

Exploring Factors Influencing the Adoption of Cloud Accounting Systems in Indonesian Micro Small and Medium Enterprises: A Unified Theory of Acceptance and Use of Technology Based Analysis

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ABSTRACT

In the era of Industry 4.0, rapid technological advancements necessitate Micro, Small, and Medium Enterprises (MSMEs) to navigate these changes for business growth adeptly. Cloud accounting technology emerges as a pivotal tool in this context. Employing the Unified Theory of Acceptance and Use of Technology (UTAUT), this study explored factors influencing MSMEs' intent to adopt cloud accounting, encompassing performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and perceived security. The study employed a quantitative approach, utilizing survey questionnaires distributed among Indonesian MSME owners. Findings revealed that performance expectancy, effort expectancy, and facilitating conditions significantly influenced their intent to use cloud accounting. Contrastingly, social influence, perceived security, and price value insignificantly impacted MSME owners' intent to adopt cloud accounting. Furthermore, the study established a positive relationship between MSME owners' intention to use cloud accounting systems and their actual usage. This actual usage, in turn, positively affected the decision quality of MSME owners. Consequently, the research supported the idea that using cloud accounting systems in small businesses helps them make better decisions about their future, even if some factors did not affect their intentions. This premise shows how internal and external factors are connected within the UTAUT framework.

Keywords: Cloud Accounting, UTAUT, Decision Quality, MSMEs.

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INTRODUCTION

The fourth industrial revolution era has resulted in information technology developing rapidly and entering all fields, including MSMEs. Even though MSMEs are classified as micro-scale industries, the role of information technology is needed in developing these businesses. Micro, Small, and Medium Enterprises (MSMEs) are small or micro-scale commercial companies managed by individuals or business units and separated by asset and income criteria (Wicaksono et al., 2020). MSMEs are a type of business that is more dominant in Indonesia than large businesses. According to data from the Ministry of Cooperatives and MSMEs, the number of MSMEs in Indonesia has increased yearly, from 59.2 million in 2015 to more than 65 million today (Wahyuni, 2018). Besides that, MSMEs in Indonesia contribute 60% to gross domestic income (GDP) and absorb 97% of the workforce (Rokhman, 2022). However, of the total MSMEs in Indonesia, only 30% understand accounting and can make their own financial reports (Hasanah, 2021). In fact, financial statements are really needed by MSMEs to plan their finances and are one of the tools used in making financial decisions for their business. Based on a survey conducted by Rokhman (2022), as many as 90% of MSMEs still need to understand accounting records and are worried that they will not survive for long. Therefore, the empowerment of the MSMEs sector really needs to be increased, and it is hoped that in the future, millions of MSMEs operating in various sectors in this country can develop and compete with large companies.

The ability of MSMEs to compete with large companies must be balanced with the use of information technology and good decision-making. The existence of information technology enables SMEs to record, process, and maintain their accounting functions efficiently, accurately, and in a timely manner (Thottoli & Ahmed, 2022). In addition, information technology innovation has become one of the main concerns for top management to increase the value of products and services, penetrate new markets, and increase profitability (Chege & Wang, 2020). One information technology innovation that MSMEs can use to improve their performance is the application of cloud accounting. By embracing the cloud, businesses can streamline their accounting operations and empower stakeholders to make informed decisions, irrespective of their physical location.

Cloud accounting stands as a catalyst, facilitating the development of businesses for MSME actors. Cloud accounting is the use of the cloud for online accounting data storage (Senarathna et al., 2018). It is a technology-based accounting system that streamlines the accounting process by providing computerized and online accessibility (Yusuf, 2020). Cloud accounting can also be referred to as online accounting software, which combines computer technology in a network with internet-based development that runs programs or applications through internet-connected devices simultaneously (Darren, 2021). Cloud accounting software leverages cloud technology for storing accounting information, providing owners and employees with remote access to pertinent financial data through the internet (Owolabi & Izang, 2020). It extends beyond mere data storage as it involves the systematic collection of financial activities, converting raw data into insightful information for decision-makers, and assuring data reliability (Sastararuji et al., 2021a). Indeed, cloud accounting offers various advantages in recording financial transactions and generating accounting reports, but it also includes functionality for managerial decision-making that aims to gain a competitive advantage for both large and small entrepreneurs. Various cloud accounting applications have been developed, such as QuickBooks, Speedy Books, Xero Accounting, Zoho Books, and others (Yusuf, 2020). Hence, MSMEs need to adeptly navigate the rapidly evolving technological landscape to stay competitive in the business realm and facilitate more efficient business management.

Even though the cloud accounting system has many benefits, MSMEs in Indonesia are still relatively slow in using the system. This happens because they find it challenging to use the cloud accounting system; namely, around 32% of the MSMEs in Indonesia need help entering transaction data, despite approximately 72% intending to use the system (Hamundu et al., 2020). There is a lack of empirical evidence in Indonesia that investigates the factors that motivate the use of cloud accounting. Prior literature reveals that the use of cloud accounting is influenced by several factors, both internal and external (Chege & Wang, 2020). Nevertheless, the factors that apply in the Indonesian market are yet to be determined. Indonesia is a large country with a high population, and MSMEs have a considerable potential to grow. Therefore, identifying cloud accounting factors is crucial for enhancing the business environment. Thus, this study identified internal and external factors that can influence MSMEs using cloud accounting.

These factors can be identified using the Unified Theory of Acceptance and Use of Technology (UTAUT) model.

According to the UTAUT model developed by Venkatesh (2012), the intention to use cloud accounting applications in business requires several considerations, including performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and perceived security. This research used the UTAUT method to test intentions to use a cloud accounting system. Moreover, the intention of MSME top management to utilize a cloud accounting system translates into its actual implementation and application in their business operations. Using a cloud accounting system can influence changes in the attitude of top management in the decision-making process in MSMEs. Decision quality refers to the extent to which decisions taken by management or business owners consider relevant information, accurate analysis, and a deep understanding of the implications of the decision (Al-Okaily Alghazzawi et al., 2022). High-quality information from an effective accounting information system enhances management decision-making, as erroneous choices can lead to severe consequences, limiting the success and sustainability of SMEs and diminishing their economic impact. (Al-Hattami, 2022).

Decision quality can be used for daily business management and long-term strategic decisions (Al-Hattami, 2022). Decision quality is achievable when the company possesses high-quality financial reports as valuable tools for informed decision-making (Vanauken et al., 2016). Owolabi and Izang (2020) highlighted that leveraging a cloud accounting system facilitates the generation of high-quality financial reports, benefiting MSME owners. MSMEs enhance their management processes by systematically recording all operational transactions, leading to better-informed decisions and improved overall performance.

LITERATURE REVIEW

Cloud Accounting

Cloud accounting is a cloud computing application to process financial data, namely, moving the installation, processing, and storage of system

data and accounting services from cloud service providers (Dimitriu & Matei, 2015). Cloud accounting applications use the internet network to be flexible and accessed from various devices, anywhere and anytime (Yau-Yeung et al., 2020). Cloud accounting was created so accountants could use it as a database and cover all accounting processes on one platform quickly and cheaply. As a result, when transactions occur, data can be uploaded immediately, processed, and reconciled by the server, and structured financial reports can be generated. Thus, accountants no longer have to do administrative work on accounting processes (Wicaksono et al., 2020). Cloud vendors provide cloud accounting services by providing subscription fees and allowing them to use software to access financial transactions (Dimitriu & Matei, 2015). There are several cloud vendors in Indonesia, including Accurate, Jurnal.id, Xero, FreshBooks, QuickBooks, Harmony, and others.

There has been an increasing interest in cloud accounting studies internationally. For example, Wu et al. (2019) discovered that cloud adoption had a beneficial impact on the value relevance of financial data for businesses with less information asymmetry. Green & Hales (2020) address the implications of cloud computing on the design and use of accounting information systems. They suggested that cloud computing allows increased flexibility and scalability in accounting information systems but poses new security and privacy problems. Using evidence from a Quasi-Natural Experiment, Moffitt et al. (2020) learned that cloud adoption harms internal controls' quality but that cloud-specific controls' deployment mitigates this effect. Further, cloud adoption benefits audit quality, which is more pronounced for larger organisations and those who apply cloud-specific controls (Peecher et al., 2021). Additionally, cloud adoption positively influenced accounting quality, but the effect is more pronounced for enterprises with poor financial reporting and governance (Chang, 2021).

The literature on cloud accounting indicates that cloud adoption has positive and negative implications on many accounting and financial reporting elements. Future research could further investigate these consequences and provide recommendations for cloud adoption best practices in accounting. This follows Haleem (2020) statement that cloud accounting is part of cloud computing, which is expected to become a system

used in SMEs because of its extraordinary benefits, including accessibility anytime and anywhere, integration of different accounting modules, user-friendly platform-based, and customized reports. Several previous studies have discussed the benefits of using cloud accounting systems in SMEs (Hamundu et al. (2020); Al-Okaily, Alkhwaldi, et al. (2022); Tawfik et al., (2022); Al-Sharafi et al. (2023)). They consider that using cloud accounting can develop SME businesses by improving business performance and good decision-making processes.

The UTAUT Model

UTAUT is a model of technology acceptance and use that combines the best features of other technology acceptance theories and is considered proven to be up to 70% more successful in explaining behaviour in technology use (Sanjaya & Aryanti, 2016). The UTAUT model was developed by Venkatesh (2012) and consists of seven points that can describe a person's behaviour in using technology: performance expectancy, effort expectancy, social influence, facilitating conditions, price value, hedonic motivation, and habit. However, this research focused on performance expectancy, effort expectancy, social influence, facilitating conditions, and price value.

The first factor in the UTAUT model is performance expectancy, which shows the level of individuals or users who think that using certain technologies will provide benefits and advantages (Ikumoro & Jawad, 2019). Performance expectancy is an essential benchmark for influencing a person's desire to continue using technology (Chen et al., 2021). Second, effort expectancy, defined as the ease of use of a system, can reduce efforts in the form of one's energy and time spent on activities (Venkatesh, 2012). Business expectations are defined as the user's perceived ease of system use. This convenience will lead to someone believing that the system has benefits, resulting in a sense of comfort when using it (Chen et al., 2021). In the description of the UTAUT model, performance expectations refer to a person's level of confidence in the assumption that the use of cloud computing will help top managers improve performance, so performance expectations and effort expectations in the UTAUT model are seen as the main determining factors of usage intentions (Haleem, 2020).

Furthermore, social influence is a social influence that shows an individual's perception of something that other people believe in using a new system (Chen et al., 2021). Social influence refers to how other people influence one's behavioural decisions (Kayali & Alaaraj, 2020). Based on the UTAUT model, performance expectations, effort expectations, and social influence directly influence behavioral intentions to use technology, namely the cloud accounting system (Haleem, 2020).

The fourth factor is the facilitating condition, which is the level of individual comfort in using the system supported by technical and organisational infrastructure (Tamilmani et al., 2021). Venkatesh (2012) states that facilitating conditions positively influence the behavioural intention to use information systems, but not significantly. However, according to Haleem (2020), behavioral intentions and conditions that facilitate technology use directly determine the use of technology in an organization. Finally, price value is a person's perception of the costs he incurs when using technology compared to the benefits he derives (Ikumoro & Jawad, 2019). Price value can also be referred to as how valuable the technology used is compared to the costs incurred. Consumers are willing to adopt certain technologies when the perceived benefits are more significant than the costs incurred (Venkatesh, 2012). Cloud accounting for SMEs can minimize maintenance costs and other relevant costs related to software and hardware (Wicaksono et al., 2020). In addition, cloud technology is also able to provide access to financial information globally; namely, internal and external company stakeholders can have the right to access financial information anytime and anywhere (Haleem, 2020).

Perceived Security

Perceived security is the user's assumption regarding the security of using technology applications (Wahyuni, 2018). The sense of security felt by application users will provide confidence in accessing the application. The level of security in question is the security of all transaction data entered in the application and other financial information. The UTAUT model proposes that perceived security affects an individual's propensity to use a technology. People are more willing to use technology if they perceive it to be secure. However, a user is less inclined to use a technology if they think it to be vulnerable. The technology itself, the environment in which

it is used, and the person's prior experience with similar technologies are some elements that impact perceived security. If a technology has a history of security flaws or data breaches, people may view it as less secure and be less willing to utilise it.

Decision Quality

Decision quality is related to the correctness and accuracy of decisions, which refers to how well the actual results of a decision meet internal expectations (Hung et al., 2023). Decision-making is one of the essential things in a business process because mistakes that occur when making decisions will impact the continuity of business processes (Al-Okaily, Alkhwaldi et al., 2022). Decision quality measures the extent to which decision results align with an organization's expectations (Visinescu et al., 2017). The quality of the information influences decision quality, so with a sound system, it is hoped that good quality information will also be obtained and MSME owners can make appropriate decisions (Al-Hattami, 2022). The more probable organisation is to employ technology, the more they believe it will enhance the calibre of their decision-making (Al-Okaily, Alkhwaldi, et al., 2022). If a technology provides accurate and timely information, people may assume that it improves the quality of their decision-making and be more eager to use it (Hung et al., 2023). On the other hand, an organisation may be less likely to adopt a technology if they believe it will not enhance the calibre of its decision-making (Al-Okaily, Alghazzawi et al., 2022).

Decision quality can be used for daily business management or long-term strategic decisions and often has a long-term impact on business operations, so SMEs must have the right accounting information system that will become the basis for decision-making (Al-Hattami, 2022). Furthermore, decision quality among MSMEs refers to an appropriate and effective decision-making process that contributes to overall business success and performance, which involves evaluating available information, considering various alternatives, and choosing the best course of action based on careful analysis and a clear understanding of potential outcomes and consequences (Al-Okaily, Alkhwaldi, et al., 2022).

Decision quality in MSMEs contributes to better resource allocation, operational efficiency, customer satisfaction, and sustainable growth. It

can assist MSMEs in facing challenges, taking advantage of opportunities, and making choices that lead to positive financial and business results (Al-Hattami, 2022).

Research Framework

MSMEs in Indonesia greatly contribute to the country's economy, namely contributing 60% of gross domestic income (GDP) and absorbing 97% of the workforce (Rokhman, 2022). However, most small businesses have an inherent competitive disadvantage due to their comparative inability to access and use business information (Wahyuni, 2018). The number of MSMEs that can produce quality financial reports in Indonesia is still below 50% (Hasanah, 2021). Poor financial information can affect decision quality because financial planning and other business decisions become inefficient (Vanauken et al., 2016). Al-Hattami (2022) believes that the advantage of using a cloud accounting system is that it produces better quality, more accurate, and reliable information and can be a reflective indicator of a high-quality accounting system in the cloud. MSMEs need such an accounting application to obtain business and accounting information. Cloud accounting is one way to help MSME players apply accounting information to their businesses (Hamundu et al., 2020). Cloud accounting is an online accounting information system based on cloud computing that uses computers or other devices to achieve accounting and financial analysis functions (Feng, 2016). Cloud accounting has several advantages in recording financial transactions and producing quality accounting reports (Owolabi & Izang, 2020). Therefore, a cloud accounting system in MSMEs can help owners make good and quality business decisions. Despite the advantages of cloud accounting discussed in the literature, most conjectures are normative accusations. There has been a lack of empirical evidence as to the factors of adoption and their related factors to the benefits of cloud accounting, particularly in decision quality among Indonesian MSMEs. Indonesia is unique with a large population; thus, MSMEs are critical to the country's economic growth.

From the above explanation, two research questions were formed: To what extent does the UTAUT model (performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and perceived security) influence the intention of MSME owners to use a cloud

accounting system? And to what extent is the use of a cloud accounting system that emerged from top management’s choice to use the system able to improve the quality of MSME business decisions in the future?

Figure 1 below shows the current research framework. Hence, the first research objective was to examine several factors that can influence the intention of MSME owners to use a cloud accounting system, namely performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and perceived security. The second research objective was to examine the influence of the intention to use the system on using the cloud accounting system in MSME business activities. Furthermore, the third research objective was to examine the effect of using this system on improving MSMEs’ business decision-making process, propelling them toward more significant development and advancement.

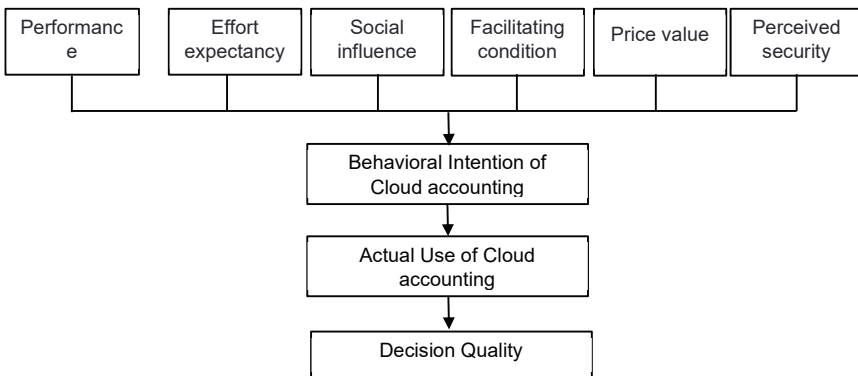


Figure 1: Research Model

Hypotheses Development

Performance expectancy

Performance expectancy is the user’s assumption that cloud accounting applications have benefits and are comfortable for business development (Tamilmani et al., 2021). An application is supposed to have benefits for its users. This includes cloud accounting applications that greatly benefit the development of MSME businesses, namely being able to record financial transactions, record data, and produce quality financial reports (Darren, 2021). A high level of performance expectancy indicates that users feel comfortable with the cloud accounting application and that the application is

felt to have benefits for the continuity of their business (Sanjaya & Aryanti, 2016). In addition, performance expectancy in terms of using a cloud accounting system is where users (MSME owners) believe that using a cloud accounting system will improve the quality, performance, and efficiency of their work (Al-Okaily, Alkhwaldi, et al., 2022). Therefore, the user's belief in the idea that a cloud accounting system will improve performance will have an impact on increasing top management's desire to use the system.

Thus, from the arguments above, the current study proposed that:

H1: Performance expectancy has a positive effect on the intention of MSME owners to use cloud accounting systems.

Effort expectancy

Effort expectancy is an assumption that users have about cloud accounting applications that are not confusing, clear, and easy for users to understand and that they feel can make their work easier because they can be accessed anywhere (Haleem, 2020). Before using an application, usually, someone will consider the convenience of the application. If it is felt that the application is easy, clear, and not confusing, interest will appear in using the application (Wahyuni, 2018; Yusuf, 2020). Cloud accounting presents an application for storing financial information online to be accessed anytime and anywhere because you don't have to install software on your device. In implementing the use of a cloud accounting system, the effort expectancy factor represents the user's expectations in using cloud accounting without great effort because the application is based on the internet (Al-Okaily, Alkhwaldi, et al., 2022). In the context of this study, the ease with which MSMEs owners use the cloud accounting system has a significant effect. Therefore, the desire of MSME owners to use cloud accounting systems will increase along with the increasing ease of carrying out accounting practices and financial transactions via cloud platforms (Al-Okaily, Alkhwaldi, et al., 2022).

Based on the arguments above, the current study proposed that:

H2: Effort expectancy has a positive effect on the intention of MSME owners to use cloud accounting systems.

Social Influence

Social influence can be interpreted as the extent to which an individual trusts other people who are considered important, so they must participate in using a new system (Venkatesh, 2012). Haleem (2020) defined social influence as a person's perception of the extent to which others have to use cloud accounting. MSMEs owners will tend to accept a cloud accounting system if people who are considered important to them use it or using the system is able to increase their status in the social system (Al-Okaily, Alkhwalidi, et al., 2022). The high level of social influence on the use of accounting cloud applications shows that they are interested in implementing them for their business development (Haleem, 2020). Therefore, users' (MSMEs owners) desire to use cloud accounting systems will increase along with increasing levels of social influence.

Hence, the current study proposed that:

H3: Social influence has a positive effect on the intention of MSME owners to use cloud accounting systems.

Facilitating conditions

Facilitating conditions indicate the extent to which users believe that technical support for using new technologies is easily accessible and available to users (Venkatesh, 2012). The facilities the owner provides can be in the form of equipment, training, technology, and so on (Chen et al., 2021), because the MSMEs business performance is expected to develop further. In the context of using cloud accounting systems, facilitating conditions play an important role in influencing the use of this technology in MSMEs (Haleem, 2020). If MSME owners are willing to provide facilities in the process of using a cloud accounting system, then the organization will tend to use the system to improve its performance (Ikumoro & Jawad, 2019).

Based on the arguments above, the current study proposed that:

H4: Facilitating conditions have a positive effect on the intention of MSME owners to use cloud accounting systems.

Price value

Price value is a person's perception of the costs associated with acquiring new technology as well as the benefits it will provide. Usually, the use of new technology will cost a lot of money. Therefore, the benefits derived from using new technology must also be commensurate with the costs incurred. According to Venkatesh (2012), the perceived benefits of using new technology must be greater than the costs incurred so that consumers show a willingness to use the technology. Chen et al. (2021) stated that there was a positive influence between price value and the desire to use new technology. Cloud accounting systems can provide efficiency benefits in financial management and accounting by significantly reducing operational costs (Wicaksono et al., 2020). Thus, when the benefits obtained from using a cloud accounting system are more significant than the costs incurred, the intention to use the system will increase.

Thus, based on the arguments above, the current study proposed that:

H5: Price value has a positive effect on the intention of MSME owners to use cloud accounting systems.

Perceived security

Perceived security is the user's assumption about the security of using cloud accounting applications. Usually, application users will see the security of the application especially if the application involves financial data from a business. Technology involves sensitive and personal data; the security capacity to ensure the security of transactions is important and directly determines consumers' intention to adopt the technology (Ikumoro & Jawad, 2019). Therefore, good security from the cloud accounting application will make users feel confident in applying it and entering financial data that is important for their business (Wahyuni, 2018).

Based on the arguments above, the current study proposed that:

H6: Perceived security has a positive effect on the intention of MSME owners to use cloud accounting systems.

Cloud accounting

Cloud accounting is an information technology system that helps all accounting processes on one platform easily and at a low cost and with the help of an internet network. Cloud accounting provides many advantages for companies compared to conventional information systems, including increased real-time data processing capabilities and ease of access (Hung et al., 2023). The use of information technology systems arises from the intentions of top management (Ronaghi & Forouharfar, 2020) so the use of cloud accounting systems in MSME businesses arises from top management's desire to use them. Effective use of a cloud accounting system can produce fast, safe, and real-time financial information (Al-Okaily, Alkhwaldi, et al., 2022). Therefore, it is hoped that top management's intention to use a cloud accounting system will make them apply it in their business. Based on the statement above, this research proposed that:

H7: The intention of MSME owners to use a cloud accounting system has a positive effect on the use of the cloud accounting system.

Decision quality

According to Visinescu et al. (2017), decision quality measures the extent to which decision-making results align with an organization's expectations. Decision quality is influenced by the quality of information obtained using the system (Al-Okaily, Alkhwaldi et al., 2022). Cloud accounting systems for MSMEs are expected to provide quality financial information, such as tax calculations, profit and loss, and other financial details (Yusuf, 2020). This is the case (Al-Hattami, 2022), which states that using technology among SMEs must provide benefits, including increased performance, cost savings, and good decision-making. Al-Okaily, Alghazzawi, et al. (2022) also stated that the advantage of using a cloud accounting system is that it produces a quality, reliable, and accurate information system that can support quality decision-making. Therefore, using a cloud accounting system can provide benefits for MSME owners, namely helping the process of making quality decisions regarding financial information.

Based on the arguments above, this research proposed that:

H8: The use of a cloud accounting system has a positive effect on decision quality.

RESEARCH METHOD

Research Design

This empirical study sought to explain the factors that influence the use of MSMEs cloud accounting in Indonesia. These factors include performance expectancy, effort expectancy, social influence, facilitating conditions, and price value. Furthermore, another factor, namely perceived security, influences the level of security associated with cloud accounting. In addition, the use of cloud accounting systems within the scope of MSMEs is expected to provide quality decision-making for their business processes. This research used primary data and includes the type of explanatory research that emphasised the relationship between research variables and tests the hypotheses formulated previously.

Population, Sample, and Sampling Technique

A population is a group of individuals or research objects that have characteristics or qualities that have been applied. Based on these qualities, the population can be understood as a group of individuals or objects of observation with at least one common characteristic. The population in this study were MSMEs in Indonesia that use cloud accounting. According to the Central Bureau of Statistics in Indonesia, the total number of MSMEs in Indonesia by the end of 2022 was 65.4 million and is likely to increase (www.bps.go.id). Of the total number of MSMEs, 83.8% (54.8 million) were digitalizing or utilizing technology to support their business operations (Indriastuti & Kartika, 2022).

The minimum number of samples in this study was calculated using the G-Power application because this research was in the multiple linear regression category, so it used the F-test category. Furthermore, the minimum sample calculation was calculated based on the number of predictors, where there were 6 predictors (independent variables) in this study so that based on calculations on the G-Power system, the required minimum sample needed for the study was 98 respondents. Then, after knowing the minimum sample size, the sampling technique in this research used a random sampling technique, where the sample was chosen randomly from the total number of MSMEs in Indonesia.

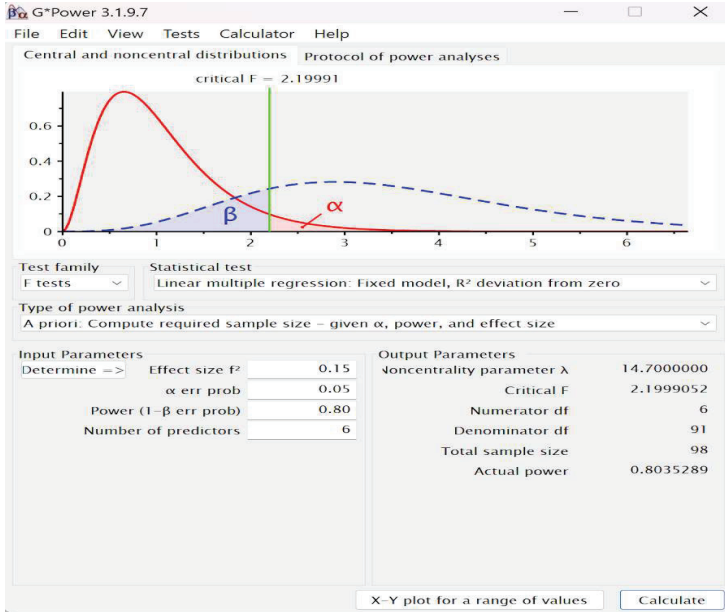


Figure 2: G-Power

Measurement Variables

Each variable was outlined in the measurements as follows:

Table 1: Measurement Variables

Variable	Indicator	Scale	Reference
Performance expectancy	• Useful	Likert scale 1-5	(Al-Okaily, Alkhwaldi, et al., 2022)
	• Increase Chances of Achieving Things		
	• Accomplish things More Quickly		
	• Increase Productivity		
Effort expectancy	• Easy to Learn	Likert scale 1-5	(Al-Okaily, Alkhwaldi, et al., 2022)
	• Clear and Understandable		
	• Easy to Use		
Social influence	• The importance of using CA	Likert scale 1-5	(Al-Okaily, Alkhwaldi, et al., 2022)
	• Influence someone to use CA		
	• What do people think about using CA		
Facilitating condition	• Use of technology	Likert scale 1-5	(Chen et al., 2021)
	• Ease of obtaining assistance		

Price value	<ul style="list-style-type: none"> Reasonably priced Good value for the money Provide a good value 	Likert scale 1-5	(Ikumoro & Jawad, 2019)
Perceived security	<ul style="list-style-type: none"> The ability to verify users' identity Ensure the security of payment information 	Likert scale 1-5	(Kinuthia, 2015)
Behavioral intention of cloud accounting	<ul style="list-style-type: none"> Desire to use Always try to use Continue in the future. 	Likert scale 1-5	(Al-Okaily, Alkhwaldi, et al., 2022)
Actual use of cloud accounting	<ul style="list-style-type: none"> Get help when experiencing difficulties Using relevant cloud accounting applications Know how to use the cloud accounting system Using a cloud accounting system again Cloud accounting systems are very helpful 	Likert scale 1-5	(Al-Okaily, Alkhwaldi, et al., 2022)
Decision quality	<ul style="list-style-type: none"> Cloud accounting helps in identifying work problems Cloud accounting helps in involving other people in decision making Cloud accounting helps in making more quality decisions Cloud accounting helps in making decisions more effectively 	Likert scale 1-5	(Al-Okaily, Alkhwaldi, et al., 2022)

This research involved MSMEs in Indonesia because MSMEs were considered businesses that have a high contribution to the economy in Indonesia by contributing a Gross Domestic Product value of 60.34% over the past five years (Wiralestari & Riski, 2020). In addition, the number of MSMEs continued to increase every year, with a gradual increase of at least 2% each year (Hamundu et al., 2020).

Method of Collecting Data

The data for the study was collected using the survey distributed to the selected MSME respondents in Indonesia who used cloud accounting. To increase the response rate for the study, the questionnaires were delivered by hand and collected after one week. Questionnaires were also distributed via Google Forms to increase the response rate further. The minimum

number of questionnaires that had to be collected was 98 respondents, but from the results of the distribution, a total sample of 255 respondents was obtained from a total of 300 distributed questionnaires, thus resulting in an 85% response rate.

Analysis Techniques

Data Quality Test

This data quality test was intended to determine the consistency and accuracy of the data collected from using the instrument.

1. Reliability Test

A reliability test is a tool for determining the dependability of a questionnaire that serves as an indicator of a variable or construct. A questionnaire is reliable if one's answers to the questions are consistent or stable from time to time. The reliability test was carried out by calculating Cronbach's alpha to be greater than 0.70 (Ghozali, 2021).

2. Validity Check

This test is intended to measure whether or not a questionnaire is valid for measuring a construct (Ghozali, 2021). The validity test was carried out by testing the homogeneity of the data with a correlational test between the scores of each item and the total score of each variable.

Descriptive Statistics

Descriptive statistics are used to describe the variables in the study. Descriptive statistics provide an overview of the data seen from the average value, standard deviation, minimum value, and maximum value of the variables studied.

Analysis Method

SEM-PLS was used to analyse the data for the study. SEM-PLS application is used to examine the effect of the independent variables on the dependent variable and to test for the hypotheses. This analysis will produce evidence of the influence of performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and perceived security on MSMEs in Indonesia using cloud accounting systems. In addition, this

study also examined the effects of using cloud accounting systems on decision quality in business processes in MSMEs.

RESEARCH RESULTS AND DISCUSSION

Description of Respondents

Respondents in this study were MSMEs in Indonesia. Data was obtained by distributing questionnaires directly to MSME actors and online via the Google form. Questionnaires were distributed in 300 copies, but only 255 (85%) were returned and could be used as data in this study. Another 45 (15%) incomplete questionnaires were excluded from the final usable sample.

Table 2: Respondent Demographics

Information	
<i>Age:</i>	
0-20 years	4
21-25 years	53
26-30 years	58
31-35 years	62
36 years and over	78
<i>Level of education:</i>	
Senior high school	43
Diploma	35
Bachelor	150
Master	27
<i>Types of MSMEs:</i>	
Food	98
Fashion	73
Agribusiness	8
Drink	34
Other	42
<i>Firm Size:</i>	
1-3 years	48
4-6 years	85
7-10 years	63
10 years and over	59

Based on the Respondent Demographic Table, it can be seen that the majority of respondents were over 36 years old with the dominant education level being a bachelor's degree. This indicated that most respondents were of mature age and could understand and accept current technological advances.

Furthermore, most respondents had businesses operating in the food and fashion sectors, meaning they had to record all types of production and sales transactions so that their business continued to run well. If we look at the age of most businesses, which is 4-6 years, it can be said that the respondent's business had started to develop and was no longer a startup.

Data Quality Test

The data quality test in this study used convergent validity, discriminant validity, and Cronbach's alpha. Based on Table 3, convergent validity showed that the loading factor value was > 0.7 and the CR value was > 0.7 . Furthermore, in Table 4, Discriminant Validity, it could be seen that the Heterotrait-Monotrait Ratio (HTMT) value < 0.85 , and in Table 5, it showed the Cronbach alpha value > 0.7 . Figure 3 is the measurement model. Therefore, the measurement was reliable and valid based on the three tables.

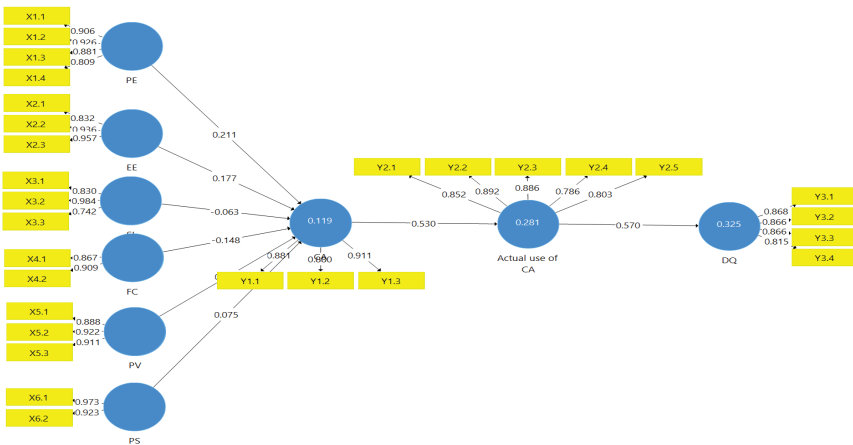


Figure 3: Measurement Model

Table 3: Convergent Validity

Variable		Loading	CR
Performance Expectancy	X1.1	0.906	0.933
	X1.2	0.926	
	X1.3	0.881	
	X1.4	0.809	
Effort Expectancy	X2.1	0.832	0.935
	X2.2	0.936	
	X2.3	0.957	
Social Influence	X3.1	0.830	0.892
	X3.2	0.984	
	X3.3	0.742	
Facilitating Condition	X4.1	0.867	0.882
	X4.2	0.909	
Price Value	X5.1	0.888	0.933
	X5.2	0.922	
	X5.3	0.911	
Perceived Security	X6.1	0.973	0.947
	X6.2	0.923	
Behavioral Intention of cloud accounting	Y1.1	0.881	0.920
	Y1.2	0.880	
	Y1.3	0.911	
Actual use of cloud accounting	Y2.1	0.852	0.926
	Y2.2	0.892	
	Y2.3	0.886	
	Y2.4	0.786	
	Y2.5	0.803	
Decision quality	Y3.1	0.868	0.915
	Y3.2	0.866	
	Y3.3	0.866	
	Y3.4	0.815	

Table 4: Discriminant Validity

Variable	1	2	3	4	5	6	7	8	9
1. Actual use of cloud accounting									
2. Behavioral intention of cloud accounting	0.592								
3. Decision quality	0.631	0.456							
4. Effort Expectancy	0.110	0.161	0.067						
5. Facilitating conditions	0.126	0.155	0.063	0.189					
6. Performance Expectancy	0.132	0.247	0.269	0.033	0.082				
7. Perceived security	0.034	0.078	0.085	0.168	0.059	0.083			
8. Price Value	0.064	0.137	0.052	0.052	0.101	0.126	0.099		
9. Social influence	0.069	0.055	0.065	0.088	0.061	0.072	0.128	0.066	

Table 5: Cronbach Alpha

Variable	Cronbach's Alpha
Actual use of cloud accounting	0.899
Behavioral intention of cloud accounting	0.870
Decision Quality	0.877
Effort expectancy	0.906
Facilitating condition	0.734
Performance expectancy	0.905
Perceived security	0.894
Price value	0.893
Social influence	0.870

Descriptive Statistics

Based on Table 6, descriptive statistics showed that the actual average value for all variables in this study exceeded the average theoretical value. This illustrated that the respondent’s assessment of all questions related to this research was high. The actual value calculation results were taken from the results of descriptive statistical tests from the SPSS 22 program. Meanwhile, the theoretical value calculation results were calculated from the number of questions per variable multiplied by the number of range points on the scale used.

Table 6: Descriptive Statistic

Variable	Theoretical		Real	
	Range	Mean	Range	Mean
Performance expectancy	4-20	12	4-20	18.36
Effort expectancy	3-15	9	5-15	12.66
Social influence	3-15	9	6-15	14.01
Facilitating condition	2-10	6	4-10	8.67
Price value	3-15	9	3-15	9.85
Perceived security	2-10	6	2-10	7.00
Behavioral intention of cloud accounting	3-15	9	4-15	11.45
Actual use of cloud accounting	5-25	15	8-25	20.11
Decision Quality	4-20	12	5-20	16.84

SEM-PLS Analysis Test

The path diagram below is the result of the SEM-PLS analysis test to explain and determine the effect of performance expectancy, effort expectancy, social influence, facilitating conditions, price value, and perceived security variables on the use of cloud accounting. In addition, the results of this analysis test explained the effect of cloud accounting on decision quality. Based on the results of the path diagram, it could be seen that the variables social influence, price value, and perceived security had a T-statistic value of less than 1.645. This indicated that these variables had no effect on cloud accounting variables. Meanwhile, the performance expectancy, effort expectancy, and facilitating conditions variable had a T-statistic value of more than 1.645, indicating that this variable had an effect on cloud accounting variables. Furthermore, the results of this analysis test showed that the T-statistic value for the cloud accounting variable was greater than 1.645, thus explaining that cloud accounting had an effect on the actual use of cloud accounting systems. Furthermore, the actual use of cloud accounting variable also had a T-statistic value of more than 1,645, which meant that using a cloud accounting system in MSME businesses can improve the quality of their business decision making.

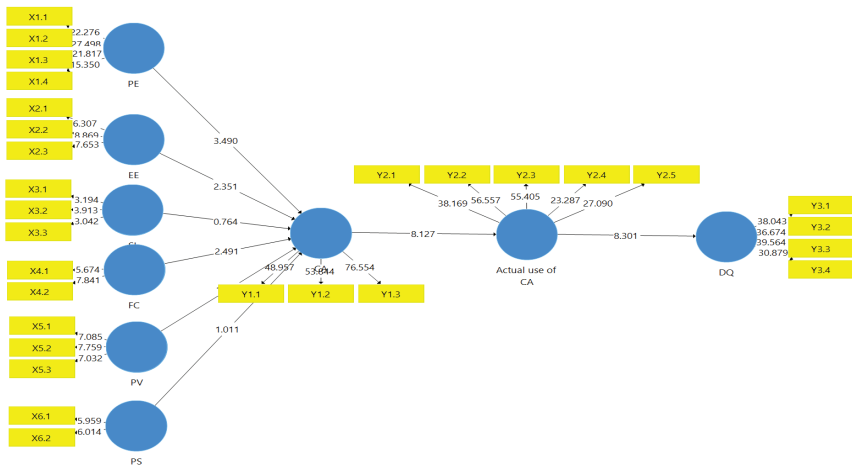


Figure 4: Structural Model

Table 6: Hypothesis Testing

Hypothesis	Relationship	Std Beta	Std Dev	T-Value	P values	F ²	VIF	Decision
H1	Performance Expectancy → Cloud Accounting	0.211	0.060	3.490	0.000	0.049	1.020	Supported
H2	Effort Expectancy → Cloud Accounting	0.177	0.078	2.274	0.012	0.034	1.053	Supported
H3	Social Influence → Cloud Accounting	-0.063	0.082	0.764	0.222	0.040	1.007	Not supported
H4	Facilitating Conditions → Cloud Accounting	0.148	0.059	2.522	0.006	0.024	1.033	Supported
H5	Price Value → Cloud Accounting	0.111	0.070	1.579	0.057	0.041	1.019	Not supported
H6	Perceived Security → Cloud Accounting	0.075	0.074	1.012	0.156	0.060	1.040	Not supported
H7	Cloud Accounting → Actual Use of Cloud Accounting	0.530	0.064	8.331	0.000	0.391	1.000	Supported
H8	Actual Use of Cloud Accounting → Decision Quality	0.570	0.069	8.312	0.000	0.482	1.000	Supported

The influence of the independent variable on the dependent variable in this study was also seen from the p-value and beta. Based on the results of the SEM-PLS analysis test in Table 6, it can be seen that the p-values for the variables social influence, price value, and perceived security exceeded 0.05. This indicated that these variables had no significant effect on cloud accounting variables. While the performance expectancy, effort expectancy, and facilitating conditions variable had a p-value less than 0.05 with a beta value indicating a positive number, it can be concluded that the variable had a significant positive effect on cloud accounting variables. Furthermore, the cloud accounting variable also had a significant positive effect on the actual use of cloud accounting variables. This can be seen from the p-value of $0.000 < 0.05$, with the beta value indicating a positive number. Besides that, the actual use of the cloud accounting variable also had a positive effect on the decision quality variable because it had a p-value of less than 0.05, with the beta value showing a positive number.

DISCUSSION

Effect of Performance Expectancy on Behavioral Intention of Cloud Accounting

Based on the results of the SEM-PLS analysis test, it can be seen that the statistical results showed that the performance expectancy variable had a positive effect on the desire of MSME players to use cloud accounting. The results of this research align with Sanjaya & Aryanti (2016) and Chen et al. (2021) that high-performance expectations indicated that users feel comfortable with cloud accounting applications because they benefit business continuity. There is a sense of trust emerging from users that using a cloud accounting system can improve the performance, quality and efficiency of their business work (Al-Okaily, Alkhwaldi et al., 2022). Apart from that, the cloud accounting system can provide benefits to its users, namely assisting in recording all financial transactions in real-time (Yusuf, 2020). This will strengthen the confidence of MSME owners to use a cloud accounting system in their business activities.

Effect of Effort Expectancy on Behavioral Intention of Cloud Accounting

The results of the SEM-PLS analysis test to test the influence between effort expectancy and the desire to use a cloud accounting system were supported because the statistical results showed a T-statistic value of more than 1.645 and a p-value of less than 0.05. This means that MSME owners felt that the cloud accounting system provides comfort and convenience in using it. Cloud accounting systems make it easier for users to record financial records and all types of transactions in business online anywhere and anytime (Hamundu et al., 2020). This explains that users' desire to use a cloud accounting system will increase along with the increasing convenience obtained from using the system. Chen et al. (2021) also found that there was a correlation between effort expectancy and system use.

Effect of Social Influence on Behavioral Intention of Cloud Accounting

The results of the SEM-PLS analysis test showed that social influence had no effect on the intention of MSME owners to use a cloud accounting

system. Currently, the use of cloud accounting has become a trend in carrying out financial records in the business world (Sastararuji et al., 2021a). They feel that the use of cloud accounting is essential for the development of their business, so there is no need for influence from other parties to use the system. This is reinforced by the results of the respondents' answers, where they felt familiar with the use of technology and are used to using it. The results of this research are in line with research by Al-Azawei and Alowayr (2020) that social influence does not influence consumers to use information technology, but is not in line with research conducted by (Tamilmani et al., 2021) and (Al-Okaily, Alkhwaldi, et al., 2022) that social influence has an influence on the intention of cloud accounting applications usage.

Effect of Facilitating Conditions on Behavioral Intention of Cloud Accounting

The statistical results of the SEM-PLS analysis test for the influence of facilitating conditions on the intention to use a cloud accounting system were supported because the T-statistic value was more than 1.645 and the p-value is less than 0.05. Facilitating conditions refer to the training, facilities, and support provided by the vendor in using the system. The excellent support provided in using the system makes new users of the cloud accounting system highly desire to use the system. Moreover, cloud accounting systems have many benefits for business continuity (Darren, 2021). The results of this research are supported by research conducted by Ikumoro & Jawad (2019) and Chen et al. (2021), which stated that there was a significant influence between facilitating conditions and the desire to use a cloud accounting system.

Effect of Price Value on Behavioral Intention of Cloud Accounting

The results of the SEM-PLS analysis test on the influence of price value on the intention of MSME owners to use a cloud accounting system were not supported. In general, MSME owners believed that using a cloud accounting system requires a lot of costs, but this aligns with the many benefits obtained from using the system (Venkatesh, 2012). However, the results of this research stated that there was no influence between the costs incurred for using the cloud accounting system and the user's (MSME

owner) desire to use the system. This was due to competitive pressure from competitors, which means companies must have innovations in the form of information technology to be able to compete (Tawfik et al., 2022) so that MSME owners do not see the costs of using a cloud accounting system if they are going to use it. Judging from the number of respondents, the majority were bachelors degree holders, who can be said to be highly educated people, so they will be willing to incur costs to get the benefits of using a cloud accounting system for business development. The results of this research are not in line with study conducted by Sanjaya & Aryanti (2016) and Chen et al. (2021) that price value significantly influenced the intention to use a cloud accounting system.

Effect of Perceived Security on Behavioral Intention of Cloud Accounting

The results of the SEM-PLS analysis test in this research stated that perceived security had no effect on the intention of MSME owners to use a cloud accounting system. Perceived security is not part of the UTAUT theory but is an important factor that can influence the use of the new system (Al-Okaily, Alkhwalidi, et al., 2022). The use of cloud accounting systems has now become a trend in the business world (Sastararuji et al., 2021b). In addition, having vendors assist in the process of using the system has resulted in MSME owners not paying attention to security because they have handed over the entire process of using the cloud accounting system to the vendor. The results of this research are in accordance with research conducted by Tawfik et al.,(2022) that showed that perceived security did not significantly influence top management's desire to use a cloud accounting system.

Effect of Behavioral Intention of Cloud Accounting on Actual Use of Cloud Accounting

The results of the SEM-PLS analysis test in this research stated that the behavioral intention of cloud accounting variable positively affected the actual use of cloud accounting. Ronaghi & Forouharfar (2020) showed that there was a relationship between user intentions and behavior in using information technology systems. This indicated that the greater intention of users (MSME owners) to use a cloud accounting system will cause them to use it in their business activities. This was reinforced by the high level of

respondents' answers regarding the level of desire of users (MSME owners) to use the cloud accounting system for business continuity, which gave rise to behavior to actually use the system in their business. The results of this research are supported by research Al-Okaily, Alkhwaldi, et al. (2022) that the behavioral intentions of cloud accounting system users increases the actual use of cloud accounting systems.

Effect of Actual Use of Cloud Accounting on Decision Quality

The analysis test results showed that the use of a cloud accounting system can influence the decision quality that will be produced by top management. Using cloud accounting systems is one way for MSME owners to make quality business decisions. This is because a good cloud accounting system is able to produce financial information that can help in financial planning, such as calculating taxes, profit and loss, and future business developments (Yusuf, 2020). Therefore, the information produced by using a cloud accounting system can be considered for MSME owners to make quality decisions. According to research conducted by Al-Okaily, Alkhwaldi, et al. (2022), a cloud accounting system in an organization can help business owners make decisions for future business development.

CONCLUSION

This research examined the influence of factors contained in the UTAUT Theory, namely performance expectancy, effort expectancy, social influence, facilitating conditions, price value, as well as other factors outside the UTAUT Theory, namely perceived security on the desire of MSME owners to use a cloud accounting system in MSMEs. Additionally, the influence of intentions to use cloud accounting systems on the actual use of cloud accounting systems was also tested. Furthermore, this research also tested the influence of the actual use of cloud accounting on decision quality.

The PLS-SEM analysis found that social influence, price value, and perceived security did not significantly impact MSME owners' intention to use cloud accounting systems. Conversely, performance expectancy, effort expectancy, and facilitating conditions are influential factors in fostering the desire to adopt cloud accounting systems. Additionally, the study revealed

a positive association between MSME owners' inclination to use cloud accounting systems, the actual utilization of such systems, and the resulting positive effect on decision quality. Among the eight hypotheses tested, only Hypotheses 3, 5, and 6 were rejected, indicating a nuanced relationship between various factors and adopting cloud accounting systems in MSMEs. The use of cloud accounting systems has become a trend (Sastararuji et al., 2021), and the majority of users need help from system vendors to operate them (Kinuthia, 2015). The emphasis appears to shift from the complexities of system usage to the perceived benefits, positioning cloud accounting as a valuable tool for informed business decision-making (Hung et al., 2023). Furthermore, the study emphasized the positive impact of actual cloud accounting system use on the decision-making quality of MSME owners, reinforcing the significance of technology adoption for business continuity. Indeed, this study has extended the UTAUT perspective regarding cloud accounting adoption in MSMEs in Indonesia.

The implication of this research is for the software house or the information technology to focus on reducing the price of the cloud accounting for the MSMEs in Indonesia. Indonesia has a large market of MSMEs that cloud accounting providers can penetrate; with the economies of scale, cloud accounting providers must consider reducing the application cost. Another implication is while the price of cloud accounting is recommended to be reduced, the decision quality produced based on the extracted report from cloud accounting must not be sacrificed. The finding from this study supports this conjecture. The output from cloud accounting must lead to the correct business managers' decisions. The MSMEs in Indonesia are less concerned about other factors regarding cloud accounting.

This study has limitations, namely the questionnaires being distributed online so researchers were less able to explain precisely the question items that respondents feel they do not understand. Additionally, it is suggested that future studies explore more the elements that affect the use of the cloud accounting system, for instance, as seen from the Technology-Organization-Environment and Technology Acceptance Model framework.

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REFERENCE

- Al-Azawei, A., & Alowayr, A. (2020). Predicting the intention to use and hedonic motivation for mobile learning: A comparative study in two Middle Eastern countries. *Technology in Society*, 62(July), 101325. <https://doi.org/10.1016/j.techsoc.2020.101325>
- Al-Hattami, H. M. (2022). Impact of AIS success on decision-making effectiveness among SMEs in less developed countries. *Information Technology for Development*.
- Al-Okaily, M., Alghazzawi, R., Alkhwalidi, A. F., & Al-Okaily, A. (2022). The effect of digital accounting systems on the decision-making quality in the banking industry sector: a mediated-moderated model. *Global Knowledge, Memory and Communication*. <https://doi.org/10.1108/GKMC-01-2022-0015>
- Al-Okaily, M., Alkhwalidi, A. F., Abdulmuhsin, A. A., Alqudah, H., & Al-Okaily, A. (2022). Cloud-based accounting information systems usage and its impact on Jordanian SMEs' performance: the post-COVID-19 perspective. *Journal of Financial Reporting and Accounting*. <https://doi.org/10.1108/JFRA-12-2021-0476>
- Al-Sharafi, M. A., Iranmanesh, M., Al-Emran, M., Alzahrani, A. I., Herzallah, F., & Jamil, N. (2023). Determinants of cloud computing integration and its impact on sustainable performance in SMEs: An empirical investigation using the SEM-ANN approach. *Heliyon*, 9(5), e16299. <https://doi.org/10.1016/j.heliyon.2023.e16299>

- Chang, S. (2021). Cloud adoption and its influence on accounting quality: A study of enterprises with poor financial reporting and governance. *Journal of Business Ethics*, 182(2), 389–409.
- Chege, S. M., & Wang, D. (2020). Information technology innovation and its impact on job creation by SMEs in developing countries: an analysis of the literature review. *Technology Analysis and Strategic Management*, 32(3), 256–271. <https://doi.org/10.1080/09537325.2019.1651263>
- Chen, S. C., Li, S. H., Liu, S. C., Yen, D. C., & Ruangkanjanases, A. (2021). Assessing determinants of continuance intention towards personal cloud services: Extending utaut2 with technology readiness. *Symmetry*, 13(3). <https://doi.org/10.3390/sym13030467>
- Darren, M. R. F. T. N. (2021). Cloud-based client accounting and small and medium accounting practices: Adoption and impact. *International Journal of Accounting Information Systems*, 41.
- Dimitriu, O., & Matei, M. (2015). Cloud Accounting: A New Business Model in a Challenging Context. *Procedia Economics and Finance*, 32(15), 665–671. [https://doi.org/10.1016/s2212-5671\(15\)01447-1](https://doi.org/10.1016/s2212-5671(15)01447-1)
- Feng, J. (2016). Cloud accounting: The transition of accounting information model in the big data background. *International Conference on Intelligent Transportation, Big Data and Smart City, ICITBS 2015*, 207–211. <https://doi.org/10.1109/ICITBS.2015.58>
- Ghozali, I. (2021). *Structural Equation Modelling Dengan Metode Alternatif Partial Least Square (PLS)* (Edisi 5). Badan Penerbit Universitas Diponegoro.
- Green, A. V., & Hales, J. (2020). Implications of cloud computing on the design and use of accounting information systems. *International Journal of Accounting Information Systems*, 37, 100447.
- Haleem, A. (2020). Owner M anager ’ s Acceptance of Cloud Accounting : An Evaluation Based on UTAUT Model. *Journal of Information Systems & Information Technology*, 5(1), 75–88.

- Hamundu, F. M., Husin, M. H., Baharudin, A. S., & Khaleel, M. (2020). Intention to Adopt Cloud Accounting: A Conceptual Model from Indonesian MSMEs Perspectives. *Journal of Asian Finance, Economics and Business*, 7(12), 749–759. <https://doi.org/10.13106/JAFEB.2020.VOL7.NO12.749>
- Hasanah, N., & Jakarta, U. N. (2021). Why The Quality Of Financial Is Important For SME ? *Academy of Entrepreneurship Journal*, 27(2), 1–11.
- Hung, B. Q., Hoa, T. A., Hoai, T. T., & Nguyen, N. P. (2023). Advancement of cloud-based accounting effectiveness, decision-making quality, and firm performance through digital transformation and digital leadership: Empirical evidence from Vietnam. *Heliyon*, 9(6), e16929. <https://doi.org/10.1016/j.heliyon.2023.e16929>
- Ikumoro, A. O., & Jawad, M. S. (2019). Intention to Use Intelligent Conversational Agents in e-Commerce among Malaysian SMEs: An Integrated Conceptual Framework Based on Tri-theories including Unified Theory of Acceptance, Use of Technology (UTAUT), and T-O-E. *International Journal of Academic Research in Business and Social Sciences*, 9(11). <https://doi.org/10.6007/ijarbss/v9-i11/6544>
- Indriastuti, M., & Kartika, I. (2022). The Impact of Digitalization on MSMEs' Financial Performance: The Mediating Role of Dynamic Capability. *Jurnal Economia*, 18(2), 240–255.
- Kayali, M., & Alaaraj, S. (2020). Adoption of Cloud Based E-learning in Developing Countries: A Combination of DOI, TAM and UTAUT IJCMIT IJCMIT International Journal of Contemporary Management and information Technology Adoption of Cloud Based E-learning in Developing Countries: A Combina. *International Journal of Contemporary Management and Information Technology*, 1(1). www.ijcmit.com
- Kinuthia, J. N. (2015). Technological, organizational, and environmental factors affecting the adoption of Cloud Enterprise Resource Planning (ERP) systems. *Americas Conference on Information Systems, AMCIS 2015*.

- Moffitt, K. C., et al. (2020). The impact of cloud adoption on internal controls: Evidence from a Quasi-Natural Experiment. *Contemporary Accounting Research*, 37(1), 50–80.
- Owolabi, S.A, Izang, J. . (2020). Claud Accounting And Financial Reporting. *International Journal of Research Publications*, 60(1), 21–28. <https://doi.org/10.4324/9780203153659-16>
- Peecher, M. E., et al. (2021). Cloud adoption, internal controls, and audit quality: Evidence from larger organizations. *The Accounting Review*, 96(2), 209–229.
- Rokhman, N. (2022). *Masih Banyak Pelaku UMKM Buta Akuntansi dan 90% UMKM Tidak Bertahan Lama Karena Tak Paham Akuntansi*. <https://komputerisasi-akuntansi-d4.stekom.ac.id/informasi/baca/Masih-Banyak-Pelaku-UMKM-Buta-Akuntansi-dan-90-UMKM-Tidak-Bertahan-Lama-Karena-Tak-Paham-Akuntansi/ed573491383d5d7052276dd09beebea1637ac2a3>
- Ronaghi, M. H., & Forouharfar, A. (2020). A contextualized study of the usage of the Internet of things (IoTs) in smart farming in a typical Middle Eastern country within the context of Unified Theory of Acceptance and Use of Technology model (UTAUT). *Technology in Society*, 63(September), 101415. <https://doi.org/10.1016/j.techsoc.2020.101415>
- Sanjaya, A., & Aryanti, M. (2016). Factors modified unified theory of acceptance and use of technology 2 adoption of cloud computing in micro small and medium enterprises in Indonesia. *3rd International Conference on Busi Ness, Economics, Social Science & Humanities-BESSH-2016* "Busi Ness, Economics, Social Science & Humanities-BESSH-2016", November, 1–6. <https://www.researchgate.net/publication/309669578%0AFactors>
- Sastararuji, D., Hoonsopon, D., Pitchayadol, P., & Chiwamit, P. (2021a). Cloud Accounting Adoption in Small and Medium Enterprises: An Integrated Conceptual Framework: Five factors of determinant were identified by integrated Technology-Organization-Environment (TOE) framework, Diffusion of Innovation (DOI), Institutional Theo. *ACM*

- International Conference Proceeding Series*, 32–38. <https://doi.org/10.1145/3447432.3447439>
- Sastararuji, D., Hoonsopon, D., Pitchayadol, P., & Chiwamit, P. (2021b). Cloud accounting adoption in Thai SMEs amid the COVID-19 pandemic : An explanatory case study. *Research Square*, 1–25.
- Senarathna, I., Wilkin, C., Warren, M., Yeoh, W., & Salzman, S. (2018). Factors that influence adoption of cloud computing: An empirical study of Australian SMEs. *Australasian Journal of Information Systems*, 22. <https://doi.org/10.3127/ajis.v22i0.1603>
- Tamilmani, K., Rana, N. P., & Dwivedi, Y. K. (2021). Consumer Acceptance and Use of Information Technology: A Meta-Analytic Evaluation of UTAUT2. *Information Systems Frontiers*, 23(4), 987–1005. <https://doi.org/10.1007/s10796-020-10007-6>
- Tamilmani, K., Rana, N. P., Wamba, S. F., & Dwivedi, R. (2021). The extended Unified Theory of Acceptance and Use of Technology (UTAUT2): A systematic literature review and theory evaluation. *International Journal of Information Management*, 57(October 2020), 102269. <https://doi.org/10.1016/j.ijinfomgt.2020.102269>
- Tawfik, O. I., Durrah, O., Hussainey, K., & Elmaasrawy, H. E. (2022). Factors influencing the implementation of cloud accounting: evidence from small and medium enterprises in Oman. *Journal of Science and Technology Policy Management*. <https://doi.org/10.1108/JSTPM-08-2021-0114>
- Thottoli, M. M., & Ahmed, E. R. (2022). Information technology and E-accounting: some determinants among SMEs. *Journal of Money and Business*, 2(1), 1–15. <https://doi.org/10.1108/jmb-05-2021-0018>
- Vanauken, H. E., Ascigil, S., & Carraher, S. (2016). Turkish SMEs' Use of Financial Statements for Decision Making. *The Journal of Entrepreneurial Finance*, 19(1). <https://doi.org/10.57229/2373-1761.1267>

- Venkatesh, V. (2012). Consumer Acceptance and Use of Information Technology: Extending the Unified Theory of Acceptance and Use of Technology. *MIS Quarterly*, 36(1), 157–178. <https://doi.org/10.1109/MWSYM.2015.7167037>
- Visinescu, L. L., Jones, M. C., & Sidorova, A. (2017). Improving decision quality: The role of business intelligence. *Journal of Computer Information Systems*, 57(1), 58–66. <https://doi.org/10.1080/08874417.2016.1181494>
- Wahyuni, T. (2018). Why Should MSMEs Adopt Accounting Application with Cloud Computing? The Reality of MSMEs in Depok, West Java. *KnE Social Sciences*, 3(11), 1399. <https://doi.org/10.18502/kss.v3i11.2858>
- Wicaksono, A., Kartikasary, M., & Salma, N. (2020). Analyze cloud accounting software implementation and security system for accounting in MSMEs and cloud accounting software developer. *Proceedings of 2020 International Conference on Information Management and Technology, ICIMTech 2020, August*, 538–543. <https://doi.org/10.1109/ICIMTech50083.2020.9211271>
- Wiralestari, W., & Riski, H. (2020). Factors Affecting the Quality of MSME Financial Reporting. *The 3rd International Conference on ..., 2015*, 1–7. [https://repository.unja.ac.id/18653/1/Program Book ICPBS-2020 Final %2812-20-2020%29 edited-3.pdf](https://repository.unja.ac.id/18653/1/Program%20Book%20ICPBS-2020%20Final%202020%29%20edited-3.pdf)
- Wu, Y., et al. (2019). Cloud adoption and the value relevance of financial data: A study of businesses with less information asymmetry. *Journal of Accounting Research*, 57(5), 1234–1267.
- Yau-Yeung, D., Yigitbasioglu, O., & Green, P. (2020). Cloud accounting risks and mitigation strategies: evidence from Australia. *Accounting Forum*, 0(0), 421–446. <https://doi.org/10.1080/01559982.2020.1783047>
- Yusuf, A. U. (2020). Factors Affecting Interest in Using Cloud Accounting Applications in Small and Medium Enterprises (SMES). *International Journal of Information, Business and Management*, 12(3), 176–188.

