Cloudonomics: Transforming Accounting Practices in India through Cloud Innovation

Arushi Mehta, Md. Saifuddin Mujaddidi

Abstract

Cloud accounting has reshaped the field of accounting, helped organisations streamline their processes, and enhanced data access and security along with improving efficiency and also providing cost benefits. In this study we attempt to understand the novel concept of cloud accounting, how it differs from traditional accounting, possible security issues and threats and the present scenario of cloud accounting in India. It can be concluded that cloud accounting though possessing some challenges is a better alternative to traditional accounting.

Introduction

One aspect of today's workplace is the ubiquitous use of information and communication technology in all facets of administration. Both the accounting process and the outdated traditional accounting system have changed due to information communication technology. Companies need to improve their accounting systems to comply with worldwide accounting standards. Cloud accounting, or electronic computing, is a byproduct of information and communication technology. The use of cloud accounting is promoted as a remedy for problems including accounting errors, delays, and data validations. (Gangadhara 2023)

Concept of Cloud Accounting

Cloud computing is a web-based computing model in which consumers receive services via the internet. To put it another way, cloud computing is a paradigm for computing in which systems are linked together over the internet and are quickly and conveniently accessible from any location at any time. A vast pool of computers and subsystems are linked in private or public networks to create a robustly scalable infrastructure for application, data, and file storage. This is known as cloud computing, and it represents a paradigm shift in the computing industry. It has greatly lowered the cost of processing, hosting applications, storing content, and delivering it (Nandi and Banerjee 2018). It can be especially helpful to small businesses that cannot afford to make large investments in their IT infrastructure on-site. On the other hand, cloud accounting revolutionizes

the conventional accounting system by providing accountants from anywhere in the world, with no effort, on-demand access to the company's data, documents, and apps through internet connectivity. The availability and accessibility of financial information at any time and from any location in the world are what have made cloud accounting so popular. Virtualization of accounting systems has emerged as a prerequisite for the drive toward that direction as firms become more global. (Dimitriu and Matei 2014)

Traditional Accounting vs Cloud Accounting

Both cloud accounting and traditional accounting are separate paradigms in the field of financial management, with their advantages and methods. Rooted in traditional methods, traditional accounting includes localised software installations, paper-based records, and human data entry. Cloud accounting, on the other hand, uses online platforms to store data and handle financial operations; it provides real-time cooperation, accessibility, and flexibility. The present article will examine the distinctions between cloud and traditional accounting, emphasising the benefits and drawbacks for modern enterprises.

There are certain key distinctions between the operations of traditional accounting and cloud accounting, even though they both effectively carry out the same tasks. Let's attempt to comprehend a few of these distinctions:

Expenses – To perform traditional accounting, a number of items must be purchased, including software, hard drives for storing financial data, and system installation on all computers that will use the software. This means that in contrast to a cloud-based accounting system, which does not require expensive hardware, both software and hardware are required. All we need to get going is a few pieces of equipment and internet access. The cloud-based accounting software can be used on mobile devices with internet connectivity as well. It costs a monthly membership fee for us to use cloud-based accounting software.

Universal Accessibility- The main difference between cloud and traditional accounting is accessibility. Because conventional systems are on-premises, financial data can only be viewed from a single location or on a specific computer. This could affect the responsibilities, timetable, and output of an organisation. Using safe passwords, one can access data on the cloud from any device that is compatible. There are several advantages to using this off-site configuration. Real-time updates are made to data sources. It guarantees safe data backups and gets rid of redundancy. It allows accountants a lot of freedom in terms of where and when they can travel. It lowers physical labour in terms of maintenance and work hours.

Security of Data - Risks associated with a traditional accounting system include building collapse, data loss from power outages, theft, fires, hardware issues, and flooding. The cloud-based accounting system is more

resilient to these physical issues since the data is frequently backed up and stored in several locations. Additionally protected against malware and identity theft is data kept on cloud servers.

Reliability in Scale- Any company's software must be scalable to adapt to changes in size and scope. Compared to cloud platforms, scalability is more difficult in traditional accounting software solutions. As requirements change, one has to manually manage and upgrade their on-premises software, which adds complexity and drives up costs. On the other side, cloud software promotes business growth and provides sufficient scalability for an expanding organization. This is because it is independent of storage limitations or local servers. The entire platform is web-based, so one doesn't need to acquire new gear or upgrade their existing devices to meet expansion.

Cooperation- Cooperation is a key component of an effective work environment. Financial matters also necessitate discussions, meetings, recurring evaluations, and other cooperative activities. Traditional accounting makes it challenging to collaborate because all data is physically held and can only be transferred in certain ways. In the COVID-19 and post-COVID-19 periods, as businesses transition to virtual workspaces, traditional accounting software will pose additional problems. Getting all the stakeholders together in one place to work on a project is getting harder and harder. Making reports, sending them to several recipients, and collecting all the receipts as a consequence are similarly challenging. These problems are resolved by cloud accounting since it is essentially a virtual space that is accessible from anywhere in the world. Using their login credentials, authorised workers can view data and, if needed, add inputs to the same report. This helps businesses remain transparent in their operations and promotes collaboration. One can share any spreadsheet or accounting report with a group of individuals on demand. Collaboration may be facilitated by features like multi-person access and approval chains, among others.

Sustainability of the Environment: Nowadays, every company aspires to conduct its business in an environmentally responsible manner (Mondal 2022). Ultimately, we bear the duty of minimising our carbon impact and ensuring the sustainability of our world. Due to its reliance on printouts, paper trails, and technology support, traditional accounting poses a risk to the environment. Conversely, cloud accounting is hosted remotely and does not utilise paper records. It uses no resources that pose a threat to the environment. Therefore, for any corporation, this is the more morally right choice. (Marsintauli et al. 2021)

The following table (Table 1A) provides an overview of the details of the distinctions between cloud-based accounting systems and conventional accounting systems mentioned above at a glance:

Table 1A. Traditional Accounting vs. Cloud Accounting

Points of Distinction	Traditional Accounting	Cloud-Based Accounting
Expenses	Demands the acquisition of storage devices, hardware, and software. A monthly membership charge for cloud computing.	Minimum hardware requirements; cloud access requires a monthly membership fee.
Universal Accessibility	Restricted to a single machine or place.	Safe passwords that allow access from any supported device. Safe data backups and real-time upgrades.
Security of Data	Susceptible to external threats such as robbery, hardware malfunctions, and building collapse.	Remotely stored data that is protected from both physical and cyber hazards, with many backups.
Reliability in Scale	Both manual and expensive hardware updates.	Expandable to accommodate business expansion; no hardware updates are required.
Cooperation	Physical data storage has limited collaboration.	Remote cooperation is made simple with virtual workspaces. Access and permission chains involving multiple people.
Sustainability of the Environment	Depends on printouts and paper traces, which have an impact on the environment.	Remotely-hosted and paperless, minimising environmental impact.

Source: Prepared by the Researchers

Security Issues in E-Commerce and Banking

The widespread use of cloud computing in banking and e-commerce in today's digital environment is due to its exceptional cost-effectiveness, scalability, and flexibility. But this ease of use also raises several security issues that need to be properly resolved to protect private financial information and preserve confidence between companies and customers. The upcoming section will explore some of the most important security concerns related to cloud accounting in banking and e-commerce, providing insights into the intricate interactions between risk management, technology, and regulation to protect financial data and transactions:

Multiple Tenancies- It illustrates how multiple independent customers and organisations can share virtualized software resources (organisational memory, hard disc data, grid traffic, hardware measurements, and display shields) as well as physical policies or devices to access statistics.

Examining- The use of confidential information has the same risks as its acquisition. When operating in a cloud environment, security can be breached to detect important events like the creation of new files or execution processes.

Accidental Gap- To close the accidental gap, it is essential to extract useful information from low-level bytes.

Abrupt Decline- All clients forfeit physical control of their data when it is stored on the cloud. This suggests that cloud providers may have access to critical information about their clients and may mine that information, which could lead to a security breach. Additionally, even after deleting their files from all cloud-based providers that store data at several data centre hubs, clients cannot be guaranteed that their information is completely deleted. Because customers are unable to fully control or monitor their information, cloud-based enterprises are now viewed as a "Black-Box."

Faith- Given the fear of losing physical control over data, this functionality is essential to encouraging more individuals to work in the cloud. Consequently, businesses are making an effort to bolster user confidence by guaranteeing certified compliance with organisational norms and protections.

Information Assault- The new virtual architecture's most concerning feature is attacks. In an untrusted cloud computing system, there is a higher chance of information-driven buffer assaults.

Performance Metric - Performance is always a quality factor for an application used in the real world of digital technology. Therefore, security is advantageous if administrators and customers are aware of the performance statistics. (Vinoth et al. 2022)

The following table (Table 1B) provides an overview of some security issues of cloud computing in e-commerce and banking at a glance based on the information provided above:

Table 1B. Security Issues of Cloud Computing

Aspect	Description
Multiple Tenancies	Distribution of physical devices and virtualized software resources among several independent customers and organisations.
Examining	There are security dangers when using private data in a cloud environment. Breach incidents may transpire, possibly jeopardising significant occasions.
Accidental Gap	Obtaining valuable information from low-level bytes to remedy unintentional security gaps.

Abrupt Decline	Physical control over data stored in the cloud is lost, making it more difficult to guarantee total data destruction and opening the door for access by cloud providers.
Trust	User trust in cloud computing is crucial, and efforts are being made to increase that trust by certified adherence to organisational policies and safeguards.
Information Assault	Vulnerabilities in untrusted cloud computing systems to attacks, especially information-driven buffer assaults.
Performance Metric	Performance and security go hand in hand with practical uses of digital technology.

Source: Prepared by the Researchers

Companies offering Cloud services

Several companies are offering Cloud Accounting services across the globe. Some of the companies providing Cloud Accounting services across the world are:

A provider of cloud-based accounting software, Sage is committed to providing companies with the resources they require to thrive. Their expertise lies in fusing real-time, mobile, and social technologies to produce innovative applications that will enable businesses to outperform the competition. They provide a comprehensive selection that may be customised to meet the client's needs, catering to independent bookkeepers, financial directors, small startups, and mid-market businesses.

SAP leads the industry in Enterprise Resource Planning (ERP) software, enabling businesses of all kinds and sectors to function at peak efficiency. With a strong emphasis on digitization, the organisation offers a range of programmes tailored to various corporate needs. SAP makes the world better and enhances people's lives through its extensive worldwide network of partners, consumers, workers, and thought leaders.

Software developer Xero creates cloud-based accounting programmes for small and medium-sized businesses. Rod Drury started it because he believed that desktop accounting software had grown outdated and wanted to provide a cutting-edge cloud-based solution. (Rao 2019)

There are numerous other software which facilitate Cloud Accounting such as ZohoBooks, ProfitBooks, ZipBooks, Reach, etc. All the major providers of Cloud Accounting services provide basic and core accounting services of double-entry, generation of reports instantaneously along with additional services such as Document Management, Multiple currency support, estimation of taxes, payroll facility and training sessions for employees, bank connectivity, etc. (Mondal 2022)

Present Scenario of Cloud Accounting in India

On comparison among various software, it can be said that Zoho Books provides the most features of Cloud Accounting in India as compared to its counterparts like FreshBooks, Scoro, Tipaliti, etc. Many of the software are GST Compliant too which helps with easy reconciliation, filing of returns and compliance.

Every facet of the company has been touched by technology, which has also made accounting easier by simplifying formerly complicated processes. Accountants in India now prefer the usage of technology to make their work more efficient and deliver their roles efficiently. Cloud accounting and computing have helped accountants across organisations in cost-cutting whilst also enhancing their efficiency in their tasks and jobs. For instance, one of the features offered by Real Books is Branch Accounting. This feature saves time for accountants in tallying accounts, tracking transfers and compiling accounts of branches for the final set and other operations.

Conclusion

It can be said that accountants in India are open to adopting newer technology which streamlines their work and enhances their productivity which is also profitable to the organisation. However, there are certain limitations of cloud accounting which become more prevalent in India's case. Issues such as reliable internet connectivity, automation, regulatory requirements, etc. (Kumar 2023). The challenge can be overcome by working with experts who are aware of both technology as well as regulations and the local environment. Along with it, regular training, strategic planning and investment in infrastructure also play a vital role.

References

Dimitriu, Otilia, and Marian Matei. 2014. "A New Paradigm for Accounting through Cloud Computing." *Procedia Economics and Finance* 15: 840–46. https://doi.org/10.1016/S2212-5671(14)00541-3.

Gangadhara, Dr Bhargav. 2023. "CLOUD ACCOUNTING COST AND FINANCIAL ACCOMPLISHMENT OF FIRMS IN INDIA." *International Journal of Multidisciplinary Engineering in Current Research* 8 (7).

Kumar, Dr Ashok. 2023. "Cloud Accounting: Transforming Financial Management in the Digital Age." *International Journal of Advance Research and Innovative Ideas in Education* 9 (2).

Marsintauli, Frihardina, Eka Novianti, Roni Patar Situmorang, and Fransiska Diana Fadjar Djoniputri. 2021. "An Analysis on the Implementation of Cloud Accounting to the Accounting Process." *Accounting* 7: 747–54. https://doi.org/10.5267/j.ac.2021.2.010.

Mondal, Sudipto. 2022. "A Study on Cloud Based Accounting in India." *Journal of Economics and Finance* 13 (1): 09–13.

Nandi, Rahul, and Dr. Pradipta Banerjee. 2018. "Cloud Computing and Accounting: Some Issues with Special Reference to India." *International Journal of Management Studies* V (Special Issue 3): 37. https://doi.org/10.18843/ijms/v5iS3/04.

Rao, Vikram Singh. 2019. "Impact of Cloud Accounting in The Present Scenario with Insights from Accounting Professionals." *Suraj Punj Journal for Multidisciplinary Research* 9 (5): 281–91.

Vinoth, S., Hari Leela Vemula, Bhadrappa Haralayya, Pradeep Mamgain, Mohammed Faez Hasan, and Mohd Naved. 2022. "Application of Cloud Computing in Banking and E-Commerce and Related Security Threats." *Materials Today: Proceedings* 51: 2172–75. https://doi.org/10.1016/j.matpr.2021.11.121.

****