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Research Article

Determination of Cloud Accounting Adoption through Factors in the TAM Framework 3: Study on MSMEs in Pekanbaru

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Abstract - *This study investigates the low adoption of cloud accounting among Micro, Small, and Medium Enterprises (MSMEs), despite its potential to enhance efficiency and real-time financial reporting. Based on the Technology Acceptance Model (TAM 3), this research examines the effects of Output Quality, Job Relevance, Computer Self-Efficacy, and Computer Anxiety on Cloud Accounting Adoption through Perceived Usefulness (PU), Perceived Ease of Use (PEOU), and Intention to Adopt (IA). A quantitative approach was employed using survey data from 192 MSMEs in Pekanbaru, analyzed with Partial Least Squares Structural Equation Modeling (PLS-SEM). The results reveal that Job Relevance significantly influences Perceived Usefulness ($\beta = 0.733$; $p < 0.001$), while Output Quality is not significant ($\beta = -0.085$; $p = 0.197$). Computer Self-Efficacy ($\beta = 0.395$; $p < 0.001$) and Computer Anxiety ($\beta = 0.320$; $p < 0.001$) significantly affect Perceived Ease of Use. Furthermore, Perceived Usefulness ($\beta = 0.357$; $p < 0.001$) and Perceived Ease of Use ($\beta = 0.580$; $p < 0.001$) significantly influence Intention to Adopt, which in turn affects Cloud Accounting Adoption ($\beta = 0.498$; $p < 0.001$). These findings highlight that perceived relevance, ease of use, and user confidence are key drivers of technology adoption, while output quality is less influential. This study extends TAM 3 in the MSME context and offers practical implications for improving cloud accounting adoption through user-focused system design and digital capability enhancement.*

Keywords - *TAM 3, Cloud Accounting, Perceived Usefulness, Perceived Ease of Use, Intention to Adopt.*

I. INTRODUCTION

The development of human civilization has been marked by major transformations that have changed the ways individuals and organizations conduct economic and social activities through the utilization of technology (Tiar Sirait, 2022). Entering the era of the Industrial Revolution 4.0, advancements in information and communication technology have accelerated the integration of digital systems and human activities within interconnected, automated, and data-driven ecosystems (Respatiningsih et al., 2020). This transformation is not merely technical in nature, but also structural, as it shifts operational models from conventional systems toward more adaptive, responsive, and real-time information-based digital systems (Nur & Fitrios, 2025). In this context, cloud computing has emerged as one of the most transformative innovations in financial and accounting information management (Fitrios & Nasrizal, 2022). This technology enables organizations to access and manage data in real time without relying on costly and complex physical infrastructure (Kumari & Kaur, 2021). Such developments have given rise to cloud accounting, a cloud-based accounting system that allows financial recording and reporting processes to be conducted in an integrated, flexible, and remotely accessible manner across time and location (Amir Hamzah et al., 2023).

For Micro, Small, and Medium Enterprises (MSMEs), cloud accounting has strategic relevance because it can improve financial management efficiency and support better decision-making processes. However, most MSMEs in Indonesia still face limitations in digital literacy and predominantly rely on manual accounting systems that are prone to errors and data inconsistencies (Central Statistics Agency, 2022). Although the government has

promoted MSME digitalization through various initiatives, the adoption rate of cloud-based technology in Indonesia remains relatively low, reaching only 26.3% during the 2020–2021 period (Asian Development Bank Institute, 2024). This condition indicates that the success of digital transformation is determined not only by technological availability, but also by users' readiness to adopt and utilize such technologies effectively. To explain technology acceptance behavior, this study adopts the Technology Acceptance Model (TAM), which emphasizes perceived usefulness (PU) and perceived ease of use (PEOU) as the primary determinants of technology acceptance (Wicaksono, 2022).

As technology evolves, TAM has been extended into TAM3, which integrates external factors and individual characteristics, such as output quality, job relevance, computer self-efficacy, and computer anxiety, in explaining technology acceptance behavior (Ursavaş, 2022). Nevertheless, previous empirical findings regarding the relationships among these variables remain inconsistent (Al-Gahtani, 2016; Almarazroi et al., 2020; Tırpan & Bakırtaş, 2024). In addition, the phenomenon of the intention–behavior gap indicates that the intention to use technology does not always translate into actual adoption behavior, particularly among MSMEs that face resource constraints and limited digital literacy. Pekanbaru City was selected as the research setting because it represents one of the regions with a large number of MSMEs, the majority of which still rely on manual financial recording systems (BPS Riau Province, 2024). Therefore, this study aims to analyze the effects of output quality, job relevance, computer self-efficacy, and computer anxiety on intention to adopt and their impact on cloud accounting adoption through perceived usefulness and perceived ease of use among MSMEs in Pekanbaru. This study is expected to contribute theoretically to the development of the TAM3 model and practically to the acceleration of MSME digital transformation through the enhancement of digital literacy and users' technological readiness.

II. THEORETICAL FRAMEWORK

A. Technology Acceptance Model 3 (TAM3)

Technology Acceptance Model 3 (TAM3) represents an advanced extension of the Technology Acceptance Model aimed at enhancing the ability to explain and predict technology adoption behavior through the identification of determinants that shape user perceptions. Unlike earlier models, TAM3 emphasizes the factors influencing perceived usefulness and perceived ease of use as the fundamental basis for the formation of behavioral intention and technology usage behavior (Wicaksono, 2022). Within this framework, the mechanisms of anchoring and adjustment play a central role in explaining the dynamics of perception formation.

Anchoring represents the influence of individual characteristics and initial beliefs prior to direct interaction with technology, which in this study are reflected through the variables of computer self-efficacy and computer anxiety in shaping perceived ease of use. Meanwhile, adjustment describes the process of evaluating and refining perceptions based on system characteristics and user experience, represented by output quality and job relevance in shaping perceived usefulness. Therefore, the integration of these two mechanisms provides a more comprehensive understanding of how individual factors and system characteristics simultaneously influence users' perceptions, intentions, and behaviors in adopting cloud accounting systems (Al-Okaily et al., 2023).

B. Hypothesis Development

a. Output Quality and Perceived usefulness in Cloud Accounting Adoption

Output Quality (OQ) is defined as the extent to which individuals believe that a system is capable of fulfilling task requirements and generating outputs that are accurate, timely, relevant, and easily accessible (Goodhue, 1995; Venkatesh & Bala, 2008). High-quality system outputs are expected to enhance users' confidence that the system can support task completion more effectively, thereby strengthening Perceived Usefulness (PU).

Previous studies have demonstrated a significant relationship between perceived output quality and Perceived Usefulness, indicating that the higher the quality of system-generated outputs, the greater the likelihood that users will perceive the system as beneficial (Venkatesh & Bala, 2008). Within the Technology Acceptance Model 2 (TAM2), Output Quality is identified as one of the determinants of Perceived Usefulness because users evaluate the usefulness of a technology based on the extent to which the system produces clear, accurate, and valuable outputs (McDowell et al., 2008). In the context of cloud accounting adoption, this suggests that financial reports

and business information that are generated in real time, accurately, and with easy accessibility can strengthen users' beliefs that cloud accounting is useful in supporting their work activities.
H1: Output Quality influences Perceived Usefulness in the adoption of cloud accounting.

b. Job Relevance and Perceived Usefulness in Adopsi Cloud Accounting

Job Relevance (JR) is a key construct in the technology adoption literature that reflects the extent to which a system is perceived as being aligned with users' tasks, needs, and work contexts, thereby influencing cognitive evaluations of its usefulness. Rooted in innovation diffusion theory and further developed within the Technology Acceptance Model (TAM), TAM2, and TAM3 frameworks, Job Relevance is positioned as a primary determinant of Perceived Usefulness, whereby individuals are more likely to perceive a technology as beneficial when its features and functions directly support work activities and performance enhancement. In the context of cloud accounting, perceptions of relevance emerge when the system effectively facilitates core business processes, such as transaction recording, cash flow management, and financial reporting, in an efficient and reliable manner.

TAM3 emphasizes that this relationship is mediated through cognitive evaluation processes that assess the fit between technological capabilities and job requirements, such that a higher level of alignment leads to a stronger perception of usefulness. Previous empirical studies consistently demonstrate that Job Relevance positively influences Perceived Usefulness, indicating that functional relevance is not merely a technical attribute but also a strategic determinant that strengthens users' beliefs regarding the value of technology and ultimately enhances their tendency to adopt it (Almarazroi et al., 2020; Tırpan & Bakırtaş, 2024; Venkatesh & Bala, 2008).
H2: Job Relevance influences Perceived Usefulness in the adoption of cloud accounting.

c. Computer Self-Efficacy and Perceived Ease of Use in Adopsi Cloud Accounting

Computer Self-Efficacy (CSE) is derived from the concept of self-efficacy introduced by Bandura, which refers to an individual's belief in their capability to organize and execute the actions required to achieve specific levels of performance (Downey & Bartczak, 2008). The relationship between Computer Self-Efficacy and Perceived Ease of Use (PEOU) in the context of cloud accounting adoption can be explained through the Technology Acceptance Model 3 (TAM3). According to Venkatesh and Bala (2008), CSE is one of the primary determinants of PEOU because individuals' confidence in their ability to use computer technology influences their perception that a cloud-based accounting system is easy to learn and operate.

Individuals with high levels of Computer Self-Efficacy tend to possess greater confidence in overcoming technical and operational challenges, thereby reducing the cognitive burden associated with system interaction (Tırpan & Bakırtaş, 2024). This perspective is consistent with Bandura's theory, which argues that self-efficacy reflects not only actual skills but also individuals' beliefs in their ability to successfully perform challenging tasks (Compeau & Higgins, 1995).
H3: Computer Self-Efficacy influences Perceived Ease of Use in the adoption of cloud accounting.

d. Computer Anxiety and Perceived Ease of Use in Adopsi Cloud Accounting

Computer Anxiety (CA) is a psychological construct that reflects individuals' feelings of fear, anxiety, and discomfort when interacting with computer technology, encompassing both emotional and cognitive dimensions that may influence evaluations of a system. Within the framework of the Technology Acceptance Model 3 (TAM3), Computer Anxiety is positioned as an anchoring belief that influences Perceived Ease of Use (PEOU), whereby higher levels of anxiety tend to reduce perceptions of ease of use because individuals feel less confident, fear making mistakes, and perceive the system as more complex than it actually is. In the context of cloud accounting, such conditions may hinder users from understanding and operating system features effectively, thereby reducing perceptions of ease of use and weakening the tendency to adopt the technology.

However, TAM3 also suggests that the negative influence of Computer Anxiety is dynamic and may decrease as users gain greater experience, enabling more accurate system understanding and increased confidence in technology usage. Previous empirical findings indicate that although Computer Anxiety is generally negatively associated with PEOU, in certain situations anxiety may encourage greater caution and more intensive learning

efforts, suggesting that the relationship is contextual and influenced by moderating factors such as experience, technical support, and digital literacy. Therefore, managing Computer Anxiety through training, assistance, and intuitive system design is essential to improving perceptions of ease of use and strengthening cloud accounting adoption (Almarazroi et al., 2020).

H4: Computer Anxiety influences Perceived Ease of Use in the adoption of cloud accounting.

e. Perceived Usefulness and Intention to Adopt Cloud Accounting

Perceived Usefulness (PU) is defined as the extent to which individuals believe that the use of a system can enhance their job performance and is considered a primary determinant in shaping behavioral intention within the Technology Acceptance Model (TAM). Individuals are more likely to adopt a technology when the perceived benefits are tangible and relevant to their needs. In the context of cloud accounting, Perceived Usefulness is reflected in the system's ability to improve the efficiency and effectiveness of financial management through real-time access, automation, and enhanced information accuracy.

PU also functions as a mediating variable linking external factors, such as system quality and job relevance, to users' adoption intentions. Therefore, the greater the perceived usefulness of the system, the stronger the tendency of individuals or organizations to adopt cloud accounting, as supported by previous empirical findings demonstrating the significant influence of PU on cloud-based technology adoption (Almarazroi et al., 2020; Tırpan & Bakırtaş, 2024).

H5: Perceived Usefulness (PU) influences Intention to Adopt Cloud Accounting in the context of Cloud Accounting Adoption.

f. Perceived Ease of Use and Intention to Adopt Cloud Accounting

Perceived Ease of Use (PEOU) is defined as the degree to which an individual believes that a system can be used easily without requiring substantial effort, and it represents the second major determinant after Perceived Usefulness (PU) in predicting technology adoption intention. In the context of cloud accounting, PEOU is reflected in the ease of system operation through a simple interface, clear navigation, and automated integration that enable users to manage financial activities efficiently without requiring complex technical skills. Within the framework of the Technology Acceptance Model (TAM), PEOU plays a dual role, namely directly shaping positive attitudes toward technology and indirectly influencing adoption intention through the enhancement of PU.

A system that is perceived as easy to use tends to reduce psychological barriers, increase user comfort, and strengthen the belief that the technology is beneficial. Therefore, the higher the perceived ease of use, the greater the individual's tendency to adopt cloud accounting, as supported by empirical findings indicating that PEOU significantly influences the adoption of cloud-based technologies (Almarazroi et al., 2020; Tırpan & Bakırtaş, 2024; Venkatesh & Bala, 2008).

H6: Perceived Ease of Use (PEOU) influences the Intention to Adopt Cloud Accounting in the context of Cloud Accounting Adoption.

g. Intention to Adopt and Cloud Accounting Adoption

In the context of information technology acceptance and usage, intention to adopt is regarded as the primary predictor of actual technology usage behavior (actual use/adoption). This relationship is explained in the Technology Acceptance Model (TAM) proposed by Fred Davis et al. (1989), which states that when individuals possess a strong intention to use a system, they are more likely to actually use it in practice.

Such intention is formed through beliefs regarding the usefulness (Perceived Usefulness) and ease of use (Perceived Ease of Use) of a system, and may also be influenced by psychological and environmental factors (Wicaksono, 2022a). In the context of cloud accounting adoption, the stronger the intention to adopt possessed by users or organizations, the greater the likelihood that cloud-based systems will actually be implemented and utilized in daily accounting activities. This indicates that the success of cloud accounting adoption depends not only on the technical quality of the system, but also on the extent to which users possess the motivation and psychological readiness to utilize it. Therefore, intention to adopt can be viewed as an important indicator that

bridges users' perceptions of system usefulness and ease of use with actual behavior in adopting technology (Ursavaş, 2022).

H7: Intention to Adopt Cloud Accounting influences Cloud Accounting Adoption.

III. RESEARCH METHODOLOGY

This study adopts a quantitative approach to examine the causal relationships among variables within the framework of the Technology Acceptance Model (TAM 3) toward cloud accounting adoption. This approach was selected because of its capacity to objectively test theoretical constructs through standardized variable measurements and to enable the generalization of findings based on empirical data. The data utilized in this study are primary data obtained through the distribution of structured questionnaires to respondents, thereby enabling a systematic representation of factual conditions relevant to the investigated phenomenon (Sugiyono, 2022). The research population consists of all Micro, Small, and Medium Enterprises (MSMEs) in Pekanbaru, totaling 7,486 business units, with a focus on entities associated with the utilization of digital technology. Through purposive sampling techniques, respondents were selected based on criteria related to internet usage and relevance to cloud-based technology, resulting in a sampling frame of 4,138 MSMEs that aligned with the context of the study (Hair et al., 2019).

The sample size was determined at 192 respondents based on the guideline recommending a minimum of six times the number of research indicators, in order to ensure parameter estimation stability and the robustness of model analysis. The sampling process was combined with convenience sampling techniques to enhance accessibility to eligible respondents in the field without reducing the validity of sample selection. Data collection was conducted directly through questionnaires utilizing a five-point Likert scale to measure respondents' perceptions regarding the research variables, accompanied by demographic questions to identify respondent characteristics (Hair et al., 2019). The respondents involved in this study were individuals who possessed an understanding of financial management or technology utilization within the business, such as business owners or related staff members, with one respondent representing each business unit. The direct data collection approach enabled greater response accuracy while ensuring respondent suitability, thereby producing highly valid data that empirically reflect the actual conditions of cloud accounting adoption (Machali, 2021).

Table 1. Variable Measurement

Variable	Variable	Variable
Cloud Accounting Adoption (CAA)	1) The company invests resources in the use of cloud accounting. 2) The company's business activities require the use of cloud accounting. 3) The company's functional areas utilize cloud accounting.. (Chen et al., 2023).	Ordinal
Output Quality (OQ)	1) The quality of the system's output. 2) Issues related to the system's output. 3) Evaluation of the system's output.. (Sujatmiko & Prismana, 2022)	Ordinal
Job Relevance (JR)	1) The system is important for work activities. 2) The system is relevant to work processes. 3) The system is related to job tasks. (Sujatmiko & Prismana, 2022)	Ordinal
Computer Self-Efficacy (CSE)	1) Other people provide information about the system. 2) Other people recommend using the system. 3) Guidance on using the system is obtained from other people. 2) Previous experience using the same or similar system. (Sujatmiko & Prismana, 2022)	Ordinal
Computer Anxiety (CA)	1) Fear of using the system. 2) Nervousness when using the system.	Ordinal

Variable	Variable	Variable
	3) Comfort in using the system. 4) Anxiety when using the system. (Sujatmiko & Prismana, 2022)	
Perceived Usefulness (PU)	1) Organizational Efficiency 2) Productivity Improvement 3) Work Completion Speed 4) Work Cost Reduction (Mujalli et al., 2024).	Ordinal
Perceived Ease of Use (PEOU)	1) Ease of Learning 2) Clarity of Interaction 3) Flexibility of Use 4) Ease of Becoming Skillful (Mujalli et al., 2024).	Ordinal
Intention to Adopt Cloud Accounting (IA)	1) Benefit 2) Usage Support 3) Maximum Usage Desire 4) Organizational Productivity Improvement (Mujalli et al., 2024).	Ordinal

A. Technical Analysis

Data analysis in this study employed the Partial Least Squares Structural Equation Modeling (PLS-SEM) approach using SmartPLS version 4.1.1. The PLS-SEM method was selected due to its advantages in estimating models with latent constructs, relatively moderate sample sizes, and its ability to operate without requiring normally distributed data (Hair et al., 2019). The analytical procedure was conducted through two main stages, namely the evaluation of the measurement model (outer model) and the structural model (inner model).

a. Measurement Model (Outer Model)

Evaluasi model pengukuran dilakukan untuk memastikan bahwa instrumen penelitian memenuhi kriteria validitas dan reliabilitas melalui hubungan antara konstruk laten dan indikatornya:

a) Convergent Validity: Evaluated through the Average Variance Extracted (AVE) value, which must exceed 0.50, and outer loading values above 0.70, indicating the ability of the indicators to adequately represent the latent constructs.
b) Discriminant Validity: Assessed using the Fornell–Larcker approach, whereby a construct is considered to possess good discriminant validity when it demonstrates a clear distinction from other constructs.
c) Reliability: Constructs are considered reliable when the values of Cronbach's alpha and Composite Reliability (CR) exceed the threshold of 0.70, reflecting the internal consistency of indicators in measuring latent variables (Hair et al., 2022).

b. Structural Model (Inner Model)

The evaluation of the structural model was conducted to analyze the causal relationships among constructs through the estimation of path coefficients, coefficient of determination (R^2), and effect size (f^2) in order to assess the strength and contribution of each variable within the model. In addition, the predictive capability of the model was measured using predictive relevance (Q^2) values to ensure the predictive relevance of the observed data. Hypothesis testing was performed using the bootstrapping method with 5,000 resampling iterations to obtain t-statistics and p-values. A hypothesis is considered supported when the t-statistic exceeds 1.96 or when the p-value is less than 0.05 (Hair et al., 2019).

IV. RESULTS AND DISCUSSION

A. Results

a. Measurement Model (Outer Model)

The measurement model evaluation aims to assess the validity and reliability of indicators in reflecting latent constructs. The analysis process was conducted using SmartPLS version 4.1.1.

Table 2. Validity and Reliability Tests

Variable	Cronbach's Alpha	Average Variance Extracted (AVE)	Composite Reliability (rho_c)	Loading Factor
Output Quality (OQ)	0.919	0.791	0.938	0.727 - 0.945
Job Relevance (JR)	0.951	0.872	0.964	0.928 - 0.943
Computer Self-Efficacy (CSE)	0.848	0.657	0.884	0.706 - 0.890
Computer Anxiety (CA)	0.829	0.664	0.886	0.704 - 0.918
Perceived Usefulness (PU)	0.843	0.681	0.895	0.750 - 0.894
Perceived Ease Of Use (PEOU)	0.913	0.793	0.939	0.869 - 0.911
Intention To Adopt Cloud Accounting (IA)	0.91	0.788	0.937	0.880 - 0.901
Cloud Accounting Adoption (CAA)	0.808	0.724	0.887	0.801 - 0.937

The results indicate that all indicators possess outer loading values ranging from 0.704 to 0.945, thereby exceeding the minimum threshold of 0.70 (Chin, 1998). The Average Variance Extracted (AVE) values for each construct range from 0.657 to 0.872, indicating that all constructs are capable of explaining more than 50% of the variance in their indicators. In addition, the Composite Reliability (CR) values range from 0.884 to 0.964, while Cronbach's alpha values range from 0.808 to 0.951, demonstrating that all constructs satisfy the criteria for internal reliability (Hair et al., 2019). The discriminant validity assessment using the Fornell–Larcker criterion shows that the square root of the AVE for each construct is greater than the correlations among constructs, indicating that all variables possess adequate discriminant validity. Therefore, the measurement model is considered valid and reliable.

Table 3. Fornell-Lacker Criterion

Variable	CA	CAA	CSE	IA	JR	OQ	PEOU	PU
CA	0.815							
CAA	0.356	0.851						
CSE	0.595	0.372	0.81					
IA	0.547	0.498	0.63	0.888				
JR	0.5	0.27	0.66	0.61	0.93			
OQ	-0.06	-0.07	0.03	-0.14	0	0.89		
PEOU	0.555	0.513	0.59	0.83	0.53	-0.16	0.891	
PU	0.583	0.335	0.63	0.763	0.73	-0.09	0.699	0.83

b. Structural Model (Inner Model)

The structural model assessment was conducted to examine the relationships among latent constructs based on the proposed theories and hypotheses. The testing procedure was performed using the bootstrapping technique. The analysis results indicate that the R^2 values are 0.545 for the Perceived Usefulness (PU) construct, 0.408 for Perceived Ease of Use (PEOU), 0.755 for Intention to Adopt (IA), and 0.248 for Cloud Accounting Adoption (CAA), indicating that the model's explanatory power ranges from moderate to strong. The effect size (f^2) values demonstrate varying levels of influence, namely Output Quality → PU (0.016), Job Relevance → PU (1.180), Computer Self-Efficacy → PEOU (0.112), Computer Anxiety → PEOU (0.170), PU → IA (0.266), PEOU → IA (0.701), and IA → CAA (0.331), reflecting small to large contributions within the model. The Q^2 values (PU = 0.529; PEOU = 0.385; IA = 0.467; CAA = 0.134) indicate that all constructs possess predictive relevance ($Q^2 > 0$), demonstrating that the model has adequate predictive capability. Therefore, the structural model is considered to possess good explanatory and predictive power in explaining cloud accounting adoption.

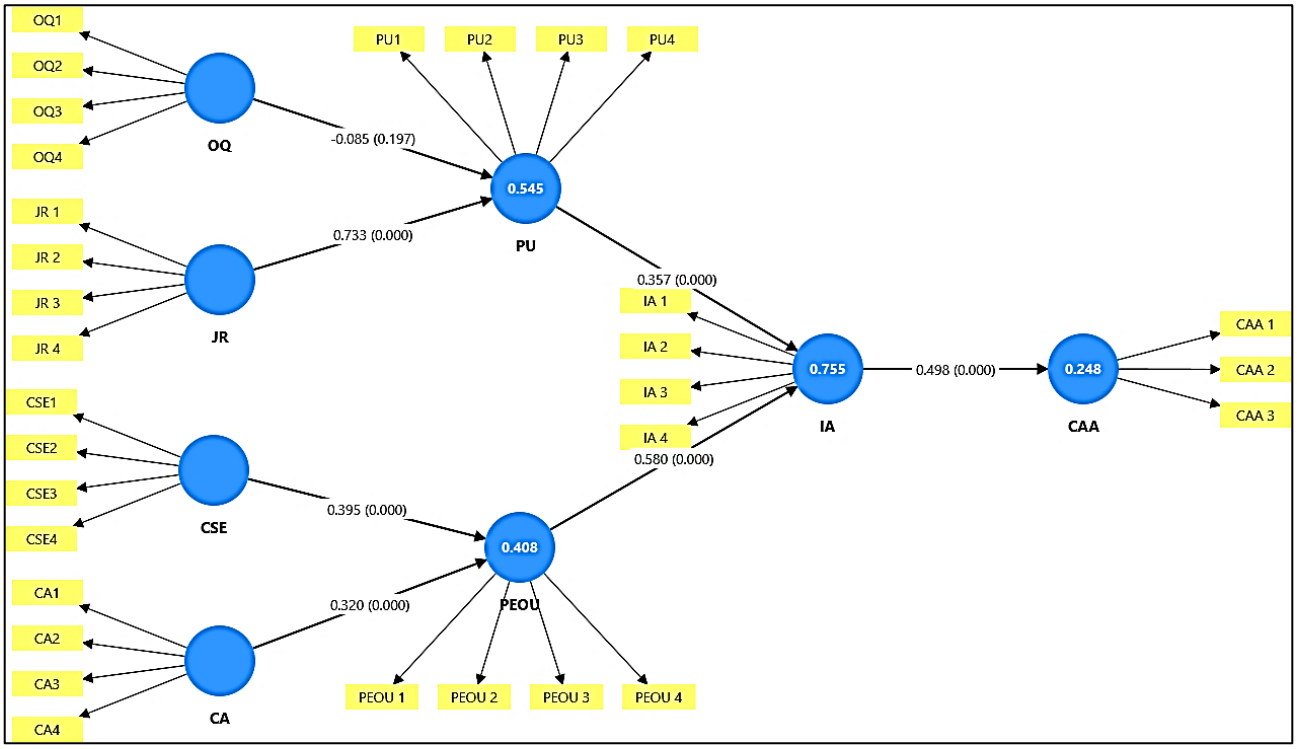

Figure 1. Structural Model of Hypothesis Testing

Table 4. Hypothesis Test

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistic (|O/STDV|)	P Values
JR -> PU	0.733	0.732	0.036	20.227	0.000
OQ -> PU	-0.085	-0.075	0.066	1.291	0.197
CA -> PEOU	0.32	0.328	0.079	4.06	0.000
CSE -> PEOU	0.395	0.391	0.078	5.062	0.000
PEOU -> IA	0.58	0.577	0.055	10.542	0.000
PU -> IA	0.357	0.36	0.053	6.774	0.000
IA -> CAA	0.498	0.499	0.057	8.696	0.000

The majority of the research hypotheses are empirically supported, as indicated by p-values below 0.05 and t-statistics exceeding 1.96, demonstrating that the relationships among variables within the model are positive and significant, except for the relationship between Output Quality and Perceived Usefulness, which is found to be insignificant.

B. Discussion

a. Output Quality and Perceived usefulness in Cloud Accounting Adoption

Output Quality does not have a significant effect on Perceived Usefulness (p = 0.197), indicating that the quality of system output is not the primary determinant in shaping users' perceptions of the usefulness of cloud accounting. Users tend to evaluate the usefulness of the system based on its capability to support operational activities, such as transaction recording, financial monitoring, and the facilitation of accounting processes, rather than on the technical quality of the reports generated. This finding is consistent with the Technology Acceptance

Model (TAM), which posits that Perceived Usefulness is primarily formed through the extent to which a system enhances job performance rather than through the quality of its output alone. Accordingly, within the context of MSMEs, the perceived usefulness of cloud accounting is more strongly associated with its practical utility and its relevance to work-related tasks than with the technical superiority of the system itself.

b. Job Relevance and Perceived Usefulness in Adopsi Cloud Accounting

Job Relevance has a significant effect on Perceived Usefulness (p = 0.000), indicating that the degree of alignment between the system and users' job tasks and work requirements serves as a primary determinant in shaping perceptions of the usefulness of cloud accounting. This finding is consistent with the Technology Acceptance Model (TAM 2) proposed by (Venkatesh & Bala, 2008), which emphasizes that job relevance constitutes a key factor in evaluating technology usefulness, and is further reinforced in TAM 3 by Viswanath Venkatesh and Hillol Bala (2008) through users' cognitive mechanisms in assessing the compatibility of a system with work-related activities. Empirical evidence from (Almarazroi et al., 2020 and Tırpan & Bakırtaş., 2024), also demonstrates that technology tends to be perceived as more useful when it possesses direct relevance to users' operational needs. Therefore, the higher the level of Job Relevance, the stronger the Perceived Usefulness that is formed, thereby increasing the tendency toward technology adoption.

c. Computer Self-Efficacy and Perceived Ease of Use in Adopsi Cloud Accounting

Computer Self-Efficacy has a significant effect on Perceived Ease of Use (p = 0.000), indicating that the level of an individual's confidence in their ability to use technology constitutes an important determinant in shaping perceptions of the ease of use of cloud accounting. This finding is consistent with the Technology Acceptance Model (TAM 3) proposed by (Venkatesh & Bala, 2008), which emphasizes that Computer Self-Efficacy functions as a major cognitive factor in reducing perceptions of system complexity. Individuals with higher levels of self-efficacy tend to perceive a system as easier to use because the perceived technical and cognitive barriers become lower. Empirical evidence from (Viswanath Venkatesh and Hillol Bala .,2008) as well as (Tırpan and Bakırtaş., 2024) also demonstrates that users' confidence in their technological abilities significantly contributes to enhancing perceptions of ease of use. Therefore, the higher the level of Computer Self-Efficacy, the stronger the Perceived Ease of Use that is formed, which ultimately strengthens the tendency toward technology adoption.

d. Computer Anxiety and Perceived Ease of Use in Adopsi Cloud Accounting

Computer Anxiety has a significant effect on Perceived Ease of Use (p = 0.000), indicating that the level of users' anxiety toward technology usage constitutes a factor influencing perceptions of the ease of use of cloud accounting. This finding is consistent with the Technology Acceptance Model (TAM 3) proposed by Viswanath Venkatesh and Hillol Bala, which explains that Computer Anxiety represents an affective factor influencing how individuals evaluate the complexity of a system (Venkatesh & Bala, 2008). Users experiencing higher levels of anxiety tend to require greater cognitive effort to understand and operate a system, thereby affecting their perceptions of ease of use. In the context of MSMEs, anxiety toward technology may influence users' comfort and confidence in interacting with cloud accounting systems. Empirical evidence from previous studies also demonstrates that emotional factors, such as computer anxiety, significantly influence perceptions of the ease of use of information systems (Igbaria & Iivari, 1995). Therefore, Computer Anxiety constitutes an important individual factor in shaping Perceived Ease of Use, which ultimately affects users' tendencies to adopt technology.

e. Perceived Usefulness and Intention to Adopt Cloud Accounting

Perceived Usefulness has a significant effect on Intention to Adopt Cloud Accounting (p = 0.000), indicating that users' perceptions of system benefits constitute a primary determinant in shaping technology adoption intention. This finding is consistent with the Technology Acceptance Model (TAM) proposed by Fred Davis (1989), which emphasizes that perceived usefulness represents the strongest predictor in explaining users' behavioral intentions. Individuals who believe that a system is capable of enhancing effectiveness, efficiency, and work performance quality tend to demonstrate a higher tendency to adopt the technology. Empirical evidence from (Almarazroi et al., 2020) and (Tırpan & Bakırtaş, 2024) also demonstrates that strong perceptions of usefulness consistently encourage the intention to adopt cloud-based technologies. Therefore, the higher the

level of Perceived Usefulness, the stronger the Intention to Adopt that is formed, which ultimately accelerates the technology adoption process.

f. Perceived Ease of Use and Intention to Adopt Cloud Accounting

Perceived Ease of Use is found to have a significant influence on Intention to Adopt Cloud Accounting (p = 0.000); hence, perceived ease of use is one of the critical factors that influence intentions to adopt technology. This is found to be in line with Fred Davis' (1989) Technology Acceptance Model (TAM) which posits that systems that are easy to understand and use will help to lower mental hurdles and increase the chances for technology acceptance. Users who perceive a system as less complex and easy to use are more likely to develop stronger intentions to adopt the technology. Empirical evidence from (Almarazroi et al., 2020), (Tırpan & Bakırtaş, 2024), and (Venkatesh & Bala, 2008) also demonstrates that ease of use constitutes a key factor in encouraging the intention to adopt cloud-based technologies. Therefore, the higher the level of Perceived Ease of Use, the stronger the Intention to Adopt that is formed, which ultimately accelerates the realization of technology adoption.

g. Intention to Adopt dan Cloud Accounting Adoption

Intention to adopt Cloud Accounting makes a significant contribution to the realisation of the Cloud Accounting adoption (p = 0.000), meaning that users' intention is an important influence on actual adoption of technology. This discovery proves that intention is not only psychological but also becomes real behavior in the operations through the implementation of the system. This is in line with the Technology Acceptance Model (TAM) which places behavioral intention as the direct predictor of actual technology use. Based on the empirical findings, users who had high intention tend to be more proactive in using the technology; be more adaptive to organizational and technological changes; and more consistent in using the system continuously. Therefore, the stronger the Intention to Adopt, the higher the level of Cloud Accounting Adoption realized in practice.

V. CONCLUSION

A. Conclusion

This study analyzes the relationships among factors within the framework of the Technology Acceptance Model (TAM 3), namely Output Quality, Job Relevance, Computer Self-Efficacy, and Computer Anxiety, toward cloud accounting adoption through Perceived Usefulness, Perceived Ease of Use, and Intention to Adopt. This study yields several important conclusions. First, Job Relevance has a significant effect on Perceived Usefulness, suggesting that the match between the system and job requirement is a primary determinant in shaping perceptions of the usefulness of technology. Second, Output Quality does not significantly influence Perceived Usefulness, suggesting that the quality of system output is not the primary consideration in evaluating the benefits of technology; rather, perceptions of usefulness are more strongly determined by the relevance of the system to operational activities.

Third, Computer Self-Efficacy is a significant influence on Perceived Ease of Use, thus indicating that the confidence of the users in their ability to use the computer has an important effect on the users' perceptions of ease of use. Fourth, Computer Anxiety significantly influences Perceived Ease of Use, indicating that users' emotional factors also affect perceptions regarding the level of system ease. Fifth, Perceived Usefulness significantly influences the Intention to Adopt Cloud Accounting, implying that perceptions of usefulness constitute the primary driver in forming technology adoption intention. Sixth, Perceived Ease of Use is one of the most significant factors that affect the Intention to Adopt Cloud Accounting; ease of use also plays a key part in increasing the tendency to adopt cloud accounting. Seventh, Intention to Adopt Cloud Accounting significantly influences Cloud Accounting Adoption, confirming that users' intention serves as a direct determinant in realizing the actual use of technology.

Overall, this study supports the Technology Acceptance Model, in which users' cognition and affect are significant factors that affect perceptions, which in turn affect adoption intention and adoption behavior. However, the degree to which they influence is not equal; where Job Relevance, Computer Self-Efficacy, and Computer Anxiety have been proven to be more dominant than Output Quality in explaining cloud accounting adoption.

B. Limitations

This study has several limitations that should be considered when interpreting the research findings. First, the study is limited to variables that fall under the umbrella of the Technology Acceptance Model (TAM 3), which have been considered and are theoretically expected to have influence on the adoption of cloud accounting, namely Output Quality, Job Relevance, Computer Self-Efficacy and Computer Anxiety, and it does not fully incorporate other factors that theoretically may also affect the adoption of cloud accounting such as organizational factors, environmental conditions, the readiness of the infrastructure and regulatory support. Second, the measures used were based on a quantitative, questionnaire approach, which restricts the opportunity to capture the contextual factors, the dynamics of the adoption process and the complexity of interactions between variables that may occur in practice. Third, the cross-sectional research design limits the ability to analyse the adoption behaviour over time, and thus may not provide a complete picture of the broader adoption patterns. Accordingly, future studies are recommended to integrate more comprehensive variables and employ longitudinal approaches or mixed methods in order to obtain a more holistic understanding of the technology adoption process.

C. Suggestions for Future Research

Future research may further develop these findings to obtain a more comprehensive understanding of the dynamics of cloud accounting adoption. Future research may further develop these findings to obtain a more comprehensive understanding of the dynamics of cloud accounting adoption. First, future studies are recommended to integrate additional variables beyond the framework of the Technology Acceptance Model (TAM), such as organizational factors (e.g., management support and resource readiness), environmental factors (e.g., competitive pressure and regulatory support), as well as technological aspects (e.g., system security and compatibility), thereby enabling the research model to become more holistic.

Second, future research may broaden the measurement approach by combining various indicators of technology adoption, including actual usage behavior, intensity of use, and performance impacts, in order to represent technology adoption more comprehensively. Third, it is necessary to extend the research time horizon through longitudinal designs or staged observations, allowing researchers to capture dynamic changes in technology adoption behavior over time. Fourth, the use of mixed methods, such as in-depth interviews or qualitative analysis, is recommended to explore contextual aspects and enrich the interpretation of quantitative findings. Through these developments, future studies are expected to provide deeper contributions in explaining the interaction among individual, technological, and environmental factors in shaping cloud accounting adoption behavior.

Conflicts of Interest

The authors declare that there is no conflict of interest concerning the publishing of this paper

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