ADVANTAGES AND DISADVANTAGES OF USING CLOUD COMPUTING FROM THE PERSPECTIVE OF STUDENTS

"A COMPARATIVE STUDY BETWEEN THE STUDENTS OF AL-JINAN UNIVERSITY (LEBANON) AND THE STUDENTS OF ATATURK UNIVERSITY (TURKEY)"

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ABSTRACT

Several papers are discussed the advantages offered by the implementation and use of cloud by universities. However, papers did not compare the advantages and disadvantages of using cloud computing from students' perspective at different geographical places. The study focused on finding the pros and cons of using cloud computing from students' perspective at Ataturk University in Turkey and students of Jinan University in Lebanon. As students are the backbone of any university, therefore, this article aims to present, not only the possibilities offered by the cloud for education improvement, but also how cloud computing is perceived by students. The outcome of this article will help the universities to know if the students would prefer to use the cloud as a solution offered by the universities and whether they consider introducing cloud computers at universities.

Keywords: CLOUD COMPUTING, CLOUD SERVICE USAGES, DIFFERENT COUNTRIES.

Jel Classification: L84, M15

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ÖĞRENCI BAKIŞ AÇISI ILE BULUT BILIŞIM KULLANMANIN AVANTAJLARI VE DEZAVANTAJLARI
"AL-JINAN ÜNIVERSITESI (LÜBNAN) ÖĞRENCILERI ILE ATATÜRK ÜNIVERSITESI (TÜRKIYE) ÖĞRENCILERI ARASINDA KARŞILAŞTIRMALI BIR ÇALIŞMA"

ÖZ

Bulutun üniversiteler tarafından uygulanması ve kullanılmasının sunduğu avantajlar çeşitli makalelerde tartışılmaktadır. Ancak, makaleler, farklı coğrafi yerlerde öğrencilerin bakış açısından bulut bilişimi kullanmanın avantajlarını ve dezavantajlarını karşılaştırmamıştır. Çalışma, Türkiye'deki Atatürk Üniversitesi'ndeki ve Lübnan'daki Jinan Üniversitesi'ndeki öğrencilerin bakış açısıyla bulut bilişimi kullanmanın artılarını ve eksilerini bulmaya odaklandı. Öğrenciler herhangi bir üniversitenin bel kemiği olduğundan, bu makale yalnızca bulutun eğitimin iyileştirilmesi için sunduğu olanakları değil, aynı zamanda bulut bilişimin öğrenciler tarafından nasıl algılandığını da sunmayı amaçlamaktadır. Bu makalenin sonucu, öğrencilerin üniversiteler tarafından sunulan bir çözüm olarak bulutu kullanmayı tercih edip etmeyeceklerini ve üniversitelerde bulut bilgisayarları tanıtmayı düşünüp düşünmediklerini öğrenmelerine yardımcı olacaktır.

Anahtar Kelimeler: BULUT BILIŞIM, BULUT SERVIS KULLANIMLARI, FARKLI ÜLKE YAKLAŞIMLARI.

Jel Kodları: L84, M15

INTRODUCTION

The main reason why today's enterprises use information technologies (IT) in the high rate is to increase productivity (Baschab, 2007). Businesses that want to take advantage of the skills of IT to succeed in factors such as speed, flexibility, quality, and low cost imposed by global competition conditions increase their IT investments every year (Özdemir, A et al., 2019).

Although there is a steady decline in IT prices because of rapid advances in technology, the fact that these systems are becoming more complex within the company and the complexity of their maintenance and management increases IT costs. Therefore, it is seen that today's IT expenditures become an important cost element for firms. Although it is not possible to companies that don't consider the advantages of IT and do not want to stay back in competition, and 'it will be lose the investments in the IT. In a statement from Microsoft; in 2014, cloud computing is expected to generate 11.3 million new jobs. This explanation is important to show the dimensions reached by cloud computing technology (Fox, 2012). Gardner's farm in 2010, through a research conducted at IT companies showed that cloud computing is now one of the most prominent and first-line technologies (Koyuncu, 2012).

This study aimed to introduce the concept of cloud computing, service types of cloud computing, and the models in cloud computing. In the last part of the study, the advantages and disadvantages of using cloud computing were discussed through a comparative study by using of cloud computing by the students of Ataturk University in Turkey and the students of Al-Jinan University in Lebanon. For this purpose, the main question of the study is: What are the advantages and disadvantages of using cloud computing from students' perspective at both Jinan University and Ataturk University?

What is the Cloud Computing?

IT industrialists have defined cloud computing from their respective business perspectives. US National Institute of Standards and Technology (NIST) defined "The Cloud Computing" is a model for enabling 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."(Mell and Grance, 2011).

The Cloud computing terms used in the "cloud" is based on a metaphor used to represent the Internet (Velte et al., 2010). In this metaphor, network elements such as server and client computers, routers, gateway, and keys are located in the network, and the details outside of them are included in a cloud and within the internet.

Web-based Virtual Laboratory (BVL); Platforms and software services are using in cloud computing. The concept of cloud computing refers to a new approach that is being implemented for the provision and use of information services. It is a new technology that allows the use of various applications on the Internet. According to Wyld, cloud computing enables desktops, laptops, and mobile devices to deliver on-demand over the Internet from a remote location. A provider over the web can even offer services such as applications, processing power, storage for an organization (David, 2009).

Cloud Computing provides flexibility, reliability, quality of service support, agility, adaptability, and scalability as a solution key ((Schubert et al., 2010).

According to the definition made by the National Institute of Technology (NIST), Cloud Computing is a technology that provides network access to share pool of computer resources that can be edited such as network, server, storage, applications, and services (Mell, and Grance, 2011).

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Examples of cloud computing applications and services include can be given as. Google Mail, Apple iCloud, Ubuntu One, Google Docs, Microsoft SkyDive, Picasa, Flickr, TTNET NETDISK, etc.

1.Types of The Cloud Computing Services and Models in The Cloud Computing

Types of The Cloud Computing Services

The Cloud information technology services generally fall into three categories: Infrastructure as a Service (IaaS), Platform as a Service (Paas), Software as a Service (Saas).

Infrastructure as a Service (Iaas):

In the model of presenting the infrastructure as a cloud service, the customer can configure the process storage, network resources, and other basic computing resources they need. Also, can install the operating systems and applications they need on them. Although the client does not have management and full control over the network structure, he has full command of the system at the operating system level and can manage some network components (like Firewall)(Kozan et al., 2014, 2).

Platform as a Service (Paas):

PaaS provide the complementary services and the necessary technological infrastructure by the service provider to the customer with a platform where they can develop and run their application except for the application installed by the user himself, also he has no control and management opportunity over the components that make up the platform infrastructure (Yüksel, 2012).

The best examples of the PaaS service model are the Google App Engine and Microsoft Azure platforms (Günebakan, 2016, 4).

Software as a Service (Saas):

The software service in the cloud provides to consumer possibility to use the software that is working on the cloud computing infrastructure. The consumer can

access the remote applications by using web browser applications from their machine (Günebakan, 2016, 4).

2. Models in Cloud Computing

There are four types of cloud computing services according to the way they are used:

Public Cloud:

In the public cloud, the service provider explicitly provides applications and storage over the internet. As an example of a public cloud is Youtube videos uploaded by users. Video resources and information have being organized by the cloud provider and are accessible to anyone with internet access(Alper Aytekin et al., 6).

Private Cloud:

In the private cloud, the user ensures his/her security with strong way. And the applications provided by the service provider in this way is private data and cannot be accessed by third parties, including the cloud provider. An example of a private cloud is the Google Drive service. In this side, Personal files are stored by Google servers and can only be accessed and edited by the respective user (Özdemir, and Elitaş, 2015, 43- 59).

Hybrid Cloud:

It is a combination of the above-mentioned species. For example, an organization may receive certain services from outside, in addition to the specific services it creates. Data storage is an example of this (Yıldız, 2011, 5-23). Many of the web-based accounting practices have now been more hybridized to cloud computing capabilities.

Community Cloud:

The cloud infrastructure is shared by several organizations and supports a specific community that has shared concerns. We can give hospital systems in the same geographical location as examples for that.

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3. Cloud Computing Application Requirements at Universities

The Cloud Computing Infrastructure of software systems involved in the deployment of cloud computing includes multiple hardware and software cloud components that are often in communication with each other through application programming interfaces (Khmelevsky and Voytenko, 2010). There are a few prerequisites that need to be completed when preparing for cloud computing adaptation, such as identifying potential opportunities and benefits for the transition from existing computing arrangements to cloud services; Ensuring that the on-premises infrastructure completes cloud-based services; developing a cost/benefit and risk assessment framework to support decisions on where, when and how to adopt cloud services; develop a roadmap to optimize the existing IT environment for the adoption of cloud services; Define data that cannot be found in public cloud computing environments for legal or security reasons; Identifying and securing in-house competencies to manage the effective adoption of cloud services; Assessing technical difficulties when moving existing information or applications into a cloud environment; Make sure the network environment is ready for cloud computing (Cisco, 2018). Gartner NC. Estimates that, among information technology (IT) expenditures, cloud transition expenditures will exceed $1 trillion by 2020 (Stamford 2016); Data Corporation International (DCI) predicts that cloud computing adoption will grow dramatically by 2020, while Bain & Company's report predicts cloud IT market revenues to reach $390 billion in revenue. (Brinda&Heric, 2017).

4. Literature Review

According to Abdullah and Farol (2019), the research provides a complete overview of the cloud computing and storage environment; It explains the main advantages and disadvantages of online data storage using cloud storage, how it works and explains the basic concepts of cloud computing, also refer to the layers of its architecture concerning Infrastructure as a Service (IaaS), which include: Cloud storage architecture. The document also discusses the concept of Storage as a Service

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(StaaS), which allows users or customers to use cloud storage to save data by freeing up space for themselves without having to use physical storage.

According to Apostu, A et al. (2013). As companies of all shapes and sizes begin to adapt to cloud computing, this new technology is evolving like never before. Industry experts believe that this trend will continue to grow and evolve over the next few years. While cloud computing is undoubtedly beneficial for medium and large businesses, it also has drawbacks, especially for small businesses. In this article, we provide a list of advantages and disadvantages of cloud computing technology to help companies fully understand and embrace the concept of cloud computing. In the final section, we also present a cloud telemetry application which focused on hydropower monitoring to demonstrate the advantages that cloud technology can provide to the field. We believe that the way to get the most out of any type of cloud is to know its fluctuations and adapt accordingly. Researches show that while cloud computing technology proves to be a great asset for businesses, it can be detrimental if not properly understood and used.

Mukherji and Mukherji (2016) conducted a study to measure the pros and cons of cloud computing technology. The result of study that the cloud has its pros and cons, but cloud technology has become an essential part of every business venture. Therefore, growth is unthinkable without taking advantage of cloud computing. With careful analysis and precautions, the cloud computing we can reduce of problems. It is quite true that cloud computing is one of the emerging technologies affecting the business world. Although the cloud computing has some negatives. But in other side, cloud computing has many advantages, it continues to improve its image everywhere due to great advantages such as minimal cost, ease of access, data backup, data center, sharing capabilities, security, free storage, and quick testing. The argument becomes stronger as flexibility and reliability increase.

Many of studies have examined the advantages and disadvantages of using cloud computing in a small and medium-sized company, in addition to use of

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private and public clouds. But a few studies, in light of the technological development taking place within the so-called information century, it focused on the advantages and disadvantages of using cloud computing in universities from the perspective of students, and this is what this research paper attempts to identify.

5. Research Method

The purpose of this study is to study the advantages and disadvantages of using cloud computing from students' perspectives. To achieve that the researcher used the descriptive-analytical method defined as "a type of research that deals with existing events, phenomena and practices available for study and measurement, without the interference of the researcher. The researcher can be interacting to describe and analyze these events. In this approach, the descriptive statistics of computational averages and standard deviations were used to determine the advantages and disadvantages of the use of cloud computing from students' perspectives through the responses that were input by the study tool. According to fact that the community of the research is all the individuals, objects, or persons forming the subject of the research problem, the study community had consisted of all the students in both Al-Jinan University, Lebanon, and Ataturk University, Turkey. But the difficulty is that the number of members of the community may be huge so the researcher can't include them all. Therefore, the researcher used a partial group of the study community and representative of the elements of society as a study sample. So, the research sample must keep all the characteristics of the original community to represent it. To achieve that, the researcher used (Google Forms) to design an electronic questionnaire sent to the study sample and received (160) from each university with a total number (320) of responder.

Analysis and Conclusions

After studying the advantages and disadvantages of using cloud computing from the perspective of students based on some references that addressed the types

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of cloud computing and cloud services; this part studies the Advantages and disadvantages of using cloud computing from the perspective of students in using and analyzing results by the statistical program (SPSS).

1. The Scientific Qualification:

Table 1. Distribution of the study sample according to the scientific qualification

University * The Scientific Qualification Cross tabulation		The Scientific Qualification			Total
		Bachelor student	Master student	Doctoral student	
University of Jinan	Count	106	33	21	160
	% Within University	66.3	20.6	13.1	100.0
University of Ataturk	Count	77	44	39	160
	% Within University	48.1	27.5	24.4	100.0
Total	Count	183	77	60	320
	% Within University	57.2	24.1	18.8	100.0

Table (1) shows the distribution of the study sample according to the educational qualification. The table shows that most responders at *Al-Jinan University* were undergrads with rate (66.3%), for graduate students is 20.6% and Ph.D. students is (13.1%). In addition, most students participating *in the Ataturk University* undergrads the rate is (48.1%) and for graduate students is (27.5%) while Ph.D. student's rate is (24.4%).

2. Cloud Computing Experience:

Table 2. Distribution of sample members by experience in cloud computing.

University * Cloud Computing Experience Cross tabulation		Cloud Computing Experience				Total
		1 to 2 years	3 to 5 years	6 to 8 years	More than 9 years	
University of Jinan	Count	22	50	64	24	160
	% Within University	13.8	31.3	40.0	15.0	100.0
University of Ataturk	Count	32	39	52	37	160
	% Within University	20.0	24.4	32.5	23.1	100.0
Total	Count	54	89	116	61	320
	% Within University	16.9	27.8	36.3	19.1	100.0

Table (2) indicates the distribution of the sample according to experience in the cloud computing field. The result shows that the majority *Al-Jinan University students* have (6 to 8) years of experience in cloud computing (40.0 %). In addition, students who have years of experience (3 to 5 years) represented (31.3 %). While students who have (more than 9) years of experience represented (15.2%). And lastly, students who have (1 to 2) years of experience, represented (13.8 %).

On the other hand, the majority *of Ataturk University* students also had (6 to 8 years) years of experience represented (32.5%), and student who has (3 to 5) years of experience represented (24.4%). Also, student who has (more than 9 years) represented (23.1%). Lastly, student who has (1 to 2) years of experience present were (20%).

3. **The Most Common Used Application Offered by the Cloud:**

Table 3. Distribution of sample members according to the application provided by cloud computing.

University * The most commonly used application offered by the Cloud Cross tabulation		The most commonly used application offered by the Cloud						
		Dropbox	Google Apps for Business	Facebook	Twitter	Copy Microsoft	iCloud	Total
University of Jinan	Count	38	21	29	20	26	26	160
	% Within University	23.8	13.1	18.1	12.5	16.3	16.3	100.0
University of Ataturk	Count	47	32	18	19	15	29	160
	% Within University	29.4	20.0	11.3	11.9	9.4	18.1	100.0
Total	Count	85	53	47	39	41	55	320
	% Within University	26.6	16.6	14.7	12.2	12.8	17.2	100.0

Table (3) that *(Dropbox)* is the most common application used by *Jinan University* students to store their files to use them when needed (23.8%). *(Facebook)* came in the second stage (18.1%). Jinan University students use also other applications such as) Icloud*, Copy Microsoft, Google Apps for Business, Twitter)* by varying percentage (13.1% to 16.3%).

On the other hand, most **Ataturk University** students use **(Dropbox)** (29.4%). İn the second stage (**Google Apps for Business)** (20.0%). Also, students at Ataturk University benefit from reducing space requirements to store documents in physical form using **(ICloud)** application (18.1%). Students also use other applications such as **(Facebook, Twitter, and Copy Microsoft).**

4. **Main Purposes of Using the Cloud by the Student**.

Table 4. Distribution of sample members according to main purposes of using the Cloud.

University * Main purposes of using the Cloud by the student. Cross tabulation		Main purposes of using the Cloud by the student.				Total
		The possibility of using files on different devices or places.	The possibility of using the bigger disk space.	Protection from data loss.	The possibility of easy sharing files with others.	
University of Jinan	Count	50	32	46	32	160
	% Within University	31.%	20.0	28.8	20.0	100.0
University of Ataturk	Count	45	31	43	41	160
	% Within University	28.1	19.4	26.9	25.6	100.0
Total	Count	95	63	89	73	320
	% Within University	29.7	19.7	27.8	22.8	100.0

Table (4) shows the main purposes of using students at both universities of Cloud Computing. After analysis using) SPSS) , results were as follows:

(31.3%) of students at **Al-Jinan University** believe that the purpose of using cloud computing is *"the possibility of using files on different devices or different places"*. While (28.8%) of students believe that the main purpose is the *"protection of data from loss"*, and (40.0%) believe that the main reason is *"The possibility of using the bigger disk space and the easiness sharing of files with others"*.

Similarly, (25.6% to 28.1%) of **Ataturk University** students believe that *"the ability to use files on different devices or places"*, *"protection of data from loss"*, and *"possibility of sharing files with others"* is one of the main reasons of using cloud computing. Other students (19.5%) see that the purpose of using the Cloud Computing is *"The possibility of using the bigger disk space"*.

5. **Reasons for Not Using the Cloud**

Table 5. Distribution of sample members according to Reasons for not using the cloud.

University * Reasons for not using the cloud. Cross tabulation		Reasons for not using the cloud.			
		Lack of knowledge of how to use these services.	Concerns about security and privacy.	Concerns about provider's reliability	Total
University of Jinan	Count	57	26	77	160
	% Within University	35.%	16.3	48.1	100.0
University of Ataturk	Count	64	37	59	160
	% Within University	40.0	23.1	36.9	100.0
Total	Count	121	63	136	320
	% Within University	37.8	19.7	42.5	100.0

The above table indicates the reasons for not using cloud computing from the perspectives of Ataturk and Jinan University students. After analysis results show that (48.1%) of **Al-Jinan University students** believes that *"fears related to the credibility of the provider"* is the main reason for the lack of use of cloud computing. While (35.6%) believe that *" Lack of knowledge how to use this services"* is a sufficient reason not to use cloud computing applications. Also (16.3%) of students believe that *"Concerns of security and privacy"* is a sufficient reason for not using cloud computing.

On the other hand, **Ataturk University** students see that *"Lack of knowledge how to use these services"* is the main reason why cloud computing is not used (40.0%). Others believe that *"Concerns about provider's reliability"*, is the main reason for not using the computing cloud. Other students of Ataturk University see that *"Concerns about security and privacy is the reason* why cloud computing is not used*.

6. Do You Agree with a Statement That Cloud Offers Some Opportunities That May be Useful in the Educational Dimension?

Table 6. Students' perspective on the opportunities offered by the cloud in the educational dimension.

Questions			Strongly Disagree	Don't agree	Neutral	Agree	Strongly Agree	Mean	Std. deviation
			Answer Scale						
University of Jinan	Q1	F	9	10	19	60	62	3.97	1.12
		%	5.6	6.3	11.9	37.5	38.8		
University of Ataturk		F	3	7	12	13	125	4.56	0.94
		%	1.9	4.4	7.5	8.1	78.1		
University of Jinan	Q2	F	14	15	15	110	6	3.49	1.02
		%	8.8	9.4	9.4	68.8	3.8		
University of Ataturk		F	14	9	10	123	4	3.58	0.96
		%	8.8	5.6	6.3	76.9	2.5		
University of Jinan	Q3	F	21	23	62	32	22	3.06	1.19
		%	13.1	14.4	38.8	20.0	13.8		
University of Ataturk		F	7	12	64	69	26	3.59	0.99
		%	4.4	7.5	28.8	43.8	16.3		
University of Jinan	Q4	F	4	5	6	7	138	4.68	0.88
		%	2.5	3.1	3.8	4.4	86.3		
University of Ataturk		F	8	7	6	123	16	3.82	0.85
		%	5.0	4.4	3.8	76.9	10.0		
University of Jinan	Q5	F	16	14	15	98	17	3.53	1.11
		%	10.0	8.8	9.4	61.3	10.6		
University of Ataturk		F	10	9	6	121	14	3.75	0.92
		%	6.3	5.6	3.8	75.6	8.8		
University of Jinan	Q6	F	7	7	10	101	35	3.93	0.92
		%	4.4	4.4	6.3	63.1	21.9		
University of Ataturk		F	13	15	14	104	14	3.56	1.04
		%	8.1	9.4	8.8	65.1	8.8		
University of Jinan	Q7	F	12	11	12	100	25	3.71	1.05
		%	7.5	6.9	7.5	62.5	15.6		
University of Ataturk		F	8	6	11	95	40	3.95	0.96
		%	5.0	3.8	6.9	59.3	25.0		
University of Jinan	Q8	F	3	9	6	44	98	4.40	0.94
		%	1.9	5.6	3.8	27.5	61.3		
University of Ataturk		F	6	10	11	42	91	4.26	1.07
		%	3.8	6.3	6.9	26.3	56.9		

"Mean" is the total of values divided by their number. The result is not necessarily in the total of seen data from results observed, but the main task is to offer a summary of data and its accommodation with each other. Through the definition of "standard deviation" which is a guide for the far of results from the

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mean, the less the value of standard deviation is then this is evidence that data is nearer to the mean, and the greater the value of standard deviation is then this is evidence that data is farther from the mean. If the value of deviation is zero, that is proofing that the data is identical to the mean.

a. Table (6) shows the mean of each phrase depending on responders' answers. If the result is higher than (3.4), it indicates the agreement of respondents to the phrase. Respondents agree that *"easy and unlimited access to knowledge in the form of books, lectures, presentations, or notes"* is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this phrase is from the perspective of students **at Jinan University and Ataturk University** students, (3.97 / 4.56) more than (3.4) and less than (5) with the standard deviation (0.94 / 1.12).

b. Responders agree that *"Resources (books, Lectures, presentation or notes) sharing possibility"* is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this phrase is from the perspective of students **at Jinan University and Ataturk University** students, (3.49 / 3.58) more than (3.4) and less than (4.20) with the standard deviation (0.96 / 1.02).

c. There is agreement among Students of Ataturk University that "Cooperation possibility between students and teachers as also between students only" is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this phrase (3.59) is more than (3.4) and less than (4.20) with the standard deviation (0.99). While students at Jinan University have a neutral view of "the potential for cooperation between students and teachers also among students only" as one of the opportunities offered by cloud computing in the educational dimension where the mean of (3.06) is more than (2.60) and less than (3.40) with standard deviation (1.19).

d. There is agreement among students of Jinan University students that ″*access to university-owned software*″ is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this term is (4.68) is more than (4.20) and less than (5) with the standard deviation (0.88). Ataturk University students also have an agreed view that ″*access to university-owned software*″ is one of the opportunities offered by cloud computing in the educational dimension where the average (3.82) is more than (3.40) and less than (4.20) with the standard deviation (0.85).

e. There is agreement among students of Jinan University that "*Possibility of work at any time and in any location*" is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this term is (3.53) is more than (3.40) and less than (4.20) with the standard deviation (1.11). Ataturk University students also have a agree view that "*Possibility of work at any time and in any location*" is one of the opportunities offered by cloud computing in the educational dimension where the average (3.75) is more than (3.40) and less than (4.20) with the standard deviation (0.92).

f. Jinan University students agree that "*Storing information in the cloud gives you almost unlimited storage capacity*" is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this term is (3.93) is more than (3.40) and less than (4.20) with the standard deviation (0.92). Ataturk University students also have a agree view that "*Storing information in the cloud gives you almost unlimited storage capacity*" is one of the opportunities offered by cloud computing in the educational dimension where the average (3.56) is more than (3.40) and less than (4.20) with the standard deviation (1.04).

g. There is agreement among students of Jinan University that "*Improves institutional productivity and makes the academic process more efficient*" is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this term is (3.71) is more than (3.40) and less than (4.20) with

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the standard deviation (1.05). Ataturk University students also have a agree view that "*Improves institutional productivity and makes the academic process more efficient*" is one of the opportunities offered by cloud computing in the educational dimension where the average (3.95) is more than (3.40) and less than (4.20) with the standard deviation (0.96).

h. There is agreement among students of Jinan University that "*Provide free software that does not need to be installed on your computer*" is one of the opportunities offered by cloud computing, which may be useful in the educational dimension where the average of this term is (4.40) is more than (4.20) and less than (5) with the standard deviation (0.94). Ataturk University students also have a agree view that "*Provide free software that does not need to be installed on your computer*" is one of the opportunities offered by cloud computing in the educational dimension where the average (4.26) is more than (4.20) and less than (5) with the standard deviation (1.07).

7. Do You Agree with the Statement That the Following Reasons Are Enough to Introduce Cloud into University?

Table 7. Reasons for using the cloud in universities.

| *Questions* | | | Answer Scale | | | | | Mean | Std. deviation |
			Strongly Disagree	Not agree	Neutral	Agree	Strongly Agree		
University of Jinan	Q1	F	4	5	3	130	18	*3.95*	*0.69*
		%	2.5	3.1	1.9	81.3	11.3		
University of Ataturk		F	0	0	0	133	27	*4.16*	*0.37*
		%	0.0	0.0	00	83.1%	16.9		
University of Jinan	Q2	F	0	0	0	134	26	*4.16*	*0.37*
		%	0.0	0.0	0.0	83.8	16.2		
University of Ataturk		F	0	0	0	139	21	*4.13*	*0.33*
		%	0.0	0.0	0.0	86.9	13.1		
University of Jinan	Q3	F	3	7	17	105	28	*3.92*	*0.78*
		%	1.9	4.4	10.6	65.6	17.5		
University of Ataturk		F	0	0	0	143	17	*4.10*	*0.30*
		%	0.0	0.0	0.0	89.4	10.6		
University of Jinan	Q4	F	6	5	4	120	25	*3.95*	*0.80*
		%	3.8	3.1	2.5	75.0	15.6		
University of Ataturk		F	0	11	13	116	20	*3.90*	*0.68*
		%	0.0	6.9	8.1	72.5	12.5		

The data of above table indicates the reasons for the use of cloud computing in universities, and after analyzing the results through the statistical program (SPSS), the following conclusions can be drawn:

a. The agreement among Responders showed that *"reducing the space requirements to store documents in physical form"* is considered one of the reasons for the use of cloud computing at the university from the perspective of students at Jinan University and Ataturk University students, where the mean of this phrase is (3.95 / 4.16) were more than (3.4) and less than (4.20) with standard deviation (0.69 / 0.37).

b. The agreement among Responders showed that *"Time savings resulting from not having to print, stacking and storage of documents"* is considered one of the reasons for the use of cloud computing at the university from the perspective of students at Jinan University and Ataturk University students, where the mean of this phrase is (4.16 / 4.13) was more than (3.4) and less than (4.20) with standard deviation (0.33 / 0.37).

c. The agreement among Responders showed that *"Cost savings from reduced use of printers, toner, and paper"* is considered one of the reasons for the use of cloud computing at the university from the perspective of students at Jinan University and Ataturk University students, where the mean of this phrase is (3.92 / 4.10) was more than (3.4) and less than (4.20) with standard deviation (0.78 / 0.30).

d. The agreement among Responders showed that *"Impact on the environment due to reduced paper consumption, energy, computer hardware"* is considered one of the reasons for the use of cloud computing at the university from the perspective of students at Jinan University and Ataturk University students where the mean of this phrase is (3.95 / 3.90) were more than (3.4) and less than (4.20) with standard deviation (0.80 / .068).

8.Would You Use the Cloud as a Solution Offered by the University?

Table 8. the view of the sample members on the possibility of considering the cloud as a solution to the university's progress

University * Would you use the Cloud as a solution offered by the University? Cross tabulation		Would you use the Cloud as a solution offered by the University?		Total
		I don't No	Yes	
University of Jinan	Count	36	124	160
	% Within University	22.5	77.5	100.0
University of Ataturk	Count	20	140	160
	% Within University	12.5	87.5	100.0
Total	Count	56	264	320
	% Within University	17.5	82.5	100.0

The data of above table indicates that cloud computing can be considered as a solution provided by universities. After analyzing the students' responses, (77.5%) of Al-Jinan University students agree that the Cloud is a solution offered by the University. However, (22.5%) of Jinan university students have no idea about the possibility of adopting the cloud by the university. On the other hand, (87.5%) of Ataturk University students believe that Cloud is a solution offered by the University while (12.5%) of students think the opposite.

Conclusions

This paper discussed the advantages and disadvantages of using cloud computing through the perspectives of students at Jinan and Ataturk University. To achieve the objectives of the study, the research was divided into several sections include the following: cloud computing concept, types of cloud computing, advantages and disadvantages of using computing, in addition to the necessities to apply cloud computing at the university. The study also included a practical apart that show and discuss students' prespecteves of view of students about the advantages and disadvantages of using cloud computing at university; in addition to the most used applications by students. The paper also discussed the reasons for using or not using students the cloud computing. İs cloud computing is considered

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as a solution provided by the university. Results of the study showed the following: The purpose of students participating in the questionnaire in both universities are bachelor's degrees (57.2%).

- The majority of students have(6 to 8 years) of experience using cloud computing (36.3%).

- (Dropbox, iCloud) are the most frequently used applications by students at both Ataturk and Jinan University.

- One of the main purposes of using the cloud from the point of view of students is the possibility of using files on different devices or different places.

- Jinan University Students have been concerned about the provider's reliability. This makes it the most important reason for not using cloud computing.

- Some students at Ataturk University believe that" Lack of knowledge" on how to use the services makes them the main reason for not using the cloud.

- Ataturk University students see that these opportunities (Easy and unlimited Access to information in a form of books, lectures, presentations, or notes. Also, allowing the cloud to use a free program without the need of installing it on your computer) is considered the most important chance the cloud provides in the educational sector.

- Students at Ataturk and Jinan Universities see cloud computing as a solution provided by the university.

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