

# Exploring Cloud Accounting Adoption in Small and Medium Enterprises: A Comprehensive Review Using the TOE Framework

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## Abstract

Currently, digitization is witnessing a transition in corporate processes. The Fourth Industrial Revolution (IR4.0) has significantly influenced the accounting industry. Emerging accounting technologies like blockchain, big data, AI, and the cloud are currently used by Indian firms to modernize their accounting processes. SMEs are essential to the development of the global economy and society. The choice to support cloud accounting solutions has become a top concern for SMEs worldwide. Cloud accounting is a technology that allows users to access IT resources and capabilities remotely through a network-based system. It provides on-demand access to these resources as needed. The approach presented in this research uses Technology-Organization-Environment (TOE) to characterize the critical aspects influencing SMEs' adoption of cloud accounting. To achieve the research objective, a meticulous analysis of academic publications, professional reports, and websites was carried out via a systematic literature review. Performance and effort expectations are considered technical aspects in this research. In addition, this study used technological readiness and absorptive capacity as organizational factors and regulatory support and competitive pressure as environmental factors. The study results highlight the crucial roles of technological readiness, absorptive capacity, regulatory support, and competitive pressure in determining performance and effort expectations within organizations and also analyze the complex interactions between technical, organizational, and environmental factors influencing performance outcomes.

## INTRODUCTION

The global Industry 4.0 era has recently been centered on technological advancements of Artificial Intelligence (AI), Big Data, and Cloud (Yoon, 2020). The creation and use of new technologies in business and society have an extraordinary influence on the workplace today. In order to effectively utilize IR4.0 and digital technologies, accounting professionals must broaden their repertoire of abilities (Mohd Faizal et al., 2022). Most accounting tasks were formerly carried out manually or with computer usage restricted to bookkeeping. Nevertheless, as information and communication technologies (ICT) have advanced, technologies like artificial intelligence, the cloud, and big data are being utilized in accounting procedures on a large scale (Yoon, 2020). With an estimated investment of \$124.6 billion in 2019, the US leads the public cloud market with the most influence, while 42% of Australian enterprises utilize paid cloud computing to run their business activities. According to the article's earliest concept, 36% of EU businesses

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adopted cloud computing in 2020. In 2022 the Indian cloud market was expected to reach \$7.5 billion (Chandra & Gupta, 2022). Over the past ten years, cloud computing, specifically cloud technology, has grown tremendously. As cloud technology, tools, and services are present in practically every element of the company, the distinction between employee and office has become harder to discern (Shetty & Panda, 2021). With an upsurge in the popularity of cloud computing, more businesses are embracing cloud-based digitalization to accelerate productivity (Rawashdeh & Rawashdeh, 2023). Cloud computing may increase corporate competitiveness and has given small and medium-sized businesses several benefits, allowing them to stay competitive with larger companies (Sibuea et al., 2021).

Businesses that employ fewer than 250 people and are autonomous from other organizations are known as Small and Medium Enterprises (SMEs) (Thakurta & Mohapatra, 2019). Small and Medium-sized accounting firms predominantly work with SMEs and employ a few qualified professionals, according to the International Federation of Accountants (IFAC) (Blackburn, 2010). Lutfi (2022) highlighted that SMEs have started utilizing Accounting Information Systems (AIS) to increase their competitiveness in the market, reduce expenses, improve management, deliver better services, boost management functionality, and commit fewer mistakes. Cloud accounting service providers target Small and Medium Practices (SMPs) by enticing them with various partnership programs that provide rewards and assistance to partner businesses (Ma et al., 2021). Furthermore, their accountants have contemporaneous and real-time access to their data, making it easier to complete accounts and other statutory files on time and to offer business advice that adds value. Instead of paying their external accountants for the same service, more SMEs can perform essential bookkeeping duties independently according to cloud accounting for financial reporting (Ma et al., 2021). Owners and managers at SMEs can comprehend the adoption of cloud accounting by analysing technological, organizational, and environmental variables. The present paper aims to clarify the elements determining SMEs' adoption of cloud accounting.

## **LITERATURE REVIEW**

Cloud accounting was created as a result of the growth of cloud computing. Sobhan (2019) stated that it is essential to define cloud computing and cloud accounting before moving on to the literature evaluation and discussion of cloud

accounting adoption. Many definitions of cloud computing services have been developed, primarily concentrating on technological and service attributes. The on-demand provision of computer services through a cloud system or cloud computing does not need its customers' active service administration. Small and medium-sized businesses consistently contribute to a country's economic performance (Pathan et al., 2017). Sastararaji et al., (2022) stated that for SMEs, cloud accounting is a crucial tool for managing their businesses. By incorporating cloud-based accounting, SMEs can upgrade their efficiency, financial organization, and flexibility. This paper will examine and define critical adoption success criteria for cloud accounting with reference to the TOE framework.

(Rawashdeh et al., 2023) showed that a vision of cloud computing may mediate the adoption of cloud accounting practices and the TOE components. The study investigates in depth how this cloud computing vision can mediate the adoption of cloud accounting. A key mediator for the shift to cloud-based accounting emerged as the cloud computing vision, emphasizing organizational readiness, senior management support, comparative advantage, compatibility, and competitive pressure.

(Sibuea et al., 2021) explained that cloud accounting is one of the cutting-edge technologies that might be crucial in small and medium-sized businesses. It will assist small and medium-sized businesses in producing excellent financial reports and make quicker, more intelligent informed decisions. The use of cloud technologies has substantially improved accounting. Alkhater et al., (2018) defined that trust and service quality were determined to have the most significant impact on cloud adoption. However, cloud use in this nation is still constrained by security and privacy concerns. This study also showed that the impact of these variables varied depending on the organization's size and whether the company was an adopter.

(Sastararaji et al., 2022) study scrutinized with regard to the elements that significantly impact SMEs' adoption of cloud accounting. This study integrated three technology adoption theories – the Technology-Organization-Environment framework, Diffusion of Innovation theory, and Institutional Theory – and studied them in conjunction with SMEs' distinctive characteristics to maintain business efficiency and eliminate operating costs in the context of the constraints imposed on SMEs have been forced to adopt new digital technologies.

(Mondal, 2022) discovered that the services supplied by each cloud accounting company are almost on par with one another. It was also found that cloud accounting outperforms traditional accounting in a number of areas, including cost, accessibility, data security, and collaboration. Organizations switching to cloud accounting are rising daily, especially for small firms. Cloud-based accounting enables a corporation to save data on a digital platform without maintaining any physical infrastructure to keep the financial data. With the aid of the internet, it also enables users to obtain financial information continuously.

(Sastararuji et al., 2021) the study characterized the crucial elements influencing the adoption of cloud accounting in SMEs; this study offered an integrated paradigm that combines the Technology-Organization-Environment (TOE) framework, the Diffusion of Innovation (DOI) theory, the Institutional Theory (INT), and extended factors. From literature studies and qualitative methods, the conceptual framework identified five aspects of determinants: technology, organization, environment, vendor, and owner that affect the adoption choice.

(Khayer et al., 2021) assessed how the adoption of cloud computing affected the performance of cloud-supported businesses by increasing organizational agility. The technology-organization-environment (TOE) framework and the unified theory of acceptance and use of technology (UTAUT) are two well-known theoretical frameworks combined to create the research model. According to this study, performance expectations, effort expectations, absorptive capacity, data security and privacy, and perceived trust are the critical determinants of cloud computing adoption.

-(Ouaadi & Haddad, 2021) the study explained that certain factors—such as the ambition to use cloud accounting, motivation, remote reporting, and business size—impact adoption intentions, while others—such as professional category and flexibility—have little impact. It is based on a study model created using three theoretical frameworks (TOE, DOI, and TAM) to explore the factors influencing accounting professionals' intentions to embrace cloud accounting solutions.

(Ooi et al., 2018) have demonstrated how elements like performance expectancy (PE), firm size (FS), top management support (MS), and the absorptive capacity (AC) of cloud computing technology might influence innovativeness (IN)

and firm performance (FP) among Malaysian manufacturing enterprises. Additionally, it is demonstrated how the use of cloud computing boosts IN and FP.

(Kumar et al., 2017) described the various factors that are found to be significant, including perceived benefits, top management support, competitive pressure, and perceived concerns. Major benefits of cloud computing for SMEs include cost advantage, easy deployment process, easier access to the latest information and communication technologies, automatic updates and upgrades, scalability, flexibility, and improved disaster recovery and backup capabilities.

(Kumar et al., 2017) According to the study, relative benefit, security concerns, top management support, outside pressure, and service providers' assistance are the key variables influencing SMEs in India's desire to use cloud computing.

(Gutierrez et al., 2015) Results highlighted that four of the eight dimensions under consideration significantly affect whether cloud computing services are used. These crucial elements include trade partner pressure, complexity, competitive pressure, and technological readiness. The latter predictor, trading partner pressure, was the most critical factor in the decision to adopt cloud services because it reflected organizations' concerns about legal restrictions, co-creation and customization, service linkage, and vendor locking, which complicates the process of choosing an appropriate vendor. According to the study, cloud computing service providers are crucial in helping end customers assess how well they use the technology.

(Alshamaila et al., 2013) have shown that relative advantage, uncertainty, geo-restriction, compatibility, trialability, size, top management support, prior experience, innovativeness, industry, market scope, supplier efforts, and external computing support were the main factors that were found to be significantly influencing SME adoption of cloud services. If SMEs have access to scalable technology, they may be able to offer goods and services that, in the past, were only available from larger businesses, thereby leveling the playing field in terms of competition.

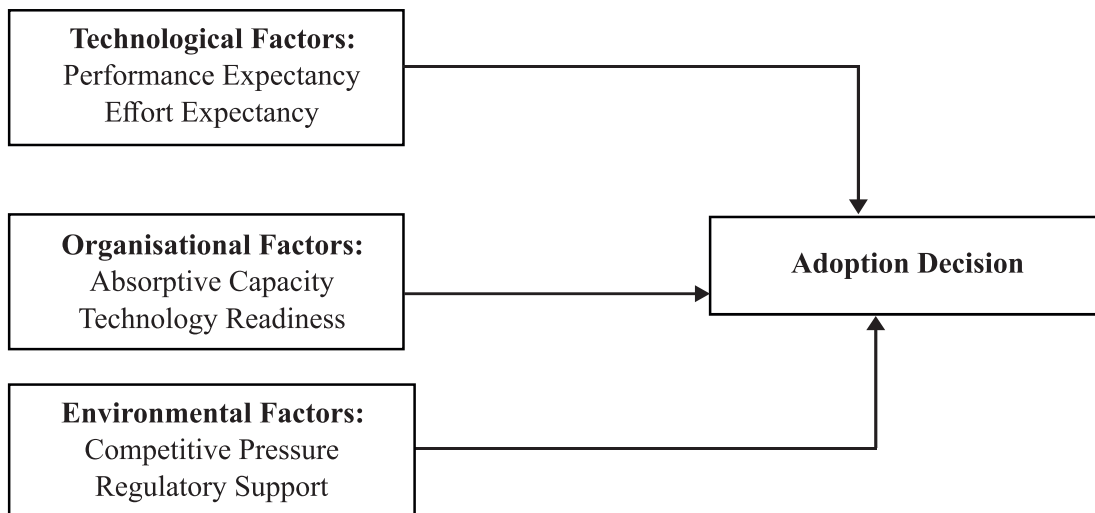
The adoption of cloud accounting in SMEs is integrated with the Technology-Organization-Environment (TOE) paradigm in this article. This paradigm offers a methodical way to comprehend the aspects affecting adoption. The study intends to contribute to a better understanding of the elements that impact the desire to embrace cloud accounting, (Kamal et al., 2023) which is still in its early stages in the country.

## OBJECTIVES AND METHODOLOGY OF THE STUDY

Using the Technological-Organizational-Environmental (TOE) approach, this study tries to find out what makes small and medium-sized businesses (SMEs) decide to use cloud accounting. Using the TOE approach, this study uses a thorough literature review to look into the factors that make

SMEs accept cloud accounting. It took a lot of careful reading of relevant academic papers, professional reports, and online sources to find technical, organizational, and environmental factors. Concerning technology, the study is mostly about performance and effort standards; organizational factors include absorptive ability and technological readiness; and external factors include regulation backing and competitive pressure.

### Conceptual Framework



Source: Author's Compilation

## DISCUSSION

The TOE structure was recommended by Tornatzky and Fleischer (Abdollahzadehgan et al., 2013) to describe the innovation process within a business context. The three aspects of a business—technology, organization, and environment—affect the innovation embraced. The technology component refers to the relevant technologies available for potential adoption and the internal and external technology appropriate for the organization. Rahayu and Day (2015) explained the organizational context relates to important assets and the character of the enterprise, including its size, scope, organizational structure, and culture of its workforce. Sastararuji et al., (2022) highlighted that the environmental context includes the business field's demands and resources, including those from consumers, rivals, the market, business partners, regulators, and infrastructure.

Since SMEs are one of the elements boosting the country's economy, (Hopali and Çakmak, 2020) the increase of SME entrepreneurs is highly positive. Naturally, business

competition will intensify as the number of SME enterprises rises.

### *Technology Factors:*

**Performance Expectancy-** Performance Expectancy is the measure of how much a system's utilisation will help businesses carry out various tasks more efficiently on a daily basis (Venkatesh et al., 2012). Khayer et al., (2021) stated that organizations feel that utilizing cloud technology would enable them to carry out administrative operations more simply and effectively in the area of cloud accounting. For SMEs, cloud technology offers a number of advantages, including cost savings, time savings, scalability, flexibility, mobility, and shared resources.

**Effort Expectancy-** "The degree of ease associated with the use of the system" Effort Expectancy is defined. Bozan et al., (2016) determined this component as one of the important components and discovered that users' perceptions of its



association with behavior intentions had significantly altered. Individuals who have realistic expectations of work are, therefore, more committed to embracing cloud computing. Khayer et al., (2021) discussed that in the context of SME, EE represents the amount of effort an organization must invest in acquiring and utilizing cutting-edge technology. Al-Okaily et al., (2023) stated that since these technologies are web-based, users anticipate to utilise cloud accounting with little to no effort, which is represented by their effort expectations when adopting such accounting information systems. Amron et al., (2021) highlighted that user experience is crucial in determining how comfortable a person is using technology. The invention must be beneficial and useful. However, innovation is challenging to embrace since it is difficult to understand, unintuitive, and too complex. Because SMEs lack the technical expertise to handle complex and advanced technologies, they believe using cloud services to be simple (Khayer et al., 2021).

### ***Organisational Factors:***

**Absorptive Capacity-** "A set of organizational routines and processes by which firms acquire, assimilate, transform, and exploit knowledge to produce a dynamic organizational capability" is what absorptive capacity means. (Wei et al., 2015) The amount of prior knowledge and the quantity of effort put forward to establish a firm's AC level. Particularly in a dynamic context, AC can set expectations and enable a business to predict the nature and potential of upcoming technologies more accurately. According to Khayer et al. (2021), If a company has the necessary expertise and information regarding related technologies, it is more likely to embrace new technology.

**Technology Readiness-** Technology readiness is the inclination to adopt new technology to achieve goals and was first used by Parasuraman (2000). It is decided by the general state of mind as a consequence of a gestalt of mental contributors and inhibitors. Alkhater et al., (2018) discussed another issue is that some firms lack the technological know-how to use cloud accounting software effectively. In general, this aspect significantly impacts whether a company decides to use cloud services. According to, Gutierrez et al., (2015) high technologically prepared organisations are aware of the possibilities and limits of the present IT infrastructure and are prepared to offer enough training to enable the cognitive aptitude needed to adopt cloud accounting. Technology readiness "includes technology infrastructure and IT human

resources, where technology infrastructure refers to technologies that enable Cloud-based services and IT human resources to IT professionals with the knowledge and abilities to implement Internet related applications (Sandu & Gide, 2018).

### ***Environmental Factors:***

**Competitive Pressure-** Ganguly, (2022) explained that early technology adoption studies recognized the significance of competitive pressure as a powerful motivator. Lutfi, (2022) examined the extent of stress that businesses encounter from their competitors is the sort of pressure that encourages firms to implement innovations to avoid failing to compete. Because companies acquire and employ new technology in the belief that (Usman et al., 2019) their rivals are doing the same, competitors' adoption of new technologies encourages SMEs to adopt technology. According to Rawashdeh and Rawashdeh, (2023), competitive forces favorably impact corporate adoption of cloud accounting. Rawashdeh et al., (2023) suggest that a company's vision for cloud computing is positively and significantly impacted by competitive forces. In this regard, competitive pressures function as a motivating element in shaping the cloud accounting vision of businesses, driving them to adopt cutting-edge, economically advantageous, and scalable cloud solutions to maintain their leadership in the market and gain an advantage over rivals.

**Regulatory Support** – Regulatory support is described as the required assistance given by a government body to promote the spread of IT innovation among businesses. According to Khayer et al., (2021) integrating e-business is encouraged by various government legislation and policies. Oliveira et al., (2014) asserted that governmental RSs can influence whether businesses choose to utilize cloud services. Khayer et al., (2021) highlighted that businesses will be more eager to use cloud computing if a nation's government has specified rules and processes in place.

## **IMPLICATIONS**

By examining cloud technology adoption at the level of SMEs in India, the study incorporates the knowledge of cloud accounting. This paper provides substantial evidence that the TOE framework can accurately forecast SMEs' adoption of cloud accounting. Al-Okaily et al., (2023) discussed that governments and CSPs are extending both the breadth and the quantity of their cloud accounting applications due to the

development of cloud technology and its applications. This study's findings suggest that performance and effort expectations are crucial factors in SMEs' support for cloud accounting. As a result, while creating cloud services, cloud providers must consider the consumers' needs. Additionally, companies must provide simple user interfaces so those with little technical expertise can readily communicate with the cloud. Khayer et al., (2021) stated that absorptive capacity should receive a lot of attention from SMEs since it will speed up their evaluation of the possible benefits of cloud accounting. To fully profit from cloud accounting, SMEs should concentrate on building different organizational resources such as (technological infrastructure, IT skills, etc.). The adoption of cloud accounting by small and medium-sized businesses (SMEs) and the use of the technology, organisation, and environment (TOE) model are significant contributions made by this study to the academic literature. This study concentrates on the adoption and first usage of cloud accounting by SMEs since the concept is relatively new in India.

## **SUGGESTIONS**

Enhancing technology infrastructure, providing focused training, and strengthening regulatory support with clear standards and incentives are all things that stakeholders should do in order to increase the adoption of cloud accounting among small and medium-sized enterprises (SMEs). The Use of competitive pressure via success stories, the guarantee of user-friendly and inexpensive solutions, and the promotion of cooperation among governments, technology providers, and small and medium-sized enterprises (SMEs) are all essential for achieving smooth integration and sustained adoption.

## **CONCLUSION**

This study considerably adds to the body of scholarly material on the technology-organization-environment (TOE) structure, particularly when it comes to adopting cloud accounting in small- and medium enterprises (SMEs). The progressive change in how information system services are created, expanded, maintained, and paid for is being driven by the concept of "computing services on demand" (Alshamaila et al., 2013). Several variables affect the adoption and implementation of the cloud accounting concept. Six key variables significantly impact cloud accounting adoption: Performance Expectancy, Effort Expectancy, Absorptive Capacity, Technological Readiness, Competitive Pressure,

and Regulatory Support. Previous studies discussed by Khayer et al., (2021) have supported the notion that Performance Expectancy and Effort Expectancy play significant role in technology adoption. Rawashdeh et al., (2023) asserted that technology-wise, the creation of a cloud computing vision is influenced by the advantages of the technology as well as how well it fits into the organization's existing business practises and culture. Sandu and Gide, (2018) stated that environmental variables impact cloud service adoption more than organizational and technological ones. SMEs who use cloud accounting can gain from increased productivity, accuracy, real-time access to financial data, and a competitive edge in the market. To achieve effective cloud adoption, SMEs must promote a culture of learning and adaptation, easily connect cloud accounting systems with other company tools and procedures, and abide by legal requirements. This study provides a significant contribution to SMEs and decision makers who are still considering adopting technology adoption inside their companies.

## **LIMITATIONS AND FUTURE SCOPE OF THE STUDY**

This research is constrained by its dependence on particular geographic and demographic data, perhaps limiting the applicability of its results to wider settings. The rapid advancement of cloud accounting technology and differing degrees of digital literacy across SMEs provide issues in thoroughly documenting dynamic adoption. Fast advancement of cloud accounting technology and differing degrees of digital literacy across SMEs provide issues in thoroughly documenting dynamic adoption patterns. Subsequent study may rectify these limitations by integrating longitudinal studies, investigating cross-regional comparisons, and assessing the influence and of upcoming technologies like AI and blockchain on the adoption of cloud accounting. Broadening the Scope to include micro-enterprises and assessing post-adoption performance effects might provide more profound insights and practical ramifications.

## **REFERENCES**

Abdollahzadehgan, A., Razak, A., Hussin, C., Gohary, M. M., & Amini, M. (2013). The Organizational Critical Success Factors for Adopting Cloud Computing in SMEs. *Journal of Information Systems Research and Innovation*. <http://seminar.utmspace.edu.my/jisri/>

- Alkhater, N., Walters, R., & Wills, G. (2018). An empirical study of factors influencing cloud adoption among private sector organisations. *Telematics and Informatics*, 35(1), 38–54. <https://doi.org/10.1016/j.tele.2017.09.017>
- Al-Okaily, M., Alkhwalidi, A. F., Abdulmuhsin, A. A., Alqudah, H., & Al-Okaily, A. (2023). 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>
- Alshamaila, Y., Papagiannidis, S., & Li, F. (2013). Cloud computing adoption by SMEs in the north east of England: A multi-perspective framework. *Journal of Enterprise Information Management*, 26(3), 250–275. <https://doi.org/10.1108/17410391311325225>
- Amron, M. T., Ibrahim, R., & Bakar, N. A. A. (2021). Cloud computing acceptance among public sector employees. *Telkomnika (Telecommunication Computing Electronics and Control)*, 19(1), 124–133. <https://doi.org/10.12928/TELKOMNIKA.V19I1.17883>
- Blackburn, R. A. (2010). The role of small and medium practices in providing business support to small-and medium-sized enterprises (Small and Medium Practices Committee). <https://www.researchgate.net/publication/43153305>
- Bozan, K., Parker, K., & Davey, B. (2016). A closer look at the social influence construct in the UTAUT Model: An institutional theory based approach to investigate health IT adoption patterns of the elderly. *Proceedings of the Annual Hawaii International Conference on System Sciences*, 2016-March, 3105–3114. <https://doi.org/10.1109/HICSS.2016.391>
- Chandra, P., & Gupta, A. (2022). Transformation of Conventional to Digital Accounting: An Overview of Cloud Accounting. *Journal of Emerging Technologies and Innovative Research*, 9(12). [www.jetir.org](http://www.jetir.org)505
- Gutierrez, A., Boukrami, E., & Lumsden, R. (2015). Technological, organisational and environmental factors influencing managers' decision to adopt cloud computing in the UK. *Journal of Enterprise Information Management*, 28(6), 788–807. <https://doi.org/10.1108/JEIM-01-2015-0001>
- Hopali, E., & Çakmak, A. (2020). Prediction of Daily CO2 Emissions of a Factory Using ARIMA and Holt-Winters Seasonal Methods URBAN COMPETITIVENESS INDEX View project. *International Journal of Information, Business and Management*, 3. <https://www.researchgate.net/publication/341106459>
- Kamal, L. N., Jasni, N. S., Razali, F. M., & Shah, S. Z. O. (2023). Factors Influencing the Intention to Adopt Cloud Accounting Among Malaysian North Borneo SMEs: A TOE Model Approach. *Economic Affairs (New Delhi)*, 68(2), 1027–1040. <https://doi.org/10.46852/0424-2513.2.2023.6>
- Khayer, A., Jahan, N., Hossain, M. N., & Hossain, M. Y. (2021). The adoption of cloud computing in small and medium enterprises: a developing country perspective. *VINE Journal of Information and Knowledge Management Systems*, 51(1), 64–91. <https://doi.org/10.1108/VJIKMS-05-2019-0064>
- Kumar, D., Samalia, H. V., & Verma, P. (2017a). Exploring suitability of cloud computing for small and medium-sized enterprises in India. *Journal of Small Business and Enterprise Development*, 24(4), 814–832. <https://doi.org/10.1108/JSBED-01-2017-0002>
- Kumar, D., Samalia, H. V., & Verma, P. (2017b). Factors Influencing Cloud Computing Adoption by Small and Medium-Sized Enterprises (SMEs) In India. *Pacific Asia Journal of the Association for Information Systems*, 25–48. <https://doi.org/10.17705/1pais.09302>
- Lutfi, A. (2022). Understanding the Intention to Adopt Cloud-based Accounting Information System in Jordanian SMEs. *International Journal of Digital Accounting Research*, 22, 47–70. [https://doi.org/10.4192/1577-8517-v22\\_2](https://doi.org/10.4192/1577-8517-v22_2)
- Ma, D., Fisher, R., & Nesbit, T. (2021). Cloud-based client accounting and small and medium accounting practices: Adoption and impact. *International Journal of Accounting Information Systems*, 41. <https://doi.org/10.1016/j.accinf.2021.100513>
- Mohd Faizal, S., Jaffar, N., & Mohd nor, A. S. (2022). Integrate the adoption and readiness of digital technologies amongst accounting professionals towards the fourth industrial revolution. *Cogent Business and Management*, 9(1). <https://doi.org/10.1080/23311975.2022.2122160>
- Mondal, S. (2022). A Study on Cloud Based Accounting in India. *IOSR Journal of Economics and Finance*, 13(1), 9–13. <https://doi.org/10.9790/5933-1301020913>



- Oliveira, T., Thomas, M., & Espadanal, M. (2014). Assessing the determinants of cloud computing adoption: An analysis of the manufacturing and services sectors. *Information and Management*, 51(5), 497–510. <https://doi.org/10.1016/j.im.2014.03.006>
- Ooi, K. B., Lee, V. H., Tan, G. W. H., Hew, T. S., & Hew, J. J. (2018). Cloud computing in manufacturing: The next industrial revolution in Malaysia? *Expert Systems with Applications*, 93, 376–394. <https://doi.org/10.1016/j.eswa.2017.10.009>
- Pathan, Z. H., Jianqiu, Z., Akram, U., Latif, Z., Khan, M. K., & Tunio, M. Z. (2017). Essential factors in cloud-computing adoption by smes. *Human Systems Management*, 36(4), 261–275. <https://doi.org/10.3233/HSM-17133>
- Rahayu, R., & Day, J. (2015). Determinant Factors of E-commerce Adoption by SMEs in Developing Country: Evidence from Indonesia. *Procedia - Social and Behavioral Sciences*, 195, 142–150. <https://doi.org/10.1016/j.sbspro.2015.06.423>
- Rawashdeh, A., & Rawashdeh, B. S. (2023). The effect cloud accounting adoption on organizational performance in SMEs. *International Journal of Data and Network Science*, 7(1), 411–424. <https://doi.org/10.5267/j.ijdns.2022.9.005>
- Rawashdeh, A., Rawashdeh, B. S., & Shehadeh, E. (2023). The Determinants of Cloud Computing Vision and Its Impact on Cloud Accounting Adoption in SMBs. *Human Behavior and Emerging Technologies*, 2023, 1–15. <https://doi.org/10.1155/2023/8571227>
- Sandu, R., & Gide, E. (2018). Technological, Organisational and Environmental (TOE) Factors that Influence the Adoption of Cloud Based Service SMEs in India. *IEEE International Conference on Cloud Computing, CLOUD*, 2018-July, 866–870. <https://doi.org/10.1109/CLOUD.2018.00123>
- Sastararuji, D., Hoonsoapon, D., Pitchayadol, P., & Chiwamit, P. (2021). Cloud Accounting Adoption in Small and Medium Enterprises: An Integrated Conceptual Framework. *ACM International Conference Proceeding Series*, 32–38. <https://doi.org/10.1145/3447432.3447439>
- Sastararuji, D., Hoonsoapon, D., Pitchayadol, P., & Chiwamit, P. (2022). Cloud accounting adoption in Thai SMEs amid the COVID-19 pandemic: an explanatory case study. *Journal of Innovation and Entrepreneurship*, 11(1). <https://doi.org/10.1186/s13731-022-00234-3>
- Shetty, J. P., & Panda, R. (2021). An overview of cloud computing in SMEs. *Journal of Global Entrepreneurship Research*, 11(1), 175–188. <https://doi.org/10.1007/s40497-021-00273-2>
- Sibuea, A. Y., Sinaga, M. B., & Muda, I. (2021). Cloud accounting adoption in SMEs: An overview. *International Journal of Multidisciplinary Research and Growth Evaluation*, 2(1). [www.allmultidisciplinaryjournal.com](http://www.allmultidisciplinaryjournal.com)
- Thakurta, R., & Mohapatra, S. (2019). Cloud Based Business model for SMEs sector in India - Developed and validated cloud computing adoption factors through a study on Indian SMEs. *International Journal of Business Innovation and Research*, 20(1), 1. <https://doi.org/10.1504/ijbir.2019.10015626>
- Venkatesh, V., Thong, J. Y. L., & Xu, X. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. In *Source: MIS Quarterly* (Vol. 36, Issue 1).
- Wei, J., Lowry, P. B., & Seedorf, S. (2015). The assimilation of RFID technology by Chinese companies: A technology diffusion perspective. *Information and Management*, 52(6), 628–642. <https://doi.org/10.1016/j.im.2015.05.001>
- Yoon, S. (2020). A study on the transformation of accounting based on new technologies: Evidence from korea. *Sustainability* (Switzerland), 12(20), 1–23. <https://doi.org/10.3390/su12208669>