

Empowering MSMEs: The Role of Endogenous Motivation in Digital Accounting Adoption

Dinar¹, Mediaty^{2*}, Grace T. Pontoh², Nadhirah Nagu², Anis Anshari Mas'ud³

¹Faculty Economics and Social Sciences, Departement Accounting, Fajar University

²Hasanuddin University, Makassar, Indonesia

³Sulawesi Barat University

Email: mediaty@unhas.ac.id

Abstract

The objective of this study is to examine and analyze the factors that affect the intention to adopt digital accounting among MSMEs in South Sulawesi Province. A quantitative approach with survey methodology using questionnaires was employed to gather data from 203 MSME actors, and structural equation modeling (PLS-SEM) was used to analyze the relationships between variables. The goal is to identify the key factors in the intention to adopt the use of digital accounting, and it is analyzed using the PLS Structural Equation Modelling (SEM) equation model, which aims to test the relationship between variables in a model. The results of this study help explain and predict differences in intentions and behaviours at the individual level across the user population. It can also explain why the technology is more easily accepted by some users and less acceptable to others, resulting in different behavioral outcomes. The finding showed that performance expectancy, effort expectancy, and social influence contribute to the intention to adopt digital accounting. Endogenous motivation as a psychological factor in the form of PLOC-Internal and PLOC-Introjected contributes greatly to the intention to adopt digital accounting. Meanwhile, facilitating conditions and PLOC-External did not contribute.

Keywords: endogenous motivation, UTAUT, digital accounting, MSMEs.

Since 2020, research results have indicated that the use of digital technology, such as the Digital Accounting System (DAS) can overcome difficult and uncertain situations caused by the COVID-19 pandemic around the world (Al Nasrallah & Saleem, 2022; Apriyanti & Yuvitasari, 2021; Bani-Khalid et al., 2022). The use of technology at that time was considered one of the main strategies businesses could implement (Cokins et al., 2020; Cooper & Schindler, 2014). The pandemic has also encouraged the promotion and increase of the use of accounting infrastructure and information systems (Deci & Ryan, 2013). After the

pandemic has passed, is digital accounting still used? Considering the use of technology at that time, it was likely because there was no other choice. Therefore, it is necessary to research factors that affect the intention to adopt digital accounting as an important information system.

A phenomenon in Indonesia since the administration of President Joko Widodo. The government pays special attention to the digitalization of Micro, Small, and Medium Enterprises (MSMEs), as evidenced by the policies implemented, including the development of internet network infrastructure to remote areas; financing programs; digitization

of MSMEs; synergy and coordination with public and private sector academics to increase the empowerment of MSMEs. This policy is a priority because the government realizes that the presence of MSMEs contributes significantly to the country's economic development and provides job opportunities for the majority of the population (Farooq et al., 2017; Hasbolah, 2021), so it can reduce the unemployment rate in Indonesia (Lohapan, 2021). MSMEs are one of the foundations of the National Economy, based on data from the Ministry of Cooperatives and Small and Medium Enterprises, the contribution of MSMEs reached 99% of all business units, and their contribution to GDP was 50% in 2016-2019 (Malhotra et al., 2008) to reach 60.5% in 2023. MSMEs contribute to being able to absorb 96% of the workforce (Musa et al., 2019).

A form of synergy and coordination of related parties, to encourage wider access to MSME financing, as well as to strengthen the financial literacy of MSMEs. Bank Indonesia (BI) together with the Ministry of Manpower and the Ministry of Tourism and Creative Economy are strengthening the acceleration of MSME financial access. This is realized through the introduction of digital accounting (DA), namely the Financial Information Recording Application Information System (SIAPIK). This application can make it easier for MSMEs to record business financial transactions and can automatically generate financial reports digitally (Sabraz & Sheham, 2015).

The presence of SIAPIK in the form of an Android-based application is expected to help MSME actors in Indonesia manage their financial transactions and improve their performance (Tambunan, 2023; Venkatesh et al., 2012). Since the launch of Bank Indonesia (BI) in 2017 until the end of 2021, there have been 17,837 SIAPIK users, 99% of which are micro businesses dominated by 40% of the manufacturing business sector. Of these, 724 MSMEs have obtained financing from banks with a total fund of Rp18.3 billion (Sabraz & Sheham, 2015). However, even though the

application is free, MSME actors do not necessarily adopt SIAPIK for various reasons. So socialization and coaching continue to be encouraged by Bank Indonesia. Thus, it is necessary to analyze the right factors to be able to predict the intention of adopting digital accounting by MSMEs.

The problem-solving approach in this study is a quantitative approach with a survey method using questionnaires to identify key factors and design a research framework (Groves et al., 2009). Verification of descriptive data provides answers to the problems faced by explaining hypotheses. Furthermore, a deeper interpretation is carried out to explain the relationship between variables through hypothesis testing based on primary data from MSME actors in South Sulawesi as the object of this research. Testing the research hypothesis based on building a theory/concept where the alleged relationship between each variable has been identified by a clear conceptual framework. The collection of research data is operationalized starting from the variables, concepts, indicators, units of measurement, and measurement scales. The research data used is a type of primary data with a data collection method through the distribution of questionnaires. After the data is collected, data analysis is carried out to find proof of the research hypothesis derived from the formulation of the research problem. First, the development of the model used is more complex than previous studies that only use four exogenous variables and one endogenous variable (Cokins et al., 2020; Nawaz & Sheham, 2015; Musa et al., 2019; Zaini et al., 2020). Second, research on the intention to adopt digital accounting, especially by MSMEs, has been relatively lacking for the past 5 years. Third, what is differentiating in this study is to addition of psychological factors in the form of endogenous motivation, where user autonomy is the main reason that influences a person to intend or do something. Knowing the origin of endogenous genes can help explain and predict differences in intentions and behaviours at the

individual level across user populations. This can also explain why new technologies are more easily accepted by some users and less accepted by others, resulting in different behavioral outcomes. Thus, the additional endogenous motivation variable is considered appropriate to be used in evaluating the intention to use information systems/technology that are voluntary, but highly recommended.

LITERATURE REVIEW

A. Research Context

An established theory that evaluates important factors influencing the intention of adopting Information Systems or Information Technology is the Unified Theory of Acceptance and Use of Technology Model (Wahyuni, 2023). Several studies on the adoption of digital accounting (DA) by MSMEs using the UTAUT Model such as MSMEs in Sri Lanka (Nawaz & Sheham, 2015), SMEs in Malaysia (Musa et al., 2019), tourism companies in Jordan (Zaini et al., 2020) and in Romania (Cokins et al., 2020).

The study found varying results, as well as research on MSMEs In West Java (Tambunan, 2023) using the UTAUT model. Survey data was obtained from users of accounting applications Buku Warung (36.6%), Credibook (29.8%), Jurnal (6.9%), Lamikro (4.6%), including SIAPIK (22%). The results show that performance expectations, effort expectations, and facilitating conditions are proven to strongly influence digital accounting adoption intention behavior. However, this is not the case with social influence. The independent variable only explains 61% of the moderate in digital accounting adoption intentions. So the research suggests expanding UTAUT's work scope. UTAUT itself is currently very dynamic to be developed or expanded, such as UTAUT 2 (Venkatesh et al., 2012) and UTAUT 3 (Farooq et al., 2017). Based on the results of varied research and previous research suggestions to be able to expand the UTAUT framework from Venkatesh (Wahyuni, 2023). This study adds to

the Endogenous Motivation of Malhotra et al. (2008) which is a development of the Theory of Integration of Organisms by Deci & Ryan (2002). This theory focuses on how a person intends and does something based on autonomy as an individual. Endogenous motivation is suspected to be a psychological factor that is predicted to affect the intention to adopt the use of DA.

B. Research Concepts

Unified Theory of Acceptance and Use of Technology

The Unified Theory of Acceptance and Use of Technology (UTAUT) is a technology acceptance model formulated by Venkatesh et al. (2003). This model aims to explain the user's intention to use the information system and subsequent usage behaviour. This theory states that there are four key constructs, namely: performance expectancy, effort expectancy, social influence, and facilitating conditions. Pontoh et al (2024) explained that the user's desire to continue using a technology service after receiving it is referred to as continuance intention (CI). Longitudinal studies found that UTAUT can explain 70% of variations in behavioral intention and about 50% in actual use. UTAUT has been applied in a variety of contexts, such as consumer perceptions of mobile services and technologies in Northern Finland, the frequency of computer use among freshmen in Belgium, and the acceptance of the Electronic Document Management System (EDMS). UTAUT integrates and expands various theories to explain the acceptance and use of technology. This model combines elements from eight previous models of technology acceptance, namely the theory of Reasoned Action by Fishbein & Ajzen (1975); the Technology Acceptance Model by Davis (1989); the Motivation Model by Davis et al. (1992); the Theory of Planned Behaviour by Ajzen (1991); Combined model of technology acceptance model and Combined TAM-TPB by Taylor & Todd (1995), Model of PC Utilization by Thompson et al. (1991), Innovation Diffusion

Theory by Moore & Benbasat (1991) and Social Cognitive Theory by Compeau & Higgins (1995).

Organismic Integration Theory

Organismic Integration Theory (OIT) treats stimulation not as a cause of behaviour, but as an encouragement and opportunity that a person can take advantage of to satisfy his or her needs. This gives an advantage to what a person experiences, as it relates to the subjective psychological meaning of the stimulus rather than its exogenous characteristics (Deci & Ryan, 1985). Therefore, it can help understand what users are experiencing or feeling and how those feelings affect intentions and behaviours. OIT's focus is on how a user's internal psychological perception of autonomy shapes his or her intentions and behaviours. Knowing the origin of endogenous genes can help explain and predict differences in intentions and behaviours at the individual level across user populations. This may also explain why new technologies are more easily accepted by some users and less accepted by others, resulting in different behaviours (Malhotra et al., 2008).

Malhotra et al. (2008) further examine endogenous motivation, based on OIT. OIT provides an important theoretical lens for understanding how social values are internalized into self-regulating behaviour (Deci & Ryan, 2002). Self-regulation of behaviour is more effective than cognitive, based on self-approval or disapproval depending on the perception of one's actions (Deci & Ryan, 1985). OIT argues that productive behaviour may not only be motivated voluntarily without expecting extrinsic rewards but may even be undermined by such rewards (Deci & Ryan, 2002; Ryan & Deci, 2000). Malhotra et al. (2008) explained that the conceptualization of endogenous extrinsic motivation is consistent with the theory of organism integration, extrinsic motivation represents a type of extrinsic motivation that is less volitional and related to the regulation of external behaviour. Autonomous extrinsic motivation is known among the three types of

extrinsic motivation with different characteristics and corresponding behavioral outcomes. While the conceptualization of endogenous intrinsic motivation is consistent with the theory of organism integration, intrinsic motivation represents an effort to achieve optimal challenges that promote independent learning, self-development, and self-growth. Therefore, pleasure and enjoyment are creations of the human soul and not "external" stimuli or exogenous artifacts. Therefore, hard work (as it seems) or challenges (work or non-productive work) can be fun.

Malhotra et al. (2008) divide extrinsic motivation into three types of Perceived locus of causality, consisting of: a) External PLOC; b) Introjected PLOC, and c) Identified PLOC. Intrinsic Motivation is only explained by Internal PLOC (Intrinsic PLOC). However, under certain conditions, a combination of Extrinsic Motivation and Intrinsic Motivation is needed in terms of Causality Perception, namely Internal PLOC. Thus Endogenous Motivation according to Malhotra et al. (2008) is divided into three Perceptions of the Causality Locus, namely, External PLOC, Introjected PLOC, and Internal PLOC, which can be concluded in Figure 1.

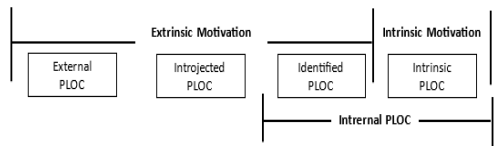


Figure. 1 Endogenous Motivation
Source: Malhotra et al., 2008

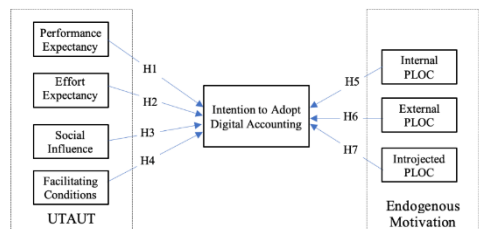


Figure 2 : Research Model

METHODOLOGY

Research design is to find answers to research questions, and as a means to plan a study (Cooper & Schindler, 2014). The research design applied in this study is a quantitative approach with a survey method using questionnaires to identify key factors and design a research framework (Groves et al., 2009). The questionnaire was built from several research results on the adoption of various technologies, so it is necessary to adjust several statement items. Thus, to test the validity of statement items, a pilot test is needed using accounting student respondents who were previously given an understanding or training related to the use of the SIAPIK application. The pilot test was carried out on 55 participants until it produced a valid questionnaire to be used as a real survey tool. This research was conducted on Micro, Small, and Medium Enterprises (MSMEs) entities registered as Bank Indonesia partners who have participated in the socialization of the use of the SIAPIK application. The population in this study is the owners or leaders of Bank Indonesia's partner MSMEs in the South Sulawesi Province area. In determining the number of samples, this study uses purposive sampling with the criteria of a sample of MSMEs registered as Bank Indonesia partners and has participated in the socialization of the use of the SIAPIK application. So the number of samples to be used in the study is at least some statement items multiplied by 10 (Hair et al., 2021).

The data analysis technique in this study uses the PLS Structural Equation Modelling (SEM) approach. Modelling of structural equations that aims to test the relationship between variables in a model, includes the relationship between items and indicators, indicators with constructs, and constructs with other constructs. The SEM model is a multivariate analysis technique that combines factor analysis techniques with regression analysis. The use of SEM is suitable for testing cascading modelling involving many

variables (Kline, 2023). The advantages of SEM include comprehensiveness, measuring complex models, and modelling latent variables (Kline, 2023; Hair et al., 2021). The survey results were collected from 250 digital accounting users who act as managers or own MSMEs and are responsible for making financial decisions in the South Sulawesi region with micro, small, and medium enterprises. The total number of respondents met the required sample criteria, which was 203. The current study uses Outer Model and Inner Model testing.

RESULT

A. Outer Model Test

The first test, the assessment of reliability indicators was initially carried out by checking the outer loading. The results of the assessment showed that the outer loading exceeded the minimum threshold of 0.708, indicating that the construction was able to account for 50% of the variance in the indicator. The second phase assesses the size of Cronbach's Alpha (CA) and the dependence of internal consistency through the utilization of composite reliability (CR). These findings confirm that all latent variables show CR and CA values that exceed the minimum admission criteria of 0.7 except for Social Influence which is only 0.696. However, according to Hair et al. (2021), the number 0.6 is allowed to be used. Composite reliability (CR) measures how well various data items fit together. Because the loading of indicators may differ across populations. Hair et al. (2021) stated that CR is better for determining ICR. This is consistent with the premise of the PLS-SEM method, which gives more weight to more reliable indicators at model estimation points (Hair et al., 2021). Next, evaluates reliability using indicator reliability (IR) and internal consistency reliability (ICR) values. When calculating the reliability value of an indicator, squaring the outer charge is essential. According to Hair et al. (2021), the variable must account for more than 50% of the variance in the

indicator if the load is above 0.708. A value between 0.4 and 0.7 is still sufficient, according to Hulland (1999). Each IR is greater than 0.4, and each CR is more significant than 0.7. The data obtained has met the requirements of IR and

CR. Therefore, the data is reliable and can be used in the next process. The results of the reliability of the indicator and the reliability of the internal consistency for the indicator are shown in Table 1.

Table 1: Construct Reliability Test Result

Variables	Items	Outer Loading	CA	rho_A	CR
Performance Expectancy (PEP)	PEP.1	0,882	0,821	0,826	0,883
	PEP.2	0,705			
	PEP.3	0,873			
	PEP.4	0,763			
Effort Expectancy (EEP)	EEP.1	0,735	0,776	0,785	0,855
	EEP.2	0,755			
	EEP.3	0,795			
	EEP.4	0,801			
Social Influence (SIF)	SIF.1	0,854	0,696	0,723	0,830
	SIF.2	0,708			
	SIF.4	0,794			
Facilitating Condition (FCN)	FCN.1	0,875	0,865	0,866	0,908
	FCN.2	0,847			
	FCN.3	0,825			
	FCN.4	0,827			
PLOC-Internal (PIN)	PIN.1	0,817	0,882	0,886	0,914
	PIN.2	0,803			
	PIN.3	0,787			
	PIN.4	0,856			
	PIN.5	0,857			
PLOC-External (PEX)	PEX.1	0,913	0,904	0,931	0,932
	PEX.2	0,851			
	PEX.3	0,920			
	PEX.4	0,833			
PLOC-Introjected (PIJ)	PIJ.3	0,841	0,737	0,743	0,851
	PIJ.7	0,773			
	PIJ.8	0,813			
Intention to Adopt Digital Accounting (IDA)	IDA.1	0,857	0,833	0,835	0,900
	IDA.2	0,887			
	IDA.3	0,854			

Source: Research Data, 2024

The third phase involves checking the validity of convergence through the Average Variance Extracted (AVE) value. AVE is used to determine convergent validation, which refers to whether or not a construct successfully explains the variance between its components. An AVE value of 0.5 indicates that variables can describe at least 50% variance in variable indicators (Hair et al., 2021). As can be seen in Table 2, the convergent validate check succeeds because all AVEs in the table are above 0.5. Thus, the data is valid.

Table 2: Convergent Validity Test Result

Variables	AVE
Performance Expectancy (PEP)	0,655
Effort Expectancy (EEP)	0,596
Social Influence (SIF)	0,620
Facilitating Condition (FCN)	0,712
PLOC-Internal (PIN)	0,680
PLOC-External (PEX)	0,775
PLOC-Introjected (PIJ)	0,655
Intention Adopt Digital Accounting (IDA)	0,750
Variables	AVE
Performance Expectancy (PEP)	0,655
Effort Expectancy (EEP)	0,596
Social Influence (SIF)	0,620
Facilitating Condition (FCN)	0,712

PLOC-Internal (PIN)	0,680
PLOC-External (PEX)	0,775
PLOC-Introjected (PIJ)	0,655
Intention Adopt Digital Accounting (IDA)	0,750

Source: Research Data, 2024

The next measure involves evaluating the validity of discrimination through the Fornell-Larcker criteria. The results show that the

extracted mean-variance value (AVE) for all constructions shows a higher magnitude than the quadratic correlation value with other constructions. Thus, confirmation of the validity of the discrimination has been established. Table 3 shows that there are no HTMT values above 0.9. Thus, the criteria for the validity of discrimination have been met.

Table 3: Discriminant Validity

	PEP	EEP	SIF	FCN	PIN	PEX	PIJ	IDA
PEP	0,809							
EEP	0,581	0,772						
SIF	0,536	0,719	0,788					
FCN	0,722	0,670	0,512	0,844				
PIN	0,741	0,599	0,501	0,899	0,824			
PEX	-0,248	-0,248	-0,241	-0,213	-0,237	0,880		
PIJ	0,703	0,712	0,832	0,683	0,647	-0,214	0,809	
IDA	0,686	0,684	0,475	0,746	0,759	-0,286	0,635	0,866

Source: Research Data, 2024

Discriminatory validity is the extent to which an empirical concept can be distinguished from other variables in a structural model (Hair et al., 2021). Henseler et al. (2015) stated that the HTMT correlation ratio was used to evaluate the validity of discrimination. The validity of discrimination is determined when the HTMT score is less than 0.9. This method ensures the validity of the measurement by allowing the researcher to check the independence of the construct from other constructs in the model.

B. Inner Model Test and Hypothesis

The inner model test is carried out further after the validity and reliability are declared valid. Bootstrapping is used to test research hypotheses. The method used is a double-sided test with a sample size of 5,000 and a significance level of 5%. According to Wong (2013), the path coefficient (beta) shows how much one variable affects other variables. When the T-statistic is at least 1.96, and the path coefficient is above 0.2, there is a positive relationship between exogenous and endogenous variables (Wong, 2013). When the P-value of a statistical test is below a certain level of significance, the result is determined to be

statistically significant (Henseler et al., 2017). Since a significance threshold of 5% is used for this analysis, the P-value must be less than 0.05 for the hypothesis to be accepted.

The bootstrap results for the structural model are shown in Table 5. According to the data, H1 is supported by the finding that PEP positively and significantly influences the intention to use digital accounting ($\beta=0.139$, $T=1.974$, $p<0.05$). The results also show that the EEP supports the desire to use accounting applications ($\beta=0.388$, $T=4.400$, $p<0.05$), providing proof of H2 acceptance. The influence of SIF on the desire to use digital accounting also had an influence even though the effect was negative ($\beta= -0.279$, $T=2.808$, $p<0.05$) so H3 was proven to be accepted. Furthermore, PIN also supports the desire to adopt digital accounting ($\beta=0.402$, $T=3.409$, $p<0.05$), proving that H5 is accepted. Likewise, PIJ has been proven to be able to influence the intention to adopt digital accounting ($\beta=0.213$, $T=1.981$, $p<0.05$) so H7 is also accepted. However, FCN did not support the adoption of digital accounting ($\beta=0.005$, $T=0.041$, $p>0.05$), so H4 was rejected. Likewise with PEX ($\beta= -0.081$, $T=1.906$, $p>0.05$), so H6

is also rejected. Indicates that PEX does not support the intention of adopting digital accounting.

Table 4: Summary of Hypothesis Test

Hypothesis	Structural Path	Original Sample (O)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Supported
H1	PEP -> IDA	0,139	0,070	1,974	0,049	Yes
H2	EEP -> IDA	0,388	0,088	4,400	0,000	Yes
H3	SIF -> IDA	-0,279	0,099	2,808	0,005	Yes
H4	FCN -> IDA	0,005	0,127	0,041	0,967	No
H5	PIN -> IDA	0,402	0,118	3,409	0,001	Yes
H6	PEX -> IDA	-0,081	0,042	1,906	0,057	No
H7	PIJ -> IDA	0,213	0,107	1,981	0,048	Yes

Source: Research Data, 2024

The explanatory power of a model is measured by its R² coefficient, which indicates the amount of variation that can be attributed to the endogenous components of the model (Shmueli & Koppius, 2011, as cited in Hair et al., 2021). R² value between 0.75 and 0.50 is considered quite large, while a value between 0.25 and 0.50 is considered poor but adequate (Wong, 2013). As can be seen in Table 6, the R² value for IDA is 0.69%. The results showed that endogenous factors explained 69% percent of the IDA variation, making it a moderate predictor.

Table 6: Result of R-Square

	R Square	R Square Adjusted
IDA	0,695	0,684

Source: Research Data, 2024

DISCUSSIONS

Based on the conclusion of the hypothesis test results in Table 5, the factors that play a role in influencing the intention to use digital accounting applications. Based on the UTAUT indicator, it can be explained further. First, Performance Expectancy, shows that the intention of MSME actors to adopt digital accounting (SIAPIK) is influenced by the expectation that it will increase their performance in terms of running a business in the form of effective work such as helping and accelerating work (Bajunaied et al., 2023).

SIAPIK is considered to be able to do business as well as carry out financial records because generally MSME actors still manage their finances while supervising the running of the business (Tambunan, 2023). In addition, the application of digital accounting is expected to be able to increase business opportunities (Gao, 2023; Lutfi, 2022; Abu-Taieh et al., 2022 and Alalwan, 2020).

Second, Effort Expectancy, shows that the intention of MSMEs to adopt digital accounting is driven by the level of ease of the application used (Gao, 2023; Lutfi, 2022 Abu-Taieh et al., 2022). In line with the research of Nepal & Nepal (2023), the more often it is used, the more proficient it is, and the ease is shown by the ability to learn on their own after accessing the available websites (Bajunaied et al., 2023).

Third, Social Influence, shows that the influence of the social environment is considered by MSME actors to intend to use digital accounting (Gao, 2023; Abu-Taieh et al., 2022 Savitha et al., 2022). The consideration of MSMEs for people who are considered influential and important for the continuity of their business is still very influential. In addition, the need for government support, in this case, Bank Indonesia as a partner, is considered to provide a sense of security in its business. In contrast to the results of Tambunan (2023), the research is not influenced by social support

factors, because in his research, MSMEs who are respondents are not only fostered by Bank Indonesia.

Finally, the UTAUT factor that is not supportive is the Facilitating Condition, this is different from the use of technology in general which requires support for the availability of supporting facilities (Mujaili et al., 2022; Cokins et al., 2020; Khalilzadeh et al., 2017). The condition in this study explains that the tendency of respondents to answer on the item of device resources and knowledge is relatively agreeable and strongly agree, but in the statement item of the ability of SIAPIK to connect with other applications that are temporarily used, they tend to answer disagree. Likewise, with the statement item that the application maker provides assistance services if they need help, respondents tend to give answers that do not agree and strongly disagree. This is likely because what was experienced in the SIAPIK case was as it was. So that in the end, the influence becomes insignificant (Abu-Taieh et al., 2022; Alalwan, 2020). Endogenous motivation in the form of Perceived Locus of Causality-Internal (PLOC-Internal), is proven to be the main factor supporting this study. SIAPIK as digital accounting is presented to help accounting work for MSMEs. However, if it is not accompanied by the desire that comes from the individual to use it, then it is impossible to accept. The reasons they want to use it are important to understand in terms of personal interests (Mateus et al., 2023; Henkenjohann; 2021; Shevchuk & Kukkonen, 2020). Another reason is that the existence of liking, curiosity, and learning something, can give comfort to use it with its sense of pleasure and pleasure (Malhotra et al., 2008).

Endogenous motivation in the form of Perceived Locus of Causality-Introjected (PLOC-Introjected), has also been proven to be a consideration for MSMEs. This reason is a person's desire that is influenced by a combination of impulses from outside and from within. The direction from the partner, namely

Bank Indonesia as the government's representative to use digital accounting (SIAPIK) is highly recommended. However, MSMEs as individuals, consider the recommendation to be sucked up not as a meaningful pressure because it is not mandatory. The reason that makes him depressed is present from within him in the form of bad effects that will be experienced (Malhotra et al., 2008). For example, worried about losing partners who have supported their business, or worried about having an impact on tax bills. Feeling ashamed of the response from business partners and other parties who are considered to be angry with him if he does not use it (Henkenjohann, 2021). Finally, endogenous motivation in the form of Perceived Locus of Causality-External (PLOC-External), has been proven not to be a consideration for MSMEs to use the SIAPIK application. In line with the research of Wunderlich et al., (2015), this is because the respondent's perception decision is not imposed by the partner. Bank Indonesia as a partner, as well as the opportunity for lenders to require the use of SIAPIK, tends to be given answers that disagree and strongly disagree. This is why it is not considered by respondents for the SIAPIK digital accounting case in this study. Because the use of this application is still voluntary, it has not become mandatory (Malhotra et al., 2008).

CONCLUSION

This study evaluates the factors that affect the intention to adopt digital accounting for MSME actors in South Sulawesi. Based on data and discussion, MSMEs in South Sulawesi are more likely to adopt digital accounting (SIAPIK) if they have performance expectancy, effort expectancy, social influence, PLOC-Internal, and PLOC-Introjected. This study also reveals that the actual adoption of digital accounting is greatly influenced by endogenous motivations, namely, PLOC-Internal. However, the decision of MSMEs to use digital accounting is not influenced by Facilitating Conditions and

PLOC-External. This study develops the concept of UTAUT (Venkatesh, 2003) by adding endogenous motivation variables (Malhotra et al., 2008) from the Organismic Integration Theory (Deci & Ryan, 2002). The results show that this prediction can explain more endogenous factors by 70% (Table 6) compared to only using UTAUT endogenous factors of only 61% in the Tambunan study (2023). Finally, these findings can be used as an additional reference to support knowledge for future research as theoretical implications.

Decision-makers in the digital accounting sector or accounting applications can benefit from this research. What factors influence the adoption of digital accounting as they build and market their apps? Digital accounting developers must do more to encourage the use of digital accounting by micro, small, and medium enterprises (MSMEs). In particular, Bank Indonesia needs to improve the performance of SISIKIK, make it easier to use, and always increase the socialization of SIAPIK in every mentoring event to MSME partners. Providing literacy on the benefits of use and spreading the testimonials of SIAPIK users to the audience so that it can increase higher awareness of PLOC-Internal motivation for MSME actors to adopt

SIAPIK. Improvement of supporting facilities, in the form of SIAPIK facilities that can connect with other applications, such as QRIS (Quick Response Code Indonesian Standard) or other digital payment. The government can also use the data to continue technical guidance and technical assistance programs as well as call center services for those who need instructions for use.

ACKNOWLEDGEMENTS

This research is funded by the 2024 Doctoral Grant of the BIMA program of the Ministry of Education and Culture. We are grateful to Hasanuddin University as the campus that organizes the doctoral study program, to the author team as students and lecturers. Fajar University is the first home-based institution author. Furthermore, to Bank Indonesia, the representative of South Sulawesi has assisted in collecting data for respondents. We thank the reviewers and editors for their valuable insights, constructive comments, and helpful advice, which helped to improve the quality of this paper. The author is responsible for any remaining errors or shortcomings. The author reports that there is no potential conflict of interest.

WORKS CITED

- Abu-Taieh, E.M., AlHadid, I., Abu-Tayeh, S., Masa'deh, R.E., Alkhalwaldeh, R.S., Khwaldeh, S. and Alrowwad, A.A., 2022. Continued intention to use of M-Banking in Jordan by integrating UTAUT, TPB, TAM and service quality with ML. *Journal of Open Innovation: Technology, Market, and Complexity*, 8(3), p.120.
- Ajzen, I., 1991. The theory of planned behavior. *Organizational behavior and human decision processes*, 50(2), pp.179-211.
- Al Nasrallah, W. and Saleem, F., 2022. Determinants of the digitalization of accounting in an emerging market: The roles of organizational support and job relevance. *Sustainability*, 14(11), p.6483.
- Alalwan, A.A., 2020. Mobile food ordering apps: An empirical study of the factors affecting customer e-satisfaction and continued intention to reuse. *International Journal of Information Management*, 50, pp.28-44.
- Almaiah, M.A., Hajjej, F., Lutfi, A., Al-Khasawneh, A., Alkhdour, T., Almomani, O. and Shehab, R., 2022. A conceptual framework for determining quality requirements for mobile learning applications using Delphi Method. *Electronics*, 11(5), p.788.
- Alrawad, M., Lutfi, A., Alyatama, S., Elshaer, I.A. and Almaiah, M.A., 2022. Perception of occupational and environmental risks and hazards among mineworkers: A psychometric paradigm approach. *International journal of environmental research and public health*, 19(6), p.3371.

- Apriyanti, H.W. and Yuvitasari, E., 2021. The role of digital utilization in accounting to enhance MSMEs' performance during COVID-19 pandemic: Case study in Semarang, Central Java, Indonesia. In *Complex, Intelligent and Software Intensive Systems: Proceedings of the 15th International Conference on Complex, Intelligent and Software Intensive Systems (CISIS-2021)* (pp. 495-504). Springer International Publishing.
- Bani-Khalid, T., Alshira'h, A.F. and Alshirah, M.H., 2022. Determinants of tax compliance intention among Jordanian SMEs: A focus on the theory of planned behavior. *Economies*, 10(2), p.30.
- Cokins, G., Oncioiu, I., Türkeş, M.C., Topor, D.I., Căpuşneanu, S., Paştui, C.A., Deliu, D. and Solovăstru, A.N., 2020. Intention to use accounting platforms in Romania: A quantitative study on sustainability and social influence. *Sustainability*, 12(15), p.6127.
- Compeau, D.R. and Higgins, C.A., 1995. Application of social cognitive theory to training for computer skills. *Information systems research*, 6(2), pp.118-143.
- Cooper, D.R. and Schindler, P., 2014. *Business research methods*. Mcgraw-hill.
- Davis, F.D., 1989. Perceived usefulness, perceived ease of use, and user acceptance of information technology. *MIS quarterly*, pp.319-340.
- Davis, F.D., Bagozzi, R.P. and Warshaw, P.R., 1989. User acceptance of computer technology: A comparison of two theoretical models. *Management science*, 35(8), pp.982-1003.
- Davis, F.D., Bagozzi, R.P. and Warshaw, P.R., 1992. Extrinsic and intrinsic motivation to use computers in the workplace 1. *Journal of applied social psychology*, 22(14), pp.1111-1132.
- Deci, E.L. and Ryan, R.M. eds., 2004. *Handbook of self-determination research*. University Rochester Press.
- Deci, E.L. and Ryan, R.M., 2013. *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.
- Deci, E.L. and Ryan, R.M., 2013. *Intrinsic motivation and self-determination in human behavior*. Springer Science & Business Media.
- Farooq, M.S., Salam, M., Jaafar, N., Fayolle, A., Ayupp, K., Radovic-Markovic, M. and Sajid, A., 2017. Acceptance and use of lecture capture system (LCS) in executive business studies: Extending UTAUT2. *Interactive Technology and Smart Education*, 14(4), pp.329-348.
- Fishbein, M. and Ajzen, I., 1977. *Belief, attitude, intention, and behavior: An introduction to theory and research*.
- Gao, B., 2023. Understanding smart education continuance intention in a delayed benefit context: An integration of sensory stimuli, UTAUT, and flow theory. *Acta Psychologica*, 234, p.103856.
- Groves, R. M., Singer, E., Lepkowski, J. M., Heeringa, S. G., & Alwin, D. F. 2009. *Survey methodology* (second). Wiley Interscience.
- Hair Jr, J. F., Hult, G. T. M., Ringle, C. M., Sarstedt, M., Danks, N. P., & Ray, S. (2021). *Partial least squares structural equation modeling (PLS-SEM) using R: A workbook* (p. 197). Springer Nature.
- Haryono, E., 2022. Dorong UMKM Naik Kelas Melalui Penggunaan Aplikasi Pencatatan Keuangan. *Siaran Pers Departemen Komunikasi Bank Indonesia*. Tanggal akses 13 Desember 2023. https://www.bi.go.id/id/publikasi/ruang-media/news-release/Pages/sp_247322.aspx
- Hasbolah, F., Rosli, M.H., Hamzah, H., Omar, S.A. and Bhuiyan, A.B., 2021. The digital accounting entrepreneurship competency for sustainable performance of the rural Micro, Small and Medium Enterprises (MSMES): An empirical review. *International Journal of Small and Medium Enterprises*, 4(1), pp.12-25.
- Henseler, J. 2017. Partial least squares path modeling. *Advanced methods for modeling markets*, 361-381.
- Henkenjohann, R., 2021. Role of individual motivations and privacy concerns in the adoption of german electronic patient record apps—a mixed-methods study. *International Journal of Environmental Research and Public Health*, 18(18), p.9553.
- Hulland, J. (1999). Use of partial least squares (PLS) in strategic management research: A review of four recent studies. *Strategic management journal*, 20(2), 195-204.
- Kline, R. B. (2023). *Principles and practice of structural equation modeling*. Guilford publications.
- Lohapan, N., 2021. Digital accounting implementation and audit performance: An empirical research of tax auditors in Thailand. *The Journal of Asian Finance, Economics and Business (JAFEB)*, 8(11), pp.121-131.
- Lutfi, A., 2022. Factors influencing the continuance intention to use accounting information system in Jordanian SMEs from the perspectives of UTAUT: Top management support and self-efficacy as predictor factors. *Economies*, 10(4), p.75.

- Malhotra, Y., Galletta, D.F. and Kirsch, L.J., 2008. How endogenous motivations influence user intentions: Beyond the dichotomy of extrinsic and intrinsic user motivations. *Journal of management information systems*, 25(1), pp.267-300.
- Mateus, R.A.S., Oliveira, T. and Neves, C., 2023. Sustainable technology: Antecedents and outcomes of households' adoption. *Energy and Buildings*, 284, p.112846.
- Moore, G.C. and Benbasat, I., 1991. Development of an instrument to measure the perceptions of adopting an information technology innovation. *Information systems research*, 2(3), pp.192-222.
- Mujalli, A., Khan, T. and Almgrashi, A., 2022. University accounting students and faculty members using the Blackboard platform during COVID-19; proposed modification of the UTAUT model and an empirical study. *Sustainability*, 14(4), p.2360.
- Musa, Z.K.C., Muhayiddin, M.N., Yusoff, M.N.H., Ismail, M. and Muhamad, M., 2019. Intention to use cloud accounting system among SMEs in Malaysia: A conceptual framework of a modified unified theory of acceptance and use of technology (UTAUT) model. *Research in World Economy*, 10(2), pp.74-78.
- Nawaz, S. and Sheham, A.M., 2015. Evaluating the intention to use accounting information systems by small and medium sized entrepreneurs.
- Nepal, S. and Nepal, B., 2023. Adoption of Digital Banking: Insights from a UTAUT Model. *Journal of Business and Social Sciences Research*, 8(1), pp.17-34.
- Pontoh, G. T., Mediaty, Parintak, S., Timang, V. V. S., Aisyah, A., Handayanto, A. B., & Yanto, H. (2024). The influence of affinity on the continuance intention of local government information systems using the technology acceptance model. *Risk Governance and Control: Financial Markets & Institutions*, 14(2), 107-119. <https://doi.org/10.22495/rgcv14i2p11>
- Ryan, R.M. and Connell, J.P., 1989. Perceived locus of causality and internalization: examining reasons for acting in two domains. *Journal of personality and social psychology*, 57(5), p.749.
- Ryan, R.M. and Deci, E.L., 2000. Intrinsic and extrinsic motivations: Classic definitions and new directions. *Contemporary educational psychology*, 25(1), pp.54-67.
- Ryan, R.M. and Deci, E.L., 2000. Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American psychologist*, 55(1), p.68.
- Savitha, B., Hawaldar, I.T. and Kumar, N., 2022. Continuance intentions to use FinTech peer-to-peer payments apps in India. *Heliyon*, 8(11).
- Shevchuk, N. and Oinas-Kukkonen, H., 2020. Aiding users in green IS adoption with persuasive systems design. *Urban Science*, 4(4), p.52.
- Tam, C., Santos, D. and Oliveira, T., 2020. Exploring the influential factors of continuance intention to use mobile Apps: Extending the expectation confirmation model. *Information Systems Frontiers*, 22, pp.243-257.
- Tambunan, N.A.D.P., 2023. Analyzing factors influencing accounting application adoption using the unified theory of acceptance and use of technology (UTAUT) model among F&B MSMEs in west java. *Journal Integration of Management Studies*, 1(1), pp.124-135.
- Taylor, S. and Todd, P., 1995. Assessing IT usage: The role of prior experience. *MIS quarterly*, pp.561-570.
- Thompson, R.L., Higgins, C.A. and Howell, J.M., 1991. Personal computing: Toward a conceptual model of utilization. *MIS quarterly*, pp.125-143.
- Venkatesh, V., Thong, J.Y. and Xu, X., 2012. Consumer acceptance and use of information technology: extending the unified theory of acceptance and use of technology. *MIS quarterly*, pp.157-178.
- Wahyuni, T., 2023, October. Accounting Information Systems for SMEs: A Systematic Literature Review. In *The 6th International Conference on Vocational Education Applied Science and Technology (ICVEAST 2023)* (pp. 719-730). Atlantis Press.
- Wong, K.K.K., 2013. Partial least squares structural equation modeling (PLS-SEM) techniques using SmartPLS. *Marketing bulletin*, 24(1), pp.1-32.
- Wunderlich, P., Kranz, J., Totzek, D., Veit, D. and Picot, A., 2013. The impact of endogenous motivations on adoption of IT-enabled services: the case of transformative services in the energy sector. *Journal of Service Research*, 16(3), pp.356-371.
- Zaini, W.H.A., Hamad, M.K. and Najim, A.S., 2020. Factors affecting the adoption of an accounting information system based on UTAUT2 and its implementation in a tourism corporation. *African Journal of Hospitality, Tourism and Leisure*, 9(1), pp.1-14.