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Antecedents of Cloud Accounting Adoption and Its Consequences on SME Performance: A TOE Framework Approach

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Abstract

The purpose of this research is to investigate the factors that influence the adoption of cloud accounting, including relative benefit, complexity, support from top management, organizational preparedness, competitive pressure, bandwagon effect, computer self-efficacy, and computer anxiety., as well as its impact on MSME performance in Kendal Regency. The study in question takes a quantitative approach and makes use of primary data gathered via the use of questionnaires. A purposive sampling method was used to pick 250 respondents from micro, small, and medium-sized enterprises (MSMEs) in the Kendal Regency. The research makes use of the Structural Equation Modeling (SEM) technique in conjunction with the Partial Least Squares (PLS) methodology. According to the findings, the adoption of cloud accounting is favorably influenced by factors including as support from senior management, competitive pressure, the bandwagon effect, and user confidence in their ability to use IT. The implementation of cloud accounting has a favorable and substantial influence on the performance of micro, little, and medium-sized enterprises (MSME). With that being said, relative advantage, complexity, organizational readiness, and computer anxiety negatively influence cloud accounting adoption. This research makes a contribution to the TOE framework by highlighting the significance of technical, organizational, and environmental factors readiness alongside individual support in adopting cloud accounting to improve MSME performance. Practically, the Kendal Regency government is expected to take a more active role in providing stimuli regarding the importance of digital transformation to enhance MSME performance.

Keywords: *TOE Framework, Cloud Accounting Adoption, MSME Performance, Computer Self-Efficacy, Computer Anxiety*

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are the backbone of Indonesia's economy because they far outnumber large-scale enterprises and are spread even into rural areas, making them a key driver of equitable economic distribution and inclusive growth (Maksum et al., 2020). MSMEs play a significant role in job creation, employment absorption, and income distribution, thereby having a direct impact on local and national economic resilience. According to data from the

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Ministry of Cooperatives and Small and Medium Enterprises in 2016, MSMEs contributed 62.57% to the national GDP (Aligarh et al., 2023). This role is evident not only in their contribution to GDP but also in the large share of businesses they represent and their contribution to employment absorption. Therefore, policies to strengthen MSME capacity and improve access to financing are key elements of the national economic development strategy.

Rapid developments in information technology have brought significant changes to the business processes of MSMEs in Indonesia. A range of technologies from social networking platforms and the semantic web to embedded systems, the Internet of Things (IoT), virtualization technologies, and cloud accounting have begun to be adopted by small and medium enterprises in many countries, creating new opportunities for operational efficiency, marketing, and supply chain integration (Aligarh et al., 2023; Alshirah et al., 2021; Khayer et al., 2021). Therefore, the literature on technology adoption in MSMEs often employs the TOE (Technology–Organization–Environment) framework to explain variations in the adoption of specific technologies, such as big data (Maroufkhani et al., 2020), social media (Eze et al., 2021; Tajudeen et al., 2018), intelligent agent technology (Alsetoohy et al., 2019), accounting information system (Lutfi et al., 2025; Ruivo et al., 2014), and cloud accounting adoption (Ayoobkhan & Asirvatham, 2017; Khayer et al., 2021; Ray, 2016) to analyze how that technology adoption affects business performance..

The technology adoption process in MSMEs has characteristics that differ from those of large companies due to limited capital, constrained human resource capacity, and a lower level of readiness to accept new technologies (Haddara & Elragal, 2013). Most traditional Enterprise Resource Planning (ERP) implementations are designed to meet the needs of large organizations with complex business processes; as a result, ERPs often require substantial upfront investments, cross-functional integration, and significant implementation resources factors that increase costs and risks for small businesses (Alsharari et al., 2020; Kulkarni et al., 2025). As a result, ERP adoption by SMEs (micro, small, and medium enterprises) tends to be limited due to the cost burden, operational complexity, and managerial challenges that accompany the implementation of an integrated system. On the other hand, cloud computing including Cloud-ERP variants and cloud-based accounting applications offers a more flexible cost model (for example, pay-as-you-go), scalability, and simplified implementation processes, making it an attractive alternative for SMEs. With a service-based approach, cloud solutions can deliver ERP-like features such as integration of accounting, inventory, and reporting functions but with relatively lower technical and financial burdens and shorter implementation times (Aligarh et al., 2023; Andanawarih et al., 2024), making them better suited to the simpler business process structures of SMEs (Kharuddin et al., 2015).

In developing countries like Indonesia, Cloud Accounting is increasingly attracting attention in both the private and public sectors because the usage-based service model (pay-per-use) allows organizations to adjust their IT capacity to operational needs, thereby reducing upfront investment burdens and improving resource scalability (Kansal et al., 2014; Neicu et al., 2020). Integration of cloud accounting with production digitization and automation can enhance organizational agility, operational flexibility, and productivity through on-demand service access,

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centralized processing, and the ability to synchronize data across functions (Al-Sharafi et al., 2023; Saraswat & Choudhari, 2025).

In Indonesia, several local app developers and service providers have offered cloud solutions targeted at SMEs, rapidly expanding the domestic cloud services ecosystem. However, adoption among SMEs is uneven due to factors such as inadequate infrastructure readiness, limited digital literacy, perceived security risks, and constraints in funding and human resources (Gui et al., 2021). Systematic literature reviews and empirical studies show that barriers to cloud accounting adoption among SMEs include concerns about security or data privacy (Jayeola et al., 2022), limited connectivity (Yaseen et al., 2023), and perceptions of cost versus benefit (Ayoobkhan & Asirvatham, 2017). Meanwhile, driving factors include reduced operating costs, ease of access, and competitive pressure (Al-Sharafi et al., 2023). Therefore, this study aims to identify the factors that influence SMEs' decisions to adopt cloud accounting and to formulate practical recommendations to close the gap between cloud service offerings and SME adoption levels.

In the process of adopting cloud accounting, an appropriate theoretical framework is necessary so the research can provide conceptual contributions and practical implications. Various technology adoption studies have relied on individual behavior theories such as UTAUT (Unified Theory of Acceptance and Use of Technology) (Ammar & Ahmed, 2016; Rahi et al., 2021), TAM (Technology Acceptance Model) dan TPB (Theory of Planned Behavior) (Awa & Ojiabo, 2016; Salimon et al., 2023), stimulus processing frameworks such as SOR (Stimulus Organism Response) (Tak & Gupta, 2021; Yuan et al., 2020), as well as organizational-level approaches such as TOE (Technology Organization Environment) (Dadhich & Hiran, 2022; Khayer et al., 2021), have also been used. Each theory highlights a different level of analysis: for example, UTAUT/TAM/TPB emphasize determinants of user intention and behavior; TOE identifies the technological, organizational, and environmental factors that shape adoption decisions at the organizational level; and SOR helps explain internal processes (e.g., perceptions, emotions, trust) that mediate the relationship between external stimuli and adoption responses. Therefore, integrating these frameworks is often necessary to capture the dynamics of cloud accounting adoption among SMEs more comprehensively.

This study will focus on SMEs, particularly in Kendal Regency, Central Java. The level of technology adoption among SMEs in Kendal Regency remains low only 13% of the total despite the fact that technology adoption offers numerous benefits such as lower costs, flexibility, and increased productivity. This research addresses the issue of cloud accounting adoption among SMEs in Kendal Regency using the TOE framework approach. Through the TOE approach, it is possible to identify the factors behind the low adoption of cloud accounting technology in SMEs in Kendal Regency by examining aspects such as relative advantage, complexity, top management support, organizational readiness, competitive pressure, and bandwagon effects. However, technology adoption issues are not solely caused by organizational and environmental factors; individual factors can also contribute to the lack of interest in utilizing technology. Therefore, the present study proposes integrating individual factors such as computer self-efficacy and computer anxiety into the TOE framework and examining the impact of cloud accounting adoption on SME performance (Aligarh et al., 2023). With this approach, it is expected to provide

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SMEs with an understanding that cloud accounting greatly facilitates owners in setting financial policies, monitoring cash flow and employee performance in real time, thereby improving business performance (Salimon et al., 2023).

METHODOLOGY

This explanatory research employs a quantitative approach using primary data to test the proposed hypotheses. Data were collected through a questionnaire developed based on instruments from variables and indicators previously validated in earlier studies, with measurements using a five-point Likert scale (1 = strongly disagree to 5 = strongly agree). The sampling in this study used purposive sampling with the criteria that SMEs have been operating for more than one year and utilize digital technology in their business processes. A total of 250 respondents meeting these criteria were selected. This sample size satisfies the recommended range, being more than 30 and fewer than 500 respondents (Abed, 2020). The study employs Structural Equation Modeling (SEM) using the Partial Least Squares (PLS) approach. A detailed description of the variables and measurement indicators is presented in Table 1.

Tabel 1. Operational Variable

Variables	Codes	Questions	References
Computer anxiety	CA1	I am worried about using a cloud accounting system to record transactions	(Salimon et al., 2023)
	CA2	I am afraid of losing my information when using the system for purchases	
	CA3	I hesitate to use a cloud accounting system because I am afraid of making mistakes that I cannot correct	
	CA4	This system feels somewhat intimidating to me	
Computer self-efficacy (CSE)	CSE1	I can perform transactions using a cloud accounting system without anyone telling me what to do	(Salimon et al., 2023)
	CSE2	I can perform transactions using a cloud accounting system if someone is available to help me when I encounter difficulties	
	CSE3	If I have enough time, I can complete tasks I have started using a cloud accounting system	
	CSE4	I can complete transactions using cloud accounting if built-in help features are available	

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Variables	Codes	Questions	References
	CSE5	I can complete transactions using cloud accounting even if I have never used a similar system before	
Relative Advantage	RA1	Cloud computing provides new opportunities	(AlSharji et al., 2018; Qalati et al., 2021)
	RA2	Cloud accounting allows us to complete certain tasks more quickly	
	RA3	Cloud accounting enables us to increase our productivity	
	RA4	Cloud accounting allows us to learn more about competitors	
	RA5	Cloud accounting enhances the image of the company/business	
Complexity	CX1	Cloud-based accounting information systems are flexible enough to interact with users	(Mujalli et al., 2024)
	CX2	Using cloud accounting informs me about potential computer failures and data loss	
	CX3	When we use cloud accounting, we find it difficult to integrate my existing work with the cloud-based services	
	CX4	When performing multiple tasks simultaneously, using cloud-based accounting takes up too much of my time	
Top Management Support	TMS1	Top management in my organization is interested in cloud computing	(Qalati et al., 2021)
	TMS2	Top management in my organization considers cloud computing adoption important	
	TMS3	Top management in my organization has demonstrated support for cloud computing	
	TMS4	Top management emphasizes research & development, technological leadership,	

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Variables	Codes	Questions	References
		and innovation	
Organizational Readiness	OR1	Our organization has the financial resources to adopt e-commerce	(Abed, 2020)
	OR2	Our organization has the technological resources to adopt e-commerce	
	OR3	We have high-speed Internet connectivity	
	OR4	Most employees have unlimited access to computers	
	OR5	Most of our employees are computer literate	
Competitive Pressure	CP1	Cloud accounting will provide the company with a stronger competitive advantage	(Qalati et al., 2021)
	CP2	Cloud computing will enhance the company's ability to compete	
	CP3	Cloud computing will enable the company to generate higher profits	
Bandwagon Effect	BE1	*Cloud accounting is a popular application; therefore, our company also wants to use it*	(Qalati et al., 2021)
	BE2	We follow others in using cloud computing systems	
	BE3	We choose to adopt cloud computing because many other companies are already using it	
MSMEs Performance	P1	Improved customer relationships	(Qalati et al., 2021)
	P2	Enhanced service quality	
	P3	Increased customer loyalty	
	P4	Increased recorded transaction data	
	P5	Improved inventory recording	
Cloud Accounting	CAA1	My organization will adopt cloud	(Awa &

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Variables	Codes	Questions	References
Adoption		computing to improve services	Ojiabo, 2016)
	CAA2	My organization will adopt cloud computing to enhance operational efficiency and reduce operational costs	
	CAA3	My organization will adopt cloud computing to improve data exchange between organizations	
	CAA4	My organization will adopt cloud computing to reduce data duplication	
	CAA5	My organization will adopt cloud computing to improve operations	

Source: Primary Data, 2025

RESULTS AND DISCUSSION

Respondent Demographics

Table 2 describes demographic characteristics, including gender, age, education level, MSME sector, business age, and sales turnover. Table 2 shows that most respondents are aged 20–30 years, the typical education level is senior high school, the average monthly sales turnover is less than five million rupiah, the most common MSME sector is food and beverage, and the average duration of running the MSME is less than 5 years.

Table 2 respondent demographics

Description		Frequency	Percentage
Age	20 years – 30 years	115	46
	30 years – 40 years	65	26
	40 years – 50 years	45	18
	Over 50 years	25	10
Gender	Female	131	53
	Male	119	47
Level of Education	Elementary School	31	12.4
	Junior High School	57	22.8
	Senior High School	96	38.4
	College	66	26.4

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SMEs Sectors	Services	41	16.4
	Fashion	37	14.8
	Food and Beverage	104	41.6
	Retail	34	13.6
	Others	34	13.6
Sales turnover	Less than 5 million	126	50.4
	5 million – 10 million	71	28.4
	Above 10 million	45	18
Years in operation	Less than 5 years	105	42
	5 years – 10 years	81	32.4
	Over 10 years	64	25.6

Source: Primary Data (2025)

Outer Model

Outer model testing aims to determine a model's validity and reliability. The loading factor, the average variance extracted (AVE), and the composite reliability will all be elements that will be taken into consideration throughout this test analysis. As a result of assessing the variable indicators that might generate latent variables with cloud accounting adoption on computer anxiety, computer self-efficacy, relative advantage, complexity, top management support, organizational preparedness, competitive pressure, bandwagon effect, and MSMEs Performance, the findings of this study are presented.

Table 3 Validity and Reliability Results

Variables	Items	Factor Loading	Cronbach's alpha	Composite Reliability	AVE
Computer Anxiety	CA1	0.774	0.861	0.899	0.694
	CA2	0.917			
	CA3	0.946			
	CA4	0.665			
	CA5	0.874			
Computer self-efficacy	CSE1	0.731	0.821	0.874	0.581
	CSE2	0.763			
	CSE3	0.726			
	CSE4	0.829			
	CSE5	0.759			
Relative Advantage	RA1	0.514	0.809	0.871	0.583
	RA2	0.829			
	RA3	0.907			
	RA4	0.830			
	RA5	0.670			

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Variables	Items	Factor Loading	Cronbach's alpha	Composite Reliability	AVE
Complexity	CX1	0.887	0.904	0.932	0.775
	CX2	0.878			
	CX3	0.884			
	CX4	0.873			
Top Management Support	TMS1	0.685	0.764	0.850	0.587
	TMS2	0.755			
	TMS3	0.834			
	TMS4	0.783			
Organizational Readiness	OR1	0.802	0.848	0.892	0.622
	OR2	0.825			
	OR3	0.774			
	OR4	0.771			
	OR5	0.771			
Competitive Pressure	CP1	0.836	0.781	0.871	0.694
	CP2	0.902			
	CP3	0.754			
Bandwagon Effect	BE1	0.820	0.775	0.868	0.687
	BE2	0.775			
	BE3	0.887			
MSMEs Performance	P1	0.825	0.894	0.922	0.704
	P2	0.872			
	P3	0.905			
	P4	0.808			
	P5	0.779			
Cloud Accounting Adoption	CAA1	0.762	0.845	0.890	0.617
	CAA2	0.770			
	CAA3	0.771			
	CAA4	0.822			
	CAA5	0.803			

Source: primary data (processed, 2025)

The elements that make up computer anxiety, computer self-efficacy, relative advantage, complexity, top management support, organizational preparedness, competitive pressure, bandwagon effect, and MSMEs Performance and cloud accounting adoption all have a factor loading value that is more than 0.6, as shown in Table 3. Therefore, all of these factors may contribute to the formation of computer fear, computer self-efficacy, relative advantage, complexity, support from top management, organizational preparedness, competitive pressure, bandwagon effect, and the performance of micro, small, and medium-sized enterprises to cloud accounting adoption. It is more than 0.6 for Cronbach's alpha, more than 0.7 for composite reliability, and more than 0.5 for the AVE value. These results indicate that for all consistency variables in measuring research variables, no dimensionality problems were found, and convergent validity was stated when forming each variable.

Inner Model

The assessment of the structural model, also known as the inner model, begins with an evaluation of the R-square value of the latent variable using the Geisser Q-

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square test. This is then followed by an examination of the size of the structural path coefficient. The t-statistics that are produced from the bootstrapping procedure are used to evaluate the reliability of the structural route coefficient estimate. The R-square value in the equation that involves latent variables is what indicates whether or not the inner model test was successful. A presentation of the results of the R-square calculation may be found in Table 4.

Table 4 R-Square Results

Construct	R-Square
Cloud Accounting Adoption	0.555
MSMEs Performance	0.331

Source: primary data (processed, 2025)

The total determination coefficient (Q^2) was employed to evaluate the model's feasibility, as indicated by the calculation results in Table 4. Q-square assesses the accuracy of the observed values generated by the model and its parameter estimations. The Q-square value is calculated using the following formula:

$$Q^2 = 1 - (1 - R_1^2) * (1 - R_2^2)$$

The following is an example of how the computation of Q-square may be done by utilizing the R-square data from the three models described above:

$$Q^2 = 1 - (1 - 0.555) * (1 - 0.331)$$

$$Q^2 = 1 - (0.445) * (0.669)$$

$$Q^2 = 1 - (0.2977)$$

$$Q^2 = 0.702$$

The research model is responsible for explaining 70.2% of the variance, as shown by the value of 0.702 that was obtained from the Q-square (Q2) calculation. Considering that the combined influence of computer anxiety, computer self-efficacy, relative advantage, complexity, top management support, organizational readiness, competitive pressure, bandwagon effect, cloud accounting adoption, and MSME performance is 70.2%, it can be concluded that the model that was developed has a relatively high predictive relevance.

Table 5 hypothesis results

Hypothesis	**Coefficients**	**T-statistics**	**P-values**	**Result**
H1: RA → CAA	-0.002	0.024	0.981	Not Supported

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H2: CX → CAA	-0.099	2.058	0.040	Supported
H3: TMS → CAA	0.237	3.752	0.000	Supported
H4: OR → CAA	-0.025	0.413	0.680	Not Supported
H5: CP → CAA	0.121	2.006	0.045	Supported
H6: BE → CAA	0.251	3.964	0.000	Supported
H7: CSE → CAA	0.407	6.397	0.000	Supported
H8: CA → CAA	-0.098	1.968	0.050	Supported
H9: CAA → P	0.575	9.162	0.000	Supported

Source: Primary data (processed, 2025)

Table 5 shows that the influence of RA on CAA produces a t-statistic = 0.024 < 1.96, with a p-value = 0.981 > 0.05, so H1 is rejected. This means RA does not significantly influence CAA in the sample. The coefficient is -0.002, which corresponds to a −0.2% change in CAA for a one-unit increase in RA. (CX) on CAA produces a t-statistic = 2.058 > 1.96, with a p-value = 0.040 < 0.05, so H2 is accepted. This means perceived CX negatively and significantly influences CAA. An increase in perceived CX is followed by a decrease in CAA by 9.9% (coefficient = −0.099). TMS on CAA produces a t-statistic = 3.752 > 1.96, with a p-value = 0.000 < 0.05, so H3 is accepted. This means TMS positively and significantly influences CAA. An increase in TMS is followed by an increase in CAA by 23.7%. OR on CAA produces a t-statistic = 0.413 < 1.96, with a p-value = 0.680 > 0.05, so H4 is rejected. This means organizational readiness does not have a significant direct effect on CAA in this sample. The coefficient is −0.025, i.e., a −2.5% change in CAA per one-unit increase in OR. CP on CAA produces a t-statistic = 2.006 > 1.96, with a p-value = 0.045 < 0.05, so H5 is accepted. This means competitive pressure positively and significantly influences cloud accounting adoption. An increase in CP is followed by an increase in CAA by 12.1%. BE on CAA produces a t-statistic = 3.964 > 1.96, with a p-value = 0.000 < 0.05, so H6 is accepted. This means BE positively and significantly drives adoption. An increase in BE is followed by an increase in CAA by 25.1%.

CSE on CAA produces a t-statistic = 6.397 > 1.96, with a p-value = 0.000 < 0.05, so H7 is accepted. This means CSE positively and strongly influences CAA. An increase in CSE is followed by an increase in CAA by 40.7%. CA on CAA produces a t-statistic = 1.968 ≈ 1.96, with a p-value = 0.050 = 0.05, so H8 is accepted. This means computer anxiety negatively affects adoption and is marginally significant at the 5% level. An increase in CA is followed by a decrease in CAA by 9.8%. The influence of CAA on P produces a t-statistic = 9.162 > 1.96, with a p-value = 0.000 < 0.05, so H9 is accepted. This means CAA positively and significantly improves MSME performance. An increase in CAA is followed by an increase in performance by 57.5%.

The influence of relative advantage on cloud accounting adoption

The results of this study reveal that RA does not affect the adoption of cloud accounting among SMEs in Kendal Regency. This finding indicates that some SMEs

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in Kendal Regency are not yet aware of the benefits of implementing cloud accounting. One possible explanation is a lack of understanding and awareness of the advantages this technology can offer to business actors. Another possible reason is that the costs involved may be high, including maintenance expenses. This finding is consistent with the results of Alkhater et al. (2018) and Low et al. (2011).

The influence of complexity on cloud accounting adoption

The findings of this research reveal that customer experience (CX) has a substantial and detrimental impact on the adoption of cloud accounting for businesses. Several other researchers, including AlBar and Hoque (2019), Trawnih et al. (2021), and Mujalli et al. (2024), have reached the same conclusion. Due to the fact that there is a negative correlation between customer experience and cloud accounting usage, business actors in Kendal Regency perceive cloud accounting as complicated, difficult to understand, and requiring new skills. This aligns with the TOE view that perceived technological difficulty is a major barrier to innovation adoption. CX is negatively related to the adoption of a new innovation the higher the perceived complexity, the harder it is to adopt (Aligarh et al., 2023). These results suggest that business actors in Kendal Regency are worried about the complexity they would face when using cloud accounting or cloud-based technologies. Other indications include a lack of understanding of the new technology and fear of changes to existing business processes (Mujalli et al., 2024).

The influence of top management support on cloud accounting adoption

Top Management Support (TMS) has been shown to have a favorable and substantial impact on the adoption of cloud accounting, according to the findings of the investigation. In this research, pragmatic data is provided to demonstrate that different types of TMS, such as resource allocation and direct engagement in the process, are essential for expediting the adoption of promising technologies such as cloud accounting at the organizational level. This conclusion is in line with the assertions made by Khayer et al. (2021) and Oliveira and Martins (2010), which state that TMS is the most important organizational element that influences the adoption of new technologies. Within the TOE framework, the TMS is a fundamental organizational variable that determines the implementation of successful adoption. These kinds of assistance make it possible for enterprises to distribute resources, lessen the impact of technological obstacles, and adjust to the demands that come from the business environment. According to Ahmad et al. (2021), small and medium-sized enterprises (SMEs) need help from top management. This support must be provided by any and all possible ways. Without significant support from TMS (such as owners and management), small and medium-sized enterprises (SMEs) are unlikely to embrace cloud accounting. It is also possible that small and medium-sized enterprises (SMEs) find it simpler to gain the required assistance from top management. This is because, in comparison to big organizations, SMEs often have management structures that are more straightforward (Khayer et al., 2021).

The influence of organizational readiness on cloud accounting adoption

The study's results reveal that OR does not have a significant effect on the adoption of cloud accounting. This finding is consistent with studies by Lai et al.

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(2018), Maroufkhani et al. (2020), Maduku et al. (2016) , which reported that OR did not influence cloud accounting adoption among SMEs. This outcome appears to be related to differences in respondent characteristics: most questionnaires were completed by business owners or employees of SMEs in Kendal Regency who are involved with information technology usage. They may not fully understand how cloud accounting is used in business, which could lead to OR particularly financial readiness for adopting the new technology being overlooked or underestimated (Maroufkhani et al., 2020).

The influence of competitive pressure on cloud accounting adoption

CP has a positive and significant effect on the adoption of cloud accounting, which is consistent with previous studies (Gupta et al., 2022; Nguyen et al., 2022; Oliveira & Martins, 2010). Within the TOE framework, CP functions as an environmental factor that accelerates the adoption of cloud accounting. This pressure pushes MSMEs to follow competitor trends and industry standards in order to reduce risk and uncertainty. Business entities such as suppliers, government agencies, and others naturally share business information, and thus can influence the level of cloud accounting adoption. CP reflects the act of imitating other organizations with similar structures, including competitors (Oliveira & Martins, 2010). To avoid uncertainty, MSME owners and managers rely on competitors' experiences, which ultimately increases engagement with the environmental context to adopt cloud accounting.

The influence of bandwagon effect on cloud accounting adoption

Statistical test results show that BE has a positive and significant effect on the adoption of cloud accounting. Among environmental factors, BE is positively and significantly correlated with cloud accounting adoption. As an environmental factor within the TOE framework, BE plays an important role in accelerating cloud accounting adoption. A progressively digitalized business environment, together with collaboration among MSMEs or support from associations/industry, drives faster adoption of cloud accounting. BE refers to how others develop their businesses with respect to fellow entrepreneurs. It denotes a set of actions adopted by people because many others have already adopted them (Qalati et al., 2021). In Kendal Regency, MSMEs cooperate with certain groups or industries, which helps accelerate digitalization. These findings are consistent with the studies by Qalati et al. (2021) and Ahmad et al. (2019).

The influence of computer self-efficacy on cloud accounting adoption

CSE, which stands for computer self-efficacy, was shown to have a favorable and substantial impact on the adoption of cloud accounting among micro and small businesses, according to the findings of the research. In the context of cloud accounting, our results are in agreement with those of earlier research conducted by Fiddin and Arief (2022) and Salimon et al. (2023). According to Khayer et al.'s research from 2021, the perceived convenience that micro, small, and medium-sized enterprise (MSME) actors experience, together with a high level of confidence in efficiently using complicated systems, would improve self-motivation and

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persistence in adopting cloud accounting for the purpose of operating their enterprises. Technology adoption is impacted by technical variables such as perceived utility and ease of use, according to the TOE framework, which states that these aspects are influenced by technology. CSE is directly related to the technological aspect, because the higher an individual's confidence in using a system, the more readily they perceive the benefits and ease of cloud accounting technology.

The influence of computer anxiety on cloud accounting adoption

CA has a negative and significant effect on cloud accounting. This finding is in line with previous studies (Leung & Dickinger, 2017; Lin et al., 2020; Salimon et al., 2023). CA, in using computer-based platforms, is a psychological condition related to readiness and ability to use such systems (Yang & Forney, 2013). This is justifiable because CA is regarded as an individual perception that hinders the formation of a positive attitude toward the ease of using cloud-based systems (Venkatesh & Bala, 2008). Leung and Dickinger (2017) argue that although online transactions are common, many business actors still choose to conduct transactions and record data manually because of anxiety about online payment issues, the risk of personal information leaks, and weak cyber law regulations. CA is directly related to the TOE framework, particularly the technological factor that includes perceived ease of use. When business actors have high levels of anxiety, they will view cloud accounting systems as complicated, risky, and difficult to operate. Computer anxiety is an important barrier to cloud accounting adoption that affects the technological aspects within the TOE framework.

The influence of cloud accounting adoption on business performance

Based on the findings of the research, it can be concluded that CAA has a good and substantial impact on the performance of businesses. This is in line with the findings of earlier research conducted by Khayer et al. (2021) and Garrison et al. (2015), which demonstrate that CAA has the potential to improve the performance of MSME. CAA was shown to have a substantial influence on the performance of MSME, especially in cloud-supported processes and operations, according to the findings of the research. According to Aligarh et al. (2023), this discovery is not unexpected since more and more businesses are moving their operations to the cloud in order to save costs and increase performance (Alsharari et al., 2020). The findings suggest that a successful CAA will assist MSMEs in achieving a variety of strategic and operational advantages, including higher yearly income, reduced operating expenses, and more business flexibility. This allows MSMEs to have access to the most recent information technology resources, which in turn enables them to make efficient use of essential resources and concentrate on their main business activities. The IT skills of MSMEs may also be improved by using the expertise of service providers and implementing best practices. This research lends credence to the concept put out by the Technology on the Edge (TOE), which states that the effective adoption of new technology is not only driven by technical considerations, but also by organizational preparedness and drivers of the business environment.

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CONCLUSION

Through the incorporation of individual elements within the context of cloud accounting, this research makes a contribution to the current theory that is included within the Technological–Organizational–Environmental (TOE) paradigm. To put it another way, the findings of this study contribute to a deeper understanding of the ways in which individual elements, as well as technical, organizational, and environmental factors, interact with one another in the process of using cloud accounting.

The adoption of cloud accounting is shown to be significantly influenced by computer self-efficacy and computer anxiety. These two constructs reflect the levels of confidence and concern among MSMEs in Kendal Regency when adopting technology. In addition to extending the TOE model, this study also advances the research line (Khayer et al., 2021) demonstrating that individual factors indeed affect cloud accounting adoption. Moreover, complexity, top management support, the bandwagon effect, and competitive pressure were also found to have significant effects on cloud accounting adoption. This indicates that technological flexibility, organizational support, and environmental pressures are important factors influencing cloud accounting adoption among MSMEs in Kendal Regency, alongside individual factors.

In addition to extending the research model, the study investigates the performance of micro, small, and medium-sized enterprises (MSME) in connection to pre-adoption aspects of cloud accounting. The findings indicate that the use of cloud accounting leads to an improvement in the performance of micro, little, and medium-sized enterprises (MSME) in Kendal. This study is very helpful for micro, little, and medium-sized enterprises (MSME) players in Kendal in determining the characteristics that drive the use of cloud accounting.

In order to deliver services that instill trust and comfort in their customers, cloud accounting service providers need to be able to successfully manage the high levels of computer anxiety that their customers experience. Managerial contributions are also discussed in the research. These contributions relate to the activities and duties of managers in order to accomplish organizational objectives. These include planning, organizing, directing, and overseeing resources and people within a MSME. The use of cloud accounting may offer MSMEs in Kendal with reliable financial information. Utilizing cloud accounting may result in a reduction in the expenses associated with staff supervision, as well as the production of business processes that are more efficient and effective, thus providing value to the company. The results may also motivate other MSMEs to initiate digital transformation activities in their operations. In addition, it is anticipated that the administration of the Kendal Regency would become more active in giving stimulus about the significance of digital transformation in enhancing the performance of MSME.

The limitations of this research include the fact that it only investigates the elements that influence the adoption of cloud accounting from the viewpoints of information technology, organizations, the environment, and individuals. Future research is recommended to investigate other driving factors, such as government

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regulation. Another limitation is that the sample covers only MSMEs in Kendal Regency, so the results cannot be generalized to MSMEs in other regions.

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