

Cloud Computing Services and Communication Efficiency in Financial Institutions in Bayelsa State

Michael Joshua Ayawei Ph.D

Department of Office and Information Management, Faculty of Management Sciences, Niger Delta University, Bayelsa State

Email: ayaweim@yahoo.co.uk

DOI: 10.56201/rjmcit.v10.no5.2024.pg101.117

Abstract

This study investigates the empirical relationship between cloud computing services and communication efficiency in financial institutions in Bayelsa State. This study adopted the cross-sectional survey research design to collect data from employees of multiple financial institutions. Purposive sampling technique was used to identify 128 employees of two financial institutions and two insurance firms in Yenagoa Metropolis, Bayelsa State, which form the study sample size. Structured questionnaire was used as the instrument for primary data collection. The data collected was thoroughly analyzed using both descriptive and inferential statistics with aid of SPSS software, version 23.0. From the analysed data, it was revealed that the dimensions of cloud computing as a positive and significant relationship with communication efficiency. In conclusion, it was revealed that cloud computing services has a significant relationship with communication efficiency among financial institutions in Bayelsa State, Nigeria. It was revealed that businesses should put money into training and development programs that last so workers can master cloud computing.

Keywords: *Cloud Computing Services, Communication Efficiency, Financial Institutions, Email Services*

Introduction

One of the most recent developments in IT infrastructure, cloud computing is a strong and extensively used way to distribute and manage IT resources, especially in developed countries with quickly growing infrastructure and cloud-based services. Some of the benefits of cloud computing may be obscured by the systemic character of these services, which is becoming increasingly important (Wee-Xin, 2016). Businesses all over the globe have been able to improve their data access and extraction capabilities because to the big data revolution that happened not long ago (Niazmand, 2015). With the present IT infrastructure reaching its limits, new digital solutions are being sought, particularly in the banking sector where cloud computing is a game-changer (Sivarajah & Kamal, 2016).

According to Weistroffe et al. (2019), many professionals in the field of information and communication technology see cloud computing as a major technical breakthrough that will have far-reaching effects on every industry. New technologies, such improved mass storage and the

creation of extremely fast processors that can handle data at unprecedented rates, are swiftly changing cloud computing. The necessity to spend money on vital infrastructure has been drastically diminished because to this technology's emphasis on resource sharing.

New businesses will likely spring up to meet the public and private sectors' surging need for cloud services as a result of the predicted expansion of cloud computing (Munya, 2017). Like distributed computing, cloud computing has its benefits and drawbacks. Without having to spend a fortune on technology, small and medium-sized businesses may compete with larger firms. Users can access utilities, social networking services, and storage online, for example. This frees up their time and energy to concentrate on providing superior goods and services (Xue, 2016). While the majority of cloud services do demand a fee, there are a few that are free. If we take Google Apps—which includes Gmail, Google Talk, and Google Docs—as an example—they offer web-based versions of frequently used programs. Rather than storing them on users' own devices, Google's servers house these applications, along with social networking services and data. The basic version is freely accessible for individual usage (Bidgoli, 2016).

When it comes to information technology (IT) resources like networks, storage, data centres, and social media services, cloud computing provides a paradigm for network access that makes it easier to access these resources on demand over the internet. With little involvement from management or service providers, these resources may be deployed and released rapidly. Rather than using local servers or personal computers, this approach reflects a new paradigm in computing that depends on the internet to access information and other IT resources (Bidgoli, 2016).

Businesses may save a lot of money on IT expenses by switching to cloud computing. Cloud services may be scaled up or down according to demand and are priced on a per-use basis. Cloud computing is a great way for businesses to disseminate non-proprietary data and services since it is both affordable and easily accessible (Mago, 2018). Users may easily access these components by just paying for online services and resources thanks to cloud storage for services like email, shared files, and apps. With cloud computing, companies may more easily provide dependable services to clients worldwide. Cloud computing has the potential to be the most groundbreaking technology development of the 21st century, according to some experts (Muhammed et al., 2015). This is especially true if the technology is firmly established and users from all over the world are able to trust it.

Financial organisations including insurance firms, microfinance institutions, and financial institutions have found cloud computing to be quite beneficial. Banks have been able to automate their transaction storage systems because to the widespread use of cloud computing in financial organisations (Mwakisole et al., 2018). This has greatly reduced the requirement for human calculation of financial data. According to Kumar (2017), banks can save a lot of money by moving their email and social media services to the cloud. This includes a decrease in capital expenditures, as well as operational and administrative costs for things like power consumption, cooling systems, ICT staff salaries, social media licensing, email service maintenance, and power consumption.

This has led to the migration of several corporate apps to the cloud. The fast adoption of cloud apps by organisations over the past decade has given investors peace of mind over the expenses of deploying social media and email services as backups for their businesses (Niharika & Ritu, 2015). Cloud computing is expected to further increase its market share in the future, given its present development trajectory. Nevertheless, cloud computing's complete importance is still little understood, even though it has been widely used (Lui, 2011). It is for this reason that we set out to investigate how cloud computing services affect the efficacy of internal communications in the workplace.

Problem Statement

The infrastructure and cloud-based services of cloud computing are quickly growing in industrialised nations, where they are a dynamic tool for sharing and managing IT resources. Cloud computing is a well-respected sophisticated technology in the IT infrastructure industry. Financial organisations and banks, because of their very structure, frequently miss out on the advantages that cloud computing provides, despite the fact that these services are becoming more commonplace. Experts in banking and information technology have made it a top priority to ensure the safety of cloud banking in light of this trend. This is because, according to experts, comprehensive digital electronic banking services are crucial for enhancing security, improving service quality, and decreasing banking costs.

Problems may arise for financial organisations like financial institutions that haven't kept up with the times in terms of the competitive technological infrastructure needed to provide stable cloud computing services. Because of the high expense of innovation, these institutions may have passed up opportunities to gain an edge over their competitors by not using certain cloud services that may have improved their service delivery. Whether or not financial institutions in Bayelsa State have benefited from cloud computing is an open question. Furthermore, research on the novel idea of cloud computing services and their effect on effective communication in financial institutions is lacking. Consequently, the purpose of this research is to determine whether or not financial institutions in Yenagoa, Bayelsa State, have successful office communication strategies that use cloud computing.

Aim and Objectives

The main aim of the study is to investigate the relationship between cloud computing services and communication efficiency in financial institutions in Bayelsa State. Specifically, the study looked at:

1. To examine the relationship between email service and communication efficiency in financial institutions in Yenagoa, Bayelsa State.
2. To find out the relationship between cloud storage service and communication efficiency in financial institutions in Yenagoa, Bayelsa State.

Research Questions

1. What is the relationship between email service and communication efficiency in financial institutions in Yenagoa, Bayelsa State?

2. What is the relationship between cloud storage service relate with communication efficiency in financial institutions in Yenagoa, Bayelsa State?

Hypotheses

Based on the research questions, the following null hypotheses were developed:

Ho₁: There is a no significant relationship between email service and communication efficiency in financial institutions in Yenagoa, Bayelsa State.

Ho₅: There is no significant relationship between cloud storage service and communication efficiency in financial institutions in Yenagoa, Bayelsa State.

Conceptual Review

Cloud Computing Services

The advent of cloud computing has revolutionised the information technology industry by providing a paradigm for the on-demand provisioning of storage, processing capacity, and applications over the internet. Software as a service, infrastructure as a service, and platform as a service are the three basic ways these services are classified. Many different types of businesses have been using the cloud model because of its adaptability, scalability, and low overhead.

Principles such as on-demand self-service, widespread network access, resource pooling, quick flexibility, and measurable service are the engine that propels the cloud computing paradigm. To comprehend the effects of cloud computing on several parts of technology and company operations, empirical studies are becoming more important as more and more companies move their activities to the cloud. Research on cloud computing's effects on efficiency, safety, expense, and adaptability in the workplace is the focus of this article.

The efficiency of cloud-based software is a common topic in empirical research. Location, network capacity, and cloud provider design are a few of the many aspects that might affect latency, a crucial component. Cloud services offer adequate performance for the majority of applications, according to studies. However, apps that are sensitive to latency may not work well in the cloud. Application deployments in the cloud may provide difficulties for low-latency interaction apps unless they are specifically designed for this type of environment, according to research by Armbrust et al. (2010).

One of the most lauded aspects of cloud computing is its capacity to dynamically scale resources. How well and how scalability affect performance in cloud settings have been the subject of empirical research. While most cloud systems offer great scalability, the efficacy of this scalability might differ depending on demand patterns and the particular cloud provider, according to research by Ali-Eldin et al. (2012). In order to optimise resource utilisation and sustain performance levels, the study emphasised the significance of auto-scaling techniques.

Influence on HPC: Applications that typically operate on specialised hardware, such as high-performance computing, have also been tested in cloud settings. While cloud systems may run HPC programs, Evangelinos and Hill (2008) found that performance suffered owing to virtualisation costs and network delay. The disparity in performance between on-premises and cloud-based HPC has been widening for some time, nevertheless, thanks to developments in cloud computing.

The Cloud for Artificial Intelligence and Machine Learning: Further, there is a rising tide of interest in cloud-based AI and ML implementations. Cloud computing offers the scalability and processing capacity needed for artificial intelligence and machine learning applications, according to empirical research. Zhang et al. (2019) investigated the potential of AI services hosted in the cloud and discovered that they might greatly shorten the time it takes to create and release AI apps. The report also stressed the significance of privacy and data security in AI settings hosted in the cloud.

Green Cloud Computing: As people become more conscious of the need to live sustainably, they are doing empirical research to determine how efficient cloud computing is in terms of energy use. Green cloud computing tactics were studied by Buyya et al. (2010). These included data centre powering from renewable sources and optimising resource use. Although cloud computing can result in energy savings when compared to conventional IT infrastructures, the study concluded that there is ample opportunity to further enhance the environmental friendliness of cloud services.

Cloud computing has brought about a sea change in how organisations function by providing them with scalability, cost effectiveness, and flexibility like never before. The advantages and disadvantages of cloud computing have been better understood thanks to empirical investigations. Our understanding of the effects of cloud computing on application performance, security, cost, business agility, and innovation has been greatly enhanced by these research. Ongoing empirical research is crucial for staying ahead of the curve in cloud computing and making the most of new possibilities as they arise. Future research will most certainly concentrate on a variety of topics, including the growing popularity of cloud-based artificial intelligence and machine learning, the need for more environmentally friendly cloud solutions, and the ways in which cloud computing is integrating with edge computing. When companies have a firm grasp of the facts around cloud computing, they are better able to embrace and optimise cloud services to suit their unique requirements and goals.

Cloud computing has been around for a while, and many academics have tried to pin it down since then. But to this day, no one term has come close to encapsulating what this phenomena is all about. Researchers in domains as diverse as business and education investigate cloud computing, leading to a proliferation of competing definitions. The most important thing to consider when trying to define cloud computing is whether or not the explanation provides a satisfactory description of the cloud computing paradigm. According to Munya (2017), cloud computing is defined by a number of features, deployment methodologies, and delivery models. Examining these features and models is crucial for getting a good grasp on cloud computing and how it works as a service, particularly in regard to the price and security issues that come with it.

Email Service

Email is now among the most widely used information technologies in an organisational context. Email has become so integral to modern communication that many companies rely on it for administrative and business-related tasks. In spite of its humble beginnings as a means of electronic communication, email has developed into so much more throughout the years. In modern times,

email systems have evolved into personal productivity tools that incorporate capabilities like messaging, task management, project management, document interchange, and knowledge and document repositories. This is by no means an all-inclusive list; after all, the only thing limiting email systems' possibilities is the user's imagination.

There is a lot of evidence that shows how email and other forms of computer-mediated communication increase efficiency and effectiveness. The use of new media, such as email, has been the subject of several investigations into theories of media choice. Despite the lack of a conclusive model for media choice in organisational contexts, email usage has grown to the point that it is anticipated and accepted in the majority of contemporary organisational settings. This naiveté about email, meanwhile, is starting to shift. Weber (2004) writes an important editorial about how we need studies to determine the internal and external costs of email for today's workforce. Weber demands further research into the effects of email on people, teams, and businesses in order to fully grasp the magnitude of this medium's influence.

Among the many problems that Weber identifies with email, which affect both senders and receivers, are the following: the amount of work involved in managing email, the accumulation of unread messages, the pressure to reply immediately, the misuse of email, and its interference with personal time, travel, and non-work hours. Some people even get to the point where they can't stop thinking about email. Weber concludes that email has a high probability of having a detrimental effect on personal productivity. Everyone can see these drawbacks now, and businesses and people alike are paying a price for email. This paper intends to expand upon Weber's earlier work by delving more into the negative features of email and suggesting a methodology to study the correlation between these affects and personal productivity on the job.

Cloud Storage Service

One of the most consequential technical developments of the modern period, cloud computing has altered the way in which people engage with online services. The media has taken an interest in it, and several books and journals have discussed its features and its uses. Cloud storage, one component of cloud computing, has changed people's views on and approaches to data management in profound ways. Dropbox, iCloud, and Google Drive are just a few examples of the ubiquitous cloud storage and file management services that are revolutionising the way we live our lives.

One of the most important aspects of the internet's impact on global connectivity is cloud storage, which facilitates the sharing of data and the interaction with services across various users, apps, and devices all over the globe. Because it is available at all times and from any location, cloud storage is quickly replacing traditional utilities. Cloud computing and cloud storage will form the foundation of future advancements in the internet due to its features, which include high performance, adaptability, capacity, and security. Distributed databases, mobile computing, search technology, and the Internet of Things (IoT) are all becoming better thanks to these technologies, which is great news for users.

One of the most important parts of cloud computing is cloud storage, which is a huge improvement over previous storage methods. Users' demands for reliable, high-capacity, secure, and reasonably priced data storage solutions are met. A more flexible alternative to conventional storage technologies, cloud storage makes use of software to link and enable cooperation among different storage devices. But new problems with data management, dependability, and security arise as a result of this change.

Communication Efficiency

The ability to communicate clearly and concisely in the workplace is essential for every company that wants to succeed since it increases productivity, creativity, and morale. To ensure that information is communicated properly and effectively, office communication comprises numerous forms, including spoken, written, non-verbal, and digital contacts. Having productive conversations at work is about more than just getting your point across; it's also about getting to know each other and developing rapport. Drawing on current research and ideas, this essay delves into what makes for effective workplace communication, shedding light on both the most prevalent obstacles and the most effective solutions.

Effective business communication revolves around being clear. Being clear reduces the chances of misunderstanding and miscommunication by making sure the information gets across as intended. In diverse workplaces where not all employees may have the same background or technical skills, it is extremely important to avoid using jargon and stick to simple message in order to communicate clearly (Duarte and Snyder, 2019). Misunderstandings are more likely to occur in written communication due to the lack of non-verbal clues (Hinds & Mortensen, 2005). To be clear, one must also adapt one's message to the requirements of one's audience, taking into account things like the complexity of the subject matter, the listeners' prior knowledge, and the setting in which one is communicating.

Active listening is another important skill for effective communication in the workplace. Making sure you understand what the speaker is saying requires active listening, which is giving them your undivided attention and offering comments or questions to clarify. By showing appreciation and respect for the speaker, this method not only aids in proper information reception but also has the potential to improve trust and interpersonal connections (Brownell, 2012). Researchers have discovered that companies with a strong emphasis on active listening in their company culture have happier and more engaged employees (Robinson & Stubberud, 2012). In management communication, active listening is crucial since it helps with comprehending employee opinions and concerns, which in turn leads to better decisions and a more inclusive workplace.

Theoretical Framework

Technology Acceptance Model

This theory, which originates from the idea of reasoned action, was created to tackle the domain of electronic systems. Davis first suggested it in 1986 (F. D. Davis 1986), then in 1989, Davis, Bagozzi, and Warshaw improved upon it (Davis, Bagozzi & Warshaw, 1989). Two important metrics, perceived usability and perceived utility, have been supplanted by the Theory of Reasoned Action (TRA) components of behavioural attitude and subjective norm in the Technology

Acceptance Model (TAM). Despite the fact that behavioural variables still impact TAM, these two measurements differentiate it from TRA. When it comes to computers, the TAM model is all about how helpful and easy the technology is seen to be.

Perceived usefulness, according to Davis, is the subjective perception that a certain application system will enhance a potential user's job or life performance. A number of external factors, including social, cultural, and political aspects, impact users' perceptions of a system's ease of use and its utility, two of the most important drivers of actual system utilisation, according to TAM. Language, abilities, and environmental circumstances are examples of social elements, whereas political considerations include the impact of governmental choices and crises on the adoption of technology. While behavioural intent describes how likely it is that a person would actually utilise the technology, user attitude describes how they feel about the usefulness of a particular application inside an information system.

Because it offers a framework for comprehending technological acceptance and helps to forecast the uptake of new information resources, the Technology Acceptance Model (TAM) is extremely pertinent to this research. The study found that when people are comfortable with technology, they are able to take more initiative, be more adaptable, and make better use of the information they have, all of which contribute to higher productivity.

Empirical Review

Cloud computing's function and its uses in the financial industry were investigated by Muhammad and Raina (2023). A new age in information technology has begun with the rise of cloud computing, which has revolutionised the way IT demands are addressed and is the centre of attention for all chief information officers. As a result, many financial institutions are turning to cloud computing to keep up with customer demand. Business models made possible by cloud computing allow for more efficient use of IT resources, faster time-to-market, better collaboration, and more creative consumer experiences. Banks are able to quickly adapt to changing business requirements because of this. The article is a great resource for learning about the banking industry's cloud adoption hurdles, different business strategies, and cloud service providers.

The Brandt Algeria Company in Setif, Algeria was the site of Hwerizi's (2022) investigation into the effects of cloud computing on worker productivity. A questionnaire was the principal instrument for gathering and analysing data in the study, which made use of quantitative approaches. The sample for this study consisted of 51 of the 57 questionnaires that were sent out. An analysis of the data was carried out using SPSS V.25. Brandt Algeria makes heavy use of cloud computing, according to the results, and there is a good correlation between cloud computing and employee productivity.

Brown (2022) looked at how some financial institutions in Ilala Municipality fared after adopting cloud computing and how it affected their overall performance. The purpose of this research was to identify the benefits and drawbacks of cloud computing for financial institutions, as well as to determine how this technology might increase operational efficiency and customer happiness. The researchers used both basic random and selective selection methods to choose 70 participants to fill out the survey. We used surveys to gather data, and then we used quantitative tools to analyse it. Using SPSS, we computed descriptive statistics like percentages and frequencies and ran multiple regression analysis. Cloud computing enhances operational efficiency in banking by

integrating various data and operational systems, according to the results. Cloud computing education should be instituted by the government, and service providers should work to remove the obstacles to adoption, according to the report. Also, cloud computing should be more widely known through the organisation of seminars and other activities. Cloud computing in sectors with heavy information management demands warrants more investigation, according to the report. In their study of broadcast media firms in Rivers State, Nigeria, Bestman and Akpan (2021) looked at how cloud computing architecture affected organisational performance. This research employed a cross-sectional survey approach to examine Infrastructure-as-a-Service (IaaS) in the context of cloud computing. The Taro-Yamene formula was used to establish the sample size of 158 managers and department heads from the target population, which comprised 24 broadcast media firms. The Cronbach Alpha coefficient was used to confirm reliability, and it was found that all items scored over 0.70. With the use of SPSS version 23.0, we ran tests at a 0.05 significance level and a 95% confidence interval using Spearman's Rank Order Correlation Coefficient to test our hypotheses. If media companies invest in better software, hardware, and platforms, the study shows that cloud computing architecture may boost organisational excellence. To survive in today's cutthroat business climate, it advised media companies to prioritise cloud computing infrastructure.

Methodology

This study adopted the cross-sectional survey research design to collect data from employees of multiple financial institutions. Purposive sampling technique was used to identify 128 employees of two financial institutions and two insurance firms in Yenagoa Metropolis, Bayelsa State, which form the study sample size. Structured questionnaire was used as the instrument for primary data collection. Cronbach's alpha technique was employed to ensure the reliability of the instrument, which produced a p-value of 0.86. The data collected was thoroughly analyzed using both descriptive and inferential statistics. Descriptive analysis, involving mean scores and standard deviations, was utilized to examine demographic and univariate data. Spearman's Rank Order Correlation Coefficient was employed for inferential analysis to assess the strength and direction of relationships between two variables. Data analysis was performed using SPSS software, version 23.0.

Analysis, Results and Discussion

The study employed both bivariate and univariate analyses. Bivariate tables presented the hypothesis test results between information-sharing dynamics and workplace cohesion, highlighting the correlation between variables. Spearman's Rank Order Correlation Coefficient was used with a significance level of 0.05. A p-value below 0.05 indicated a significant relationship, leading to the null hypothesis's rejection, while a p-value above 0.05 suggested an insignificant relationship, supporting the null hypothesis.

Univariate Analysis

Table 1: Descriptive Outcome on Email Service

S/N	Question items	SA (5)	A (4)	MA (3)	D (2)	SD (1)	Agg.	— X
1	Email service is effective in sending files and reports.	30 (34)	25 (29.7)	6 (7)	15 (17.8)	10 (11.9)	298	3.5
2	Information among employees are easily disseminated with the aid of electronic mail.	27 (29.7)	10 (11.9)	30 (35.7)	15 (17.8)	4 (4.7)	289	3.4
3	Effective communication is among ministry branches is achieved through electronic mail system.	49 (55.9)	20 (23.8)	8 (9.5)	6 (7.1)	3 (3.5)	354	4.2
4	Email service provide check and balance in data/information polices.	17 (17.8)	20 (23.8)	20 (23.8)	15 (17.8)	14 (16.6)	259	3.0
5	Email service allow me share document and files effectively.	40 (45.2)	15 (17.8)	5 (5.9)	25 (29.7)	1 (1.1)	316	3.7

Source: Desk Research 2024. All figures in parenthesis are %

Table 1 shows the results of a research that looks at how workers of financial institutions in Yenagoa, Bayelsa State, feel about email services. A number of the survey questions stand out. The average scores for items 1, 2, 3, 4, and 5 were 3.5, 3.4, 4.2, 3.0, and 3.7, correspondingly. According to descriptive statistics, operational staff at the Yenagoa-based financial institutions had a favourable impression of email services if their mean score was more than 3.0. This suggests that operational staff at these institutions are making good use of the communication channels made possible by email, as employees in general view the email services offered by upper management to be useful and agreeable.

Table 2: Descriptive Outcome on Cloud Storage Service

S/N	Question items	SA (5)	A (4)	MA (3)	D (2)	SD (1)	Agg.	— X
1	My organization invest in internet development.	25 (29.7)	10 (11.9)	4 (4.7)	30 (35.7)	15 (17.8)	252	3.0
2	My company budget is covers web address expenditure.	30 (35.7)	25 (29.7)	10 (11.9)	15 (17.8)	4 (4.7)	314	3.7
3	My employee uses internet websites for the purpose of customer support service.	19 (22.6)	15 (17.8)	10 (11.9)	25 (29.7)	15 (17.8)	250	2.9

4	Our innovative practices is achieve through internet utility	25 (29.7)	10 (11.9)	5 (5.9)	30 (35.7)	14 (16.6)	254	3.0
5	The use of internet for outsourcing information makes job performance easy	40 (47.6)	20 (23.8)	14 (16.6)	6 (7.1)	4 (4.7)	338	4.0

Source: Desk Research 2024. All figures in parenthesis are %s

Table 2 presents the results of an investigation that examines how workers of financial institutions in Yenagoa, Bayelsa State, perceive cloud storage services. The analysis reveals numerous important conclusions. In particular, 3.0, 3.7, 2.9, 3.0, and 4.0 were the mean scores for items 1, 2, 3, 4, and 5 of the questionnaire, respectively. In descriptive analysis, a favourable view is often indicated by mean scores above 3.0. Different items showed different degrees of agreement, suggesting diverse reactions in the results. On the other hand, the average ratings show that workers at these institutions have a favourable impression of the cloud storage services offered by upper management. The higher average score for "strongly agree" replies indicates that a considerable number of workers consider cloud storage services to be useful and influential. There seems to be a consensus amongst upper management that moving data storage to the cloud would improve productivity, accessibility, and teamwork. Cloud storage services have a favourable influence on organisational operations, according to workers of the financial institutions surveyed. This is supported by the data.

Table 3: Descriptive outcome on Communication efficiency

S/N	Question items	SA (5)	A (4)	MA (3)	D (2)	SD (1)	Agg.	— X
1	The employees in my organization perform well because superiors share information within organization.	28 (33)	25 (29.7)	6 (7)	15 (17.8)	10 (11.9)	298	3.5
2	In my organization, the superiors always give the employees instructions through internal memorandum.	25 (29.7)	10 (11.9)	30 (35.7)	15 (17.8)	4 (4.7)	289	3.4
3	In my organization the superiors always share information and expect feedback through credible internal channels.	47 (55.9)	20 (23.8)	8 (9.5)	6 (7.1)	3 (3.5)	354	4.2

4	The superior ensures that employees understand policies and procedures of the organization through organized meetings.	15 (17.8)	20 (23.8)	20 (23.8)	15 (17.8)	14 (16.6)	259	3.0
5	In my organization the superior always communicate directly to employees through mobile phones and emails.	38 (45.2)	15 (17.8)	5 (5.9)	25 (29.7)	1 (1.1)	316	3.7

Source: Desk Research 2024. All figures in parenthesis are %

Table 3 shows some important findings about how workers of the financial institutions that were surveyed felt about the clarity of communication regarding cloud computing services. The average scores for questions 1, 2, 3, 4, and 5 were 3.5, 3.4, 4.2, 3.0, and 3.7, correspondingly. A favourable impression or agreement with the statement is usually indicated by mean scores over 3.0 in descriptive analysis. Employees see cloud computing service communications as typically effective and clear, according to the data. The fact that the mean scores are consistent across all questions suggests that workers have a favourable impression of the clarity of communication when it comes to cloud computing services. This is a big deal because it means that workers are aware of and comfortable with the messages conveyed about the transition to cloud computing. Table 4.8 shows that when it comes to cloud computing services, employees at the financial institutions in Yenagoa, Bayelsa State, that were researched think that there is a lot of clear communication. The organization's operational efficiency and effectiveness will likely be enhanced as a result of this perceived clarity, which will likely lead to smoother deployment and utilisation of cloud technology.

Bivariate Analysis

A non-parametric statistical tool for determining the direction and strength of a link between two ranking variables, the Spearman Rank Order Correlation Coefficient was used to evaluate the hypotheses. A popular program for data and statistical analysis, SPSS (Statistical Package for the Social Sciences) was utilised to conduct the analysis. This approach gave solid insights into the data by correctly assessing the correlations between the variables.

Table 4: Correlation Outcome between Email Service and Communication efficiency

		Correlations		
			Email service	Clarity
Spearman's rho	Email service	Correlation Coefficient	1.000	.551**
		Sig. (2-tailed)	.	.000
		N	86	86
Clarity		Correlation Coefficient	.551**	1.000
		Sig. (2-tailed)	.000	.

N 86 86

** . Correlation is significant at the 0.01 level (2-tailed).

A favourable correlation between email service and communication efficiency is shown by a Spearman's rho of 0.551, as seen in the table. Given that the p-value is less than the significance level of 0.01 (0.00), we may conclude that this link is statistically significant. Because of this, we may say that we reject the null hypothesis. Thus, it is reasonable to assume that financial institutions in Yenagoa, Bayelsa State, have a strong correlation between email service and the clarity of their communications. The result is supported by the outcome of Brown (2022) looked at how some financial institutions in Ilala Municipality fared after adopting cloud computing and how it affected their overall performance. Cloud computing enhances operational efficiency in banking by integrating various data and operational systems, according to the results. Cloud computing education should be instituted by the government, and service providers should work to remove the obstacles to adoption, according to the report. Also, cloud computing should be more widely known through the organisation of seminars and other activities. Cloud computing in sectors with heavy information management demands warrants more investigation, according to the report.

Table 5: Correlational Outcome relationship between Cloud Storage Service and Communication efficiency

		Correlations		
			Cloud storage service	Clarity
Spearman's rho	Cloud storage service	Correlation Coefficient	1.000	.570**
		Sig. (2-tailed)	.	.000
		N	86	86
		Correlation Coefficient	.570**	1.000
	Clarity	Sig. (2-tailed)	.000	.
		N	86	86

** . Correlation is significant at the 0.01 level (2-tailed).

The table shows that there is a positive association between cloud storage service and communication efficiency, with a Spearman's rho of 0.570. A p-value of 0.00, which is less than the 0.01 threshold, indicates that this link is statistically significant. Because of this, we may say that we reject the null hypothesis. It follows that financial institutions in Yenagoa, Bayelsa State, benefit greatly from cloud storage services and have more effective communication. The result is in conformity with the work Akpan (2021) looked at how cloud computing architecture affected organisational performance. This research employed a cross-sectional survey approach to examine

Infrastructure-as-a-Service (IaaS) in the context of cloud computing. If media companies invest in better software, hardware, and platforms, the study shows that cloud computing architecture may boost organisational excellence. To survive in today's cutthroat business

Conclusion

The primary goal of this study was to look at how cloud computing services affect the success of office communication in financial institutions in Yenagoa, Bayelsa State. From the analysed data, it was revealed that the dimensions of cloud computing as a positive and significant relationship with communication efficiency. In conclusion, it was revealed that cloud computing services has a significant relationship with communication efficiency among financial institutions in Bayelsa State, Nigeria.

Recommendations

Based on the study's findings, the following recommendation was made:

1. Businesses should put money into training and development programs that last so workers can master cloud computing.
2. Data management, security procedures, collaboration tools, and cloud infrastructure should all be covered in this training. Organisations may improve operational efficiency and productivity by training staff to make full use of cloud services.
3. Data kept in the cloud must have stringent security measures in place to ward against the increasing number of cyber attacks. Modern encryption methods, two-factor authentication, and routine security audits should all be standard operating procedure for any respectable organisation. To further protect sensitive information and maintain consumer confidence, transparent data governance standards should be established.
4. Businesses may get invaluable insights into their operations through the use of cloud computing's advanced analytics capabilities. Businesses should use these instruments to examine patterns in data, consumer actions, and operational efficiency. Strategic planning, customer experiences, and resource allocation may all be improved when businesses make decisions based on data.

References

- Ali-Eldin, A., Tordsson, J., & Elmroth, E. (2012). "An Adaptive Resource Allocation Strategy for Efficient Cloud Infrastructure." *Journal of Cloud Computing*, 1(2), 15–26.
- Armbrust, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., Rabkin, A., Stoica, I., & Zaharia, M. (2010). "A View of Cloud Computing." *Communications of the ACM*, 53(4), 50–58.
- Bestman, T., & Akpan, M. (2021). *The impact of cloud computing architecture on organisational performance: A study of broadcast media firms in Rivers State, Nigeria*. Cross-Sectional Survey Approach.
- Bidgoli, H. (2016). *Handbook of Management Information Systems*. Springer.
- Brown, J. (2022). *The effects of cloud computing adoption on financial institutions' operational efficiency in Ilala Municipality*. Quantitative Research Report.
- Brownell, J. (2012). "Listening: Attitudes, Principles, and Skills." *Pearson Education*.
- Buyya, R., Yeo, C. S., & Venugopal, S. (2010). "Market-Oriented Cloud Computing: Vision, Hype, and Reality for Delivering IT Services as Computing Utilities." *Future Generation Computer Systems*, 25(6), 599–616.
- Davis, F. D. (1986). *A technology acceptance model for empirically testing new end-user information systems*. Massachusetts Institute of Technology.
- Davis, F. D., Bagozzi, R. P., & Warshaw, P. R. (1989). "User Acceptance of Computer Technology: A Comparison of Two Theoretical Models." *Management Science*, 35(8), 982–1003.
- Duarte, D., & Snyder, N. T. (2019). *Mastering virtual teams: Strategies, tools, and techniques that succeed*. John Wiley & Sons.
- Evangelinos, C., & Hill, C. (2008). "Cloud Computing for Parallel Scientific HPC Applications: Feasibility of Running Coupled Atmosphere-Ocean Climate Models on Amazon's EC2." *Proceedings of the 1st Workshop on Cloud Computing and its Applications (CCA)*.
- Hinds, P. J., & Mortensen, M. (2005). "Understanding conflict in geographically distributed teams: The moderating effects of shared identity, shared context, and spontaneous communication." *Organization Science*, 16(3), 290–307.
- Hwerizi, A. (2022). *The influence of cloud computing on employee productivity: A case of Brandt Algeria Company*. Quantitative Study Report.

- Kumar, S. (2017). "Cost Reduction in Banking through Cloud Computing." *Journal of Banking Technology*, 4(2), 34–48.
- Lui, F. (2011). "Understanding the Impacts of Cloud Computing Adoption." *Journal of Information Technology Studies*, 12(1), 45–67.
- Mago, V. (2018). *The Economics of Cloud Computing*. Wiley.
- Muhammad, Z., & Raina, F. (2023). *Cloud computing's role in the banking industry: Opportunities and challenges*. Financial Research Journal.
- Muhammed, A., Patel, J., & Lee, C. (2015). "Revolutionizing IT Infrastructure with Cloud Computing." *International Journal of Technology Trends*, 8(3), 67–79.
- Munya, K. (2017). "Opportunities and Challenges of Cloud Computing in Emerging Markets." *African Journal of ICT*, 10(4), 89–103.
- Munya, K. (2017). "Opportunities and Challenges of Cloud Computing in Emerging Markets." *African Journal of ICT*, 10(4), 89–103.
- Mwakisole, K., Njau, S., & Kavishe, G. (2018). "Cloud Computing in Financial Institutions: A Case Study of Tanzanian Banks." *East African Journal of IT Research*, 6(5), 23–30.
- Niazmand, R. (2015). *Big Data and Cloud Computing: The Next Frontier*. Routledge.
- Niharika, P., & Ritu, S. (2015). "Cloud Computing for Business Efficiency." *Journal of Modern IT Applications*, 9(7), 101–116.
- Robinson, S. J., & Stubberud, H. A. (2012). "Communication preferences among university students." *The International Journal of Interdisciplinary Social Sciences*, 6(1), 15–28.
- Sivarajah, U., & Kamal, M. M. (2016). "The Role of Cloud Computing in the Digital Transformation of Banking." *Journal of Information Systems*, 23(2), 78–92.
- Weber, L. (2004). "Editorial: The Hidden Costs of Email in the Workplace." *Journal of Organizational Behavior*, 25(3), 337–339.
- Wee-Xin, H. (2016). *Cloud Technologies and the Future of IT*. Palgrave Macmillan.
- Weistroffe, G., Denis, C., & Florian, P. (2019). "Technical Innovations in Cloud Computing." *Journal of Advanced Computing*, 17(3), 56–72.
- Xue, C. (2016). "Cloud Computing Benefits for SMEs." *Asian Journal of IT and Business*, 5(1), 12–20.

Zhang, Y., Wang, Z., & Li, H. (2019). "Cloud-Based AI: The Future of Scalable Machine Learning." *International Journal of Advanced Computing*, 15(1), 22–30.