CLOUD-BASED ACCOUNTING INTELLIGENCE APPLICATION: OPPORTUNITIES AND CHALLENGES TO INFORMATION SYSTEM

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Introduction

The accounting profession has experienced difficulties due to the growing complexity of corporate environments, as well as increased global competition and a flattening out of business cycles. The digitization of business, the serious potential of the Web, the implications of big data, and the growing significance of information mining have impacted businesses, including the accounting offices (Moudud-UI-Huq et al., 2020).

The effect of globalization, the fast advances in innovation and science, the rise of big data, the extensive use of Web-based applications, and even institutionalization have made the best possible setting for developing another IT idea, which is cloud accounting (Moudud-UI-Huq et al., 2020). The technology of the cloud is one of the greatest technological developments in the present time. The cloud database makes the software and information available online, which can be accessed by the users from any computer device with an internet connection from anywhere and at any time. One industry heavily impacted by the trend toward virtual work and digitization is accounting (Lawler et al., 2012).

Cloud accounting is the process of managing and storing financial data in the cloud and simultaneously carrying out accounting tasks. In cloud computing, through cloud software assistance providers, the consumer can open the software apps from far away by using internet technology (Amar, 2023). Cloud-based accounting information systems (AIS) complemented

by, for example, electronic invoicing systems and interconnectivity with electronic banking and government infrastructures serve as a vehicle to conduct accounting processes in virtual mode (Asatiani et al., 2019; Bhimani & Willcocks, 2014).

Thus, in theory, an accounting firm equipped with such AIS could manage its work virtually completely. Cloud technology has blurred the line between employees and offices, as cloud technology, tools, and services pervade almost every aspect of business (Gangwar et. al., 2015; Shetty & Panda, 2021). The impact of cloud computing is undeniable and will serve as a foundation for the financial market's future evolution.

Cloud Accounting and Information Systems

Research has shown that cloud-based AIS can provide companies with multiple benefits over the more traditional information systems, including easy access to affordable information systems that feature enhanced data processing capabilities, improved accessibility, and realtime collaboration functionalities (Armbrust et al., 2010; Asatiani et al., 2019).

Deployment of cloud-based AIS also influences accounting configurations by providing a platform where the client company and the accounting firm can simultaneously work on the data and the process, thus allowing new ways of organizing the work in an outsourcing relationship. The flexibility and potential affordability of cloud-based outsourcing services make these specifically attractive to small and medium-sized enterprises (SMEs) that have limited resources and expertise (Asatiani et al., 2019) and, therefore, cannot afford to build these services on their own.

Benefits and Challenges of Cloud Accounting

Cloud accounting makes company accounts and financial data accessible anywhere, anytime (Dimitriu & Matei, 2014). One of the key benefits of cloud accounting is cost savings. By using cloud-based software, organizations can avoid the upfront costs of purchasing and maintaining hardware and software. They can also benefit from economies of scale, as cloud service providers can spread their costs across multiple clients, resulting in lower costs for each individual organization (Popivniak, 2019). Additionally, cloud accounting allows for greater convenience and mobility, as users can access their financial data and perform accounting tasks from anywhere with an internet connection (Popivniak, 2019). Cloud accounting reduces the annual burden of managing IT infrastructure. It reduces IT operations costs. Cloud accounting customizes services to meet businesses' needs (Dimitriu & Matei, 2014).

Cloud accounting can also improve organizational performance. A study conducted in Bangladesh found that cloud accounting has a positive impact on organizational performance. Regression analysis of the study showed that implementing cloud accounting can lead to improved performance, although there may be some negative impacts as well (Taha et al., 2021). A study conducted in Australia identified various risks associated with cloud accounting, such as data breaches and insecure interfaces, but also provided mitigation strategies to address these risks (Yau-Yeung et al., 2020). However, there are also challenges associated with cloud accounting. One of the main challenges is ensuring the security of financial data stored in the cloud. Organizations need to implement robust security measures and protocols to protect their financial data and ensure compliance with data protection regulations (Taha et al., 2021). Another challenge is the need for organizations to adapt to the technological changes brought about by cloud accounting. Accountants who are not familiar with cloud-based accounting software may face difficulties in their roles (Christauskas & Miseviciene, 2012). Training and upskilling programs may be necessary to ensure that accountants have the necessary skills to effectively use cloud accounting software (Rindaşu, 2017).

Furthermore, there may be challenges related to the implementation and integration of cloud accounting systems. Organizations need to carefully choose the right cloud-based accounting software that meets their specific needs and requirements (Popivniak, 2019). They also need to consider factors such as data migration, system integration, and user adoption when implementing cloud accounting (Mauricette et al., 2022).



In the case of cloud-based AIS this often includes access to both transactional and analytical data, as well as various applications, such as dashboards. Typically, cloud-based AIS can integrate all critical information required for accounting processes within the same system (Asatiani et al., 2019) and scale the system according to the needs of the client company (Chen et al., 2012; Schneider & Sunyaev, 2016), ensuring continuity of the service. Thus, different parties accessing the cloud-based AIS (such as client company, accountant, and auditor) have an opportunity to work simultaneously on the accounting process in real-time, in a transparent fashion.

Second, cloud-based AIS offers flexibility through easier implementation, and scalability of systems according to the requirements of the service (Leavitt, 2009). Furthermore, in terms of integration of applications and data, cloud-based AIS allows users to gather all the needed functionality and information to perform business processes within one shared platform, thus impacting the way the accounting process is organized (Leavitt, 2009; Marston et al., 2011).

Furthermore, the use of cloud-based accounting information systems (AIS) can have a significant impact on accounting outsourcing decisions. Cloud-based AISs are often hosted by third-party vendors, providing simultaneous and ubiquitous access to multiple parties involved in the accounting process (Al-Okaily et al., 2022). This includes access to transactional and analytical data, as well as various applications The flexibility and accessibility of cloud-based AIS make it an attractive option for outsourcing accounting processes (Al-Okaily et al., 2022).

EDISI 01 | OKTOBER | 2023

Conclusion

In conclusion, the integration of cloud computing and Accounting Information Systems has revolutionized the field of accounting to date. Cloud accounting provides flexible access to accounting services hosted remotely on the cloud, while technologies can enhance the efficiency and accuracy of accounting processes. The combination of these technologies can lead to major changes in tasks and skills in the accounting profession, with some roles being performed by technology and others requiring collaboration between humans and technology. Additionally, cloud-based AIS offers benefits for accounting outsourcing decisions, providing simultaneous access to multiple parties involved in the accounting process. Additionally, cloud accounting offers benefits for accounting outsourcing decisions, providing simultaneous access to multiple parties involved in the accounting process.

REFERENCES

- Al-Okaily, M., Alkhwaldi, A. F., Abdulmuhsin, A. A., Alqudah, H., & Al-Okaily, A. (2022). Cloud-based accounting information systems usage and its impact on Jordanian SMEs' performance: the post-COVID-19 perspective. *Journal of Financial Reporting and Accounting*, 21(1), 126-155. https://doi.org/10.1108/jfra-12-2021-0476
- Amar, N. (2023). Accounting "in the cloud": a new paradigm of accounting. The Ciência & Engenharia. Science & Engineering Journal, 11(1), 1330–1336. https://doi.org/10.52783/cienceng.v11i1.281
- Armbrust, M., Stoica, I., Zaharia, M., Fox, A., Griffith, R., Joseph, A. D., Katz, R., Konwinski, A., Lee, G., Patterson, D., & Rabkin, A. (2010). A view of cloud computing. *Communications of the ACM*, 53(4), 50. https://doi.org/10.1145/1721654.1721672
- Asatiani, A., Apte, U., Penttinen, E., Rönkkö, M., & Saarinen, T. (2019). Impact of accounting process characteristics on accounting outsourcing - comparison of users and non-users of cloud-based accounting information systems. *International Journal of Accounting Information Systems*, 34, 100419. https://doi.org/10.1016/j.accinf.2019.06.002
- Bhimani, A., & Willcocks, L. (2014). Digitization, "Big Data" and the transformation of accounting information. Accounting and Business Research, 44(4), 469–490. https://doi.org/10.1080/00014788.2014.910051
- Chen, H., Chiang, R. H. L., & Storey, V. C. (2012). Business Intelligence and Analytics: From Big Data to Big Impact. MIS Quarterly, 36(4), 1165. https://doi.org/10.2307/41703503
- Christauskas, C., & Miseviciene, R. (2012). Cloud–computing based accounting for small to medium sized business. *Engineering Economics*, 23(1). 125-139 https://doi.org/10.5755/j01.ee.23.1.1220
- Dimitriu, O., & Matei, M. (2014). A new paradigm for accounting through cloud computing. Procedia Economics and Finance, 15, 840–846. https://doi.org/10.1016/s2212-5671(14)00541-3

- Gangwar, H., Date, H., & Ramaswamy, R. (2015). Understanding determinants of cloud computing adoption using an integrated TAM-TOE model. *Journal of Enterprise Information Management*, 28(1), 107–130. https://doi.org/10.1108/jeim-08-2013-0065
- Lawler, J., Joseph, A., & Howell-Barber, H. H.-B. (2012). A case study of determinants of an effective cloud computing strategy. *Review of Business Information Systems* (*RBIS*), 16(3), 145–156. https://doi.org/10.19030/rbis.v16i3.7132
- Leavitt, N. (2009). Is cloud computing really ready for prime time? Computer, 42(1), 15–20. https://doi.org/10.1109/mc.2009.20
- Marston, S., Li, Z., Bandyopadhyay, S., Zhang, J., & Ghalsasi, A. (2011). Cloud computing the business perspective. *Decision Support Systems*, 51(1), 176–189. https://doi.org/10.1016/j.dss.2010.12.006
- Mauricette, J., Wells, P., & Haar, J. (2022). User perceptions of cloud-based small business accounting software. *Pacific Accounting Review*, 34(4) 595-613 https://doi.org/10.1108/par-05-2021-0065
- Popivniak, Y. (2019). Cloud-based accounting software: choice options in the light of modern international tendencies. *Baltic Journal of Economic Studies*, 5(3), 170-186, https://doi.org/10.30525/2256-0742/2019-5-3-170-177
- Rîndaşu, S.-M. (2017). Emerging information technologies in accounting and related security risks – what is the impact on the Romanian accounting profession. Journal of Accounting and Management Information Systems, 16(4), 581–609. https://doi.org/10.24818/jamis.2017.04008
- Schneider, S., & Sunyaev, A. (2016). Determinant factors of cloud-sourcing decisions: reflecting on the it outsourcing literature in the era of cloud computing. *Journal of Information Technology*, 31(1), 1–31. https://doi.org/10.1057/jit.2014.25
- Shetty, J. P., & Panda, R. (2021). An overview of cloud computing in SMEs. Journal Of Global Entrepreneurship Research. 11, 175-178, https://doi.org/10.1007/s40497-021-00273-2
- Moudud-Ul-Huq, S., Asaduzzaman, Md., & Biswas, T. (2020). Role of cloud computing in global accounting information systems. *The Bottom Line*, 33(3). 231-249. https://doi.org/10.1108/bl-01-2020-0010
- Taha, A. A. D., Ramo, W., & Alkhaffaf, H. H. K. (2021). Impact of external auditor-cloud specialist engagement on cloud auditing challenges. *Journal of Accounting & Organizational Change, ahead-of-print*(ahead-of-print), 17(3). 309-331. https://doi.org/10.1108/jaoc-08-2020-0111
- Yau-Yeung, D., Yigitbasioglu, O., & Green, P. (2020). Cloud accounting risks and mitigation strategies: evidence from Australia. Accounting Forum, 44(4) 1–26. https://doi.org/10.1080/01559982.2020.1783047