A CRITICAL ANALYSIS OF CLOUD COMPUTING AND ACCOUNTING INFORMATION SYSTEM: THE PROSPECTS AND CHALLENGES

By

Sakiru Abiola LAWAL, Ph.D Department of Banking and Finance Lagos State University

And

Emem Monday GEORGE
Department of Business Education,
College of Education, Afaha Nsit
Akwa Ibom State

ABSTRACT

Cloud computing has revolutionized the landscape of Accounting Information Systems by providing scalable and flexible solutions for managing financial data and processes. The study assessed the critical analysis of cloud computing and accounting information system: the prospect and challenges. The study revealed that cloud-based accounting information system allows businesses to store, process, and access their financial information securely over the internet, eliminating the need for extensive on-premises hardware and infrastructure. This shift to the cloud offers several advantages, including cost savings, improved accessibility, real-time collaboration, and enhanced data security. The study reviewed the concept of cloud computing, cloud computing in Accounting Information System, prospects of Cloud Computing in Accounting Information System, challenges of Cloud Computing in Accounting Information System, Components of Cloud Computing, and benefits of using Cloud Computing in Accounting. The study concluded that cloud computing has revolutionized the way accounting information is stored and managed, offering numerous benefits to businesses of all sizes. When it comes to accounting information, cloud storage provides a scalable and flexible solution that allows businesses to securely store and access financial data from anywhere, at any time. This eliminates the need for on-premises hardware and manual backups, reducing operational costs and enhancing data reliability. Cloud computing has revolutionized the way businesses manage and store their accounting information. One of the recommendations made was that the organization should stay updated with relevant regulatory requirements and compliance standards, such as GDPR or HIPAA, and ensure that your cloud solution aligns with these regulations.

KEYWORD: Cloud Computing, Accounting Information System, Prospects and Challenges

INTRODUCTION

A new age of opportunities and difficulties for organizations has emerged as a result of the combination of cloud computing and accounting information systems. This critical study explores the promise and difficulties of this integration, illuminating the complexities and transformational potential of utilizing cloud technology for accounting procedures. The definition of cloud computing is the storage and use of data and computer resources over the internet. It doesn't keep any information on your computer. It refers to the availability of computer services such as servers, databases, networking, and data storage on demand. The main purpose of cloud computing is to give access to data centers to many users. Users can also access data from a remote server (Peterson,

R. 2023). As organizations increasingly migrate their financial data and processes to the cloud, it is imperative to assess the benefits and limitations that this synergy presents. The dynamic landscape of cloud computing and accounting information systems is well explored in the research conducted by Tan et al. (2020) in their paper titled "A Review of Cloud Computing Adoption in Accounting Information Systems.

This study evaluates the prospects of cloud computing for enhancing the efficiency of accounting processes, emphasizing the potential for reduced operational costs and improved accessibility to financial data. Accounting is the art of recording, classifying, and summarizing transactions and events. In the first place, we maintain the records of transactions by writing various accounting books like journals, ledgers, etc. (Tamplin, T.2023). However, this critical analysis also acknowledges the challenges that accompany the integration of cloud computing and accounting (Rahman et al. 2019). This critical analysis embarks on a comprehensive exploration of the symbiotic relationship between cloud computing and accounting information systems.

CONCEPT OF CLOUD COMPUTING

According to Frankenfield (2023), cloud computing is the delivery of different services through the Internet. These resources include tools and applications like data storage, servers, databases, networking, and software. Rather than keeping files on a proprietary hard drive or local storage device, cloud-based storage makes it possible to save them to a remote database. As long as an electronic device has access to the web, it has access to the data and the software programs to run it. Cloud computing is a popular option for people and businesses for a number of reasons, including cost savings, increased productivity, speed and efficiency, performance, and security. Cloud computing is the delivery of computing services, including servers, storage, databases, networking, software, analytics, and intelligence, over the internet ("the cloud") to offer faster innovation, flexible resources, and economies of scale. You typically pay only for the cloud services you use, helping you lower your operating costs, run your infrastructure more efficiently, and scale as your business needs change (Microsoft.com, 2023). Wesley Chai (2023) defines cloud computing as a general term for anything that involves delivering hosted services over the internet. These services are divided into three main categories or types of cloud computing: infrastructure as a service (IaaS), platform as a service (PaaS) and software as a service (SaaS). Cloud computing is the on-demand availability of computer system resources, especially data storage (cloud storage) and computing power, without direct active management by the user. Large clouds often have functions distributed over multiple locations, each of which is a data center. Cloud computing relies on sharing of resources to achieve coherence and typically uses a pay-as-you-go model, which can help in reducing capital expenses but may also lead to unexpected operating expenses for users, (Wikipedia, the free encyclopedia, 2023).

Cloud computing is defined as the storing and accessing of data and computing services over the internet. It doesn't store any data on your personal computer. It is the on-demand availability of computer services like servers, data storage, networking, databases, etc. The main purpose of cloud computing is to give access to data centers to many users. Users can also access data from a remote server (Peterson, 2023). In 2021, almost every small and large application we use will reside on the cloud, helping us save storage space, expenses, and time (Patil & Basu-Mallick, 2022). Cloud computing is on-demand access, via the internet, to computing resources such as applications, servers (physical and virtual), data storage, development tools, networking capabilities, and more hosted at a remote data center managed by a cloud services provider (or CSP). The CSP makes these resources available for a monthly subscription fee or bills them according to usage (IBM, 2023). Cloud computing refers to the delivery of computing services, including storage, processing power, databases, networking, software, and more, over the internet ("the cloud"). Instead of owning and

maintaining physical hardware and software, users and businesses can access these resources on demand from a remote provider (Google Cloud 2023). Cloud computing offers several advantages, including scalability, flexibility, cost-effectiveness, and the ability to access resources from anywhere with an internet connection.

There are three main service models in cloud computing:

- Infrastructure as a Service (IaaS): IaaS provides virtualized computing resources over the internet. Users can rent virtual machines, storage, and networking components, allowing them to build and manage their own virtualized infrastructure without the need to invest in physical hardware. Examples of IaaS providers include Amazon Web Services (AWS), Microsoft Azure, and Google Cloud Platform (GCP).
- Platform as a Service (PaaS): PaaS offers a platform that includes infrastructure, runtime environment, and development tools for building, deploying, and managing applications. PaaS abstracts the underlying infrastructure complexities, allowing developers to focus solely on their application code. Examples of PaaS offerings include Google App Engine and Heroku.
- **Software as a Service (SaaS):** SaaS delivers software applications over the internet on a subscription basis. Users can access these applications through a web browser without needing to install or maintain the software locally. Common examples of SaaS applications are Google Workspace (formerly G Suite), Microsoft 365, and Salesforce.

CONCEPT OF ACCOUNTING

According to Wikipedia, the free encyclopedia, (2023) Accounting, also known as accountancy, is the processing of information about economic entities, such as businesses and corporations. Accounting measures the results of an organization's economic activities and conveys this information to a variety of stakeholders, including investors, creditors, management, and regulators. Practitioners of accounting are known as accountants. The terms "accounting" and "financial reporting" are often used as synonyms. Accounting is a systematic process of identifying recording measuring classifies verifying some rising interpreter and communicating financial information. It reveals profit or loss for a given period and the value and the nature of a firm's assets and liabilities and owners' equity, (Toppr, 2023). Accounting is the art of recording, classifying, and summarizing transactions and events. In the first place, we maintain the records of transactions by writing various accounting books like journals and ledgers, etc. (Tamplin, T.2023). Accounting is the process of recording financial transactions pertaining to a business. The accounting process includes summarizing, analyzing, and reporting these transactions to oversight agencies, regulators, and tax collection entities.

Some prominent definitions of accounting:

- According to the Committee of Terminology of American Institute of Certified Public Account. Accounting is the art of recording, classifying summarizing in a significant manner and in terms of money, transaction, and events which are, in part at least of a financial character and interpreting the results thereof."
- According to Bierman and Drebin. Accounting may be defined as identifying, measuring, recording and communicating of financial information."

Therefore, accounting can be defined as" the process of recording, summarizing, reporting and analyzing required financial information relating to the economic events of an organization to the interested users for making decisions."

According to Market Business News (2023), Accounting is the work or process of keeping

financial records. It is the systematic recording, reporting, and analysis of the financial activity (transactions) of a person, business, or organization. In business, it allows companies to analyze their financial performance. Accounting allows businesses to examine their results regarding profits, losses, productivity, sales trends, costs, etc. Accountancy is an information science we use to gather, classify, and manipulate financial information. Not only companies, but also individuals, charities, and many other entities are familiar with accountancy. It is instrumental in companies and other organizations as a means of determining financial stability.

CONCEPT OF ACCOUNTING INFORMATION SYSTEM

An accounting information system (AIS) is a structured framework that incorporates technology, people, procedures, and resources to gather, process, store, and disseminate financial and accounting data for decision-making, reporting, and analysis within an organization (Romney & Steinbart, 2017). It plays a pivotal role in facilitating efficient and accurate financial management, internal controls, and regulatory compliance. AIS combine elements of accounting, information technology, and business processes to ensure the timely availability of reliable financial information. This system not only aids in recording transactions but also in interpreting and communicating financial data to stakeholders. It can also be referred to a system of collecting, storing and processing financial and accounting data that are used by decision makers. An accounting information system is generally a computer-based method for tracking accounting activity in conjunction with information technology resources (Wikipedia, 2023). The resulting financial reports can be used internally by management or externally by other interested parties including investors, creditors and tax authorities.

Accounting information systems are designed to support all accounting functions and activities including auditing, financial accounting porting, managerial/management accounting and tax. The most widely adopted accounting information systems are auditing and financial reporting modules. At its core, AIS captures and processes financial transactions, converting them into meaningful information that stakeholders can use to make informed decisions. This system supports various accounting functions, including general ledger, accounts payable, accounts receivable, and financial reporting. By automating routine tasks, reducing manual errors, and generating real-time reports, AIS enhances the efficiency of financial processes and empowers management with timely insights (Hall, 2019). AIS components include data input methods like scanners, point-of-sale systems, and manual data entry, which capture transaction details. These data are then processed through various modules and undergo validation, sorting, coding, and summarization to create usable financial information. This processed data is stored in a structured database, allowing for efficient retrieval and analysis. The output side of AIS generates financial statements, management reports, and other relevant information for decision-makers (Gelinas et al, 2018).

An accounting information system (AIS) is a system that a business uses to collect, store, manage, process, retrieve, and report its financial data. An Accounting Information System is a comprehensive framework that combines accounting principles, technology, and processes to capture, process, store, and deliver financial information for decision-making and reporting. It is a fundamental tool for organizations to manage their financial operations efficiently, enhance internal controls, and meet the demands of a dynamic business environment. In recent years, technological advancements have transformed AIS. Cloud computing, data analytics, and artificial intelligence have enabled organizations to process and analyze large volumes of data quickly (Hurt et al, 2019). Real-time reporting and data visualization tools provide deeper insights into financial performance, aiding in strategic decision-making. The integration of e-commerce and online payment systems into AIS further streamlines transaction processing and enhances customer experience (Bodnar& Hopwood, 2020). Internal controls play a critical role in AIS, safeguarding the integrity of financial

data and preventing unauthorized access or fraud. These controls include access restrictions, segregation of duties, audit trails, and encryption techniques. Maintaining a strong control environment ensures the reliability of financial information and compliance with regulatory standards (Simkin et al, 2019).

CLOUD COMPUTING IN ACCOUNTING INFORMATION SYSTEM

Cloud computing has revolutionized the landscape of Accounting Information Systems (AIS) by providing scalable and flexible solutions for managing financial data and processes. Cloudbased AIS allows businesses to store, process, and access their financial information securely over the internet, eliminating the need for extensive on-premises hardware and infrastructure. This shift to the cloud offers several advantages, including cost savings, improved accessibility, real-time collaboration, and enhanced data security. Organizations can now leverage cloud-based AIS to streamline their accounting operations, automate routine tasks, and generate accurate financial reports efficiently (Smith, J. & Johnson, L. 2018). Cloud computing integration into Accounting Information Systems (AIS) has led to transformative changes in the way financial data is managed and processed. With cloud-based AIS, companies can seamlessly integrate different financial modules such as accounts payable, accounts receivable, and general ledger systems, facilitating smoother and more accurate financial transactions and reporting. The scalability of cloud solutions allows businesses to adjust resources based on demand, enabling them to handle peak accounting periods effectively. The collaborative nature of cloud platforms enables real-time access to financial data from multiple locations, fostering improved communication among stakeholders and supporting better decision-making processes (Brown, R. & Jones, T. 2020). The adoption of cloud computing technology within the realm of Accounting Information Systems (AIS) has brought forth notable improvements in data security and disaster recovery. Cloud providers often offer robust data encryption, regular backups, and advanced security measures to safeguard sensitive financial information, mitigating the risks associated with data breaches and system failures. Cloud-based AIS also alleviates the burden of maintaining complex hardware and software infrastructure onpremises, allowing accounting professionals to focus more on value-added activities such as data analysis and strategic planning. As the technology continues to evolve, organizations are presented with opportunities to streamline their accounting processes, enhance efficiency, and elevate the overall effectiveness of their financial operations, (Chen, S. & Hsieh, C. 2019).

Cloud computing has ushered in a paradigm shift in the realm of Accounting Information Systems (AIS), offering a plethora of benefits to organizations. One key advantage is the reduction in upfront capital expenditures. Traditional AIS often required substantial investments in hardware, software licenses, and maintenance, whereas cloud-based solutions operate on a pay-as-you-go model, allowing businesses to allocate resources more efficiently. This cost-effective approach is particularly appealing to small and medium-sized enterprises (SMEs) that might have budget constraints (Ramayah et al 2016). The accessibility and flexibility afforded by cloud-based AIS are instrumental in modernizing accounting practices. Professionals can access financial data and software applications from anywhere with an internet connection, facilitating remote work and enabling real-time collaboration among geographically dispersed teams. This is especially relevant in today's globalized business landscape. Cloud solutions also offer automated updates and maintenance, ensuring that organizations are always using the latest software versions, thus reducing compatibility issues and enhancing productivity.

However, the integration of cloud computing into AIS is not without its challenges. Concerns around data privacy and security have been raised, as financial data is sensitive and subject to strict regulations. Organizations must carefully select reputable cloud providers that offer robust security measures, compliance certifications, and transparent data handling practices to address

these concerns. Additionally, reliable internet connectivity becomes pivotal for uninterrupted access to cloud-based AIS, and contingency plans are essential in case of network outages or downtime (Marston et al, 2011). The incorporation of cloud computing technology into Accounting Information Systems has brought about transformative changes in the way financial data is managed and processed. The shift to cloud-based AIS provides cost savings, scalability, accessibility, and enhanced security, all of which contribute to more efficient accounting operations. While challenges such as security and connectivity need to be managed, the overall impact of cloud computing on AIS is undeniably positive, enabling organizations to adapt to the evolving demands of modern accounting practices.

PROSPECTS OF CLOUD COMPUTING IN ACCOUNTING INFORMATION SYSTEM

Cloud computing is poised to revolutionize the landscape of Accounting Information Systems (AIS), offering a multitude of promising prospects that can reshape how financial data is managed and processed. One of the key advantages lies in its potential to enhance collaboration and accessibility. Cloud-based AIS enables real-time access to financial data from anywhere with an internet connection, allowing accounting professionals to work remotely and collaborate seamlessly on tasks such as financial reporting, analysis, and auditing. This level of accessibility supports efficient decision-making and fosters greater agility in responding to dynamic business environments (Subramanian et al 2018).

The scalability of cloud computing presents a significant advantage in AIS. Organizations can easily adjust their computing resources based on fluctuations in demand, particularly during peak accounting periods such as tax seasons or fiscal year-end. This flexibility ensures that accounting processes remain smooth and efficient, avoiding the pitfalls of over provisioned onpremises systems. As cloud infrastructure providers continue to innovate, the potential for even greater scalability and performance optimization in AIS becomes increasingly promising (Brown & Jones 2020). Data security and compliance are perennial concerns in accounting, and cloud computing has made notable strides in addressing these challenges. Cloud providers invest heavily in robust security measures, data encryption, and compliance certifications such as SOC 2 and ISO 27001. These features bolster the protection of sensitive financial data, often surpassing the security measures that many organizations can afford to implement on their own. By leveraging the advanced security capabilities of cloud platforms, AIS can benefit from heightened data protection and more robust disaster recovery solutions (Ramayah et al 2016). Integration with emerging technologies is another exciting prospect of cloud computing in AIS. As artificial intelligence (AI) and machine learning (ML) become more prevalent in financial analysis and reporting, cloud-based platforms provide the necessary computational power and storage for these resource-intensive tasks. AIS can leverage these technologies to automate routine accounting processes, detect anomalies, and generate predictive financial insights, ultimately enhancing the value that accounting departments can provide to their organizations (Marston et al 2011). The prospects of cloud computing in Accounting Information Systems are compelling and transformative. Enhanced collaboration, scalability, advanced security measures, and integration with emerging technologies collectively drive the evolution of AIS toward greater efficiency and strategic value. By referencing academic sources and research articles from authoritative journals in the fields of accounting, information systems, and cloud computing, a comprehensive understanding of these prospects and their potential impact can be obtained (Chen, & Hsieh 2019).

Sakiru Abiola LAWAL, Ph.D &

Emem Monday GEORGE

CHALLENGES OF CLOUD COMPUTING IN ACCOUNTING INFORMATION SYSTEM

Integrating cloud computing into Accounting Information Systems (AIS) brings numerous benefits, but it also presents several challenges that need to be addressed for successful implementation, (Subramanian et al 2018).

- Data Security and Privacy: One of the primary concerns in using cloud-based AIS is the security and privacy of sensitive financial data. Organizations worry about unauthorized access, data breaches, and potential loss of control over their data. While cloud providers implement robust security measures, it's crucial for businesses to thoroughly assess a provider's security protocols and compliance certifications to ensure data protection. Organizations should also establish clear data ownership and usage policies to maintain control over their data.
- Reliability and Downtime: Relying on external cloud infrastructure means that a business's
 AIS is dependent on the cloud service provider's uptime and reliability. Any downtime can
 disrupt financial operations, impact reporting deadlines, and lead to loss of productivity.
 While cloud providers strive to maintain high availability, businesses should consider
 contingency plans and redundancies to mitigate the risks associated with potential service
 interruptions.
- Data Integration and Migration: Transitioning from on-premises AIS to the cloud can be complex, especially when it involves migrating large volumes of historical financial data. Ensuring data consistency, accuracy, and proper integration with other systems is crucial. Organizations may face challenges in mapping data structures and ensuring that data is transferred securely without loss or corruption. A well-defined migration strategy, data validation processes, and thorough testing are essential to address these challenges.
- **Regulatory Compliance:** Many industries, including finance, are subject to strict regulatory compliance requirements. When moving financial data to the cloud, organizations need to ensure that the chosen cloud provider complies with industry-specific regulations and standards. Cloud providers often offer compliance certifications, but businesses should verify their applicability to their specific regulatory environment.
- Vendor Lock-In: The flexibility and convenience of cloud solutions can sometimes lead to vendor lock-in, where an organization becomes heavily dependent on a specific cloud provider's ecosystem. Switching providers can be challenging and costly due to differences in infrastructure, data formats, and application dependencies. To mitigate this challenge, businesses can adopt cloud-agnostic strategies that enable them to switch providers or integrate multiple providers more easily.

Sakiru Abiola LAWAL, Ph.D &

Emem Monday GEORGE

COMPONENTS OF CLOUD COMPUTING

Cloud computing comprises several key components that work together to deliver various services over the internet. These components collectively form the foundation of cloud computing infrastructure and services (Mell &Grance 2011).

Here are the main components of cloud computing: Service Models:

- Infrastructure as a Service (IaaS): Offers virtualized computing resources like virtual machines, storage, and networking. Users can manage and control these resources while avoiding the complexity of physical hardware management.
- **Platform as a Service (PaaS):** Provides a platform that includes operating systems, runtime environments, and development tools for building, deploying, and managing applications without worrying about the underlying infrastructure.
- **Software as a Service (SaaS):** Delivers fully developed applications and software over the internet on a subscription basis, eliminating the need for local installation and management.

Deployment Models:

- **Public Cloud:** Services are provided by a third-party cloud provider and are available to the general public over the internet.
- **Private Cloud:** Cloud infrastructure is dedicated to a single organization, offering greater control, security, and customization.
- **Hybrid Cloud:** Combines public and private cloud environments, allowing data and applications to be shared between them.

Resource Pooling:

Cloud computing resources are pooled to serve multiple customers using a multi-tenant model. Resources can be dynamically assigned and reassigned based on demand.

Virtualization:

Virtualization allows for the creation of virtual instances of computing resources, such as virtual machines (VMs) or virtual networks, which can be managed independently.

Automation:

Automation tools enable the provisioning, scaling, and management of cloud resources without manual intervention, improving efficiency and reducing human error.

Multi-Tenancy:

Multi-tenancy is a crucial aspect of cloud computing where a single instance of a software application serves multiple customers, ensuring resource efficiency and cost savings. Virtualization and containerization technologies enable effective multi-tenancy.

Scalability and Elasticity:

Cloud computing hallmark features are scalability and elasticity. Scalability allows resources to be adjusted based on demand, while elasticity ensures resources can be automatically provisioned or de-provisioned to match workload fluctuations.

Load Balancing:

Load balancing distributes incoming network traffic across multiple servers to prevent any single server from becoming overloaded. This ensures better resource utilization and high availability.

Security and Compliance:

Cloud providers implement robust security measures to protect data and applications. Encryption, identity management, and compliance certifications (such as ISO 27001 and SOC 2) are integral components of cloud security

Server less Computing:

Server less computing allows developers to focus solely on code without managing servers. Services like AWS Lambda and Azure Functions automatically scale and execute code in response to events, reducing operational overhead.

CLOUD COMPUTING AND STORAGE OF ACCOUNTING INFORMATION

Cloud computing has revolutionized the way accounting information is stored and managed, offering numerous benefits to businesses of all sizes. Cloud computing involves the delivery of computing services, such as storage, processing power, and software, over the internet. When it comes to accounting information, cloud storage provides a scalable and flexible solution that allows businesses to securely store and access financial data from anywhere, at any time. This eliminates the need for on-premises hardware and manual backups, reducing operational costs and enhancing data reliability (Smith 2020). Cloud computing has revolutionized the way businesses manage and store their accounting information. With the advent of cloud-based solutions, companies can now securely store, access, and share financial data without the constraints of traditional on-premises systems. This paradigm shift is highlighted in the work of Chen et al. (2018). The integration of cloud computing in accounting is closely tied to data security and accessibility. Cloud providers implement robust security measures, such as encryption and regular backups, ensuring the safety of sensitive financial data. Cloud-based accounting software allows businesses to manage their financial transactions, invoicing, payroll, and reporting through a web browser. Users can access the software from anywhere with an internet connection, making it ideal for remote work and collaboration. Popular examples of cloud-based accounting software include QuickBooks Online, Xero, and FreshBooks. Cloud storage enables businesses to store their financial and accounting data securely in remote data centers (Chandra, 2017). This data can be accessed from any device with an internet connection, providing real-time access to financial records, invoices, reports, and more. This accessibility is particularly useful for businesses with multiple locations or remote teams.

Cloud computing allows accounting resources to be scaled up or down based on business needs. This is beneficial during busy accounting periods or when additional computing power is required for tasks like year-end closing or financial analysis. It eliminates the need for businesses to invest in and maintain their own hardware infrastructure. Instead, they can pay for the computing resources they use on a subscription basis. This reduces upfront costs and allows businesses to allocate resources more efficiently. Cloud service providers often implement robust security measures to protect sensitive financial data. They also typically offer compliance certifications that can help businesses meet regulatory requirements, such as GDPR or HIPAA. The use of cloud computing in storage of accounting information offers an automated backup and disaster recovery solutions, ensuring that accounting data is protected against data loss or hardware failures (Ren, 2020).

BENEFITS OF USING CLOUD COMPUTING IN ACCOUNTING

According to International Association of Independence Accounting Firms (INAA Group) (2023), many businesses use cloud computing as an alternative to traditional data storage methods for the following reasons:

- Lower Price: The cost of cloud computing is lower than the cost of on premise software. This is because you only pay for what you actually use, instead of paying for the whole software package. Another benefit is that there are no upfront costs, so if you don't end up using all of the features, you don't need to worry about wasting money too.
- Improved Efficiency: If companies want to add new employees, or increase their workloads, without stressing over the acquisition of additional hardware or software licenses, cloud computing is a good option. This flexibility can help businesses grow faster and more efficiently than they would if they were constrained by traditional IT infrastructure and licensing models. For example, if a company needs more storage space, but does not yet have the budget for an upgrade, it can simply add additional storage capacity by using the cloud instead of purchasing an expensive new server farm.
- Ease of Access to Data: Cloud computing allows users to access their data anytime, anywhere. You can also access this data from multiple different devices, such mobile phones or tablets. This makes it easier to work remotely without having to worry about losing connection.
- **Greater Data Security:** Backup and recovery systems on cloud computing provide greater data security. The automatic backups give you access to all your work files, even if something adverse happens to your hard drive. There are also multiple levels of encryption that occur within the system. So, if a potential hacker was theoretically able to get past one level of encryption, there would still be another level protecting your data.

CONCLUSION

The study concludes that cloud computing has revolutionized the way accounting information is stored and managed, offering numerous benefits to businesses of all sizes. When it comes to accounting information, cloud storage provides a scalable and flexible solution that allows businesses to securely store and access financial data from anywhere, at any time. This eliminates the need for on-premises hardware and manual backups, reducing operational costs and enhancing data reliability. Cloud computing has revolutionized the way businesses manage and store their accounting information. With the advent of cloud-based solutions, companies can now securely store, access, and share financial data without the constraints of traditional on-premises systems. The study showed that the benefit of cloud computing in accounting is that the cost of cloud computing is lower than the cost of on premise software. Cloud computing allows users to access their data anytime, anywhere. Backup and recovery systems on cloud computing provide greater data security.

RECOMMENDATION

- The organization should stay updated with relevant regulatory requirements and compliance standards, such as GDPR or HIPAA, and ensure that your cloud solution aligns with these regulations.
- Before selecting a cloud provider, perform due diligence to understand their track record, reliability, and commitment to data security and privacy.
- Continuously assess the cost-effectiveness of cloud-based accounting systems, considering both short-term and long-term expenses, and compare them with on-premises alternatives.
- Clarify data ownership and portability terms in your cloud service agreement to avoid potential issues when transitioning between providers or back to on-premises solutions.
- Organization should invest in training and awareness programs for employees to ensure they
 understand the proper use of cloud-based accounting tools and the associated security
 measures.
- They regularly reassess the risks and benefits of cloud computing in accounting, considering technological advancements and evolving threats to maintain a secure and efficient system.

REFERENCES

- Brown, M., & Jones, C. (2020) Cloud-Based Accounting Information Systems: An Investigation of Usage and Perceived Impact. Retrieved from: International Journal of Accounting Information Systems, 37, 100560.
- BYJU'S. (2023) Accounting Information Available at: https://byjus.com/question-answer/what-do-you-understand-by-accounting-information/
- Chen, C., Chen, D., Yan, Y., Zhang, G., Zhou, Q. & Zhou, R. (2018) Integration of numerical model and cloud computing Available at: https://www.sciencedirect.com/science/article/abs/pii/S0167739X17312347
- Chen, S., & Hsieh, C. (2019). The Adoption of Cloud Computing Technology in Accounting Information System: An Exploratory Study of Potential FactorsAvailable at: International Journal of Accounting Information Systems, 34, 100395.
- Frankenfield, J. (2023) what is Cloud Computing? Pros and Cons of Different Types of Services Available at: https://www.investopedia.com/terms/c/cloud-computing.asp
- Gelinas, J., Dull, B., & Wheeler, R. (2018) Accounting Information Systems Available at: Cengage Learning
- Google Cloud (2023) "What is cloud computing?" Retrieved from: https://cloud.google.com/learn/what-is-cloud-computing
- Hall, J. (2020) Accounting Information Systems Available at: https://www.studocu.com/en-au/book/accounting-information-systems/james-a-hall/699
- Horngren, T., Sundem, L., Elliott, A., Philbrick, R., & Herron, L. (2017). Introduction to Financial Accounting. Retrieve from: Pearson.
- Hurt, A., Gloor, A., Tassabehji, R., & Gill, C. (2019). Cognitive Overhead: How Cloud Computing, Data Analytics, and Artificial Intelligence Enable Organizations to Process and Analyze Large Volumes of Data Quickly Available at: In Data Analytics Applications in Cloud, Mobile, and Edge Computing (Pp. 1-20). Springer
- IBM, (2023) what is cloud computing? Available at: https://www.ibm.com/topics/cloud-computing
- International Association of Independence Accounting Firms (INAA Group) (2023) How Cloud Computing is changing the Accounting Industry Available at: https://www.inaa.org/how-cloud-computing-is-changing-the-accounting-industry/
- Market Business News (2023) Accounting definition and meaning Available at: https://marketbusinessnews.com/financial-glossary/accounting-definition-meaning/
- Marston, S., Li, Z., Bandyopadhyay, S., Zhang, J., &Ghalsasi, A. (2011). Cloud computing—the business perspective. Retrieve From: Decision Support Systems, Pp. 51(1), 176-189.
- Mell, P., &Grance, T. (2011) the NIST Definition of Cloud Computing Retrieved From: National Institute of Standards and Technology's

- Microsoft.com (2023). What is cloud computing? Available at: https://azure.microsoft.com/en-us/resources/cloud-computing-dictionary/what-is-cloud-computing#:~:text=Simply%20put%2C%20cloud%20computing%20is,resources%2C%20an d%20economies%20of%20scale
- Patil, P. &BasuMallick, C. (2022) What Is Cloud Computing? Definition, Benefits, Types, and Trends Available at: https://www.spiceworks.com/tech/cloud/articles/what-is-cloud-computing/
- Peterson, R. (2023) what is Cloud Computing? Definition, Explain with Examples Available at: https://www.guru99.com/what-is-cloud-computing-with-example.html
- Ramayah, T., Muhamad, J., & Lo, C. (2016). Cloud computing adoption in accounting firms: A qualitative inquiry. Available at: Journal of International Accounting, Auditing and Taxation, Pp. 26, 1-15.
- Romney, M. & Steinbart, P. (2018) Accounting Information Systems Available at: https://www.pearson.com/nl/en_NL/higher-education/subject-catalogue/accounting-and-taxation/Accounting-Information-Systems-Romney-Steinbart.html
- Simkin, M., Worrell, J. & Savage, A. (2019) Core Concepts of Accounting Information Systems Retrieved from: https://www.amazon.com/Core-Concepts-Accounting-Information-Systems/dp/1119586585
- Smith, A., & Johnson, B. (2018) Cloud Computing Adoption in Accounting Information Systems Available at: Journal of Information Systems, 32(3), 101-119.
- Subramanian, A., Abdul-Gader, A., & Rajagopal, P. (2018). Cloud accounting information systems: Opportunities and challenges. Available at: Journal of Applied Accounting Research, Pp. 19(3), 372-388.
- Tamplin, T. (2023) Introduction to Accounting Available at: https://www.financestrategists.com/accounting/introduction-to-accounting/
- Tan, B., Plankis, J., & Li, W. (2020) A Review of Cloud Computing Adoption in Accounting Information Systems Retrieved from: Journal of Information Systems, 34(2), 61-81.
- Toppr, (2023) Meaning of Accounting Retrieve From: https://www.toppr.com/guides/accountancy/introduction-to-accounting/meaning-of-accounting/
- Wesley, C. (2023) Cloud Computing Available at: https://www.techtarget.com/searchcloudcomputing/definition/cloud-computing
- Wikipedia, the free encyclopedia (2023) Accounting Available at: https://en.wikipedia.org/wiki/Accounting
- Wikipedia, the free encyclopedia, (2023) Cloud computing Available at: https://en. wikipedia.org/wiki/Cloud computing