

The Relative Advantages Expected To Be Achieved When Cloud Computing Is Implemented In Charitable Organizations and Its Relevance to the Aspirations of Donors

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Abstract: *The study aimed to identify the relative advantages expected to be achieved when applying cloud computing in charitable institutions and the extent and suitability of it to the aspirations of donors. The study relied on the descriptive analytical approach in describing and analyzing the problem, and the study population consisted of (1245) employees working in charitable institutions. The method of stratified random sampling was used, where the study sample consisted of (294) employees. Distribution of (300) questionnaires to the heads of boards of directors in addition to the executive directors as well as heads of departments, and (241) questionnaires, or 82%, were retrieved. The study found that the general estimate of the readiness of charitable institutions in Gaza Strip to adopt and apply cloud computing reached (78.1%), and the study showed that the institutions are striving greatly to achieve a comparative advantage in this field by (84.56%), and in the same context, It was concluded that donors are looking forward to implementing cloud institutions at a rate of (85.63%). The study made a number of recommendations, the most important of which is the need for institutions to respond more and more effectively to the aspirations of donors with regard to the application of cloud computing technology.*

Keywords: Comparative Advantages, Donors, Cloud Computing, Charitable Institutions, Gaza Strip, Palestine.

Introduction

In light of this technological progress, information and communication technology plays an important role in developing business management for the better, especially in the field of service business, which in turn contributes to improving the level of performance, in addition to increasing efficiency, by harnessing the capabilities of these technologies to serve the human element that is the engine. It is essential to use these technologies, and highlights the role of these technologies in shifting from traditional routine work to standardized management that relies on modern digital technologies. In this development, a new concept has emerged, namely cloud computing, which in turn harnesses information technology to develop administrative and institutional work in order to achieve achievement and increase transparency.

Cloud computing is a modern technology that relies on storing and processing data within a virtual cloud instead of computers. It is considered a data center that is accessed via the Internet, regardless of place and time. This technology contributes to eliminating maintenance and modernization problems as it turns from products to services (Syed, 2013), or as he said (Radwan, 2016). It is a technology that allows users to transfer and process their files and data in a cloud (technological resources over the Internet), where the processing takes place within this cloud, with access to that data at any time and any place whenever the Internet is available.

AL-Badi et al (2017) believes that cloud computing has evolved from being a mere graphic to a tangible business model, and the world's interest in this technology has varied from one country to another, as some statistics show that the United States is the most interested in this technology, and then the European Union.

The sector of NGOs in Gaza Strip is considered a vital sector to a large extent by virtue of social responsibility, as the number of charitable institutions operating in Gaza Strip is (415) institutions, according to the statistics of the Ministry of Interior in Gaza for the year 2022, and according to a study (Bahour, 2016), benefiting from advanced technologies In the institutions of Gaza Strip, it does not rise to the desired level, and among these technologies is cloud computing.

Researchers believe that cloud computing helps charitable organizations to provide electronic services at low costs, and helps in the growth and expansion of the institutions' work, obtaining good statistics and data analytics, and allowing access to data through various electronic devices, in addition to contributing to meeting the needs of donors in Reducing duplication in distributing services among the beneficiaries, and achieving the highest percentage of transparency and coordination among all agencies working in charitable work.

Research Terminology

There are many terms that were used in the study, the most important of which are:

- **Cloud Computing:** A technology that relies on storing and processing data within a virtual cloud instead of computers. It is considered a data center that is accessed via the Internet regardless of place and time, and this technology contributes to eliminating maintenance and modernization problems as it turns from products to services (Syed, 2013).

- **Procedural Definition Of Cloud Computing:** A technology that allows users to transfer and process their files and data in a cloud (technological resources over the Internet), where processing operations take place within this cloud, with access to that data at anytime and anywhere whenever the Internet is available.
- **Charitable Institutions:** They are an independent legal entity established by a group of individuals by agreement among themselves in order to reach legitimate goals of community service and their goal is not material profit (Al-Aloul, 2011).
- **Procedural Definition of Charitable Institutions:** Researchers define them procedurally as “a group with the nature of an optional recipe consisting of several people aiming to provide charitable services to the community, without regard to profit.”
- **Comparative Advantage:** the extent of the benefit that organizations will obtain through their adoption of advanced technologies such as “cloud computing” so that they are of greater importance than the technologies that preceded them. Flexibility is one of the most important components of cloud computing's comparative advantage (Bahour, 2016). The term comparative advantage of cloud computing was derived from the DOI (Diffusion of Innovation) theory, and the application of this theory resulted in the comparative advantage being one of the most important factors affecting the adoption of cloud computing.
- **Procedural Definition of Comparative Advantage:** Researchers defines comparative advantage procedurally as the extent to which innovative and advanced technologies are considered to be able to improve business flow for the better, and these technologies are adopted when ensuring their effectiveness, and that they help in achieving economic gains.
- **Donors' Aspirations:** Ziada (2012) indicates in his study that the goal of donors is a humanitarian goal and not a profit, and that it aims directly to alleviate suffering, promote the interests of the poor, or other interests that serve the community, and according to (Badr, 2009) it is characterized by a number of characteristics The most important of them are that they are official organizations that take care of providing services directly or indirectly to meet the needs of the poor and marginalized parties, as well as work to achieve social development, and they depend for their balance on the donations they collect, or global government donations, as well as one of their most important functions is the process of oversight and project submission Developmental relief and issuance of reports.
- **Procedural Definition of Donors' aspirations:** Researchers defines donors procedurally as Arab or foreign governmental or non-governmental agencies that provide funding and support of various kinds to charitable institutions and their goal is charitable and not profitable.

Problem Statement

Despite the rapid and tremendous developments in information and communication technology, the benefit from this development does not rise to the desired level, as bureaucracy still controls work through the adoption of routine procedures, which prompted institutions to think about adopting new systems that contribute to the development of institutional administrative work from During the adoption of the electronic cloud at work, as today the digital cloud has become a new model for benefiting from information technology services, in coordination and cooperation between companies, governments and institutions in the framework of data and information exchange and enhancing the role of technology and the Internet in the administrative, supervisory and regulatory process thereof, and this is consistent with the study of (Saleem, 2011) Which showed that cloud computing has become one of the most concepts that attracted the interest of those in the information field because of the opportunities it offers for institutions to advance the electronic services they provide.

The impact of cloud computing on private institutions is noted in answering the following question, how can charities and forward-looking NGOs use the cloud computing system to access as much data as possible and harness it in administrative work.

From this point of view, the idea of the study came to explore the level of comparative advantages expected to be achieved when applying cloud computing in charitable institutions and its suitability to the aspirations of donors, which in turn maximizes the impact on society by reducing the margin of time wasted in providing services, and this is reflected positively on achieving high levels of Satisfaction among citizens and donors, and in general, benefiting from cloud computing enhances the principle of transparency in work and improves performance.

Based on the foregoing, researchers found the problem of the study and its importance, so the study will focus on exploring the relative advantages expected to be achieved when applying cloud computing in charitable institutions and its suitability to the aspirations of donors.

Research Questions

From the foregoing, the research questions that the study will answer have been concluded, and they are as follows:

Q1-: What are the relative advantages expected to be achieved when applying cloud computing in charitable organizations?

Q2-: How relevant are the donors' aspirations for cloud computing?

Research Objectives

This study aims to achieve the following objectives:

1. Knowing the readiness of charities to implement cloud computing.
2. Identify the desired benefits of cloud computing application.
3. Presenting findings and recommendations to various parties.

4. Knowing the suitability of the cloud computing application to the aspirations of the donors.

Research Importance

The importance of the study is shown by the benefit that will be given to:

First- Scientific (Theoretical) Importance:

The importance of this scientific study is evident in the fact that cloud computing is one of the most important modern technologies that is expected to revolutionize the performance of institutions in terms of quality and improve the service provided by these institutions to the beneficiaries, for its role in providing distinct programs and applications, very large storage spaces, and data monitoring and preservation in a secure and less costly manner. .

Enriching scientific research on this subject, as this research is the first according to researcher's point of view that links the application of cloud computing and the achievement of social justice in Palestine in particular and the Arab world in general through the application of cloud computing in charitable institutions.

Second- Practical (Applied) Importance:

- Enhancing the future planning of the institutions, and supporting decision-making in determining the beneficiaries.
- Supporting the process of monitoring the services and projects of institutions in line with the aspirations of the donors.
- It helps in organizing and arranging work within the institutions.

Third- Importance for the Previous Parties:

- Strengthening the principle of financial and administrative management over finance
- Supporting coordination and transparency between the concerned authorities.

Research Limits and Scope

The scope of the study shall be as follows:

1. **Objective Limits:** The study focused on The Relative Advantages Expected To Be Achieved When Cloud Computing Is Implemented In Charitable Organizations and Its Relevance to the Aspirations of Donors
2. **Human Limits:** The study was conducted on workers in charitable institutions.
3. **Institutional Limits:** The study was conducted on a sample of charitable institutions operating in Gaza Strip.
4. **Spatial Limits:** The study was conducted in the State of Palestine.
5. **Time Limits:** The study was conducted in the year 2022.

Previous Studies

- Study of (Al Najjar, Mahmoud T., et al., 2022) which aimed to identify the reality of change strategies and the level of coordination for the readiness of charitable institutions in Gaza Strip to adopt and apply cloud computing. The stratified random sample, where the study sample consisted of (294) employees, and in order to collect data, (300) questionnaires were distributed to the heads of boards of directors in addition to the executive directors as well as heads of departments, and (241) questionnaires were retrieved, or 82%. The study concluded that the change strategies axis scored (68.13%), while the coordination and transparency axis reached (82.02%), and in the same context, it was concluded that donors are looking forward to implementing cloud institutions at a rate of (85.63%). The study made a number of recommendations, the most important of which is the need to work on developing remedial plans to get rid of the obstacles that hinder the use of cloud computing. The study recommended the importance of institutions adopting clear and diverse strategies for institutional and organizational change. With regard to the application of cloud computing technology.
- Study of (Al Najjar et al., 2022), which aimed to identify the level of senior management support and the readiness of the organizational structure in Palestinian charitable institutions to adopt and apply cloud computing. The study relied on the analytical descriptive approach in describing and analyzing the problem, and the study population consisted of (1245) employees working in charitable institutions. The results of this study showed that the general estimate of the Senior Management support axis was (68.13%), and the organizational structure axis reached (83.9%). The study presented a number of recommendations, the most important of which is the need to work to strengthen the principle of decentralization in the organizational structure of charitable institutions in Gaza Strip, as well as the need to develop remedial plans to eliminate the obstacles that hinder the use of cloud computing.
- Study of (Bahour, 2016) which aimed to identify the availability of factors affecting the adoption and application of cloud computing in government institutions from the point of view of senior management. Providing the technological environment, confidentiality and data." To achieve the objectives of the study, the questionnaire was used as a tool for data collection. The researcher conducted a comprehensive survey of the research community of 170 employees from the senior management in government ministries in Gaza Strip, and 120 questionnaires were retrieved at a rate of 70.5%, and 3 questionnaires were excluded from the analysis. The results for the inaccuracy of the results, and the researcher used the descriptive analytical method in the study. One of the most important results of the study was that the comparative advantage represents the most important factors affecting the adoption and application of cloud computing, and the study emphasized that change strategies have a role in the transition towards the application of cloud computing, and the results showed that the role of senior management in government ministries is not sufficient to implement cloud computing. The results showed that the physical requirements for

building the government cloud are available to an acceptable degree in the Palestinian ministries, and security concerns and data confidentiality are among the most important factors affecting the application of cloud computing.

- Study of (Radwan, 2016), which aimed to identify cloud computing and its relationship to developing the job performance of managers working in Palestinian universities in Gaza Strip. (Chairman, Vice President, Dean, Deputy Dean, and Administrative Directors) in three universities in Gaza Strip (Islamic University, Al-Aqsa University, Al-Azhar University) and the number of retrieved questionnaires was imitated ((143), with a recovery rate of (90%). The results of the study showed The presence of a high degree of approval by the respondents on the field of cloud computing with a relative weight of 73.2%, as well as the presence of a high degree of approval by the respondents on the field of job performance with a relative weight of 81.1%, and the study showed a statistically significant relationship at the level ($\alpha \leq 0.05$ between Cloud computing and job performance for managers working in Palestinian universities in Gaza Strip governorates.
- A study (Salman& Bhumgara, 2015) which aimed to show the possibility of using cloud computing in NGOs in India to effectively manage health needs, in addition to showing the level of adoption of cloud computing in India and Pakistan among NGOs, and analyzing the concerns that these institutions face in using computing, and the study used the descriptive approach through a case study of some NGOs and designing a questionnaire to collect information from the managers of the organizations, and two interviews were conducted with the managers of two institutions in India and Pakistan. The study indicated a number of results, the most important of which is that data privacy is one of the most important obstacles facing the application of cloud computing in NGOs in India and Pakistan.
- Study of (Gabi, 2015) which aimed to assess the feasibility of adopting cloud computing in the Palestinian public sector in addition to identifying all the potential opportunities and challenges facing the arrangement for the application of cloud computing. Using the comprehensive survey, the sample size was 152 employees, and the researcher conducted eleven semi-regular interviews with some experts in the public sector. The results showed that the Palestinian public sector is not ready to adopt cloud computing in its operations due to the lack of senior management support, the lack of realization of the benefits and objectives of adopting cloud computing, and all the lack of human resources experience in computing technology, and the studies identified the most important challenges facing the Palestinian public sector to adopt the application of computing.
- Study of (Oliveira et. al., 2014) which aimed to study the factors affecting the adoption of cloud computing in the service and manufacturing sectors in Portugal. . The results showed that the support of senior management, technological readiness and comparative advantage are among the most important factors that affect the adoption of cloud computing by enterprises, while reducing costs indirectly affect the adoption of cloud computing. The study recommended conducting extensive research studies on the importance of applying computing in the industrial field and the service sector in Portugal, while raising the level of economic production in the country.
- A study of (Al-Alimi, 2014), which aims to identify the concept of cloud computing, its advantages and disadvantages, and benefit from its various applications in providing information services, and the extent to which educational libraries in the United Arab Emirates invest in such technologies. By relying on interviews for a number of library workers in the United Kingdom, and reports. The results of the study showed that cloud computing saves from 30-60% of technological expenditures in libraries and plays a key role in providing information service at all levels and aspects. Use of open source software.
- Study of (Stieninger, 2014) which aimed to identify the factors affecting organizations' adoption of cloud computing, through the descriptive analytical approach, and a questionnaire was designed to collect data and the questionnaire was distributed to 551 organizations. The study focused on the factors that affect the adoption of computing, which is "comparative advantage", safety and confidentiality. The study indicated that comparative advantage is the most important factor affecting organizations' adoption of cloud computing, and data security and privacy are among the most important obstacles facing organizations in adopting computing.
- Study of (Budņiks and Didenko, 2014), which aimed to study the factors affecting the decision of enterprise managers and small-sized companies to adopt the application of cloud computing technology, and the study examined a number of factors, the most important of which are security, data confidentiality and comparative advantage. The researchers used the descriptive analytical approach, through the design of a questionnaire that was designed and distributed to 150 middle management employees in institutions. The study concluded that there is a positive trend towards institutions adopting cloud computing technology in their work due to several factors, the most important of which are data confidentiality and the comparative advantage that it achieves.
- Study of (Gupta et. al., 2013) which aimed to study the factors affecting the adoption of cloud computing in small companies, as well as to determine the benefits that would accrue to those institutions if computing technology was adopted in their work. The study used the descriptive analytical approach, where a questionnaire was designed as a tool for the study. It was distributed to 211 institutions. The study showed that the ease of use of computing applications, suitability of services to companies' needs, data security, and cost reduction are among the most important factors that contributed to the adoption of computing technology by medium companies.

It is clear through the review of previous studies that these studies have varied and varied according to the different goals that they sought to achieve, as well as the different environments that were applied to them, the variables they studied, the curricula used and the tools that were used. About previous studies:

The points of agreement and differences between the current study and previous studies:

▪ **First- The Aspects Of The Agreement:**

- Regarding the variables of the study: The current study is similar to a number of previous studies in its handling of the cloud computing variable by studying the factors affecting the application of cloud computing, such as the study of (Bahour, 2016), (Stieninger, 2014), (Budņniks and Didenko, 2014) and (Oliveira et al., 2014).
- Regarding the study method and the study tool: the study agreed with most of the previous studies in their use of the descriptive analytical approach, and also agreed with the previous studies in using the questionnaire as a tool for collecting information.
- Concerning the study population and sample: This study differed with the studies in terms of the study population, and partly agreed with some that were taken from non-governmental institutions as a study community, such as the study (Bhumgara & Salman, 2015).

▪ **Second- Differences:** The study differed with previous studies in terms of the study environment and the study community, so that none of the previous studies addressed the application of cloud computing to the environment of charitable institutions, and this is one of the most important features that distinguishes the study from previous studies, and the researcher also added some variables in his study so that he concluded them Through interviews with specialists.

▪ **Benefits From Previous Studies:**

- Enriching the theoretical framework in the study.
- Building a questionnaire study tool.
- Ensure that the current study is not repeated.
- Providing the necessary references for the study, especially foreign references.

▪ **What distinguishes the study:**

- The study was applied to the environment of NGOS institutions in the Gaza Strip, and to the knowledge of the researcher, this is the first study that studies the application of cloud computing in the work of NGOS institutions in the Gaza Strip.
- The use of a number of tools for the data, where the researcher relied on more than one means in collecting primary data, most notably the interviews, the questionnaire, and the holding of a workshop.

Theoretical Framework

First- Cloud Computing: In light of the tremendous technological development in the world, and the pursuit of applying the computerized electronic system in all walks of life, many owners of institutions and companies have resorted to adopting the idea of cloud computing and starting to implement it to facilitate the conduct of administrative work in the institution. Cloud computing has created many new opportunities for organizations around the world, and today, cloud services are available at affordable prices and accessible to businesses at all levels. There are also huge economic advantages to this widespread acceptance of cloud computing, and many companies have now embraced cloud computing. Over the years, the advent of technology has fueled the growth of cloud computing, but this growth was not as expected at the beginning of the cloud computing era (Raza, 2015). Cloud computing is based on the main idea of making use of shared resources, whose cost is measured by how much they are used over the Internet. The need for cloud computing arises as a result of the increase in large-scale, high-performance systems and the high cost of a large number of needed resources. This technology provides better resource delivery services as needed. While reducing the effort (Radwan, 2016) and according to Gupta (2013), cloud computing also depends on the cloud, which is a huge interconnected network of servers or individual computers that work in a parallel form that combines computing resources, which leads to the generation of computing power. It also relies on virtualization technology that helps to make the most of these resources and increase their flexibility. It is owned by a third party called the cloud provider, who in turn bears the cost of servers, hardware and software. This topic explains an overview of cloud computing to simplify it by identifying its concept, origin, development, and requirements used by charitable organizations, as well as the most important characteristics, advantages, environmental system, components, and obstacles facing their application, in addition to addressing the dimensions that researchers studied to determine the readiness of institutions to adopt cloud computing technology.

Cloud Computing Concept:

The rapid development in network technology has led to the tendency of many institutions to make their applications available for use through the Internet in what is known as cloud computing, which has become a buzzword in the world of industry, although it is not a completely new concept, but it has become sweeping presence in the present digital age and that is due to the spread of the Internet and telephone devices on a large scale with the improvement of bandwidth, as this technology provided its users with better advantages such as saving expenses and providing services to the largest segment of beneficiaries (Al-Alimi, 2014).

In 1999, Mark Andreessen tried to market cloud computing with infrastructure as a service model, and in 2000 Microsoft expanded the concept of software as a service by developing web services, and in 2001 IBM explained and clarified the advanced automated

techniques used in managing complex information technology systems, such as: Self-monitoring, self-healing, self-configuration, and self-improvement, and in 2005, Amazon used cloud computing in its infrastructure, which led to the provision of new features characterized by speed and ease. The result was the development of the concept of cloud computing. In 2007, Google and IBM initiated a partnership initiative with a number of universities around the world, with the aim of entering into a major research project to develop cloud computing technology (Salah, et al., 2010).

The graph illustrates the historical development of cloud computing:

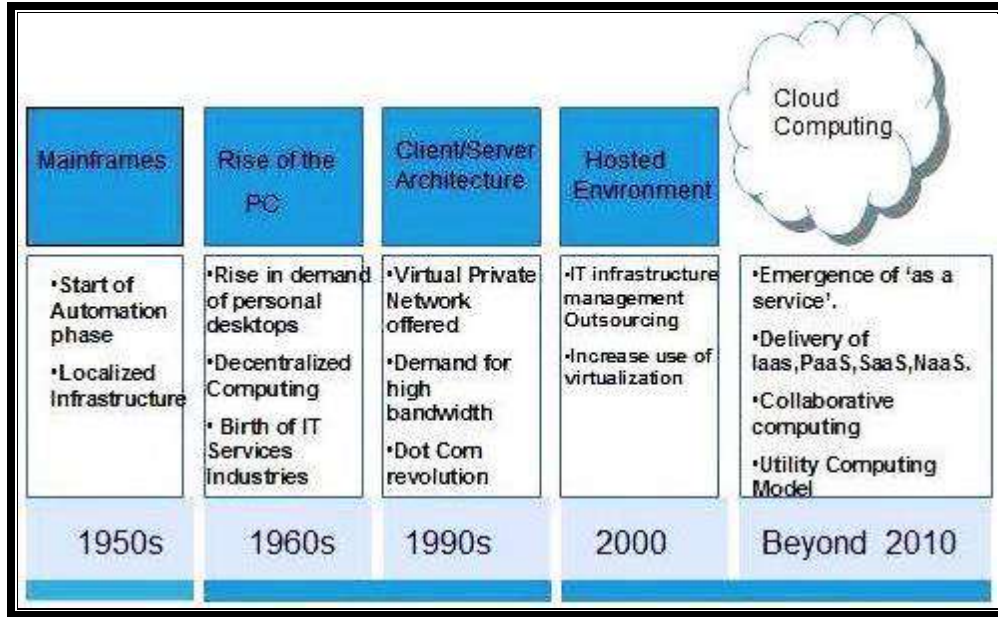


Figure 1: Historical development of cloud computing

Source: (Point, 2014)

Alassaf (2016) defines cloud computing as a term given to all forms of distributed and interconnected computing through a network that provides services of interest to users. According to (Radwan, 2016), the cloud allows users to access the service at any time and any place and pay for what is used only, and it is a way to connect computerized resources, distributed systems and web services, as it is a unique opportunity for companies, as it aligns with information technology requirements and infrastructure. According to (Lin, 2012), there is a growing realization that there will come a day when cloud computing will be the main tool that will be relied upon in managing enterprises and small and medium-sized companies, as the cloud market worldwide is expected to reach 8.1 billion by the end of 2013.

Based on (Alshamaila, 2013), various researchers indicated that cloud computing is a new model and emerging technology, while (2011) NIST defined computing as a networked access model for a group of computerized resources such as networks, storage servers, application servers and services, which can be detected and released. With minimal administrative effort and minimal communication with the service provider, cloud computing (Foster et al, 2008) defined cloud computing as large-scale distributed computing with economies of scale that includes an abstract set of computing power management, virtualization, storage units, dynamic volume and on-demand services. It is a type of computing in which information technology is linked to capabilities and is highly scalable, which is provided as a service over the Internet to several external customers (Ommeren et al, 2009). The need across the network for a variety of user interface devices (Chee and Franklin, 2010)

It is a distributed, parallel computing system consisting of a set of interconnected virtual machines, which are automatically provided as one or more unified computing resources based on negotiated SLAs between the service provider and the beneficiaries (Buyya et al, 2011).

Wang, et al., (2010) defined cloud computing as a set of network services that provide personalized and cheap, on-demand secured computing platforms, which can be accessed in an easy and saturated way.

The researchers adopt a definition as a sophisticated technology that allows users to transfer and process their files and data in the cloud (technological resources over the Internet) so that this data is stored and processed within the cloud, with access to that data at any time and place whenever the Internet is available.

Cloud Computing Goals:

Eid (2013), (Alshamaila, 2013) and (Laudon & Laudon, 2017) consider that cloud computing is a modern technology that seeks to achieve the following goals:

- Providing high storage space for high quality information.
- Providing easy access to information with the ability to retrieve it at any time and from anywhere on the Internet.
- Sharing information between beneficiaries and the ease of its circulation and transmission over the Internet, regardless of the size of that information.
- Obtaining most of the operational and application software for free in most cases, which saves the beneficiary the cost, time and maintenance.
- Elimination of the need to make backup copies of information stored on personal computers and storage devices.
- Processing beneficiaries' information remotely, related to creating, deleting, modifying files or determining levels of access to them, in addition to organizing their preservation and storage.

Cloud Computing Elements:

Laudon & Laudon (2017) and (Hsu, 2014) see that cloud computing contains a number of elements, the most important of which are:

- A personal computer connected to the Internet, preferably with a high speed.
- An operating system that allows connection to the Internet.
- An internet browser that can use cloud computing.
- Cloud computing service provider.

The following figure illustrates by representing a hypothetical cloud service infrastructure.

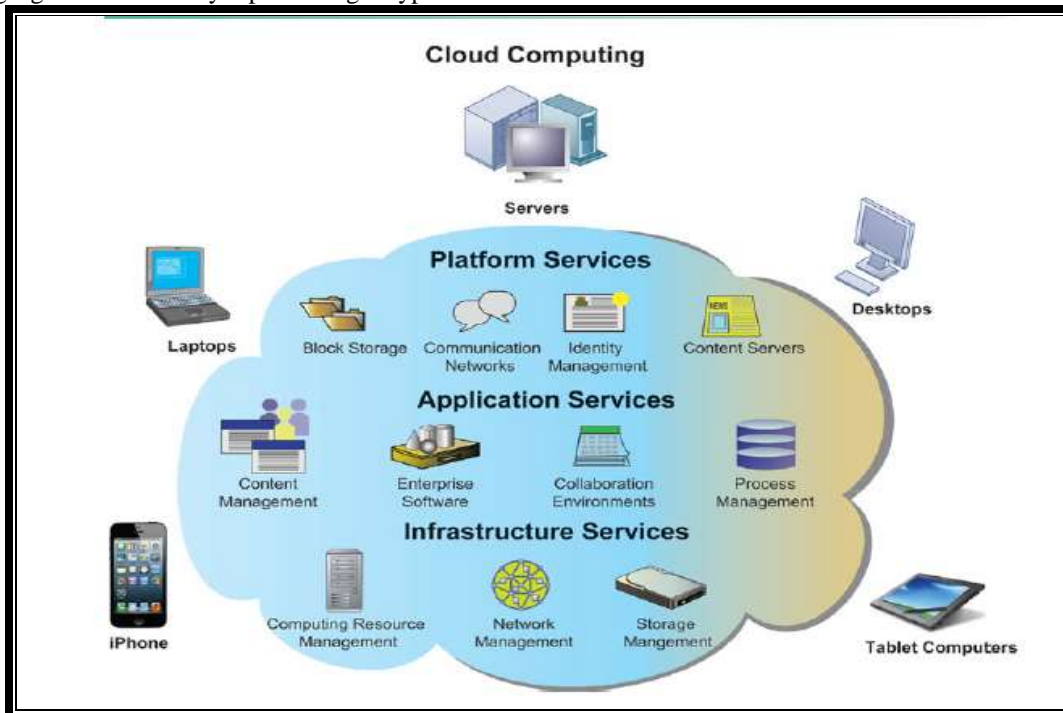


Figure 2: Elements of Cloud Computing

Source: (Laudon & Laudon, 2017)

Cloud Computing Features: According to (Masrom & Rahimli, 2015), cloud computing is characterized by a number of characteristics, the most important of which are the following:

- **User Centralization:** It means that the user, as soon as he is connected to the cloud, becomes the owner of the documents and data he stores inside the cloud, and he can share it with others over the Internet.
- **Centralization of Tasks:** where the cloud works and focuses on meeting the needs of the user and how to satisfy the needs of users through its various applications such as word processing, spreadsheets and e-mail.
- **Infrastructure Centralization:** Using the cloud helps free you from the burden of creating and managing complex operations through what the cloud provides from huge servers that help in performing complex tasks using high-spec computers.

- **Centralization of Software**, applications, and documents: It is possible to run, store and edit data in computing servers through any computer connected to the Internet, where this feature allows the possibility of using it permanently, and the service provider gives access and modification of files to clients, which enhances cooperation between members of the same group regardless of Presence.
- **Computing Power**: It is produced through the interconnection of thousands of computers and servers together.
- **Access**: Storing data in the cloud allows users to retrieve more information from a different number of repositories.
- **Intelligence**: required to extract and analyze the huge data stored on the various clouds.
- **Programming**: It is the most important requirement to enable dealing with many necessary tasks in the cloud, such as protecting information security.
- **Continuity of Service**: through easy access to data at any time and from any place where the Internet is available.

The researchers believe that one of the most important characteristics of cloud computing is the ability to access data and information by its users at any time as long as the Internet is available, as well as data sharing, as all institutions using technology can work on any file in the cloud and share it collectively.

Cloud Computing Applications as Services:

Hsu (2014) sees that cloud computing employs service-driven business models and that it can display services that are grouped into the following categories:

- Software as a Service: "SaaS"
- Platform as a Service: "PaaS"
- Infrastructure as a Service (IAAS)

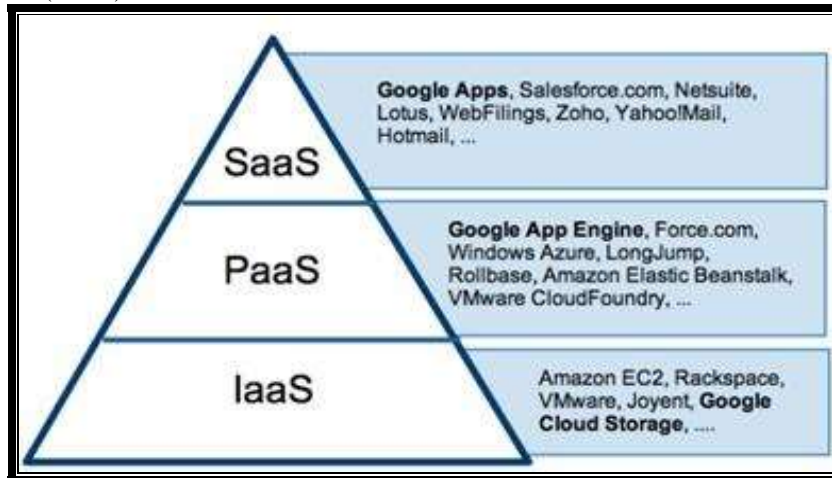


Figure 3: Computing as Services Applications

Source: (Gartner, 2009)

First- Software as a Service: It is that you use a specific application stored on the cloud, for example, a word program located in a data center and you connect to it via the Internet and write in it, modify and add data and then get the output from it, and all of this while you are on the cloud and your device is only the communication tool, and the user here cannot control Operating system in the cloud and does not control hardware or networking. YouTube can be considered in this category, as the on-site video browser is the cloud-based application with which you can access existing videos, but you cannot change anything on the site.

Second- Platform as a Service: Using the cloud as a platform to put several applications on it, and you can work on all of them. You can also put a complete operating system and there is integration between the applications. For example, you design something in Photoshop and then it is inserted into another application, so it moves and adds effects, so we get a video clip with sound. Like Google apps which is a platform that allows you to add apps at will.

Third- Infrastructure As A Service: Hardware resources (such as storage) and computing power are provided as services to clients, and the cloud is treated as an infrastructure limited to a certain processing capacity, memory size, storage space, and number of users, and you are free to use it the way that suits you. For example, you can install several operating systems, install several applications on each system, and allow a certain number of users to enter each operating system to use its applications without allowing them to be confused (Lamba & Gurdev, 2016).

Cloud Computing Classifications:

According to (Laudon & Laudon, 2017), cloud computing can be classified into four types:

1. **Public Cloud Computing:** It is one of the most common types of clouds in use and is relatively cheap to use, and it is described from a traditional perspective where the resources are provided according to the basis of self-service over the network through

web applications and services such as Google and Amazon, through a third party service provider who collects bills and expenses based on The basis of service computing (Shaath, 2014).

2. **Private Cloud Computing:** It is a type of cloud in which the infrastructure is operated within the organization and managed by the organization itself so that the organization that adopts this type of computing controls the management of data and operations without restrictions or from a third party regardless of its location, and it has several motives for its use in organizations, the most important of which are: Take advantage of the internal resources of the organization, and private computing is an option for many companies because of their increased control over the infrastructure. It is characterized by data privacy and therefore reduces security concerns, and requires a lower cost of data transmission (Dillon, 2010).
3. **Community Cloud Computing:** In this type of clouds, a number of organizations share the same infrastructure by creating a shared cloud for those organizations, and the cloud infrastructure can be hosted from one of the participating organizations or through a third party “vendor” (Dillon, 2010).
4. **Hybrid Cloud Computing:** It is a mixture between two types of computing such as public and private or community computing, and in this type, users usually use public cloud computing services to perform information processing and non-critical business operations, while information and computing business operations are kept under control using the private cloud, where the structure is Host infrastructure is a mixture of cloud host and management servers, and this is the most part, in which some nodes run on real physical hardware, and others run on cloud server models (Shaath, 2014)

Factors affecting the readiness of charities to adopt cloud computing:

Researchers studied and reviewed a number of previous literature on cloud computing, and noticed that a number of previous researchers touched on some models that contribute to the adoption of modern technologies by institutions.

1. **Comparative Advantage:** Bahour (2016) defines comparative advantage as “the extent of benefit that organizations will obtain through their adoption of advanced technologies such as “cloud computing” so that they are of greater importance than the technologies that preceded them, and reducing the cost of capital, speed in executing tasks, and flexibility are among the most important Components of the comparative advantage of cloud computing.

According to (Lin and Chen, 2011), the comparative advantage of cloud computing arising from its adoption at the technical and economic levels is an important incentive for specialists and organizations to take it into account when providing services.

researchers defines comparative advantage procedurally as the extent to which innovative and advanced technologies are considered to be able to improve business flow for the better, and these techniques are adopted when ensuring their effectiveness, and that they help to achieve economic gains.

2. **Donors' Aspirations:** Ziada (2012) indicates in his study that the goal of the donors is a humanitarian goal and not a profit, and that it aims directly to alleviate suffering, promote the interests of the poor, or other interests that serve the community, and according to (Badr, 2009) it is characterized by a number of characteristics One of the most important of them is that they are official organizations that take care of providing services directly or indirectly to meet the needs of the poor and marginalized parties, as well as work to achieve social development, and they depend in their balance on the donations they collect, or global government grants, as well as one of their most important functions is the process of oversight, and project submission Developmental relief, and issuance of reports.

Researchers defines donors procedurally as governmental or non-governmental Arab or foreign agencies that provide funding and support of various kinds to charitable institutions and their goal is charitable and not profitable.

Second - Charitable Institutions

Charitable institutions are considered among the civilizational phenomena in any country, because they show the extent of sophistication that members of society have reached in order to establish such institutions to meet with various activities that urge solidarity between members of society in various areas of life, and given the economic conditions that our Palestinian people in general and our people are going through. In Gaza Strip in particular, charitable institutions are considered one of the pillars of civil society, and one of the important pillars upon which our Palestinian society is based in light of the recurring crises of wars, repeated occupation, stifling siege and unemployment. In light of these difficult circumstances, it was necessary to establish charitable institutions in the Palestinian territories. In order to provide services and assistance to the Palestinian community, these institutions have developed day by day (Imam, 2007), however, these institutions faced many challenges, both at the internal and external levels, and the greatest impact on the work of these institutions emerged after the 2005 elections, which led to the orientation of countries The grant to provide aid to donors as an alternative to the elected government, and the work of the institutions increased after the events of 2007 and the intensification of the siege, as the number of charitable institutions multiplied. A female worker in Gaza Strip whose budgets exceeded the budget of the Palestinian government in Gaza Strip and now provides relief services to a large number of community members (Al-Aloul, 2011).

Given the importance of the role that falls on these institutions under difficult circumstances, it was necessary to study the readiness of charitable institutions to apply modern technologies represented in cloud computing in order to reach a better level of justice in the distribution of these institutions to their services, as well as work to raise efficiency and quality, both quantitatively and qualitatively through These institutions adopt modern technologies such as cloud computing in their work.

Types of Charitable Organizations:

According to (Al-sakani, 2012), charitable institutions in Palestine in general and Gaza Strip in particular can be classified according to the nature of work and the role they contribute to within Palestinian society into three groups:

1. Institutions that carry out charitable and social welfare activities with the aim of helping needy groups and include most NGOs.
2. Development institutions that aim to participate in the development process and achieve it, and work to provide the individual with the necessary training to qualify him to participate in the production process.
3. Institutions that contribute to preparing people to play a positive role in decision-making in national and international institutions, and include political activity within the state.

The number of civil and charitable institutions operating in Gaza Strip registered with the Ministry of Interior in Gaza, according to the statistic of 2022, which operate in various fields, reached 846 institutions. During his study, researchers will address only social charitable institutions, which numbered 415 institutions distributed according to the following table on the governorates of Gaza Strip

Table 1: Social charitable institutions geographically distributed over the governorates of Gaza Strip

#	The Governorate	The Number
1.	Gaza Governorate	167
2.	North Gaza Governorate	94
3.	Central Governorate	45
4.	Khan Yunis Province	66
5.	Rafah Governorate	43
Total		415

Source: General Administration of Association Affairs in the Ministry of Interior - Gaza - 2022

Methodology and Procedures:

First - Study Methodology: The researchers used the descriptive analytical approach in order to achieve the objectives of the study, through which it attempts to describe the phenomenon under study, analyze its data, and the relationship between its components and the opinions raised about it and the processes it includes, and according to (Al-Assaf, 2000), The descriptive-analytical approach did not stop at collecting information to describe the phenomenon, but went beyond that to clarify the relationship and its amount, and to deduce the reasons behind a particular behavior from previous data.

Second- Study Population and Sample: The target study population consists of workers in social charitable institutions in Gaza Strip, which number (415) institutions registered in the Ministry of Interior and the Ministry of Social Affairs for the year 2022. In order to collect data about the study, the simple random sampling method was used, taking into account considering a number of criteria that the researchers challenged to select the study sample, including:

1. That the institution be accredited and licensed by the competent authorities for a period of time and has been providing its services to citizens for 7 years.
2. The number of employees in the institution is 10 employees at least.
3. The organization has a strategic action plan.
4. Taking into account the geographical distribution of institutions at the level of Gaza Strip.
5. Taking into account the proportional representation of some international organizations so that the study includes everyone.

Study Tool: We consider the questionnaire the most widely used and widespread means among researchers, and the questionnaire is defined as "a tool that includes a number of dimensions, axes, and paragraphs used to obtain opinions or data by a group of respondents according to certain controls, and the respondents respond themselves to it, and it is written in writing" (Al-Agha, 2004), In order to conduct the applied study, the researchers prepared a questionnaire in order to measure the readiness of charitable institutions in Gaza Strip to adopt and apply cloud computing.

Table 2: Study axes distributed according to citation sources

#	Statement	Number Of Paragraphs	Source
1.	The First Axis - Comparative Advantage	5	Oliveira 2014
2.	The Second Axis - The Aspirations Of The Donors	7	Through the interview and the workshop

The Questionnaire Consisted Of 4 Main Sections:

- **The First Section:** contains personal and organizational data.
- **The Second Section:** consists of two paragraphs to know the technical methods used in the work of institutions.
- **The Third Section:** It is a measure of the readiness of institutions to adopt cloud computing. The section included 12 paragraphs spread over two axes.

The Validity and Reliability of the Resolution:

First- Apparent Honesty: The researcher presented the study tool in its initial form to a group of 11 arbitrators, specialized in the field of business administration, quality and statistics, who in turn provided advice and guidance, and amended and deleted what was necessary on the paragraphs of the questionnaire.

Second- The Validity of the Scale:

1. The Validity of the Internal Consistency of the Paragraphs of the Questionnaire:

Internal consistency honestly means the consistency of each paragraph of the questionnaire with the axis to which this paragraph belongs, where the internal consistency of the resolution paragraphs was calculated through the pilot study sample size of (30) individuals, as well as it was calculated within the final sample and added to it, by calculating The correlation coefficients between each paragraph and the total score for its axis are as follows:

Table 3: The validity of the internal consistency for all study axes:

#	Statement	Number Of Paragraphs	Correlation Coefficient	Significance
1.	The First Axis - Comparative Advantage	5	0.808	0.000
2.	The Second Axis - The Aspirations Of The Donors	7	0.787	0.000

The previous table shows the correlation coefficients between each of the axes of the study and the total average of the axes, which shows that the indicated correlation coefficients are a function at the level of significance (0.05), as the probabilistic value of each axis is less than (0.05).

The validity of the internal consistency of the first axis: comparative advantage

Table 4: The validity of the internal consistency for the first axis: comparative advantage

#	Statement	Correlation Coefficient	Significance
1.	Cloud computing allows its employees to manage administrative and technical operations in an efficient manner.	0.600	0.001
2.	Cloud computing allows organizations to share data with citizens.	0.669	0.001
3.	Cloud computing ensures a high degree of service delivery quality.	0.789	0.001
4.	The use of cloud computing provides additional opportunities for charities in operations and human resource management.	0.801	0.001
5.	The use of cloud computing improves the quality of operations	0.600	0.001

The previous table shows the correlation coefficients between all the paragraphs of the first axis: the relative advantage and the overall average for the first axis, which shows that the indicated correlation coefficients are a function at the level of significance (0.05), as the probabilistic value of each paragraph is less than (0.05).

The internal consistency of the second axis: the aspirations of the donors

Table 5: The honesty of the internal consistency for the second axis: Donors' aspirations:

#	Statement	Correlation Coefficient	Significance
1.	The use of cloud computing increases the number of beneficiaries.	0.586	0.001
2.	The use of cloud computing leads to a better level of fairness in the distribution of in-kind and cash aid.	0.89	0.001
3.	The use of cloud computing provides high levels of transparency in the distribution of in-kind and cash assistance.	0.906	0.001
4.	The use of cloud computing enhances administrative and financial control.	0.919	0.001
5.	The use of cloud computing increases the effectiveness of self-censorship.	0.911	0.001
6.	Using cloud computing prevents financial abuses	0.811	0.001
7.	Using cloud computing prevents administrative overruns.	0.835	0.001

The previous table shows the correlation coefficients between the second axes: the aspirations of the donors and the overall average for the second axis, which shows that the indicated correlation coefficients are significant at the level of significance (0.05), as the probabilistic value of each paragraph is less than (0.05).

Stability Of The Questionnaire's Paragraphs: The stability of the questionnaire is intended to give this questionnaire the same result if the questionnaire was redistributed more than once under the same conditions and conditions, or in other words, it means stability in the results of the questionnaire and not changing them significantly if it was redistributed to individuals several times

during periods of time In order to verify the stability of the study's resolution, the reliability steps were carried out on the same exploratory sample in two ways: the half-segmentation and Cronbach's Alpha Coefficient.

The Split-Half Method: The Pearson correlation coefficient was found between the average of the odd-ranked questions and the rate of even-ranked questions for each dimension. The correlation coefficients were corrected using the Spearman-Brown-correction correlation coefficient.

Where (r) is the correlation coefficient, and the following table shows that there is a relatively large stability coefficient for the paragraphs of the questionnaire, which reassures the researcher to use the questionnaire with complete reassurance.

Table 6: shows the stability coefficient (the split-half method) and Cronbach's Alpha Coefficient

#	Statement	Number Of Paragraphs	Cronbach's Alpha Coefficient	Spearman Brown
1.	The First Axis - Comparative Advantage	5	0.822	0.801
2.	The Second Axis - The Aspirations Of The Donors	7	0.798	0.811
Total		12	0.741	0.813

Cronbach's Alpha Coefficient method was used to measure the stability of the resolution as a second method for measuring the stability.

The researchers conclude from the results of the validity and reliability tests that the study tool is honest in measuring what it was designed to measure, and is very stable, which qualifies it to be an appropriate and effective measurement tool for this study and can be applied with confidence, and thus the questionnaire is in its final form.

The Results of the Field Study

Descriptive Analysis of the Study Variables:

Dividing the study sample according to the technological data used in the work:

Table 7: Distribution of the study sample by data storage locations:

Data Storage Locations		
PC	108	44.8
Server	133	55.2
Total	241	100.0

The results from the previous table showed that 55.2% of respondents reported that data is stored on private servers, while 44.8% store data on a personal computer.

Table 8: Distribution of the study sample according to data exchange with funders

Data exchange with funders through		
Gmail	58	24.1
Yahoo	7	2.9
Hotmail	176	73.0
Total	241	100.00

The previous table shows that Gmail accounted for 24.1%, while Yahoo accounted for 2.9%, while Hotmail was the most used method for exchanging data, with a percentage of 73.0%.

Answering the Study Questions:

The one-sample t-test was used to analyze the questionnaire items, and the item is considered positive in the sense that the sample members agree on its content if the calculated t-value is greater than the tabular t-value equal to 1.97 (or the probabilistic value is less than 0.05 and the relative weight is greater than 60 %), the paragraph is considered negative in the sense that the sample members do not agree with its content if the calculated t value is smaller than the tabular t value which is equal to 1.97 (or the probability value is less than 0.05 and the relative weight is less than 60%), and the sample opinions in the paragraph are neutral if Its p value was greater than (0.05).

Q1-: What are the relative advantages expected to be achieved when applying cloud computing in charitable organizations?

The one-sample t-test was used, and the results are shown in the following table, which shows the opinions of the study sample members in the first axis paragraphs, comparative advantage.

Table 9: Analysis of the paragraphs of the first axis: comparative advantage

#	Statement	SMA	Relative Weight	Standard Deviation	T. Value	Rank
1.	Cloud computing allows its employees to manage administrative and technical operations in an efficient manner.	8.42	84.20	1.24	30.346*	3
2.	Cloud computing allows organizations to share data with citizens.	8.86	88.60	1.22	36.367*	1
3.	Cloud computing ensures a high degree of service delivery quality.	8.47	84.70	1.10	34.921*	2
4.	The use of cloud computing provides additional opportunities for charities in operations and human resource management.	8.24	82.40	1.13	30.835*	5
5.	The use of cloud computing improves the quality of operations	8.27	82.70	1.08	32.569*	4
Total		8.46	84.56	9.06	134.586	

*All values are significant at the level of significance .050

Through the previous table, the results show that the relative weight of the first axis “relative advantage” (84.56%), which is the largest assumed value of the number (6), which is greater than 60.0%, and the probability value was (0.000) which is less than (0.05), which means that the respondents’ responses to This axis was positive, and researchers believes that the reason for this high percentage is due to the increasing awareness of the management of institutions of the comparative advantage provided by cloud computing for what it achieves in terms of justice in distribution, transparency in work and provision of services with high quality, in addition to activating the role of oversight, and researchers confirms that the adoption of cloud computing in The work of charitable institutions despite their high cost, but it will benefit institutions and citizens by providing a comparative advantage, and this result is consistent with the study (Bahour, 2016) and the study of Oliveira and other, (2014), and the study of (Stieninger, 2014), which confirmed the impact of The relative advantage over the adoption of cloud computing by institutions for government and service institutions, as this characteristic was considered one of the most important factors affecting organizations' adoption of computing.

Paragraph (2) “cloud computing provides institutions to share data between them and citizens” ranked first in the order of the paragraphs of this axis, as the relative weight reached (88.6%), which is greater than the number (6), which is greater than (60.0%), and the value The probability is (0.000), which is less than (0.05), which indicates that the opinions in this paragraph were positive according to the respondents. As well as contributing to increasing the number of beneficiaries by preventing the recurrence of aid distribution, which is provided by cloud computing, and it is noted that the result of the study for this paragraph with the study (Bahour, 2016) where the relative weight of the paragraph is close in both studies.

While the weakest paragraphs were Paragraph (4), which is “Using cloud computing provides additional opportunities for charitable organizations in operations and human resource management,” with a relative weight of 82.4%, which is greater than 60.0%, and the probabilistic value of the paragraph amounted to (0.000) which is less than (0.05), which indicates that The opinions of respondents on this paragraph were positive.

Q2-: How relevant are the donors' aspirations for cloud computing?

The single-sample t-test was used, and the results are shown in the following table, which shows the opinions of the study sample members in the paragraphs of the second axis, the aspirations of the donors.

Table 10: Analysis of the paragraphs of the second axis: Donors' aspirations

#	Statement	SMA	Relative Weight	Standard Deviation	T. Value	Rank
1.	The use of cloud computing increases the number of beneficiaries.	9.03	90.30	1.08	43.460*	1
2.	The use of cloud computing leads to a better level of fairness in the distribution of in-kind and cash aid.	8.99	89.90	1.07	43.330*	2
3.	The use of cloud computing provides high levels of transparency in the distribution of in-kind and cash assistance.	8.85	88.50	1.07	41.408*	3
4.	The use of cloud computing enhances administrative and financial control.	8.29	82.90	1.11	31.893*	5
5.	The use of cloud computing increases the effectiveness of self-censorship.	8.16	81.60	1.07	31.256*	7
6.	Using cloud computing prevents financial abuses	8.26	82.60	1.00	34.893*	6

#	Statement	SMA	Relative Weight	Standard Deviation	T. Value	Rank
7.	Using cloud computing prevents administrative overruns.	8.37	83.70	0.84	43.902*	4
Total		8.56	85.63	7.59	162.821	

*All values are significant at the level of significance .050

Through the previous table, the results show that the relative weight of the second axis, "donor aspirations" (85.63%), which is the largest assumed value of the number (6), which is greater than 60.0%, and the probabilistic value was (0.000) which is less than (0.05), which means that the respondents' responses to This axis was positive, and the researcher believes that the donors since the imposition of the siege on Gaza Strip have set many conditions that the institutions have dealt with to continue to receive support and provide aid, including documenting the distribution process in a cartoon form to communicate directly by donors and beneficiaries, and this What institutions sought to implement through cloud computing that provides such conditions.

Paragraph (1) "the use of cloud computing leads to an increase in the number of beneficiaries" came first in the order of the paragraphs of this axis, where the relative weight reached (88.6%), which is greater than the number (6), that is, greater than (60.0%), and the probabilistic value It is equal to (0.000), which is less than (0.05), which indicates that the opinions in this paragraph were positive according to the respondents, while the weakest paragraphs were paragraph (5), which is "Using cloud computing leads to an increase in the effectiveness of self-monitoring" with a relative weight of 81.6%, which is greater of 60.0% and the probabilistic value of the item was (0.000), which is less than (0.05), which indicates that the respondents' opinions on this item were positive.

Third- Analysis of the Dimensions of the Study Axes:

Table 11: Analysis of the dimensions of the study axes

#	Axes	Relative Weight	Arithmetic Broker	Standard Deviation
1.	The First Axis - Comparative Advantage	84.6	86.0	9.1
2.	The Second Axis - The Aspirations Of The Donors	85.6	85.7	7.6

By analyzing the levels of the study's axes as shown in the previous table, it becomes clear to the second axis, "the aspirations of the donors," the strongest axes of the study, with a relative weight of 85.6%. Researchers attribute this to the conditions and regulations that have been set by donors on charitable institutions in order to achieve transparency in work In addition, the application of such advanced technologies contributes to achieving credibility with financiers and shortening the time and effort in providing services with high quality.

The first axis is followed by the comparative advantage, as it reached a relative weight of 84.6%, and this result is attributed to the managers' awareness of the comparative advantage provided by the adoption of cloud computing for institutions in their work, most notably flexibility, and the ability to deal with difficult circumstances such as the sudden increase in the number of beneficiaries of charitable institutions services due to the economic situation in Gaza Strip.

Conclusion and Recommendations

Conclusions

The following Results and recommendations were reached:

- The study showed that charities in Gaza Strip are well prepared to adopt and implement cloud computing.
- The results showed that the relative weight of the "comparative advantage" axis reached (84.56%), and the relative weight of the paragraph "Availability of cloud computing for institutions to share data between them and citizens" was (88.6%).
- The results showed that the relative weight of the axis of "donors' aspirations" reached (85.63%), and the relative weight of the paragraph "Using cloud computing leads to an increase in the number of beneficiaries" was (88.6%).

Recommendations

The study recommended a number of recommendations, the most important of which are:

- Work on developing remedial plans to eliminate the obstacles that hinder the use of any new technology, such as cloud computing technology.
- Working on enhancing and clarifying the concept of cloud computing for employees and the mechanisms of its application and the extent of the desired benefits from it.
- The need for charitable institutions to exert more efforts in the framework of meeting the aspirations and aspirations of donors by enhancing the effectiveness of self-monitoring.
- The necessity of adopting cloud computing by charitable organizations in their work, as it achieves a competitive advantage to obtain more support and funding.

References

- [1] Abu Amuna, Y. M., et al. (2017). "The Reality of Electronic Human Resources Management in Palestinian Universities-Gaza Strip." *International Journal of Engineering and Information Systems (IJEAIS)* 1(3): 37-57.
- [2] Abu Naser, S. S. and M. J. Al Shobaki (2017). "Organizational Excellence and the Extent of Its Clarity in the Palestinian Universities from the Perspective of Academic Staff." *International Journal of Information Technology and Electrical Engineering* 6(2): 47-59.
- [3] Abu Naser, S. S. and M. J. Al Shobaki (2017). "The Impact of Senior Management Support in the Success of the e-DMS." *International Journal of Engineering and Information Systems (IJEAIS)* 1(4): 47-63.
- [4] Abu Naser, S. S., et al. (2017). "Impact of Communication and Information on the Internal Control Environment in Palestinian Universities." *International Journal of Hybrid Information Technology* 10(11): 41-60.
- [5] Abu Naser, S. S., et al. (2017). "The Reality of Electronic Human Resources Management in Palestinian Universities from the Perspective of the Staff in IT Centers." *International Journal of Engineering and Information Systems (IJEAIS)* 1(2): 74-96.
- [6] Abu Naser, S. S., et al. (2017). "Trends of Palestinian Higher Educational Institutions in Gaza Strip as Learning Organizations." *International Journal of Digital Publication Technology* 1(1): 1-42.
- [7] Abu Naser, S. S., et al. (2017). Technical Education and its Role in Promoting Entrepreneurship in the Gaza Strip. Second Scientific Conference on Sustainability and enhancing the creative environment of the technical sector Palestine Technical College - Deir Al Balah 6-7 December 2017.
- [8] Abu Sultan, Y. S. A., et al. (2018). "Effect of the Dominant Pattern of Leadership on the Nature of the Work of Administrative Staff at Al-Aqsa University." *International Journal of Academic Information Systems Research (IJAIRS)* 2(7): 8-29.
- [9] Abu Sultan, Y. S. A., et al. (2018). "The Style of Leadership and Its Role in Determining the Pattern of Administrative Communication in Universities-Islamic University of Gaza as a Model." *International Journal of Academic Management Science Research (IJAMSR)* 2(6): 26-42.
- [10] Abu-Nahel, Z. O., et al. (2020). "Flexibility of Information and Its Relationship to Improving the Quality of Service." *International Journal of Engineering and Information Systems (IJEAIS)* 4(8): 214-234.
- [11] Abu-Nahel, Z. O., et al. (2020). "Human Resource Flexibility and Its Relationship to Improving the Quality of Services." *International Journal of Information Systems Research (IJAIRS)* 4(8): 23-44.
- [12] Abu-Nahel, Z. O., et al. (2020). "Proactive Flexibility and Its Impact on Improving the Quality of Services in Hospitals." *International Journal of Academic Information Systems Research (IJAIRS)* 4(9): 19-44.
- [13] Abu-Nahel, Z. O., et al. (2020). "Quality of Service in Non-Governmental Hospitals in Gaza Strip between Reality and Expectations." *International Journal of Academic Information Systems Research (IJAIRS)* 4(7): 18-36.
- [14] Abu-Nahel, Z. O., et al. (2020). "Quality of Services and Its Role in Enhancing Strategic Flexibility in Non-Governmental Hospitals." *International Journal of Academic Accounting, Finance & Management Research (JAAFMR)* 4(10): 38-56.
- [15] Abu-Nahel, Z. O., et al. (2020). "Responsive Flexibility and Its Role in Improving Service Quality in Non-Governmental Hospitals." *International Journal of Academic Accounting, Finance & Management Research (JAAFMR)* 4(9): 38-61.
- [16] Abu-Nahel, Z. O., et al. (2020). "Strategic Flexibility and Its Relationship to the Level of Quality of Services Provided in Non-Governmental Hospitals." *International Journal of Academic Multidisciplinary Research (IJAMR)* 4(10): 57-84.
- [17] Abu-Nahel, Z. O., et al. (2020). "The Reality of Applying Strategic Flexibility in Non-Governmental Hospitals." *International Journal of Academic Management Science Research (IJAMSR)* 4(7): 144-170.
- [18] Abu-Naser, S. S. and M. J. Al Shobaki (2016). The Impact of Management Requirements and Operations of Computerized MIS to Improve Performance (Practical Study on the employees of the company of Gaza Electricity Distribution). First Scientific Conference for Community Development, Al-Azhar University of Gaza, Palestine, Faculty of Economics and Administrative Sciences, Al-Azhar University of
- [19] Abusamaan, M. N., et al. (2020). "The Behavior of Organizational Citizenship in Palestinian Police Force between Reality and Expectations." *International Journal of Academic Multidisciplinary Research (IJAMR)* 4(10): 176-197.
- [20] Abusamaan, M. N., et al. (2020). "The Reality of Determinants of Organizational Justice in Palestinian Police Force." *International Journal of Academic Management Science Research (IJAMSR)* 4(10): 137-160.
- [21] Ahmad, H. R., et al. (2018). "Information Technology Role in Determining Communication Style Prevalent Among Al-Azhar University Administrative Staff." *International Journal of Information Technology and Electrical Engineering* 7(4): 21-43.
- [22] Ahmad, H. R., et al. (2019). "Computerized Management Information Systems and Their Impact on the Job Performance of Employees at Palestinian Cellular Communications Company (Jawwal)." *International Journal of Academic Information Systems Research (IJAIRS)* 3(9): 7-22.
- [23] Ahmad, H. R., et al. (2020). "The Reality of Applying Recruitment Criteria for Coastal Municipalities Water Utility Company." *International Journal of Academic Information Systems Research (IJAIRS)* 4(3): 31-52.
- [24] Ahmed, A. A., et al. (2018). "The Impact of Information Technology Used on the Nature of Administrators Work at Al-Azhar University in Gaza." *International Journal of Academic Information Systems Research (IJAIRS)* 2(6): 1-20.
- [25] Al Hila, A. A., et al. (2018). "University Governance as an Input to Strengthen Partnership with Local Community Organizations-A Comparative Study between Public and Private Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(8): 35-61.
- [26] Al Najjar, Mahmoud T., Al Shobaki, Mazen J. and El Talla, Suliman A. (2022). The Reality of Change Strategies and the Level of Coordination and Transparency in the Readiness of Charitable Institutions in Gaza Strip to Adopt and Implement Cloud Computing. *International Journal of Academic Management Science Research (IJAMSR)*, 6 (4), Pages: 51-69
- [27] Al Najjar, Mahmoud T., Al Shobaki, Mazen J. and El Talla, Suliman A. (2022). "Supporting Senior Management and the Readiness of the Organizational Structure in Palestinian Charitable Institutions to Adopt and Implement Cloud Computing". *International Journal of Academic Information Systems Research (IJAIRS)*, 6 (3), March - 2022, Pages:1-17
- [28] Al Shobaki, M. J., et al. (2017). "Learning Organizations and Their Role in Achieving Organizational Excellence in the Palestinian Universities." *International Journal of Digital Publication Technology* 1(2): 40-85.
- [29] Al-Badi, A., Tarhini, A., & Al-Sawai, S. (2017). Utilizing Social Media to Encourage Domestic Tourism in Oman. *International Journal of Business and Management*, 12(4), 84-94.
- [30] Almasri, A., et al. (2018). "The Organizational Structure and its Role in Applying the Information Technology Used In the Palestinian Universities-Comparative Study between Al-Azhar and the Islamic Universities." *International Journal of Academic and Applied Research (IJAAAR)* 2(6): 1-22.
- [31] El Talla, S. A., et al. (2017). Technical Colleges as Smart Organizations and their Relationship to Sustainability. Second Scientific Conference on Sustainability and enhancing the creative environment of the technical sector Palestine Technical College - Deir Al Balah 6-7 December 2017.
- [32] El Talla, S. A., et al. (2018). "Organizational Structure and its Relation to the Prevailing Pattern of Communication in Palestinian Universities." *International Journal of Engineering and Information Systems (IJEAIS)* 2(5): 22-43.
- [33] El Talla, S. A., et al. (2018). "The Nature of the Organizational Structure in the Palestinian Governmental Universities-Al-Aqsa University as A Model." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(5): 15-31.
- [34] El Talla, S. A., et al. (2019). "The Reality of Marketing Services in Palestine Cellular Communications Company (Jawwal)." *International Journal of Academic Multidisciplinary Research (IJAMR)* 3(10): 77-86.
- [35] El Talla, S. A., et al. (2020). "Enhancing the Competitive Advantage in the University of Palestine: Between Reality and Ambition." *IJEAIS* 4(10): 28-38.
- [36] El Talla, S. A., et al. (2020). "The Reality of Implementing the Smart University Transformation Strategy at University of Palestine." *International Journal of Academic Management Science Research (IJAMSR)* 4(9): 35-52.
- [37] Hamdan, M. K., et al. (2020). "Creative Behavior and Impact on Achieving Lean Strategy in Organizations." *International Journal of Academic Accounting, Finance & Management Research (JAAFMR)* 4(6): 66-90.
- [38] Hamdan, M. K., et al. (2020). "Shared Responsibility, Rapid Response and Their Relationship to Developing the Creative Behavior of Organizations." *International Journal of Academic Management Science Research (IJAMSR)* 4(7): 1-21.
- [39] Hamdan, M. K., et al. (2020). "Strategic Sensitivity and Its Impact on Boosting the Creative Behavior of Palestinian NGOs." *International Journal of Academic Accounting, Finance & Management Research (JAAFMR)* 4(5): 80-102.
- [40] Hamdan, M. K., et al. (2020). "The Effect of Choosing Strategic Goals and Core Capabilities on the Creative Behavior of Organizations." *International Journal of Academic Information Systems Research (IJAIRS)* 4(4): 56-75.
- [41] Hamdan, M. K., et al. (2020). "The Reality of Applying Strategic Agility in Palestinian NGOs." *International Journal of Academic Multidisciplinary Research (IJAMR)* 4(4): 76-103.
- [42] Madi, S. A., et al. (2018). "The dominant pattern of leadership and Its Relation to the Extent of Participation of Administrative Staff in Decision-Making in Palestinian Universities." *International Journal of Academic Management Science Research (IJAMSR)* 2(7): 20-43.
- [43] Madi, S. A., et al. (2018). "The Organizational Structure and its Impact on the Pattern of Leadership in Palestinian Universities." *International Journal of Academic Management Science Research (IJAMSR)* 2(6): 1-26.
- [44] Mady, S. A., et al. (2020). "Lean Manufacturing Dimensions and Its Relationship in Promoting the Improvement of Production Processes in Industrial Companies." *International Journal on Emerging Technologies* 11(3): 881-896.
- [45] Mousa, M. S., et al. (2020). "An Analytical Study of the Reality of Empowering and Building the Capacities of Palestinian Women through Arab and International Experiences." *IJEAIS* 3(12): 37-45.
- [46] Salim, S. S. A., et al. (2018). "The Dimensions of the Lean Management of Jawwal between Theory and Practice." *International Journal of Academic Management Science Research (IJAMSR)* 2(10): 52-65.
- [47] Salim, S. S. A., et al. (2018). "The Role of the Lean Management in Promoting the Creativity of Jawwal from the Point of View of Its Employees." *International Journal of Academic Information Systems Research (IJAIRS)* 2(11): 15-33.
- [48] Zaid, A. A., et al. (2020). "The Impact of Total Quality Management and Perceived Service Quality on Patient Satisfaction and Behavior Intention in Palestinian Healthcare Organizations." *Technology Reports of Kansai University* 62(03): 221-232.
- [49] Zaqout, I., et al. (2018). "Information Technology used and its Impact on the Participation of Administrative Staff in Decision-Making in Palestinian Universities." *International Journal of Academic Multidisciplinary Research (IJAMR)* 2(8): 7-26.

- [50]NIST, N. I. (2011). , The NIST Definition of Cloud Computing. USA. Alshamaila, Y. P. (2013). Cloud computing adoption by SMEs in the north east of England a multi-perspective framework. *Journal of Enterprise Information Management*.
- [51]Bhumgara, A & Salman, M. (2015). Cloud Computing as a Tool for NGOs in India and Pakistan. *International Journal of Computer Science and Information Technologies*, 6 (6) , 5226-5237.
- [52]Budņiks, L. &. (2014). Factors Determining Application of Cloud Computing Services in Latvian.
- [53]Buyya, R., (2011). *Cloud Computing Principles and Paradigms*. United States: Johan Wiley &SONS, INC., Publication.
- [54]Dillon, T. (2010). *Cloud Computing: Issues and Challenges*. Perth, Australia: Curtin University of Technology.
- [55]Gokmen, A. (2010). Developments and Prospects in E-Government Implementation in Turkey (Vols. Vol. 2, No). Turkey: *International Journal of E-Business and E-Government Studies*.
- [56]Gupta, P. S. (2013). The usage and adoption of cloud computing by small and medium businesses. *International Journal of Information Management*.
- [57]Hsu, P. F.-H. (2014). "Examining cloud computing adoption intention, pricing mechanism, and deployment model". *International Journal of Information Management* 34(4), 474-488.
- [58]Lin, A (2012). Cloud computing as an innovation: Perception, attitude, and adoption. *International Journal of Information Management*.
- [59]Masrom, M & Rahimli, A. (2015). Cloud Computing Adoption in the Healthcare Sector: A SWOT Analysis. *Canadian Center of Science and Education*. 11(10), 12-18.
- [60]Mircea, .Computing Business Intelligence with Cloud Computing To Delivery Agility In Actual Economy.2010 .("
- [61]Oliveira, T. T. (2014). Assessing the determinants of cloud computing adoption: An analysis of themanufacturing and services sectors. . *Information & Management*, 51(5), 497-510.
- [62]Point, T. (2014). "Cloud Computing Tutorial. USA.
- [63]R, S. (2011). Cloud computing effect on enterprises in terms of Cost and Security. London: LUND UNIVERSITY.
- [64]Salah, A. A. (2010). Data Analysis Using Map Reduce programming Model on the Cloud. Qatar: Qatar Uni. Faculty of Eng. The Dep. Of Science and Eng.
- [65]Stieninger, M. N. (2014). Impacts on the organizational adoption of cloud computing: A reconceptualization of influencing factors.
- [66]Wang, L. V. (2010). Cloud computing: a perspective study. *New Generation Computing*.
- Arabic References in Roman Scripts:**
- [1]Al-Agha, Ehsan. (2004). *Introduction to educational research design*. 3. Gaza: Al-Rantissi Press.
- [2]Al-Alimi, Tharuat (2014). *Ways to benefit from cloud computing applications in providing information services in the United Arab Emirates.*" Dubai: College of Islamic and Arabic Studies.
- [3]Al-Aloul, Abdul Majid Shehdeh. (2011). *the availability of requirements for the success of electronic management application in major charitable societies in Gaza Strip and its impact on institutional readiness against corruption.* (Unpublished Master's thesis) The Islamic University, Gaza.
- [4]Al-Assaf, Saleh bin Hamad (2000). *The researcher's guide to the behavioral sciences*. Rabbad: Obeikan Library.
- [5]Al-sakani, Doaa Adel (2012). *Charitable institutions are governed by their rulings and the controls of those in charge of them and the limits of their powers.* (Unpublished Master's Thesis) The Islamic University, Gaza.
- [6]Badr, Fadi (2009). *The role of information systems in achieving a competitive advantage - a study in the Jordanian pharmaceutical industry.* (Unpublished Master's Thesis, Faculty of Economics and Administrative Sciences), Yarmouk University.
- [7]Bahour, Khaled (2016). *The availability of factors affecting the adoption and application of cloud computing in government institutions from the point of view of higher management.* (Unpublished Master's Thesis) The Islamic University, Gaza.
- [8]Eid, Nabil (2013). *Cloud computing, its meaning and use, its pros and cons.*
- [9]Gabi, Shaher (2015). *Adopting cloud computing in the Palestinian public sector, opportunities and challenges.* Nablus - Palestine: An-Najah University.
- [10]Imam, Amjad Jamil. (2007). *Charitable societies and tax evasion in the West Bank during the era of the Palestinian Authority.* Nablus - Palestine: An-Najah University.
- [11]Radwan, Aziza (2016). *The relationship of cloud computing to developing the job performance of managers working in Palestinian universities in Gaza Strip.* (Unpublished Master's Thesis) Al-Azhar University, Gaza.
- [12]Shaah, Ahmed. (2014). *A proposal for applying the government cloud to develop electronic management in the Palestinian government "Gaza Strip.* Gaza: Academy of Politics and Leadership".
- [13]Syed, Rehab Fayez. (2013). *Open Source Cloud Computing Systems "A Comparative Analytical Study.* Iraq. *The Iraqi Journal of Information Technology*. (17) 180-201.
- [14] Ziada, Fahad (2012). *The effect of training on the ability of international institutions operating in Gaza Strip to manage crises,* (unpublished master's thesis), the Islamic University - Gaza.