

PalArch's Journal of Archaeology of Egypt / Egyptology

THE IMPACT OF CLOUD ACCOUNTING APPLICATIONS ON UPGRADING THE TAX SYSTEM AN EXPLORATORY STUDY OF THE OPINIONS OF A SAMPLE OF CHARTERED ACCOUNTANTS

Professor Dr. Ghazi Othman Mahmood¹, Hawar Ghafur Hamad Amin²

^{1,2} College of Administration and Economics, Salahaddin University-Erbil

Email: [1ghazi.mahmood@su.edu.krd](mailto:ghazi.mahmood@su.edu.krd) [2hawar.hamadamin@epu.iq.edu](mailto:hawar.hamadamin@epu.iq.edu)

Professor Dr. Ghazi Othman Mahmood, Hawar Ghafur Hamad Amin. The Impact of Cloud Accounting Applications on Upgrading the Tax System an Exploratory Study of The Opinions of a Sample of Chartered Accountants -- PalArch's Journal of Archaeology of Egypt/Egyptology 19(3), 370-390. ISSN 1567-214x

Keywords: Tax System, Cloud Accounting Applications, Tax Evasion

ABSTRACT:

The study aims to: Show the impact of cloud accounting applications in upgrading the tax system and to identify the impact of cloud accounting applications in upgrading the tax system from the point of view of chartered accountants, university professors and Income Tax Department employees in Erbil Governorate - Kurdistan Region / Iraq, to contribute to the formulation of policies The tax that achieves justice between the seller and the buyer and prevents tax evasion and tax avoidance and increases and raises the tax base that leads to higher tax returns to the treasury, which leads to the recovery of the region's economy. The study concluded with several recommendations, the most important of which are: Reconsidering the tax laws in Iraq either by amending them or enacting new laws to avoid the errors found in previous laws and using cloud accounting as a more widespread and easy method the use as well as the use of cloud accounting as a tool to prevent tax evasion

INTRODUCTION:

Taxes and their collection represent one of the main sources of the state's resources in the face of its economic and social obligations. Therefore, the state attaches special importance to these types of revenues. Tax revenues, in their direct and indirect forms, are an important element in the revenues of developed and developing countries alike. Tax revenues in various countries of the world facilitate the financing of development plans proposed by governments through the various services provided by countries to various economic sectors to assist in their growth and the subject of revenues. Taxation is a very important topic,

and it is related to tax legislation and how to obtain it. It is related to the necessity of balancing the tax rates imposed on economic sectors and the lack of negative impact of these rates on economic activity in the country. Taxes should also be one of the important means in providing infrastructure that helps investment and is reflected Positive to all segments of society. Since technology has entered all areas of life, the entry of technological applications to help collect taxes and reduce tax evasion has become a reality.

FIRST AXIS

STUDY METHODOLOGY

The Problem of The Study:

The Directorate General of Taxes in the Kurdistan Region, especially the Directorate of Income Tax in the city of Erbil, suffers in collecting tax revenues for business owners and commercial professions due to the lack of tax revenues resulting in many cases from the failure of the taxpayer to review the tax department on time and attempting tax evasion. Tax avoidance and its lack of contribution to financing the general budget. The problem of the study lies in identifying the most important factors that contribute to cloud accounting applications in upgrading the tax system, and this is done by answering the following question:

Is there an impact of cloud accounting applications in upgrading and developing the tax system?

Objectives Of the Study: The Study Aims To:

- 1) Show the impact of cloud accounting applications on tax revenue.
- 2) Identifying the impact of cloud accounting applications in upgrading the tax system.

The Importance of The Study:

taxes are one of the main resources in the revenues of the Kurdistan Regional Government, and the importance of this study lies through its contribution to the development of the tax system and an attempt to prevent tax evasion, increase and raise the tax base and ease of obtaining it, which leads to higher tax revenues, to the economic recovery of the region. Also, this study is of importance for the Ministry of Finance and the Tax Department to know how to increase the revenue from tax in proportion to the current state of the economy of Kurdistan Region.

Study Hypotheses:

The study assumes the following hypotheses:

- 1) There is an impact of cloud accounting applications on tax revenues.

2) There is an impact of cloud accounting applications in upgrading the tax system.

Study Methodology:

Secondary and primary sources were used in the study:

a. Secondary sources: books, references, periodicals and the Internet
B. Primary Sources: Due to the insufficiency of secondary sources, various means have been relied upon to obtain data from their primary sources, including:

- The practical side: It is a field survey distribution on the owners of workers and professions in Erbil Governorate in the Kurdistan Region of Iraq.
- Interviews: the researchers adopted this method as a means of collecting the necessary data from officials in the tax department who represent department heads and directors.

Research Methodology

a. Theoretical side: The inductive approach will be followed to build a scientific framework for the dimensions and objectives of the research problem, based on research, periodicals and published articles related to the research topic.

B. The exploratory aspect: designing a questionnaire to identify the role of tax legislation in reducing tax evasion and tax evasion and distributing it to two categories of chartered accountants and university professors in Erbil Governorate, Kurdistan Region / Iraq.

Some Previous Studies:

This paragraph exposes some of the previous studies (which the researchers was able to obtain) and it was divided into two parts, Arab studies and foreign studies through the following paragraphs

Arabic Studies:

1) **Study (Abdulaziz, 2010)** The title of the study is “Services to give confidence to electronic accounting information systems and the extent to which they can be applied in Yemen, an analytical field study.” The study aimed to analyze the risks threatening the security and safety of electronic accounting information systems resulting from the development of information and communication technology variables And getting to know the intellectual framework of the Sys Trust services that was developed by the American Institute of Certified Public Accountants (AICPA) and the Canadian Institute of Certified Public Accountants (CICS) to overcome the problems of trust in electronic information systems, discuss the issues associated with it and compare it with the Yemeni business environment, this study concluded To the existence of what is known as the confidence gap in electronic accounting information systems in the Yemeni business environment, and the study also found that the performance of a service with confidence in electronic systems

leads to an increase in the effectiveness of electronic accounting information in terms of its ability to provide reliable and appropriate information on the one hand, and on the other hand, The study recommended the need to pay attention to the effectiveness of the electronic accounting information system by the study sample companies.

2) A study (Kabil and Abdel Muttalib, 2016) entitled “The electronic cloud is a proposed framework for the development of electronic government services by application to the Egyptian Tax Authority.” The study aimed to define the concept of electronic cloud computing and cloud computing, and how to use the electronic cloud in the development of tax services. The researchers used the inductive approach Mixed deductive based on a theoretical basis that includes the conceptual framework of the study that includes the concept of cloud computing or electronic cloud and its types and how to use it, so that this is a field for deducing the proposed framework for its application in the Egyptian Tax Authority. And the researchers came to suggest the possibility of using the electronic cloud in the development of tax services and electronic network communication. Study the costs of replacement between the existing systems and the proposed system for implementation.

3) **Study (Shanawa and Al-Shammari, 2019)** “Cloud accounting is a new horizon for the organization of accounting work.” The researchers identified the problem of the study through the fact that the accounting profession is subject to great challenges as a result of scientific progress and technological development, and therefore companies face difficulty in the accounting work system by providing Ready-made programs and the provision of accountants who have the skills necessary to deal and work on those programs and their training, in addition to the need to continuously update and maintain those computerized programs and provide the material requirements for them such as protection devices and storage means, which are often expensive and exposed to risks represented by theft, damage, fire and others. The aim of the study was to present the concept of cloud accounting and to demonstrate the advantages of cloud accounting, as well as to compare cloud accounting with traditional accounting. Cloud facilitates access to data and information at any time and from anywhere. Cloud accounting contributes to reducing costs through the absence of the need for specialized accountants and the burden of financial burdens. The study concluded that there is a speed in the provision of financial statements and financial reports, and there is a reduction in costs in light of the use of cloud accounting, and companies should rely on cloud accounting and reap the benefits derived from relying on it, and the Financial Supervision Bureau and auditors’ offices should rely on appropriate auditing. With cloud accounting.

Foreign Studies:

1) A Study (Yapa and Others, 2015) Entitled

The adoption of 'International Accounting Standard (IAS) 12 Income Taxes' Convergence or diversion with local accounting standards in selected ASEAN countries"

This study concerns the interdisciplinary study on questions related to the socio-economic impact of the adoption and convergence of International Financial Reporting Standards (IFRS) with domestic standards in selected countries. The study covers two phases. The first stage concerns findings and analyzes regarding the general impact of IFRS standards on Singapore and Malaysia. Findings explored that respondents expressed reservations about the advantages of adopting IFRS, including increased foreign investment, lower cost of equity and stakeholder confidence eroded by the complex coordination of principle-based “fair value” requirements. Controversy continues over the application of IFRS in relation to standards for financial instruments, real estate and agriculture. The second stage introduces further study of IAS12 income taxes, given that accounting standards are one starting point for tax compliance, and income taxes form part of the financial statements. A test questionnaire was prepared and questions were asked to respondents in the industry about the extent of the challenges of the IAS12 standard for practitioners in Australia. The study recommended the necessity of relying on international standards for financial reporting in the study sample.

2) A Study (2012, Greenberg and Et Al) Entitled “The Effect of Trust in System Reliability on The Intention to Adopt Online Accounting System”

The study aimed to identify the impact of the reliability of the Sys Trust system on companies' tendency to rely on online accounting systems. The study found that the perceptions of potential users of the Sys Trust principles are the same, which indicates that they indicate the reliability of the system as proposed by the American Institute of Certified Public Accountants (AICPA) and the Canadian Institute of Certified Public Accountants (CICA). Moreover, the study showed that the reliability of the system as defined by four principles of peace reliability affects the tendency of potential users to adopt online accounting systems, and the study recommended the need to switch to cloud accounting.

What Distinguishes This Research from Previous Studies?

The current research is similar to previous studies that contributed to enriching the subject of tax, but this research dealt with the impact of tax legislation on tax evasion and tax avoidance, and this research differs in choosing the place to conduct it, as it was in Erbil governorate in the Kurdistan Region / Iraq, while other studies were conducted in various Arab and foreign countries.

The second axis: the concept and importance of cloud accounting and its applications: The spread of the use of electronic systems in many establishments led to a fundamental change in the tasks and responsibilities of the accountant. From draining his time and effort in the functions of keeping records and books manually, the concept, definition and importance of cloud accounting and its areas of application are addressed in the following paragraphs:

Second Axis

2-1. Accounting and cloud computing: Cloud computing is one of the outputs of modern technologies and electronic systems, and the term “cloud” generally

refers to the ability to access programs and data via the Internet at any time and from anywhere and by any device that secures an Internet connection (Shennawa and Al Shammari, 2019, 3) . As the cloud in its normal sense is clouds in the natural sky, some know it as clouds or rain clouds, meaning the sky, but with regard to our field here, the cloud is electronic clouds in which data is stored in an electrical form that is accessed via the Internet through a computer Or any other device that has the ability to connect to the Internet. (Moskov and Semken, 2005, 7)

As for the term Cloud Accounting, it is a description of the use of information technology that relies on transferring the accounting processing and storage space of the computer to the so-called cloud, which is accessed through the user's web browser, and thus the accounting software turns from products to services (Zhang & Gu , 2013, 142).

There are many definitions of cloud accounting, which can be defined as “Applications for accounting processors hosted on remote servers, working to process and return the data that the user sends, and all the functions of the application are implemented outside the site and not on the user's desktop (Khanom, 2017, 31).

Technical Concept Cloud Accounting and Cloud Computing:

Accounting serves in most economic units from two main aspects, namely: the aspect of financial accounting, which reports on the financial status of the unit to some stakeholders as shareholders or management. And the side of management accounting, which provides cost analysis for banks or tax administration, for example, management decisions and strategic planning.

The idea of computerized accounting information systems (AIS) is usually adopted to support these two functions in large economic units by enterprise resource planning (ERP) systems, and small or medium companies that do not have an integrated vision for their project go to use specific accounting software or outsource the accounting profession (Trigo et al., 2016:988). The accounting model must be sophisticated and keep pace with the developments of the global business environment, which leads to adding value to the financial aspects and to the commercial activity itself in those companies (Dimitriu & Matei, 2015, 666).

With the development of modern technologies for the global work environment, accounting is constantly changing, especially in line with technological and informational developments and innovations that add value to companies' businesses. The most important of these developments and innovations is the emergence of the concept of cloud computing, which has been defined as “a model for enabling access – using the network from everywhere and in a way that Adequate – to a shared set of configurable computing resources (such as networks, servers, storage, applications, and services) on demand, which can be quickly provisioned and released with minimal management effort or service provider interaction .Cloud computing provides three basic services, which are as follows (Oladele & Oyewole, 2020, 49) and (Zhang et al. 2010, 10):

- **Infrastructure as a Service (IaaS):** The services provided to its consumers in connection with the provision of processing, storage, networking, and other basic computing resources.
- **Platform as a Service (PaaS):** which are the services provided to its consumers in connection with the deployment of operating systems and acquired application software for it that were created using programming languages, libraries, services and tools supported by the service provider.
- **Software as a Service (SaaS):** The services provided to its consumers in order to use ready-made applications that run on cloud computing infrastructure resources (physical and operating systems) provided by the provider, and the consumer has the ability to control the configuration settings of those applications.

With the use of new services based on the evolving model of cloud computing, bookkeeping services, procedures analysis, compliance, verification, implementation of controls, improvement of monitoring and reporting checks, reporting design and data management have become among the core functions of cloud-based accounting solutions, which can be used to improve efficiency and reduce Costs will improve internal processes and enhance accountants' choices and flexibility. (Seely, 2017, 2).

Cloud accounting is defined as “a package of accounting services provided through the Internet compared to the traditional accounting information system, it has an absolute advantage in input costs, maintenance costs, data reliability as well as ease of use in companies.” (Abdul Wahid, 2018, 6)

(Prichici And Ionescu, 2015, 491) describes cloud accounting today as an innovative model to face many factors such as competition and others, ease of access, allocation and cooperation through the use of the Internet in cloud computing, where the basic principles that lead cloud computing along with the activities that It is carried out by accounting software companies to the emergence of cloud accounting, which includes the same functions as an accounting information system that is installed on the client's company computer, but it actually works on the servers of the computing service provider and provides accounting services through cloud computing services (Marks, 2013, 72).

Advantages And Benefits of Cloud Accounting:

Cloud computing has wide-ranging and far-reaching benefits, as it is not just a technical solution or a server that is stored and, in another location, but rather a form of digital transformation that improves business implementation, and thus affects the business positively. It is distinguished by reducing the cost of infrastructure and reducing reliance on personnel skills and human resources, and many advantages can be presented, including the following: (Paul, 2012,11):

1- Provision of communication service: it provides video conferencing services and cloud service providers of this type undertake to ensure that the service is provided with high quality as agreed in the service level agreement between the

provider and the beneficiary and to ensure that it is managed independently of the information technology department of the beneficiary.

2- Providing data monitoring and protection services: which are in line with the requirements of the beneficiary, who in turn may need these services based on governmental requirements for the type of organizations represented by this beneficiary and to ensure that they are managed independently of the information technology department of the beneficiary.

3- It provides ease of data connection: as it is no longer limited to the user's hard disk, and thus the beneficiaries will be able to access data and applications from anywhere and at any time, all you need to access the cloud computing system is a computer connected to the Internet because the information is not stored on your personal computer but on the servers of the organizations providing the service.

4- Reducing the requirements for advanced devices on the beneficiary's side: it is not necessary for the beneficiary to be interested in purchasing computers with high specifications of memory and storage space. Rather, any physical computer and using any web browser can access the cloud services that will be served by the economic unit (editing documents, file storage, etc.), so the economic units no longer have to buy expensive equipment (servers) that provide e-mail service to their employees, or the huge storage units to back up the data and information of the economic unit.

5- Ensuring the services work permanently and the commitment of the organization providing the service: Emphasizing that the service works around the clock in the best possible way through work teams equipped with the latest devices that are around the clock to ensure that your information is not lost, as well as fixing any emergency malfunctions as soon as possible, and this It saves you a lot of time and cost as a beneficiary, owner or manager of the economic unit by taking charge of managing its own equipment and software

6- Cost reduction: Cloud computing customers only bear the costs of the part that was used instead of buying or renting equipment that may not be fully used at all times, and there is no longer a need for physical space requirements and traditional utility costs.

7- Speed of Deployment: This technology service providers can meet the customer's need much more quickly than most internal IT functions (server processing, data storage)

8- Scalability and better technology alignment: An organization can scale up from a single server to hundreds of servers without capital expenditures, as it enables an economic unit to acquire large amounts of computing services to perform temporary, on-demand computing tasks without having to invest in redundant computing capabilities To meet periods of high and infrequent demand

9- Saves time and effort in managing technology: as it allows the economic unit to focus more time on its basic goals, instead of owning and operating technological capabilities, which is costly and time-consuming, and most cloud services depend on a unified basis, which paves the way for further improvements Consistent technology and rapid fulfillment of digital transformation demands

The third axis: the role of cloud accounting in upgrading the tax system: The industrial revolution led to the emergence of new types of economic units

(companies) and business models in systems such as social networking sites, search engines, online retail companies, and other companies operating in digital economy activities. New types of trade appeared in intangible assets and goods, such as the purchase by a person of anti-virus software or the application of data processing via the Internet (the cloud). The cloud in upgrading the tax system through the following paragraphs:

Third Axis

The Concept of Digital Transformation and The Transformation of Government Institutions (Tax Departments) To Work According to Business Models:

It is a “transition and transformation of government institutions to work according to business models” (Ghoneim, 2003, 17), which depends on digital technology and smart information infrastructure, And which is based on knowledge, innovation and creativity in providing products and services to customers in an efficient, effective and safe manner, and through digital technological means, such as mobile phones, computers and others. Pictures, letters or numbers, to a basic numeric form zero and one, and it can be transferred between computers through networks (Eli, 2019: 14)

Elements And Requirements of Digital Transformation in Tax Departments: The Change from Traditional Systems in Tax Departments to Digital Transformation Required the Following Ingredients: (Nazarov & Other. 2019,19)

1. The basic aspects of digital transformation include the following:
 - a. Infrastructure for electronic business (internet and communication networks).
 - B. Digital innovations (semiconductors and processors).
 - c. Basic technologies (computers and telecommunications interfaces).
2. Information technology and digital sectors that produce the main products or services that depend on basic digital technologies (such as digital platforms, mobile applications and digital payment services)
3. Digital sectors, which include digital products and increasingly use services (such as e-commerce).

Requirements (Elements) Of Cloud Accounting Application in Tax Departments: To Deal with The Technology of Online Accounting Applications, The Following Elements Must Be Available: (Chloe, 2015 AD, 5):

1. The beneficiary or the customer: the main component of the cloud accounting application, who will use this technology and benefit from its services through the use of his personal computer or mobile phone, which is required to be connected to the Internet, which is meant in tax departments, whether this taxpayer is a natural or legal person.
2. Platforms: They are the donors of this service by providing giant servers with their storage capacities and the speed of their data processing.

3. Infrastructure: It is the cloud infrastructure on which the service is relied, and it includes the availability of personal computers, the Internet and information storage spaces.

4. Applications: These are the application programs that the beneficiary (the taxpayer) can operate in the cloud, and they include word processing software, presentation and tables, and information transfer and sharing services that belong to him (property, revenue, and ...), which are the details of the subject container For tax and inventory electronically.

Since cloud computing has been considered an integral part of the data and information center industry for those economic units, it works to rationalize energy consumption associated with thermal emissions and has become the primary challenge for those responsible for accounting resources in economic units in how to reduce time, and it has become a magic solution to save financial expenses, including It does not affect the functionality of applications and solutions, for Software Hardware products.

Cloud computing also contributes to reducing an estimated 40 to 60% of the specialized budget for working in the communications and information technology sector (Moawad 2012) 706

The Advantages Resulting from The Decision to Shift Towards Cloud Computing in Tax Departments: The Researcher Believes That the Use of The Cloud in Tax Departments Has the Following Advantages:

1) Reduced costs in its various forms for the economic unit and the beneficiary (the taxpayer): Low costs related to the IT infrastructure, where the technology staff can use the computing power of the cloud to be able to complete or replace internal computing resources, instead of investing a large number of large and more The strength of (Hosting sun 2011) in terms of maintenance costs, as the costs related to them will be reduced and there is no need to maintain the programs of the communications technology staff and the organization (Kondo D. et al), and there is also a need to purchase software packages for all computers in the economic unit. (2008, Pietroforte, M.)

2) Automatic software update for both the taxpayer and the economic unit: there are no additional expenses required for updating or upgrading the special programs of the economic unit (2011 Tech, Cocktail, L).

3) Ease of communication with users (assigned) and providing performance: it is no longer required for users (assigned) to purchase powerful and expensive equipment when using cloud computing, because the processing and operation of applications is done through the cloud and also there is no need for the availability of processing power or spaces On the hard disk as it was in the traditional programs, it also worked to provide the best performance due to the lack of downloading programs or files on personal computers.

4) Ease of communication with users (assigned) and providing performance: it is no longer required for users (assigned) to purchase powerful and expensive equipment when using cloud computing, because the processing and operation of applications is done through the cloud and also there is no need for the availability of processing power or spaces On the hard disk as it was in the traditional programs, it also worked to provide the best performance due to

the lack of downloading programs or files on local personal computers and users do not experience delays due to turning on or closing personal computers, and thus the internal network will become much faster because of the absence of any internal traffic , (2009, Miller, M)

5) Providing unlimited storage capacity and reducing storage costs (per economic unit): where the cloud provides virtually unlimited storage capacity, and the user can increase the storage capacity at any time for a small additional fee (2010, Digital Enterprise Archive) with regard to storage costs If the economic unit is based specifically on the distribution of large files and multimedia, it can reduce the monthly costs of the infrastructure by using server-based storage that is linked to traditional hosting that is shared with others. Cloud-based services, like cloud-based hosting services, depend on a model (Pay for what you need when you need it).

6) Data security for the beneficiary (the taxpayer): all the data is stored in the cloud and thus not worrying about lost opportunities or the possibility of any disasters in the office or others (Stroup, J) and according to your needs, you can pay a monthly fee, and you will be safe from sudden attacks on the Internet.

7) Ease of access to the files of the beneficiary (the taxpayer): where it is possible to access the data from anywhere, through Internet access.

8) Providing the latest modifications regarding documents and statements: the latest update will be displayed because the entire work has been centrally saved in the cloud.

9) Transferring the risks to an external entity: Transferring the risks to the service provider, as it confirmed that its use leads to the reduction of valuable operational risks. The use of an external service provider (Dragos study)

The Risks Resulting from The Decision to Shift Towards Cloud Computing in Tax Departments:

Although the use of the cloud achieves a number of benefits and advantages, there are many challenges and risks that are currently being addressed by researchers and practitioners on the ground. The biggest problem in performance may be for some transaction-oriented and other data-intensive applications, and that cloud computing may consider appropriate performance, and remote users of cloud providers may face high delays and inactivity, and the researcher believes that there are many obstacles facing the shift towards cloud computing from him:

1. Full knowledge of the taxpayer: as there are many taxpayers who cannot use modern technological means, and this is what affects this shift towards computerization in tax departments.

2. Security, Privacy, Accuracy, and Reliability: As economic events are still concerned about security when used, the beneficiary (the taxpayer), is concerned about exposure to attacks when critical information and its technology sources are outside the firewall, and the solution to the security problem lies in cloud computing providers following standard security practices In terms of accuracy and reliability as cloud computing still does not offer lasting around-the-clock reliability as there have been some cases where cloud computing services suffer outages for a few hours.

3. Control: Some IT departments are concerned that these service providers have complete control over the platforms, and cloud computing providers usually do not design specific platforms according to their business practices.
4. Data transfer rate costs: where economic units with cloud computing can save money wasted on hardware and software, but they can bear the high data transfer rate fees for the network, and the cost of data transfer rate may be low for small Internet applications, which are not data-intensive, but it can go up significantly for data-intensive applications,
5. Security risks: The security risks from the use of cloud computing, which are risks related to data leakage, identity theft, intellectual property protection, and electronic attacks (Priyank Hada & Others 2011) and there is the possibility of reducing security risks through agreements, where there are commitments legal, in terms of the difficulty of defining which laws and regulations will be subject to (2010, Siani Pearson & Azzedine Benitor 4)

The Impact of Environmental Changes on The Tax System in Iraq and The Kurdistan Region:

The Iraqi tax system is an ancient tax system and is considered one of the first tax systems in the region, as Iraq is the first country in the region to legislate a tax law in 1927, and this system has changed and developed with the change of ruling systems. The people who ruled Iraq and according to the economic and political outlook that accompanied the ruling elite in Iraq over the ages, as the laws of this system were accompanied by many amendments that were affected by the change of the economic idea practiced in the country, sometimes it is a free economic system and sometimes it is a participatory economic system, and sometimes To a mixed economic system, as Iraq continued to follow the socialist approach in its economy until 1991, but the change that Iraq witnessed after 2003 year the economic system again, which leads to affecting the tax system as well as through Iraq's rapid transformation to the introduction of a free economic system. And with successive and quick steps, but the Iraqi tax legislation was unable to follow up this big change except with some timid steps, which the ruling authority in Iraq almost had to reconcile between economic planning. The appropriate legislation and regulations for translating the economic theories that are intended to be circulated to the Iraqi economy. When heading to a particular economic system, the legislation related to the economic system must be developed or amended to match the level of economic change that is intended to be reached. Every step in economic change must be followed by an amendment or change of financial legislation and The taxation associated with this step so that the new approach is free of errors that may cause an imbalance in the economic system, and this matter calls the Iraqi legislator to reconsider the financial legislation in general and tax legislation in particular in Iraq, in accordance with the current trend.

Fourth axis 4: Questionnaire Analysis:

Form questionnaire was distributed to a sample of (50) researched in specialized academics, accountants and tax department employees in Erbil Governorate - Kurdistan Region.

Description Of the General Information Researches:

The general information of the researches is summarized in Table (1).

Table (1): Description of The General Information Researches

| General Information | Frequency | Percent |
|--|-----------|------------|
| 1. Job: | | |
| Academic | 22 | 44 |
| Estimated | 19 | 38 |
| Checker | 5 | 10 |
| Other Remember | 4 | 8 |
| 2. The certificate: | | |
| PhD | 15 | 30 |
| Master Degree | 9 | 18 |
| BA | 13 | 26 |
| Diploma and less | 13 | 26 |
| 3. Number of experience years in accounts or the job: | | |
| less than 5 years | 4 | 8 |
| 5- less than 10 years | 27 | 54 |
| 10- less than 15 years | 12 | 24 |
| 15 - less than 20 years | 4 | 8 |
| 20- Years and more | 3 | 6 |
| 4. Participation in tax-related courses: | | |
| Yes | 29 | 58 |
| No | 21 | 42 |
| Total | 50 | 100 |

Table (1) shows that the research sample included for the job property, 44% of academic, 38% of estimated, 10% of checker, and 8% of other remember. The certificate property, 30% of PhD, 18% of master's degree, 26% of BA and the diploma and less. Number of experience years in accounts or the job, 8% of the category (less than 5 years), 54% of the category (5- less than 10 years), 24% of the category (10- less than 15 years), 8% of the category (15 - less than 20 years), and 6% of the category (20 years and more). Participation in tax-related courses property, 58% have a participation in tax-related courses compared to 42% have no participation.

Description Of the Research Variables and Diagnosis:

Here, descriptive statistics and measuring research variables will be presented, as follows:

The independent variable: cloud accounting applications: The arithmetic means of each of the equation from questionnaire study evaluated by Likert scale (Totally not agree = 1, Not agree = 2, Not sure = 3, Agreed = 4, and totally agree =5). On this basis, the level question means according to the importance

and the degree of agreement with the hypothesis of the research and summarized in the following table:

Table (2): Descriptive Statistics for independent variable

| Questions | Std. Deviation | Mean | degree of agreement |
|---------------------|----------------|--------|---------------------|
| Q.1 | .54398 | 4.3000 | 86.00 |
| Q.3 | .80913 | 4.2800 | 85.60 |
| Q.8 | .73845 | 4.1600 | 83.20 |
| Q.5 | .40457 | 4.1400 | 82.80 |
| Q.6 | .92229 | 4.0800 | 81.60 |
| Q.2 | .69869 | 4.0400 | 80.80 |
| Q.9 | .80026 | 3.8200 | 76.40 |
| Q.7 | .56460 | 3.7400 | 74.80 |
| Q.4 | .90914 | 3.7000 | 74.00 |
| Q.10 | .59281 | 3.6600 | 73.20 |
| Valid N (list wise) | 0.6984 | 3.9920 | 79.84 |

Table (2) shows that the average of the independent variable is equal to (3.9920) which is greater than the average of the hypothetical agreement (3), degree of agreement is 79.84% with standard deviation (0.6984), indicates that the research sample does not have divergent opinions about the variable items. The one item (Cloud accounting applications lead to ease of communication with users (the taxpayer) and provide performance) got the highest average agreement (in this variable), which reached (4.3000) with degree of agreement is 86% with standard deviation (0.54398). The rest of the averages were at a lower level of agreement, but all were greater than the hypothetical average (3). **The Second variable:** upgrading the tax system: The arithmetic means of each of the equation from questionnaire study evaluated by Likert scale, on this basis, the level question means according to the importance and the degree of agreement with the hypothesis of the research and summarized in the following table:

Table (3): Descriptive Statistics for Second variable

| Questions | Std. Deviation | Mean | degree of agreement |
|---------------------|----------------|--------|---------------------|
| Q.7 | .76265 | 4.3000 | 86.00 |
| Q.6 | .80331 | 4.2600 | 85.20 |
| Q.8 | .76372 | 4.2200 | 84.40 |
| Q.1 | .57179 | 4.1400 | 82.80 |
| Q.10 | .85738 | 4.1400 | 82.80 |
| Q.5 | .81441 | 4.1000 | 82.00 |
| Q.2 | .87970 | 4.0400 | 80.80 |
| Q.4 | .74203 | 3.9800 | 79.60 |
| Q.9 | .79308 | 3.9400 | 78.80 |
| Q.3 | .74615 | 3.8800 | 77.60 |
| Valid N (list wise) | 0.7734 | 4.1000 | 82.00 |

Table (3) shows that the average of the dependent variable is equal to (4.1000) which is greater than the average of the hypothetical agreement (3), degree of agreement is 82% with standard deviation (0.7734), indicates that the research sample does not have divergent opinions about the variable items. The seven item (Existence of cases of tax evasion by taxpayers) got the highest average agreement (in this variable), which reached (4.3000) with degree of agreement is 86% with standard deviation (0.76265). The rest of the averages were at a lower level of agreement, but all were greater than the hypothetical average (3).

Test Reliability Coefficient (Consistency):

Of the basic elements of the validity of relying on the results of the questionnaire tested in terms of reliability coefficient, which means the stability of scale and lack of contradiction with itself (Answers stability of the respondents and not the random use in the selection of the answer), that is, it gives the same results if re-applied to the same sample. On this basis it will be used Cronbach's alpha coefficient. To measure the consistency with sincerity (which represents the root of the reliability coefficient) questionnaire for two variables and summarized by the following table:

Table (4): Reliability Statistics

| Variable | Cronbach's Alpha | Validity | N of Items |
|-------------------|------------------|----------|------------|
| independent | 0.601 | .7750 | 10 |
| dependent | 0.651 | .8070 | 10 |
| All the variables | 0.760 | .8720 | 20 |

The reliability coefficient Cronbach's alpha for two variables of questionnaire for the measurement tool has a high degree of consistency and the truth because it is greater than 60% and validity greater than 75%, since there is an internal consistency of the questions the questionnaire for two variables.

Test Data Distribution:

Here will test questionnaire variables and the means have a normal distribution or not through the use of non-parametric test (Kolmogorov-Smirnov) and parametric test χ^2 (by using Easy Fit program) on which determines the tool and the appropriate test to test the study hypotheses, test the following hypotheses:

H_0 : The means of the questionnaire variables have normal distribution.

H_1 : The means of the questionnaire variables have non-normal distribution.

The test results are summarized under the significance level (0.05) by the following table:

Table (5): Test of Normality

| Variables | K.S. | | | Chi-Squared | | | Result |
|-------------|-----------|---------|----------------|-------------|---------|----------------|--------|
| | Statistic | p Value | Critical Value | Statistic | p Value | Critical Value | |
| Independent | 0.1309 | 0.329 | 0.1884 | 2.7092 | 0.608 | 9.4877 | Normal |
| Dependent | 0.1971 | 0.035 | 0.1884 | 8.1901 | 0.085 | 9.4877 | Normal |

Table (5) shows that by using (K.S.) test, the means of the independent variable has normal distribution since the p-value are equal to (0.329), and its greater than the significance level (0.05), and Statistic (0.1309) are less than critical value (0.1884), while the dependent variable do not have a normal distribution. By using (Chi-Squared) test, the means of the independent and dependent variables have normal distribution since the p-values are equal to (0.608 and 0.085) respectively, and its greater than the significance level (0.05), and Statistic (2.7092 and 8.1901) respectively are less than critical value (9.4877). Finally, independent and dependent variables have normal distribution

Test Hypotheses of The Study:

The study covered the test two hypotheses, as follows:

First Hypotheses:

H_0 : There is no agreement about the independent variable (cloud accounting applications) measurement items

H_1 : There is agreement about the independent variable (cloud accounting applications) measurement items

Will be here to test there is agreement for cloud accounting applications, by testing the importance of the means to the questionnaire items which were answered by the (50) Researched according to Likert scale depending on the extent of their agreement with the hypothesis of the research and specifically test arithmetic mean equal to the (3) of the respondents (because mean of Likert equal to 3) against the arithmetic mean is greater than the number (3), and on this basis test was used t-test to one sample under a significance level (0.05), It summarized the results in the following table:

Table (6): One-Sample –t- test for first hypotheses

| Mean test value = 3 | | | | | | |
|---------------------|---------|-------------|--------------|---------------------|-----------------|--------|
| Mean | P value | t tabulated | t calculated | Standard Error Mean | Mean Difference | Result |
| 3.9920 | 0.000 | 1.96 | 24.747 | 0.0401 | 0.9920 | Sig. |

Table (6) show that mean of the agreement with the hypothesis equal to (3.9920), the largest mean by Likert scale (0.9920) while the p-value equal to (0.000) which is less than the level of significance of (0.05), t-calculated was (24.747) which is greater than the t-tabulated value (1.96) which means rejection of the null hypothesis and accept the alternative hypothesis, that's mean there is agreement about the independent variable (cloud accounting applications) measurement items, by sample opinions surveyed and tested.

Second Hypotheses:

H_0 : There is no impact (and correlation) of the cloud accounting applications in upgrading the tax system.

H_1 : There is impact (and correlation) of the cloud accounting applications in upgrading the tax system.

Here, the cloud accounting applications represent the independent variable (x) and the upgrading the tax system (y) represents the dependent variable. On this basis, the simple linear regression model will be estimated and the second hypothesis tested, which is summarized in the following table.

Table (7): The impact of the cloud accounting applications in upgrading the tax system.

| Model | Coef. ^a | t | Sig. | F | Sig. | Correlation | R-Square |
|---|--------------------|--------|-------|-------|-------|-------------|----------|
| (Constant) | -0.230 | -0.493 | 0.624 | 86.55 | 0.000 | 0.802 | 0.643 |
| cloud accounting applications | 1.085 | 9.303 | 0.000 | | | | |
| a. Dependent Variable: upgrading the tax system (y) | | | | | | | |

Table (7) shows that the cloud accounting applications, explains 64.3% (coefficient of determination) of the changes in upgrading the tax system. Linear regression appropriate model for this data because F-statistic equal to (86.55), it's the largest of tabulated value under the (0.05) significantly level and degrees of freedom (1 and 48) which is equal to (4.045), this is confirmed by the p-value, which is equal to zero and is less than the significance level (0.05).

Since t-statistic equal to (9.303) for the coefficient of independent variable (cloud accounting applications), and it's the largest of tabulated value under the (0.05) significantly level and degrees of freedom (49) which is equal to (1.96), (the p-value is (0.000), which less than the significantly level (0.05)), its therefore significant and contribute to the interpretation of the model (upgrading the tax system), and finally, the null hypothesis is rejected and accept the alternative hypothesis which states that "There is impact of the cloud accounting applications in upgrading the tax system". The model is as follows:

$$\hat{y}_i = -0.230 + 1.085x_i$$

With a significant positive correlation of 80.2%. Figure (1) shows the scatter plot of the data and the estimated linear regression:

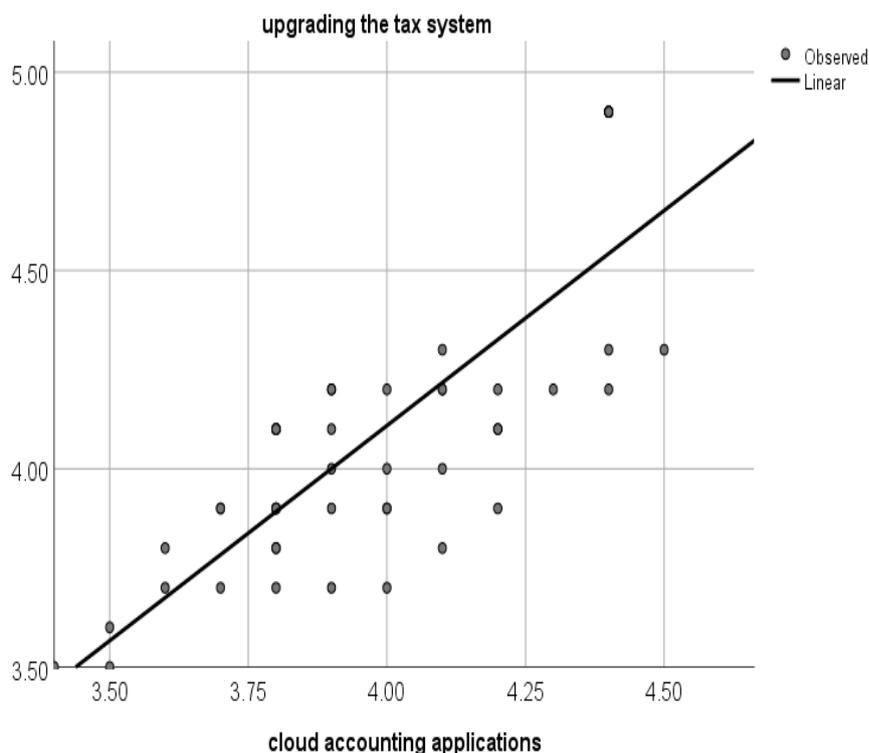


Figure (1): The Scatter Plot of The Cloud Accounting Applications and Estimated Linear Regression

Fifth Axis: Conclusions and Recommendations

Conclusions:

A set of conclusions have been reached through this study tagged with the effect of cloud accounting applications in upgrading the tax system from the point of view of the study sample, which can be presented as follows:

- 1) Cloud accounting is an innovative model for facing many challenges facing tax departments from tax evasion and avoidance by taxpayers and economic units.
- 2) Cloud accounting performs the same functions as an electronic accounting information system, but cloud computing works more efficiently and more accurately, as well as reducing time and reducing costs of operating electronic accounting systems
- 3) The lack of development of the tax administrative cadre and the failure to encourage the scientific competencies to engage in tax work,
- 4) Failure to develop the tax administrative cadre from the software side and software applications.
- 5) Non-development of tax legislation and its remaining in application without amending its provisions and organization to keep pace with the development taking place in the world and Iraq.
- 6) Not taking advantage of cloud applications in the field of paying taxes.

RECOMMENDATIONS:

Based on the study of the subject and the results mentioned above, the researcher can make the following recommendations:

1. Reconsidering the tax laws in Iraq, either by amending them or legislating new laws to avoid the errors found in the previous laws.
2. Using cloud accounting as a more widespread and easy-to-use method
3. Using cloud accounting as a tool to prevent tax evasion

SOURCES

ARABIC REFERENCE

Москов, Сыкеман, (2002) , Accounting Information Systems for Decision-Making Concepts and Applications, translated by Kamal El-Din Saeed and Ahmed Hajjaj, Dar Al-Marikh Publishing, Riyadh: Saudi Arabia .

Shanawa. Wissam Aziz and Al Shammari. Hussein Karim, (2019) “Cloud accounting is a new horizon for organizing accounting work”, Journal of Madinat Al-Ilm University College, Vol. 11, No. 1,.

Abdulaziz, Ahmed Hassan Hussein, Nashar, Muhammad Hamdi, and Abu Karisha, Taha Zakaria. (2010). Services to instill confidence in electronic accounting information systems and the extent to which they can be applied in Yemen: an analytical study - a field study . The second scientific conference for young researchers, Assiut: Faculty of Commerce - Assiut University

Qabil, Al-Baz Fawzi Al-Baz Ahmed, and Abdul-Muttalib, Shaima Abu Al-Maati. (2016). The electronic cloud: a proposed framework for the development of electronic government services by application to the tax authority . Journal of Financial and Tax Research

Ghoneim Abdel Wahab 2019 Digital transformation and the vision of Egypt 2003 in the management of digital transformation to achieve the vision of Egypt 2003

Chloe, Sabah Muhammad (2015) “ Cloud computing its concept and applications in the field of libraries and information centers

ENGLISH REFERENCE

Zhang. Ling and Gu. Wenlin , (2013) “The Simple Analysis of Impact on Financial Outsourcing Because of The Rising of Cloud Accounting”, Asian Journal of Business Management 5(1).

Khanom. Tahmina, (2017) “Cloud Accounting: A Theoretical Overview”, IOSR Journal of Business and Management (IOSR-JBM) e-ISSN: 2278-487X, p-ISSN: 2319-7668. Volume 19, Issue 6. Ver. V.

Dimitriu. Otilia & Matei. Marian, (2015) “Accounting Punting in the Cloud”, Managing Intellectual Capital and Innovation for Sustainable and Inclusive Society, Bari, Italy.

Robert Greenberg & Wei Li & Bernard Wong-On-Wing, 2012. "The effect of trust in system reliability on the intention to adopt online accounting systems," International Journal of Accounting and Information Management, Emerald Group Publishing, vol. 20(4), October.

- Trigo, Antonio, Belfo . Fernando and Estébanez . Raquel Estebanez , (2016) “Accounting Information Systems: evolving towards a business process-oriented accounting”, *Procedia Computer Science*,, Vol. 100.
- Oladele. Femi and Oyewole. Timothy G,(2020) “Social Media, Mobile and Cloud Technology Use in Accounting: Value-Analyses in Developing Economies”, Emerald Publishing Limited, Howard House, Wagon Lane, Bingley BD16 1WA, UK.
- Seely. Michael David, (2017) “The Effects that Cloud Services Offered by Small Accounting Firms have on Client Satisfaction among Older Adults: A Means-End Chain Approach”, Ph.D., Graduate Faculty of the School of Business and Technology Management, Northcentral University, Prescott Valley, Arizona, .
- Abdul Wahid. Alaa,” Cloud Audit: The Contemporary Millennium Model for Auditing Accounting Information Systems”, *Tikrit Journal of Administration & Economic Sciences/Vol.4 /No.44/ 2018*.
- Prici . Cristina & Ionescu. Bogdan S., (2015) “ Cloud Accounting – A new Paradigm Of Accounting Of Accounting Policies ”, *Literature review, SEA- Practical Application of Science, Volume III, Issue 1 (7) .*
- Marks. Gene , (2013) “Are cloud-based accounting apps ready for prime time?”, *Accounting Today; Vol. 27, No. 9,*
- Paul, R. et al., (2012) "Security issues in cloud computing", *International journal on computer science and engineer (IJCSE), 4 (11).*
- Yapa and others,(2015)" The adoption of 'International Accounting Standard (IAS) 12 Income Taxes': Convergence or divergence with local accounting standards in selected ASEAN countries? "(
<https://ro.uow.edu.au/aabfj/vol9/iss1/7/>
- Hallzhieva , Eli (2019): “Impact of digitalization on international tax matters” (challenges and remedies the taxes committee), European Parliament, February,
- Nazarov & Other, M. A. (2019): Digital economy: Russian taxation issues, international scientific conference "global challenges and prospects of the modern economic development", the European proceedings of social & behavioral sciences.
- Sun Hosting, (2011) “Cloud Hosting Can Reduce Your IT Infrastructure Costs”, (27Apr.2011) Available at: <http://www.sunhosting.ca/cloud-hosting.html>
- Kondo .D. et al., "Cost–Benefit Analysis of Cloud Computing versus Desktop Grids", Available at: http://mescal.imag.fr/membres/derrick.kondo/pubs/kondo_hcw09.pdf
- Pietroforte, M., “Will Cloud Computing Reduce Software Prices,? (2008)., Available at: <http://4sysops.com/archives/will-cloudcomputing-reduce-software-prices>
- Tech Cocktail, Llc ., "Demystifying Cloud Computing", (Aug.2011), Available at: <http://techcocktail.com/demystifying-cloud-computing-201-08#.T7UFRfIb6ZE>
- Miller, M., "Cloud Computing Pros and Cons for End Users " , (2009) Available at:
<http://www.quepublishing.com/article.aspx?p=1324280&seqNum=2>
- Digital Enterprise Archive, (2010), "Moving Into the Cloud: The benefits of Cloud Computing" , Available at:

<http://digitalenterprise.cepios.com/index.php/moving-into-the-cloud-the-benefits-of-cloud-computing>

Stroup, J., "Cloud Computing: Is Your Personal Information Safe in the Cloud?", About.comGuide-Availaleat :

[http://idtheft.about.com/od/Data security tech/a/cloud computing](http://idtheft.about.com/od/Data_security_tech/a/cloud_computing)

Dragos Marian Mangiuc , (2014) "Bringing Governance to the Cloud.", Working Paper, The 9th International Conference of Accounting and Management Information Systems (AMIS), Faculty of Accounting and Management Information Systems, The Bucharest University of Economic Studies, Bucharest, Romania

Priyank Singh Hada & Others, (2011) "Security Agents: A Mobile Agent Based Trust Model for Cloud Computing.", International Journal of Computer Applications, Vol. 36, No. 12, December 2011. 16- Pietroforte, M., "Will Cloud Computing Reduce Software Prices," (2008). Available at: <http://4sysops.com/archives/will-cloudcomputing-reduce-software-prices>

Siani Pearson & Azzedine Benameur, (2010) "Privacy, Security and Trust Issues Arising from Cloud Computing.", Working Paper, 2nd International Conference on Cloud Computing Technology and Science.

INTERNET REFERENCE

<https://www.qscience.com/content/papers/10.5339/qproc.2015.gsla.8>