Areas of Benefiting From The Electronic Cloud in Accounting Information Systems / A Study in Some Selected Iraqi Companies

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Abstract:

Electronic cloud (according all its concepts used by researchers) represents an important development in the environment of information technologies that must be taken care of by researchers in field of accounting information systems (AISs) due to its direct effects on accounting work and in what may lead to increasing efficiency and effectiveness of AISs that operate in IT environment.

This research discussed some concepts related to use of the electronic cloud in the work of AISs with a focus on concept of cloud accounting that dealt with the nature of accounting work in light of use of the electronic cloud and the expected effects resulting from that, and then identifying most important requirements for use of the electronic cloud in work of AISs.

The field study was carried out in a number of Iraqi companies to find out the extent of benefiting from the electronic cloud in the work of accounting information systems through the study sample, which included a group of employees in accounting work and information technologies. It was concluded that there are several areas through which cloud storage and computing are used. Cloud down to cloud accounting applications.

Keywords: Cloud accounting, Accounting software, Cloud computing, Cloud storage.

I- Introduction:

"In view of the many and successive developments that occur in the IT environment and the expansion of its use and utilization in the business environment and the direct impact on the practice of accounting information systems needs to examine the opportunity to make use of advanced technologies"(alsaqa, et al.,2019).

Many concepts and terms arising from use of information technologies in various fields have emerged, and among these concepts emerged what is called "cloud" and several other concepts related to it, such as: cloud storage and cloud computing.

Concept of "cloud" refers to advanced development of information technology revolution by describing it in third generation (after first generation related to computers and second generation related to Internet), and this technology is based on assumption of replacing computers and everything it contains with a virtual space area called "cloud" which represents a network Massive interconnected servers are accessed through Internet, can be accessed from anywhere and at any time (once the user's device is connected to Internet according to any operating system and from any browser) and deal with them either by sending different data or files or receiving them after processing the target of.

Working in cloud environment requires that the user obtain a service that allows him to store all his data outside the domain of his personal device, that is, he stores his files and data on the cloud servers in the form of files that he can access from anywhere there is a connection to internet, thus, the following elements must be present when working in cloud environment:

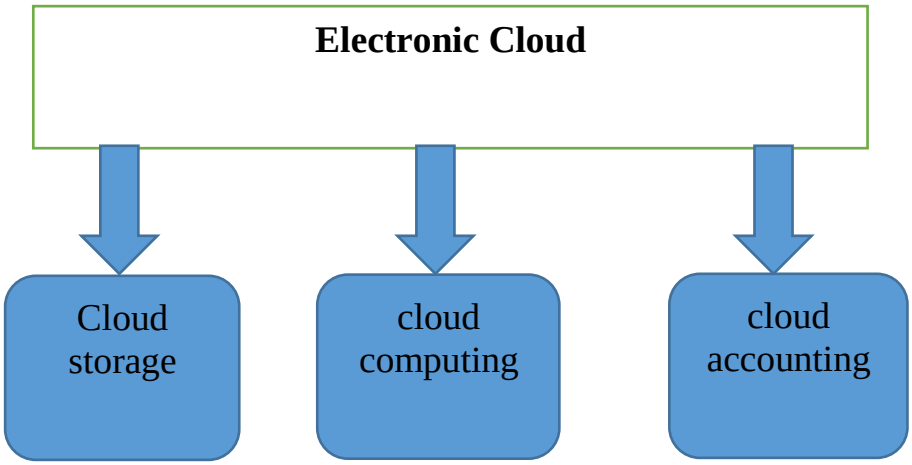
1. A personal computer, which is any device (medium or under medium capabilities) just enough to connect to internet.
2. Any operating system that allows connection to internet and this feature is available in almost all operating systems currently exist.
3. Internet browser, as there is no requirement for type of browser used in the electronic cloud as long as large sites are compatible with it.
4. Providing an internet connection, preferably high speed, as it is link between the user and all his data and all programs he uses.
5. Cloud service provider, which is similar to web hosting service provider, but with an increase in some features to allow both developers and users to use resources available on servers more efficiently since survival of both users and application developers will be longer on servers of cloud service providers.

II. Concept of electronic cloud

Due to novelty of term "cloud" and the possibility of using it in multiple fields, several terms related to it appeared and researchers used them as synonyms with each other, but from a scientific point of view the use of term "cloud" has evolved according to function related to it and the need to use it in a specific field. "Cloud storage" where focus was on making use of electronic cloud to store data and then obtaining it, and after that term "cloud computing" appeared, where the focus was on treatments that are performed using computer programs and applications, and then term "cloud accounting" appeared use of

electronic remorse in cloud AISs, it must distinguish between terms mentioned, which could be clarified in accordance as figure (1):

Figer1: Cloud accounting in electronic cloud environment



Concept of cloud accounting

Due to increasing volume of data that AISs deal with in light of breadth and multiplicity of economic and financial operations of economic units need has emerged to take advantage of developments in information technology in field of AISs, especially in field of "cloud", and thus we have concept of "cloud accounting".

In order to reach a clear and accurate concept of cloud accounting "we must address relevant concepts as follows:

First: cloud storage.

It relates to possibility of storing data in files of very large capacities determined by user within the services provided by service provider that deals with him and at an agreed material fee (and it may be part of it for free within certain capacity limits and what is more than that is at another price).

"The concept of Cloud Storage means that a customer will save their data within the cloud instead of on a local system and the access to the data is through a network connectivity and a client service"(Galloway,2013).

"Cloud storage is one of the primary use of cloud computing. With the cloud storage, data is stored on multiple third party servers, rather than on the dedicated servers used in traditional networked data storage. When storing data, the user sees a virtual server which is called that it appears as if the data is stored. But it does not exist in reality which just a pseudonym is used to reference virtual space carved out of the cloud. In reality, the user's data could be stored on any one or more of computers used to create the cloud"(Kannan, et al.,2019).

Accordingly, the idea of cloud storage is based on storing data and various documents outside the scope of computers (or smart phones and tablets) in a way that preserves them safely and allows them to be obtained from anywhere and at any time once there is a connection with the Internet, and it can be noted here that many of us are Cloud storage is used in its daily life and daily dealings with the internet through what it does to preserve

and retrieve many data, files, pictures and conversations using social networking applications and e-mail (on Yahoo or Gmail or another party that provides this service) as well as services that Many browsers provide (such as Yahoo or Google ... etc.).

There are many sites and applications that allow cloud storage, which differ among them in terms of spaces and storage capacities, as well as degree of confidentiality, security and possibility of encryption by the user or service provider, as well as the ability to install on computers or phones and smart panels, among the most important: Dropbox, Google Drive, Microsoft OneDrive, Amazon Cloud Drive, Terrorist. , Spider Oak, Team drive, MEGA, iCloud, I Drive.

Second: cloud computing

"The term "Cloud Computing" is today's term and tomorrows promise. In simple words cloud means the Internet and cloud computing means remote computing"(Alecu,2008).

"Cloud computing define as 'a type of parallel and distributed system consisting of a collection of interconnected and virtualized computers that are dynamically provisioned and presented as one or more unified computing resources based on service-level agreements"(Buyya, et al.,2008).

Then (NIST) define it "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"(NIST, 2011).

After success of cloud storage service, many giant companies in internet field have developed their sites dedicated to cloud storage service to include presence of advanced and updated programs and applications to provide integrated services to process data and stored files without being restricted to programs and applications that the user is working on, and thus these programs are transformed from products to services These companies provide them so that the user can benefit from them without having to own them.

Third: the concept of cloud accounting.

"Cloud accounting is taking the concept of cloud computing and applying it to an accounting context. The relationship between cloud accounting and cloud computing is that while Cloud computing is the delivery of computing services such as software, information and shared resources via computers and other devices over a network (usually the internet), Cloud accounting involves the access of accounting software and data via the internet. End users access cloud based applications through a web browser or mobile applications while the software and data are stored on remotely located servers, often provided by a third party"(ONYALI, ,2015).

Definition of cloud accounting: "It is also known as 'online accounting'. It includes all the functionalities and services provided by accounting software installed on the computer of the client but it runs on the servers of the Common Service Provider (CSP). A client does not need to install a software in her computer but rather can use the cloud services for the same purpose"**(**Sobhan,2019).

In light of concepts covered, concept of cloud accounting can be defined as referring to: Using cloud technology to store accounting data and files and process them according to advanced and updated accounting programs and applications and share them (or share their results) with a number of people and companies in different locations by taking advantage of benefits of cloud storage and cloud computing.

"Like other sectors of business, accounting has also embraced cloud computing solutions in order to provide relevant and particular information as well as a real time overview of business for all stakeholders. Although cloud accounting is becoming more and more common day-by-day, many business owners and professionals are not quite sure about what it is, what its benefits are or how it will shape the future accounting"(Khanom, 2017).

Accordingly, cloud accounting is not considered a branch of accounting (as some think), but it is a recent field that indicates benefit from the practice of accounting work (in all accounting branches) through services provided by internet companies in the areas of cloud storage and cloud computing taking into account the privacy of accounting data and files accounting software and applications necessary to operate it and prepare its targeted results.

III. Importance of cloud accounting

In the light of the rapid developments in information technologies, the field of electronic cloud is considered one of the most important modern fields that have been used in various areas of life, and since business organizations in general and the growth of accounting information work within an open environment, we must search for how to benefit from the environment of the electronic cloud in the work of information systems Accounting.

Major accounting firms and even accounting organizations (including AICPA - American Institute of Certified Public Accountants) have responded to an increased level of attention directed to the cloud. "A study conducted in April 2013 by Lonergan Research, an Australian research agency for CCH (Software and Information Services Provider for Tax, Accounting and Auditing Practitioners) research report showed that Six out of ten (60%) of accountants are not currently using a cloud-based system, He considered that they would likely adopt a single system within the next 2-3 years. This preference in the cloud is rising sharply amongst groups of young business owners. Also, both accountants and business owners between 18 and 34 years are more receptive to migrate their accounting business to cloud solution"(Dimitriu & Matei,2015)

The importance of cloud accounting has been established a specialized professional institute is the Cloud Accounting Institute (CAI), which represents a center for exchanging information about software as a service (SaaS) and cloud computing dedicated to the needs of specialists in accounting and finance. In addition to its website / blog, the institute publishes case studies, white papers, a cloud computing resource guide and research on all aspects of cloud accounts and accounting best practices.

IV. Effect of electronic cloud environment on AISs

In light of successive and accelerating developments that occur in business environment, environment of information technologies and widespread use of them in

most areas related to the practice of accounting work, and on basis that AISs are open systems that are affected and affect environment in which they operate, the endeavor to benefit from the services they provide internet companies in areas of cloud storage and cloud computing become a necessary and necessary.

From here, work of AISs in electronic cloud environment will lead to the following positive effects:

1. Keeping pace with developments in the environment of information technology and trying to benefit from them in a way that contributes to achieving the efficiency and effectiveness of AISs.
2. Developing the technical capabilities of accountants and facilitating their carrying out unconventional operations related to systems analysis and design as well as financial analysis using advanced technical programs.
3. Reducing infrastructure costs in owning, maintaining, and updating them, in a way that contributes to reducing costs of producing information.
4. Carry out accounting work at any time and any place without being restricted to being in a specific place (it is the workplace) or a specific time (it is the specified work time).
5. Communicating with people and companies related to the company's accounting work by sharing data and files directly.

V. Nature of work AISs in electronic cloud environment

"It is important that companies take their heavy computing tasks without expensive hardware and software of through the services do. Last response to needs of cloud computing technology. Cloud computing is a hot topic since the accounting world of accounting currently"(mohammadi & mohammadi,2014).

"The field of accounting has for so many years stood the test of time and remained applicable to businesses in their regular operations. Accounting is the area that manages essential business procedures, like record keeping, this made accounting integral to many organizations, as accounting strategists are able to tell whether the business is heading the intended direction. Looking at the rapid technological advancements, which have created a complete turnaround in everyday living, the business world has not been spared forcing organizations to make the necessary adjustments in light of the ever-changing market dynamics. By this accord, the innovation of cloud accounting, which is described as cloud-technology based advancements that have spearheaded the formation of software, hosted on mobile servers, which enhance storage, transfer, and access of information over the internet"(Tarboush,2018).

"Cloud computing accounting software is a kind of e-accounting services. By using this software companies have to pay for hosting fees based on the payment method which is mentioned in contract. Software is updated to the latest version by the supplier. Backups are available anytime and there is no fear of software problem or failure in performance any more. What is more, having just an internet access is enough to do the whole accounting activities and there is no need to buy particular software, servers and high processing speed computers"(Sadighi,2014).

Some people may think that emergence of electronic cloud environment can lead to the abolition of the work of AISs, but we confirm that working in electronic cloud

environment will facilitate the work of AISs by taking advantage of services provided by the electronic cloud environment, which is represented by: Storage Cloud and cloud computing, and primary accounting work that is based on accounting measurement and disclosure will remain the same in terms of accountants collecting data and accounting judgment on them in terms of treatments that are consistent with accounting principles, standards and policies and then Iron nature of the accounting disclosure about, which confirms that work of great influence of accounting in cloud environment can be limited to how to take advantage of the cloud, the electronic services such as to facilitate the work of AISs.

Accordingly, work of AISs will remain in nature while taking into account that electronic cloud environment will contribute to increasing efficiency of AISs during the storage, recall, and transfer of accounting data and processing them with the latest accounting programs and applications at low costs due to lack of need to purchase, own and maintain them, so obtaining them for services will be Much better than getting them as products you buy from many internet companies.

It must be emphasized that the work of AISs in the electronic cloud environment will lead to the emergence of new accounts that must be measured and disclosed according to what we might call "accounting for cloud services.

Accounting for cloud services is based on the necessity to define the set of accounts that will be created when working in an electronic cloud environment and in a manner that leads to the necessity of measuring and disclosing them, as these accounts relate to the costs of obtaining electronic cloud services (cloud storage and cloud computing) and how to handle them accounting and then how to disclose It is included in the financial statement clauses, which requires academic and professional accounting bodies to issue accounting guidelines and standards for accounting measurement and disclosure in the cloud environment.

VI. Efficiency of AISs in electronic cloud environment

Efficiency of accounting information system relates to relationship between each of its inputs and outputs, so whenever the outputs are the result of operational operations that were conducted on the inputs according to optimal and accurate use, and that contributes to obtaining required outputs, more efficient the system is.

It is noted that there is an important and major role in achieving efficiency of the system, and therefore great importance must be given to operational operations that are carried out through accounting work according to what these operations require, represented by:

1. Collecting, storing and recalling data.
2. A set of necessary books and records.
3. Accounting measurement tools that include: principles, assumptions and accounting policies.
4. Accounting standards issued by academic and professional accounting societies.

In light of work in electronic cloud environment, efficiency of accounting information system will be achieved through many general advantages that can be achieved through:

First: Cloud storage service (whether at level of people or companies), which can achieve the following advantages: most important:

1. Preserving data, documents and documents (in all its forms) from loss, damage or theft.
2. Ability to retrieve anywhere, anytime, by simply connecting the internet to device used.
3. Achieving information security through the services provided by some sites and applications to make encryption, whether by user or service provider.
4. Reducing costs of storage facilities through dispensing with the known storage methods that must be replaced from time to time due to limited storage capacity or its damage.
5. Obtain enormous storage capacities (or expand storage space) to allow data to be kept in one place and retrieved in one step, as well as easy to organize and update, as well as the ability to store files of large size that cannot be sent through mail.
6. Sync files to more than one device.
7. Share files with more than one party (as desired by the user).
8. Ability to process different data and files according to advanced programs and applications that user obtains as free services or low cost compared to need to own and purchase them at great prices in light of using traditional computing.
9. User benefit from reducing the costs of purchasing the infrastructure to produce information (such as computers, phones, smart tablets, programs and applications), as it is not necessary to use cloud computing except to have these infrastructures with regular and low-cost specifications that can only secure internet connection.
10. It is not necessary to be in a specific place at a specific time to recall and process the data.
11. Ability to share different data and files with an unlimited number of entities (people or companies) at same time, with the possibility of opening and using more than one program or application at the same time.
12. User does not need to store various data and files on his personal device and does not need advanced and updated programs, as it is only necessary to have an operating system that allows operation of a browser for internet.

Second: Cloud computing service, through which the operational operations are carried out, where the benefit from this service can lead to achieving the following advantages:

1. Use of modern, constantly updated accounting software and applications.
2. Not to bear costs of purchasing, updating accounting software and applications, as the service contains them.
3. Continuous updating of all accounting standards issued by academic and professional bodies, which require compliance with them.
4. Integrated accounting work according to a central database that includes all data related to all administrative accounting subsystems by taking advantage of the ERP method in designing accounting and administrative information systems.

V1I. Effectiveness of AISs in electronic cloud environment

Effectiveness of AISs relates to the relationship between the outputs and the goals it seeks to achieve. More outputs of system contribute to achieving its goals, the more effective the system is.

The Financial Accounting Standards Board (FASB) issued a list of concepts No. (2) in 1980 entitled Qualitative characteristics of accounting information, through which he explained a set of main and subsidiary characteristics of accounting information in addition to the restrictions or limitations on the production of accounting information, then these characteristics were updated during the years 2010 to 2018 by the International Accounting Standards Board (IASB) to take into account the changes that occurred in the business environment In general.

The importance of the electronic cloud in achieving the quality of accounting information.

The quality of accounting information relates to the extent to which accounting information systems are able to achieve the qualitative characteristics of accounting information, which in turn can be reflected in judging the effectiveness of accounting information systems.

The Financial Accounting Standards Board (FASB) issued a list of concepts No. (2) in 1980 entitled Qualitative Characteristics of Accounting Information, through which it explained a set of main and subsidiary characteristics of accounting information in addition to the restrictions or restrictions imposed on the production of accounting information, and then these were updated Characteristics during the years from 2010 to 2018 by the International Accounting Standards Board (IASB) to take into account the changes that occurred in the business environment in general, which were identified as follows:

First: Fundamental qualitative characteristics

It includes the following two features:

1. Relevance.

It is achieved by having the following characteristics:

a. predictive value.
b. Confirmatory Value

c. Materiality

2. Faithful representation.

It is achieved by having the following characteristics:

a. Completeness
b. Neutrality

c. Free from error

Second: Enhancing Qualitative Characteristics

It includes the following characteristics:

1. Comparability
2. Verifiability
3. Understandability
4. Timeliness

In light of working in the electronic cloud environment, both cloud storage and cloud computing can contribute to achieving the effectiveness of accounting information systems

through the ability to provide qualitative characteristics of accounting information in terms of the following:

1. The appropriate information for multiple decision-making is provided by many decision-makers, as the data related to each decision will be provided from its original and updated sources and processed according to a set of programs and applications according to its latest versions, and its results are communicated through financial reports immediately, at the required speed and in time. the appropriate.
2. The possibility of obtaining the results of the information provided to the decision maker directly and immediately, and then knowing the impact of that information on the decision taken.
3. The electronic cloud provides the feature of trust through the capabilities of the electronic cloud (with all types of services it provides), as through this feature the accounting information will be expressive of its events in a sound and honest manner free from any intentional manipulation that is provided and supported through a set of programs and applications that It contains cloud computing.
4. Providing the necessary information for the purposes of predicting economic events or the company's expected performance in the coming periods and the company's ability to face unexpected future events and variables, through the use of many computer programs and applications that contain mathematical equations and formulas through which the desired benefit can be achieved, as well as the ability to To take advantage of stored financial data and reports that can help with future forecasts.
5. The confirmatory value property is achieved through the ability of accounting information to provide feedback on previous assessments, whether by confirming or changing them, which can be easily achieved in the electronic cloud environment.
6. The property of neutrality is achieved through cloud computing to communicate information to multiple parties directly and immediately, without favoring one party over another or providing it with different information from other parties.
7. Providing accurate and correct information, which achieves the property of being free from errors, by working in the electronic cloud environment and processing data according to continuous updates of the programs and applications used with continuous maintenance of all devices and electronic accessories that are used for the purposes of cloud storage and cloud computing.
8. It is easy to achieve comparability in the electronic cloud environment based on the large storage capacity for collecting data and financial reports resulting from different businesses, with the ability to obtain them and make different comparisons by taking advantage of cloud computing that provides modern software for this.
9. For example, XBRL reporting language for transferring accounting information to the web, facilitating investor and analyst access to information, extracting and evaluating data correctly, and comparing financial reports for companies in each industry group by achieving consistency in data classification.
10. The ability to reach the same results by more than one person, if the same methods and methods that were used in measuring accounting information are used, which supports the verifiability of information, through the possibility of re-collecting,

recalling, operating and communicating its results in the same formats. The methods used without there being any minor or fundamental changes.

11. Cloud accounting applications help accountants to create and store financial reports directly (in real time) by adapting to changing business conditions in a short time, and this mode creates an environment for administrators to make immediate and correct financial decisions and contributes to increased efficiency.
12. Keeping abreast of the changes issued by the academic and professional societies that must be adhered to, which are provided by the electronic cloud through the immediate update of all accounting standards by linking them with the databases that contain them.

VIII. AISs requirements in electronic cloud environment

It is clear that significant impact of work of AISs in electronic cloud environment will affect the process of designing AISs, and what requires necessity of providing a major set of requirements through which accounting work can be performed, represented by:

1. Requirements of electronic cloud, which include: storage media, computers, software, and applications.
2. Internet, which relates to existence of a platform from which to launch internet service from its suppliers, and all requirements of electronic cloud (described in previous point) that are shared among all users of internet for this purpose.
3. Infrastructure, which includes all types of computers or devices that can operate as computers and can operate in cloud environment.

Accordingly, AISs can operate in the light of providing all above requirements, bearing in mind that all above requirements can work within all elements of AISs represented by: inputs, operational processes, outputs, taking into account that a designer must system determines the nature of each of previous elements according to needs of business organization that designs its accounting systems and according to what governs its work within work requirements in electronic cloud environment.

METHODOLOGY

This part aims to enhance the theoretical study with a field study through which it is possible to identify the areas of benefiting from the electronic cloud in the work of accounting information systems in the Iraqi companies selected for the study, by clarifying the study community and its sample, and how to analyze the data obtained to reach the set of results using a number of methods Statistics necessary to test the hypotheses of the study.

Accordingly, this part deals with the analysis of the results of the field study in the light of what was dealt with in the theoretical part to verify the main hypothesis of the study: **(cloud accounting can contribute to increasing the efficiency and effectiveness of accounting information systems**), which is tested through four sub-hypotheses:

1. Electronic cloud can be used in accounting information systems.
2. Cloud computing can be used in accounting information systems.
3. Cloud storage can be used in accounting information systems.

4. Cloud accounting can contribute to increasing the efficiency and effectiveness of accounting information systems.

1. Method and Source of Data Collection

The primary data were sourced from the respondents understudied as firsthand data. The method used in collecting the data was the use of questionnaire which was designed in Likert Scaling Format containing the relevant questions necessary to elicit responses from the respondents.

2. Method of Data Analyses

The analysis of data was structures in accordance with the demand of the specific research questions and research hypotheses. Descriptive statistic of frequencies, percentages, and means were used whereas, the Pearson correlation coefficient was used to determine the relationship between the variables. Multiple Linear Regression model was used to test the hypotheses. All the computation was done using statistical packages for social science (SPSS version 21.0). The regression model was employed to test the hypothesis in order to measure the weight and relationship that exists between the dependent and independent variables.

3. Study community

The study population consists of a group of Iraqi companies in which the use of information technologies in general and in the work of accounting information systems in particular was observed, and then a group of companies with multiple use of information technologies was selected, which numbered (35) companies.

The study sample was chosen to include individuals who work in the operation of accounting information systems in a group of Iraqi companies that were collectively chosen for the study. Its members fully answered all the questions, and accordingly (80) approved questionnaires were used for the purposes of the study, which represents a percentage of (80%), which is an acceptable percentage for the purposes of scientific research.

4. Method and Source of Data Collection

The primary data were sourced from the respondents understudied as firsthand data. The method used in collecting the data was the use of questionnaire which was designed in Likert Scaling Format containing the relevant questions necessary to elicit responses from the respondents.

5. Method of Data Analyses

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DATA PRESENTATION, ANALYSIS AND INTERPRETATION

1. Data Presentation

This section is based on data presentation and interpretation. The data collected from the survey were presented in frequency distribution tables as shown cin the various tables below. The first section shows the demographic data of the respondents follow by the statement questions.

The following is a review and analysis of the most important characteristics of the study sample that are relied upon for the purposes of analysis:

1.1. Educational Qualification.

Table 1. Educational Qualification

Item	Frequency	Percentage (%)
Master's	8	10
Higher Diploma	22	27.5
BA	50	62.5
Total	**80**	**100**

Table 1. shows the educational qualification of the respondents. 8(10%) of the respondents were master's, 22(27.5%) higher diploma, 50(62.5%) BA. degree.

1.2. Scientific specialization.

Table 2. Scientific specialization

Item	Frequency	Percentage (%)
Accounting	46	57.5
Administration	19	23.75
Information Technology	15	18.75
Total	**80**	**100**

Table 2. shows the scientific specialization of the respondents. 46(57.5%) of the respondents in accounting, 19(23.75%) administration, 15(18.75%) in information technology.

1.3. Years of work experience.

Table 3. Years of work experience

Item	Frequency	Percentage (%)
Less 10 years	23	28.75
10-20yrs.	48	60
Above 20 years.	9	11.25
Total	**80**	**100**

Table 3. shows the age distribution of the respondents of which 23 (28.75%) of the respondents less than 10 years, 48(60 %) were from the age 10-20years, 9(11.25%) were the years of work experience above 20years.

Through the foregoing, it is noted that it is possible to rely on the study sample in terms of: educational qualification, scientific specialization, number of years of experience in accounting work and information technologies.

2. ANALYSIS AND INTERPRETATION

This part relates to analyzing the answers of the study sample, which leads to testing the hypothesis of the study, by analyzing the answers of the study sample about the importance of the electronic cloud in accounting information systems, and then clarifying the extent to which the study sample knows: cloud storage, cloud computing and cloud accounting, leading to the verification of the test study hypothesis.

2.1. Answers of the study sample about the importance of the electronic cloud in accounting information systems.

Table 4. Perception of respondents with respect to electronic cloud.

S/N	Statement	Response				
		SA (%)	A (%)	UN (%)	D (%)	SD (%)
1.	The electronic cloud facilitates the accounting work in the information technology environment.	10 (12.5)	46 (57.5)	14 (17.5)	7 (8.75)	3 (3.75)
2.	Electronic cloud services help facilitate the work of accounting information systems.	18 (22.5)	30 (37.5)	20 (25)	10 (12.5)	2 (2.5)
3.	Cloud storage can be used for security purposes and speed in obtaining data.	20 (25)	32 (40)	13 (16.25)	7 (8.75)	8 (10)
4.	Modern programs and applications can be used to operate the accounting information system through the electronic cloud.	20 (25)	43 (53.75)	10 (12.5)	5 (3.75)	3 (3.75)
5.	The electronic cloud contributes to keeping pace with developments in the information technology environment and trying to benefit from them, which contributes to achieving the efficiency and effectiveness of accounting information systems	32 (40)	28 (35)	12 (15)	6 (7.5)	2 (2.5)

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

Table 5: Arithmetic mean, percentage and standard deviation

arithmetic mean	percentage	standard deviation
4.244	84.88%	.8933

Through Table (5), it is noted that the arithmetic mean of the answers of the study sample members was high (4.244), which constituted (84.88%) of the scale area*, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and (to a very large extent).

Since the arithmetic average (4.244) is more than (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that **(electronic cloud can be used in accounting information systems)**, and since It means acceptance of the first sub-hypothesis within the main hypothesis.

2.2 Answers of the study sample about the importance of the cloud storage in accounting information systems.

Table6. : Perception of respondents with respect to cloud storage

S/N	Statement	Respondents				
		SA (%)	A (%)	UN (%)	D (%)	SD (%)
1.	Cloud storage achieves privacy for users with what the service provider they are dealing with can offer	22 (27.5)	25 (31.25)	15 (18.75)	15 (18.75)	3 (3.75)
2.	Email is used to store data	38 (47.5)	33 (41.25)	3 (3.75)	3 (3.75)	3 (3.75)
3.	Google Drive is used to store data	12 (15)	20 (25)	25 (31.25)	15 (18.75)	8 (10)
4.	Cloud sites are used to store data	17 (2.25)	25 (31.25)	20 (25)	11 (13.75)	7 (8.75)

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

Table 7: Arithmetic mean, percentage and standard deviation

arithmetic mean	percentage	standard deviation
3.945	78.9%	.8046

Through Table (7), it is noted that the arithmetic mean of the answers of the study sample members was high (3.945), which constituted (78.9%) of the scale area, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and (to a very large extent).

Since the arithmetic average (3.945) is close to (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that **(cloud storage can be used in accounting information systems),** which means accepting the second sub-hypothesis within the main hypothesis.

2.2 Answers of the study sample about the importance of the cloud computing in accounting information systems.

Table 8 : Perception of respondents with respect to cloud computing

S/N	Statement	Respondents				
		SA (%)	A (%)	UN (%)	D (%)	SD (%)
1.	Direct and immediate access to all data, processing it according to the desired goal, and communicating it to the decision maker to rely on in making his decisions.	19 (23.75)	32 (40)	15 (18.75)	8 (10)	6 (7.5)
2.	Processing different data and files according to advanced programs and applications that the user obtains as free services or at a low cost compared to the need to own and purchase them at high prices in light of the use of traditional computing	16 (20)	33 (41.25)	12 (15)	10 (12.5)	9 (11.25)
3.	The ability to share different data and files with an unlimited number of parties (people or companies) at one time, with the ability to open and use more than one program or application at the same time.	14 (17.5)	32 (40)	16 (20)	10 (12.5)	8 (10)
4.	The user does not need advanced and updated programs, as the only	32 (40)	23 (28.75)	10 (12.5)	9 (11.25)	6 (7.5)

	thing is the presence of an operating system that allows the operation of an Internet browser					

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

Table 9: Arithmetic mean, percentage and standard deviation

arithmetic mean	percentage	standard deviation
4.176	83.52%	.8259

Through Table (9), it is noted that the arithmetic mean of the answers of the study sample members was high (4.176), which constituted (83.52%) of the scale area, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and (to a very large extent).

Since the arithmetic average (4.176) is great than (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that **(cloud computing can be used in accounting information systems),** which means accepting the second sub-hypothesis within the main hypothesis.

2.3 Answers of the study sample about the importance of the cloud accounting in accounting information systems.

Table 10 : Perception of respondents with respect to cloud accounting.

S/N	Statement	Respondents				
		SA (%)	A (%)	UN (%)	D (%)	SD (%)
1.	Cloud accounting applications help accountants create real-time financial reports	32 (40)	18 (22.5)	15 (18.75)	9 (11.25)	6 (7.5)

2.	The electronic cloud provides instant updating of all accounting standards by linking them with the databases that contain them.	15 (18.75)	32 (40)	19 (23.75)	8 (10)	6 (7.5)
3.	Facilitate the access of investors and analysts to information, extract and evaluate data correctly, and compare the financial reports of companies in each industry group by achieving consistency in data classification.	17 (2.25)	33 (41.25)	14 (17.5)	7 (8.75)	9 (11.25)
4.	The accounting information expresses its events in a sound, honest and free from any intentional manipulation that is provided and supported by the electronic cloud through cloud computing	26 (32.5)	19 (23.75)	15 (18.75)	12 (15)	8 (10)
5.	Cloud accounting contributes to developing accountants' technical capabilities and facilitating them to carry out unconventional operations related to systems analysis and design, as well as financial analysis using advanced technical programs	26 (32.5)	20 (25)	17 (2.25)	10 (12.5)	7 (8.75)
6.	The ability to communicate with people and companies related to the company's accounting work by sharing data and files directly	18 (22.5)	33 (41.25)	11 (13.75)	11 (13.75)	7 (8.75)
7.	The work of accounting information systems in the electronic cloud environment will lead to the emergence of new accounts that must be measured and disclosed, according to what we can call “accounting for cloud services”.	33 (41.25)	17 (2.25)	13 (16.25)	10 (12.5)	7 (8.75)

The arithmetic mean, percentage and standard deviation for all the above questions were as follows:

Table 11: Arithmetic mean, percentage and standard deviation

arithmetic mean	percentage	standard deviation
4.063	81.26%	.8132

Through Table (11), it is noted that the arithmetic mean of the answers of the study sample members was high (4.063), which constituted (81.26%) of the scale area, and this result came due to the high frequency of answers to the first question with approval (to a large extent) and (to a very large extent).

Since the arithmetic average (4.063) is great than (4) within the five-point Likert scale that was used, it can be said that the answers of the study sample about this part tend to be largely supported by the fact that **(Cloud accounting can contribute to increasing the efficiency and effectiveness of accounting information systems),** which means accepting the second sub-hypothesis within the main hypothesis.

Analyze data and test the main hypothesis

In this section, the main research hypothesis is tested using multiple linear regression analysis at 1%, and a significant level of 5%.

Hypothes:

Ho: There is no statistically significant relationship between the electronic cloud and accounting information systems in the selected companies.

H1: There is a statistically significant relationship between the electronic cloud and accounting information systems in the selected companies

Table 12 : Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.778[a]	.050	.034	.701126

a. Predictors: (Constant), EC

The results in table.12 above reveal that there is a strong relationship at R (0.778) between the electronic cloud and accounting information systems in the selected companies.

The coefficient of determination, R^2 = 0.050, implies that the explanatory variable (electronic cloud) account for 5% of the variation in the dependent variable (accounting information systems).

Table 13. ANOVA[a]

Model	S.S	df	Mean Square	F	Sig.

Regression	3544.448	19	180.610	657.362	0.000
Residual	3.561	11	0.273		
Total	3548.009	30			

a. Dependent Variable: AIS

b. Predictors: (Constant), EC.

The results shown in Table (13) indicate that the explanatory power of this model was very high according to the value of R2 (adj.), which indicates that the independent variable contributed to the interpretation of the dependent variable, which reinforces The results of the study reached, because the statistically speaking, the electronic cloud is an important indicator of accounting information systems.

Conclusions

1. The working in the electronic cloud environment requires that the user obtain a service that allows him to store all his data outside the scope of his personal device, that is, he stores his files and data on the electronic cloud servers in the form of files that he can access from anywhere where there is an Internet connection. Availability of a set of physical and human requirements related to hardware, equipment, software, applications, communication networks and individuals who are scientifically and practically qualified and have academic and technical knowledge.
2. The concept of cloud accounting that it refers to: the use of the electronic cloud in storing and processing data and accounting files according to sophisticated and updated accounting programs and applications and sharing them (or sharing their results) with a number of people and companies in different locations by taking advantage of the advantages of cloud storage and cloud computing, and accordingly Cloud accounting is not considered a branch of accounting (as some think), but it is a modern field that refers to benefiting from the practice of accounting work (in all branches of accounting) through the services provided by Internet companies in the areas of cloud storage and cloud computing, taking into account the privacy of data, accounting files and software. And the accounting applications necessary to operate it and create its target results.
3. The work of accounting information systems will remain normal, taking into account that the electronic cloud environment will contribute to increasing the efficiency of accounting information systems during storing, recalling and transferring accounting data and processing them with the latest accounting programs and applications at low cost due to the lack of the need to purchase, own and maintain them. It would be much better than having them as products that you buy from the many Internet companies.

4. The work of accounting information systems in the electronic cloud environment will lead to the emergence of new accounts that must be measured and disclosed, according to what we can call "accounting for cloud services".
5. Accounting for cloud services is based on the necessity of defining the set of accounts that will arise when working in the electronic cloud environment, which leads to the need to measure and disclose them, as these accounts relate to the costs of obtaining electronic cloud services (cloud storage and cloud computing) and how to account for them, and then How to disclose it within the items of the financial statements, which requires the academic and professional accounting bodies to work on issuing accounting guidelines and standards for accounting measurement and disclosure in the electronic cloud environment.
6. In light of working in the electronic cloud environment, both cloud storage and cloud computing can contribute to achieving the effectiveness of accounting information systems through the ability to provide qualitative characteristics of accounting information.
7. A very good percentage of the Iraqi companies that were selected for the field study benefit from the electronic cloud represented in cloud storage and cloud computing, which leads to contributing to increasing the efficiency and effectiveness of accounting information systems in them.

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