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Research Article

THE IMPACT OF CLOUD COMPUTING ON INFORMATION TECHNOLOGY IN THE BASRA OIL COMPANY AS A MODEL FOR THE STUDY

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Abstract: The current research aims to provide a theoretical framework explaining the impact of cloud computing and its fields on information technology, as cloud computing has achieved a significant change in the economics and sustainability of information technology, which is one of the most innovative technological models for the development and exploitation of infrastructure resources in the world, especially at the level of informatics. The shift from purchasing infrastructure and technology applications as an acquired product to a well-delivered service.

The user no longer needs to search for large funding to purchase infrastructure equipment and related applications and a license to operate them. The cloud computing profession has not been isolated from keeping pace with these technological developments, as those in charge and practitioners should understand these changes that require reorganizing the work of the units they serve, as it should Programmers should be aware of the need to analyze and evaluate impacts and changes to information technology.

Keywords: Cloud Computing, information technology, advantages and disadvantages of cloud computing**.**

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1. Introduction

Cloud computing takes a large space in information technology, especially in the public sector, as many organisations need information technology in their work mechanism and organisational structures and for multiple control in their various locations or implementation of their decisions, under their work in different environments, and for continuous development, or the organisation's desire to use it in A specific field to achieve certain goals in the field of information technology.

Cloud computing is one of the most ambiguous terms and concepts in the past period and one of the most prevalent. It is a term that reflects a concept or perception about services, applications, software, hardware devices and resources that are available through the Internet, and managed by a third party called the service provider in its data centers. The so-called subscriber gets all or some of this according to the pay-as-you-go system, which is often adopted, where companies pay for obtaining cloud computing service, and the consideration was estimated according to the processing capabilities, storage space, memory size, number of clients allowed to work, and so on, in other words. Instead of using your compuer to communicate over the network and store programs, files, etc., all these resources are stored on the cloud, i.e. data centres, and the computer becomes a tool for communicating with this cloud, and so is the case with all the computers in a company. Instead of placing the applications that they work on devices, Employees: These applications are installed in the cloud and work on them as usual, relying on information technology and integrating them into the House services cloud.

1.1. Cloud Computing

Cloud computing is defined as a large set of resources that can be easily used and access virtual resources (such as equipment, development platforms or services) and these resources can be dynamically reconfigured to adapt to changing loads, which also allows for optimal use of resources, and this set of resources Usually exploited by a pay-per-model which ensures that the infrastructure provider delivers through an on-demand service level (Bukhari, 264).

Cloud computing is defined as a term that refers to computer resources such as software and physical hardware that are available on-demand through the Internet, as it has been likened to other resources or utilities such as water and electricity that are made available to consumers without the requirement that consumers be familiar with the details related to how the means and mechanisms of providing these Resources or facilities, cloud computing provides services in a simplified manner and without requiring the availability of expertise for those requesting these services or consumers (Al-Zoubi, 53, 2017).

Cloud computing is defined as simply meaning computing services that are subscribed to over the Internet and not as a product purchased and installed on the user's device, and each of these available services has its conditions and features that distinguish it from others. (Chloe,2016,86)

Cloud computing is defined as an emerging technology that provides information technology services and resources to customers through the Internet for a set fee, and a third party mostly owns cloud computing services and infrastructure called . Also, it's a general concept that includes a new type of infrastructure and software provided by the system that stores information or applications on the Internet to allow the user to access them from any computer. In this context, the system is operated by links or cooperation between Media resources located within the same unit or within different internal, external or mixed structures, which depend on access methods based on Internet protocols and standards (Khouni and Zakaria, 2016, 63).

1.2. Research problem:

Today's organisations in various sectors live a wide and multiple uses of many cloud computing mechanisms and tools and information technology programs in various fields in line with the nature of the work of all organisations, and what raises the controversy here is how to apply such technology and maintain it for its sustainability.

Hence, the research problem can be formulated in the following question:

What is the impact of cloud computing on accounting information technology in the public sector "Basra Oil Company"?

1.3. Research Objectives

The research objectives are as follows:

1. Identifying the impact of cloud computing on information technology in the public sector by transforming the theoretical rooting of both variables into the practical reality of research so that it can be dealt with.

2. Identify the most commonly used field of information technology.

3. The move that accounts for the largest use of cloud computing on information technology among steps to work in the public sector.

1.4. Research Importance

1 . The topic of cloud computing is witnessing widespread in various technical fields, especially in developed countries.

2. Cloud computing helps in facilitating the work of tasks, especially if it is integrated into information technology. 3. Research opens the field and prospects that will develop technical electronic work.

1.5. Research Hypotheses

There is a significant correlation between the use of cloud computing on public sector information technology.

2. CLOUD COMPUTING AIMS

Cloud computing seeks to achieve several aims, which can be summarised as follows:

(Peter & Timothy, 2011,136)

1. Providing the process of sharing information between beneficiaries and the ease of its circulation and transmission over the Internet, regardless of the size of that information and the forms of its files. (Al-Salmi, 2016, 120)

2. Provides the beneficiary with the ability to remotely process information related to creating files, deleting them, making modifications to them, or determining access levels, in addition to organising their preservation and storage.

3. It makes the computer just a transit station to access the server, which contains a storage space that enables the beneficiary to deal with his data. (Mansoor,2017, 87)

4. Provides storage space for high-quality information.

5. Providing access to information and ease of retrieval at any time and from any place where the Internet is available.

6. The need to make backup copies of the information stored on personal computers or external storage devices such as disks or flash and others is sufficient.

7. Availability of most operational and application software free of charge, which saves the beneficiary cost, time and maintenance (Sharon, 187, 2012)

3. INFORMATION TECHNOLOGY

Information technology is a group of hardware, equipment, software, and programmed individuals who perform their work by relying on the database to accomplish various operations and change their goal to ensure that administrative and non-administrative operations reach the best levels. (Hall& James,2007,102). also its the basic technology used in modern computer-based information systems and its applications for the system's beneficiaries. It includes devices and communication networks databases and programs (Aishosh Wadeh, 2012, 120)

Information technology is also knowing as software, hardware, communications, database management, and various data processing techniques used in computer-based information systems. (Al-Johar and Al-Obaidi, 2013, 91). It is a set of physical methods and means by which one can focus on the system's function in data processing. (IFAC, 411, 2008)

3.1. IT components

The opinions of researchers about the main components of information technology varied, as the main components of information technology, are: (Hamada, 136, 2011).

1. The data required to be entered into the information system, available in the information sources various paper or electronic

2. Computers, which are physical devices consisting of solid units (hardware) and non-solid units (programs). The concept of a computer is an electronic assembly unit that receives, stores and processes data. It is a system that consists of an interconnected set of components that perform common with each other.

3. Software, which is the non-hardware components of the computer. By downloading this software to the computer and following the instructions contained in this software, it can work.

4. Networks Networks are all units interconnected or intertwined with each other and the units are a network to achieve communication between its parties from the sender to the recipient via

5. Hardware of all kinds, whether suitable computers, electronic or optical laser inputs, or communication devices and equipment to transmit information to the required sites.

Various communication channels. (Romney, et .al, 187, 2012) Types of Information Technology

Among these classifications is what he came up with, as he classified them within a structure that includes the information technology architecture established through the organisation's information technology strategy: (Arrens et al., 2013, 307).

1- Technology Platform: Computer systems, software applications, and communications networks, which are equipped with the infrastructure of computers and communications that support information technology in the organisation.

2- Data sources: It includes various types of private and operational information bases, Internet and intranet databases dedicated to storing and processing information to support administrative decisions. (ITGI, 124, 2011)

3- Application Portfolio: Information technology applications are designed as a diversified portfolio of information systems applications that support the basic functions of business and include support for business links between organisations and administrative decision-making.

4- IT Organization: The organisational structure of information systems functions within the organisation, as well as the distribution of information systems specialists in organisational units, can be designed to meet the changes taking place in business strategies, and the organisation of information depends on the organisation's management philosophy and vision. (2013,98,Hall).

Computer-Based Information Technology Application Fields

The fields of information technology use varied, and it was employed in multiple fields, but the most prominent areas of its use in organisations are the following: (Hurt & Robart L, 134, 2010).

1. Establishing statistical, scientific, technical and reference banks and databases that cover administrative topics addressed by contemporary organisations. These specialised banks can contribute to the development of research and consultancy, and provide very important information services to organisations in the public and private sectors (Arens, et.al, 45, 2012).)

2. Using computer-mediated training methods and techniques in administrative training, as well as the method of distance training through advanced information and communication technologies, so that dialogue, interaction and supervision take place between the trainees and the trainer each in his workplace, and this is what is called electronic training.

3. Audio-visual conferences: This system establishes a link between supervisors, academics and students who are located in separate locations, through a high-capacity television network, and each person can see and hear the professor delivering his scientific material, and students can ask questions to him and interact with him.

4. Voice command execution technology: This technology is based on the use of voice recognition programs by the computer instead of the conversation that currently depends on the keyboard, as the computer can print an entire document, or perform arithmetic operations through the user’s voice (Al-Hisban, 2013). ,102).

4. ANALYSING DATA, SELECTING RESEARCH HYPOTHESES AND INTERPRETING THEIR RESULTS.

This topic aims to identify the prevalence of questionnaire items and the selection of influence through the following axes:

4.1. characteristics of the individuals of the research sample.

The researcher distributed (60) electronic questionnaire forms in the Basra Oil Company in the Basra Governorate in southern Iraq, as all the distributed forms were retrieved and after reviewing and checking the forms, it was found that they are valid for statistical analysis, meaning that they fulfil all the basic elements of the analysis. Table (1) represents a description of the characteristics of the study sample.

Table.1. characteristics of the study sample

The ratio	NO.	Target group	Variables	No
			Gender	**1**
95%	57	Male		
5%	3	Female		
100%	60	Total		
			Age	**2**
9%	5	30-21		
53%	32	40-31		
38%	23	50-41		
100%	60	Total		
			Academic achievement	**3**
3%	2	middle school		
3%	2	diploma		
55%	33	Bachelor		
34%	20	M.A.		
5%	3	PhD		
100%	60	Total		
			Years of service at work	4
2%	1	5-1		
35%	21	10-6		
34%	20	15-11		
26%	16	20-16		
3%	2	21 and more		
100%	60	Total		
			training courses	5
11%	7	Non		
2%	1	Two		
87%	52	Three and more		
100%	60	Total		

4.2. Commenting on the general information about the characteristics of the study sample members

1- sex

The results obtained consisted of 60 people, including (57) males, 95%, and (3) females, representing 5%. It is noted that the number of males is greater than the number of females, which indicates the importance of this male gender in work and its impact on the society.

2-age

The age groups were the most among the (31-40) age group, which ranked first and with a percentage of S. It was noted that the sample members relied heavily on the middle age groups, and the percentage that ranked second was the age group that ranged between (41-50) Where their percentage was 38%, which indicates the accumulated experience of these ages.

3- Academic achievement

The scientific role played a prominent aspect in knowing the culture and skills of the employees, as the largest number of holders of a bachelor's degree was at a rate of 55%, while the master's degree came in second place with a rate of 4, which requires those who wish to obtain and complete higher studies, and this indicates the ambition that they have to build themselves and build society.

4-years of service

The total job service reflects the extent of experiences gained by employees through the total number of years in the job. The more years of service, the more knowledge about work and the job. It came in the first place in the category 6-10 with a percentage of 35%. As for the second place, it was occupied by the category The ratio is 11-15 and 34%, and this indicates that the majority are competent and ambitious young people who want to work.

5- Training courses

As for the number of training courses that this selected sample participated in, the largest percentage of the number of training courses was 3 courses or more, with a percentage of 87%. As for the second rank, there is no course, as its percentage was 7%, and the third rank is the percentage of two courses, with a percentage of 2%, that an increase in training courses

Individuals develop their capabilities, desire for continuous work, and earnest pursuit of work.

Third: Analysing the answers of the respondents

The statistical description of the variables under study, as this paragraph, relates to examining the level of availability of variables in government institutions "Basra Oil Company as a model" and as follows:

Table. 2. Statistical description of the cloud computing variable

Paragraph arrangement	standard deviation	Arithmetic mean	Items	independent variable	No
3	8.49	3.76	First	cloud computing	1
1	8.97	3.89	Second		2
10	7.49	3.43	Third		3
4	8.94	3.75	Forth		4
6	8.96	3.56	Fifth		5
9	8.29	3.45	Sixth		6
2	7.83	3.82	Seventh		7
7	6.74	3.53	Eighth		8
11	4.76	3.39	Ninth		9
12	7.68	3.37	Tenth		10
8	5.448	3.48	Eleventh		11
5	925	3.67	Twelfth		12
	7.74	3.59		Average	

The source was prepared by the researcher using the outputs of the SPSS program

It is clear from Table (2) that the generally weighted arithmetic mean was (3.59) and with a standard deviation of (7.74), and the general average indicates that it is greater than the hypothetical average of (3). It is also clear from the Table that the second paragraph was in the first order as it achieved an average of (3.89).) which is greater than the rest of the averages, as it ranked last in the tenth paragraph, as the average amounted to (3.37), as the above results indicate the availability of the independent variable cloud computing in government institutions "oil company."

Basra As A Model" From the Respondents' Point Of View.

As for the statistical description of information technologies, Table (3) shows that the generally weighted arithmetic mean (3.37) and with a standard deviation of (70.7), and the general mean indicates that it is greater than the hypothetical average of (3), as it is clear from the Table that the first paragraph was in order The first is that it achieved an average of (90.3), which is greater than the rest of the averages. It also ranked last in the ninth paragraph, as the average reached (3.33), the lowest average. The results below indicate the availability of a good information technology variable in government institutions "Basra Oil Company as a model" respondents' point of view.

Table. 3. Statistical description of the information technology variable

Paragraph arrangement	standard deviation	Arithmetic mean	Items	independent variable	No
1	8.41	3.9	First	information technologies	1
3	8.92	3.75	Second		2
4	7.42	3.71	Third		3
10	8.9	3.4	Forth		4
6	8.91	3.52	Fifth		5
9	8.2	3.44	Sixth		6
2	7.81	3.8	Seventh		7
7	6.7	3.51	Eighth		8
12	4.74	3.33	Ninth		9
11	7.66	3.35	Tenth		10
8	5.43	3.46	Eleventh		11
5	9.3	3.69	Twelfth		12
	7.7	Items		Average	

The source was prepared by the researcher using the outputs of the spss program

Testing the hypotheses of correlation and impact of the research

This paragraph is concerned with testing the main hypothesis of the research related to the correlation between the research variables, as well as the influence relationship between the research variables and the researcher on the Pearson correlation to test the correlation and the simple linear regression coefficient to test the effect between the two variables, as the results of Table (4) show that there is a direct correlation between the two variables (computing Cloud and information technologies) their coefficient reached (8.25), which is a positive value indicating the strength of the relationship between the two variables, and the two asterisks indicate the morality of the correlation at (1%), and the effective value between them reached (6.8), which is a level of positive and good influence. This effect supports its morale, as it reached Its concentric value (f) for the linear regression model (641), as the significant results indicate the significance of the correlation and influence relationship with a degree of confidence (99%), and this indicates the significance of the relationships, as well as the standard beta,

amounted to (23.7) meaning that any change in computing The cloud by one unit will change the information by (72.3), and this indicates the acceptance of the two search terms.

Sig.	B	F	R2	R	Cloud computing
0.000	7.23	24.641	6.8	8.25**	

5. CONCLUSIONS

1- The use of cloud computing in its electronic form works to develop workers' technical skills, considering this technology as ready-made solutions that keep pace with changes in information security (IS).

2 - The importance of computers and information technologies in practical life to facilitate work, planning and collecting things, And reduce the dispersion of work through tasks and achieve goals for this technology. • Information technology provides critical information, but it is characterised by complexity and high operating and maintenance costs

3 - By analysing the correlation of the two variables, we find the value of F 241.41. This is a good indicator and a percentage that goes back to The relationship of the two variables, namely cloud computing and information technology

The adoption of cloud computing provides many opportunities for all organisations, regardless of their size or shape

• Cloud computing provides scalability, low operating cost, and site independence

Device independence and agility

• Providing cloud computing services that are paid and guaranteed on-demand, while providing access to them in easy ways and thus saving effort, as well as a lot of money spent on purchasing software

4 - By analysing the correlation of the two variables, we find the value of R2 6.8. This is one indicator of correlation that seeks to prove the research hypothesis that positively accepts it.

5- Cloud computing helps develop information technology because cloud service providers invest very large funds and resources to provide the best services in the context of competition, which makes these services characterised by quality, development, ease of use, and lower costs.

Recommendations

Conducting such studies to demonstrate the impact of cloud computing on the information. In addition, institutions of all kinds should be keen to adopt cloud computing to develop and restructure their electronics.

Attention should be paid to cloud computing by strengthening research and researchers in this field. E. Institutions that provide telecommunications and Internet services must develop a strategic plan to establish private servers in Arab countries because all cloud service providers are in Western countries. e. Small and medium enterprises should rely entirely on cloud computing and its software to develop their activities and move towards the future.

Contribute to the support of information technology and cloud computing to reduce troubles and reduce costs.

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