

A Survey on Librarian's awareness, perception, Attitudes towards cloud computing in Academic libraries

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Abstract - The study looked into librarians' perceptions and attitudes concerning Cloud Computing in the Academic library. Five study objectives were established to drive this research effort, including determining librarians' level of awareness of cloud computing, their perspective of cloud computing, their attitude toward cloud computing, and others. It used a descriptive study strategy with a quantitative approach. The study's population included 69 librarians, however a census sample approach was used to create 54 responders, and just a questionnaire was used to collect data. The Statistical Product and Services Solution (SPSS) program version 21 was used in the study to create percentages and frequencies from quantitative data that was displayed in tables. The study's findings found that librarians are aware of Cloud Computing technology; they have a favourable impression of it and are open to it, among other things. It was therefore recommended that library directors always urge workers to not only be aware of new technologies but also to take a risk in implementing these technologies. They ought to make an effort to pay for workers to attend more seminars, conferences, and studies.

Key Words: Cloud computing, librarians, academic libraries, perspective, attitude.

1. INTRODUCTION

Today, the world is changing geometrically and profoundly for the better in the field of technology. Today, people across the board of the economy are beginning to think creatively and find new, more productive ways to do tasks. This has been a top priority for libraries and librarians in their efforts to fundamentally transform the library industry. Today's librarians talk about maker spaces, computerization, digitization, and the cloud library sector. Computerization, digitization, maker spaces, cloud computing, and other technical advancements are topics that librarians discuss today. According to Yuvaras (2015), cloud computing is a computing type in which a vast number of IT devices, including computers, are usually used to offer services. The term "cloud applications" refers to any web-hosted application. There will no longer be a need for users

to install a particular application on their computer when librarians employ cloud computing apps to provide statistics services; instead, librarians will use applications that can be accessed remotely. According to Majhi, Meher, and Maharana (2015), cloud computing is a type of technology that allows for the sharing of services and information resources over the internet rather than on a local server or personal devices. According to the preceding definitions, cloud computing (CC) is just a system that pools resources for quick online unlimited access. In this day and age of library technology, It is claimed that using internet technology, Numerous clients of outside libraries are given access to some scalable data or information resources in the form of services. In the form of services to various external library patrons using internet technology. Sudhier and Seena (2018) defined IaaS (infrastructure as a service), PaaS (platform as a service), SaaS (software as a service), and DaaS (desktop as a service) as concepts that support cloud computing in our libraries. They defined IaaS as a virtualized computer infrastructure, and PaaS as an integrated platform for developing, analyzing, testing, deploying, and supporting web appliances. SaaS is a business model that encourages software companies to build and support their products. DaaS is regarded as a more advanced platform than SaaS. service) and DaaS (Desktop as a service). As a result of the preceding discussion, it is evident that the concept of cloud computing cannot be overstated because it enables librarians to offer a variety of services using the internet. The resources may include, but are not limited to, tools and applications such as software, data, servers, databases, networking/internet, storage, and so on. platform ahead of SaaS. Instead of the traditional method of storing documents and files on a proprietary hard drive for future access.

Frankenfield (2019) backed this up by claiming that cloud computing is so named because the information is accessed remotely, either in a virtual environment or in the cloud. According to Huang, Liu, and Liu (2012), with the support of a network in cloud computing, learners can receive a lot of information and communicate with each other quickly and effortlessly, and learning is no longer limited to the classroom. Although several studies have been

conducted on various aspects of cloud computing, such as Majhi, Meher, and Maharana (2015) on awareness and usage, Ashktorab, & Taghizadeh, (2012); Agandi, Agandi, & Gull, (2013); Pal, (2013); Tritt, & Kendrick, (2014), and Yuvaras (2015) on problems and prospects, Swapna, & Biradar (2017), and Sudhier & Seena (2018) on adoption in terms of cloud computing technologies. However, no poll of librarians' perceptions and attitudes about cloud computing technologies has yet been conducted at the Academic Library. The study aims to determine the degree of knowledge about cloud computing as well as to discover how Academic librarians perceive cloud computing, to investigate librarians' attitudes toward cloud computing adoption, to discover the benefits of cloud computing in libraries, and to navigate the challenges encountered in cloud computing adoption.

2. REVIEW OF LITERATURE

2.1 Awareness of cloud computing by Academic Librarian

Cloud computing, which provides users with better performance by simplifying and centralizing storage and processing, is popular with some libraries, while others are not. Patel (2014) stated that libraries are very well aware of the concept of cloud computing, adding that libraries always welcome cloud services such as access to journals, electronics, statistics, digital library hosting and other services. Services and Transactions. Patel (2014) stated that libraries are very well aware of the concept of cloud computing, adding that libraries always welcome cloud services such as access to journals, electronics, statistics, digital library hosting and other services. Services and Transactions. Cloud computing seems very common in 21st century libraries and may not be available in a few libraries in developing countries. To achieve this goal, Seena and Sudhier (2014) argue that international librarians are aware of CC and use CC in many areas they may not be aware of. For example, online hosting, library automation, digital libraries, etc. Seena and Sudhier (2014) investigated librarians' attitudes towards cloud computing: The Case of Kerala University Library. The results showed that most of the librarians (42.16%) did not know about CC technology, while 21.57% of respondents did not know about CC technology. Muhammed et al. (2017) noted that while encouraging libraries to raise awareness of cloud computing, 75% of respondents said they understood how cloud computing works. Contrary to this view, Motamedian (2011) states in his research titled "Cloud Computing Impressions of Consumers" that 23% of the participants do not know the concept of cloud computing and believe that the scale of cloud computing is at an acceptable level. about. Therefore, it is recommended that libraries increase their efforts to promote the concept of cloud computing.

2.2 Academic Librarians' Perceptions of Cloud Computing

Librarians have conflicting views on the usage of cloud computing technology. For example, Yuvaras (2015) discovered, while using the technological Acceptance technological Model (TAM) to analyze librarians' attitudes toward the usage of CC, that librarians nowadays regard CC as a simple technology to embrace. Burger (2019) contends that the use of cloud computing may not be a beneficial shift as often assumed because there are other difficulties and ramifications to consider, such as whether librarians have technological skills. Other experts have discovered that cloud computing technology is without a doubt a birth that will revolutionize the economy across industries. This was mentioned by Muhammad et al. (2017) when they determined that 70% of their respondents agreed that the CC is a relatively new technology that will be useful not only in libraries but in other areas of life. In keeping with this, Motamedian (2011) discovered that 78% of respondents believe cloud computing is a dynamic notion that will steadily mature and never fade away, while 22% disagree. It is critical to have a good attitude about a certain technology before it can be fully embraced for use. According to Phaphoom, Wang, and Abrahamson (2013), the notion of CC has brought a very substantial alteration to national development; thus, individuals in both academics and other surroundings regard it as a heartwarming shift in the computer service paradigm.

2.3 Librarians' attitudes regarding cloud computing adoption

The adoption of cloud computing is perceived differently by librarians in different libraries. According to a survey by Seena and Sudhier (2014), most experts agree that cloud computing applications improve the quality of library services. This shows that librarians value cloud computing technologies positively. Similarly, research by Pal (2013) and Swapna and Biradar (2017) found that libraries are migrating their services to the cloud, where they can access existing applications and documents from anywhere, anytime via networks and other features. This tells us that the adoption of cloud computing enables librarians to access library materials regardless of their geographic location (Abidi & Abidi, 2012; Tritt & Kendrick, 2014; Swapna & Biradar 2017). However, a study by Yuvaraj (2015) raised concerns about cloud computing and showed that the transition from terrestrial to cloud solutions comes with uncertainty about whether cloud computing is the best answer to users' needs. This plainly demonstrates that, despite some people being enthusiastic about cloud computing, others are reluctant to adopt it, as the literature shows. According to Tritt and Kendrick (2014), some librarians prefer to store their information on hard drives that they have access to rather than in the cloud. This appears to be due to librarians' distrust of the cloud as a

place to store their data. On the other hand, Yuvaraj (2015) pointed out that there is a misconception that moving a library to the cloud eliminates the need for IT staff in the library since all the work is done by the cloud service providers.

3. Objectives of the Study

- To assess Academic Librarians' knowledge of cloud computing.
- To learn how academic librarians think about cloud computing.
- To explore librarians' attitudes about cloud computing usage.

4. Methodology

This study was conducted at Academic Libraries due to their lengthy history of using ICT to provide users with library services. The study employed a descriptive research methodology to ascertain librarians' perceptions and attitudes concerning cloud computing in the study area. This study used a quantitative approach to determine the amount of librarians' understanding of CC perspectives and attitudes toward cloud computing adoption. To obtain 54 respondents for the study, a census sample method was used, and Information was gathered via a questionnaire. Version 21 of the Statistical Product and Services Solution (SPSS) was used in the study to compute percentages and frequencies from quantitative data supplied in tables.

5. Data Analysis

The respondents were questioned about their gender, amount of education, and employment history. These elements were crucial because they influence people's viewpoints and attitudes toward cloud computing. After processing the responses, the results are displayed in Table 1-3.

Table 1: Sex of respondents

Gender	Frequency	Percentage (%)
Male	36	66.66
Female	18	33.34

Source: Field data, 2023

Table 1 showed that men made up the majority of respondents, accounting for an average of (66.66%), while women made up an average of (33.34%) of the respondents.

Table 2: Responders' level of education

Qualification	Frequency	Percentage%
First degree	11	20.37
Master degree	38	70.37
PHD	5	9.26

Source: Field data, 2023

Table 2 showed the respondents' educational backgrounds, showing that master's degrees were most common, followed by first degrees and PHDs with 5 librarians.

Table 3 : Responses' professional background

Number of years	Frequency	Percentage%
below 5 years	25	46.30
6-15 years	20	37.03
above 16 years	9	16.67

Table 3 shows the working experience of the librarians; 25 (46.30%) have less than five years' experience, 20 (37.03%) have between six and fifteen years' experience, and nine (16.69%) have more than 16 years' experience.

Table 4: Academic librarians' level of familiarity with cloud computing (CC)

S no	Questions	Frequency	Percentage %
1	I am aware of the recent advancement in information technology known as cloud computing (CC).	40	74.07
2	Cloud computing is used to distribute information to libraries effectively.	25	46.29
3	I am aware that cloud computing includes the components IaaS, PaaS, SaaS, and DaaS.	18	33.33
4	A database with remote access is created using cloud computing.	22	40.74
5	Cloud computing makes it simple to access information resources through the network.	31	57.40

Source: Field data, 2023

Table 4 reveals awareness of cloud computing among librarians. Given that 40 (74.07%) of respondents identified themselves as being knowledgeable about cloud computing,

Table 5: Perception of cloud computing by Academic librarians

S no	Questions	Frequency	Percentage %
1	I believe that cloud computing is highly beneficial for my career.	32	59.24
2	I consider cloud computing to be merely mediocly useful.	9	16.66
3	I consider cloud computing to be a major distraction from my work.	6	11.11
4	I believe that cloud has slowed down my professional progress.	3	5.55
5	CC makes it simple to access information resources through the network.	4	7.40

Source: Field data, 2023

Table 5 reveals that 59.24% of Librarians believe that CC is highly valuable for their careers, while 16.66% believe that CC is just slightly useful.

Table 6: Attitude towards cloud computing by Academic librarians

S no	Questions	Frequency	Percentage %
1	Cloud computing is not something I want to undertake at my library.	10	18.51
2	I don't use cloud computing because it's a challenging task.	9	16.66
3	Accepting cloud computing will take me a long time.	5	9.25
4	Each and every library needs to use cloud computing.	30	55.55
5	Cloud computing is not something I want to undertake at my library.	10	18.51

Source: Field data, 2023

According to data in Table 6, librarians believe that CC must be implemented in their libraries (55.55%), followed by (18.51%) who don't want it there, (16.66%) who think it's a difficult undertaking, and (9.25%) who think it will take several years.

Conclusion and Recommendations

The study was conducted to ascertain academic librarians' perceptions, attitudes, and awareness of cloud computing. It was based on existing literature. Members of the research team were selected from a group of academic librarians in Chennai who were the focus of the investigation.

Based on the study's findings, it can be said that academic librarians are familiar with cloud computing and are aware of its advantages. Libraries, universities, and other stakeholders should utilize the use of cloud computing for the purpose of deploying new education systems everywhere and anytime in order to enhance speedy delivery of learning services and facilities. For scholars, this is an intriguing development because no library or librarian in the twenty-first century will ever prosper without fully embracing computerization and new technology. Therefore, this study came to the conclusion that knowledge of and a favorable perception of cloud computing are not sufficient. In order to achieve this goal, librarians from all nations are recommended to ensure that this relatively new technology

is fully included into their daily operations, especially when providing user support. Without a doubt, this will improve their work's efficacy and efficiency. Another suggestion is for library directors to constantly encourage their staff to adopt new technology and to make an effort to send personnel to training sessions, seminars, and conferences.

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