction.
3. Cloud computing has facilitated the development of novel communication channels inside the communication network.
4. This has facilitated the acceleration of information flow, processing, and interchange, as well as the advancement of contemporary instruments for information sharing, including as meetings, negotiations, and deal-making, by enhancing the efficiency of financial connections and networks.
5. The process involves minimizing the different data storage areas by converting them into files that can be accessed directly from the central database. Additionally, it allows for updates to be made through the economic unit's websites on the Internet or the

intranet, with the data being initially stored in the extranet or other networks [15].

6. Utilize the possibilities offered by electronic methods to enhance the execution of tasks and procedures. Various accounting procedures, particularly those that include the application of mathematical and statistical techniques.

Despite these advantages, it is noted that there are risks represented by the following: [16]

1. The risk of unauthorized access and access.
2. The need for the availability of the Internet service, and therefore, when it is lost, it may lead to a loss of access to storage when needed.
3. Lack of trust and credibility due to the presence of a third party to save information by cloud provider companies.
4. The information presented in the financial reports may not comply with the International Financial Reporting Standards, and therefore these reports lose their quality.

Methodology

The study used the data of the Iraqi joint-stock companies, and a sample of the Baghdad Soft Drinks Company was taken with a degree of freedom of 0.05

Table 1. Data Sources for Freedom Indices

Freedom Index	Key Components		Source
0.05	size	90	Iraq Stock Exchange

Estimation model

If you know that c refers to the rate in year t . and x refers to the size of the paragraph and n refers to the size of the sample and for each variable, according to the following equation:

$$git = (xi,t/ni,t-1) \times 100\%$$

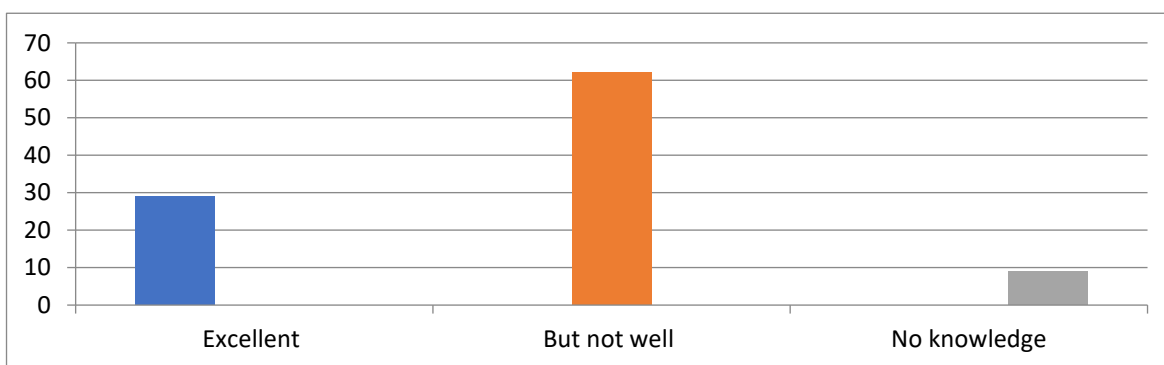
Findings and Recommendation Discussion

The study aimed to analyze the impact of strategic factors in the application of cloud computing and its risks and impact on financial reports by examining the relevant hypotheses (Structural Model). For this purpose, SPSS and AMOS software were used, where the parameters of the model were estimated (Maximum Likelihood). Before presenting the results related to the parameters of the community, a description of the variables will be presented for the purpose of understanding them, as follows:

Table 2. Model Variables

Variables	F	%	Stand.Dev.
Excellent	26	29	9.9
But not well	56	62	3.6
No knowledge	8	9	2.7
Total	90	100	

Through the previous table and the following figure, which puts the distribution of the sample members according to knowledge With cloud accounting, we notice the largest percentage of people with knowledge, but not well, 62%, then people with excellent knowledge at 29%, and the lowest percentage of those who do not know them at 9%

**Figure 2. Model Variables**

The results included in Table (3) show the extent of the company's management's interest in conducting a strategic analysis of the internal environment, through the answers of the study members to the questions assigned in the questionnaire, which were as follows:

Table 3. Interest in Conducting Strategic Analysis

Items	Stand.Dev.	Mean
The ability to access accounting data from all departments when applying cloud accounting.	0.817	4.57
In the cloud accounting system, the program is automatically updated and thus contributes to achieving the best results for the company by improving the performance of accounting functions.	0.669	4.63
The information available in the cloud accounting system is compatible with the requirements of the decision makers, but it is difficult to rely on the results provided by the cloud accounting system.	0.828	4.27
It is easy to obtain information when using the cloud accounting system.	0.621	4.60

Items	Stand.Dev.	Mean
When using cloud accounting, financial statements and reports become more prone to errors.	0.850	4.37
The use of cloud accounting requires prior practical experience in preparing financial statements	0.794	4.30
Actions by the company are reduced when using cloud accounting, and thus the risks of the information provided increase	1.015	3.73
Cloud accounting reduces the process of accurate information exchange through financial reports.	0.724	4.60
Ease of expanding the applications when using the cloud accounting system with the increased risk of using it.	1.398	3.33
In the case of unauthorized access, the cloud accounting system performs several special procedures.	0.679	4.57
The possibility of using cloud accounting at the agreed times and beyond, thus increasing the risks.	0.679	4.43
Cloud accounting operations are conducted in a concise manner and thus many accounting procedures are deleted.	0.679	4.57
Cloud accounting does not fully provide protection, security, confidentiality and privacy for company information.	0.868	4.27
Trusting the cloud is one of the biggest obstacles to adopting cloud accounting, and therefore the fear of data theft.	0.820	4.50
There are not enough guarantees for the cloud when applied in accounting operations	0.643	4.00
Legal structures do not provide adequate protection for accounting reports.	0.629	4.47
Average	0.75	4.32

This variable was addressed through sixteen statements that achieved a general mean (4.32) and a standard deviation of (0.75), where it ranked first because cloud accounting is the automatic update of the program and thus contributes to achieving the best results for the company by improving the performance of accounting functions with an arithmetic mean (4.63) and a standard deviation (0.669), while in the last rank there is the ease of expanding the applications when using the cloud accounting system with an increase in the risks of using it with an arithmetic mean (3.33) and a standard deviation (1.893). From the above, the research hypothesis can be tested:

Table 4. Hypothesis Test

hypothesis	t- table	t-test	r^2	r
1	1.645	10.92	0.549	0.741

As shown in the table above, and after obtaining the tabular value (t) with a significant level ($\alpha = 0.05$), the tabular value amounted to (1.645), and the calculated value was (10.92), which is greater than the tabular value, and this indicates that there are differences Significant between the accounting treatment of cloud computing and the impact of its risks on the quality of the financial statements, which accepts the hypothesis of the research, as the correlation is 0.741.

Conclusion

After discussing the topic of cloud computing, its benefits, risks, financial reports, and its importance, it is concluded that the adoption of cloud computing reduces transmission and writing errors and reduces storage costs in theory, but many problems appear related to trust, security, and presentation of financial reports as well as access problems due to the interruption of the Internet service and thus its impact on taking Decisions from restrictions to financial results are done automatically, and when testing the hypothesis, it became clear that the tabular t value was (1.645), and the calculated t value was (10.92), which is greater than the tabular, and this indicates that there are significant differences than the research hypothesis is accepted and that there is a correlation Among the variables, the correlation coefficient is 0.741.

The research recommends that the designers of cloud programs should adopt databases in the design of the cloud program in accordance with accounting standards and foundations for the purpose of preparing financial statements with high credibility, as well as providing adequate protection for that, which facilitates the work of the program and raises awareness of corporate management of the importance of secure cloud accounting to keep pace with this development.

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