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SELF-EFFICACY AND TECHNOLOGY ADOPTION FOR MICRO, SMALL AND MEDIUM ENTERPRISES: AN INTEGRATED MODEL OF TASK-TECHNOLOGY FIT AND TECHNOLOGY ACCEPTANCE

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ABSTRACT
The development and digitization of the MSMEs ecosystem are accelerated steps towards realizing digital MSMEs that have an impact on the country's economy in the digital transformation era. This study aims to determine self-efficacy, which is an external variable, and technology adoption by MSMEs when implementing the integration of two technological models, namely task-technology fit (TTF) and technology acceptance (TAM), in their business activities. Data were collected through a questionnaire survey distributed to 269 MSMEs using convenience sampling and analyzed using PLS-SEM. The findings of this study indicate that self-efficacy has a greater influence than TTF on perceived ease of use, and the hypothesis about the components of TTF and TAM are supported based on the data on attitudes towards and intentions to use them. This study provides practical recommendations for stakeholders to empower MSMEs and for MSMEs themselves to leverage technology adoption in their business activities. The implications of this research provide practical recommendations for stakeholders to strengthen Micro, Small, and Medium Enterprises (MSMEs) and enhance the adoption of technology in their business activities, thereby driving the growth of the country's economy in the digital transformation era.

Keywords: Task-Technology Fit, Task Characteristics, Technology Characteristics, Technology Acceptance, Self-Efficacy.

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INTRODUCTION

Micro, Small, and Medium Enterprises (MSMEs) are productive businesses owned by individuals or business entities that fulfill the criteria of MSMEs as stipulated in Law Number 7 of 2021 on the Ease, Protection, and Empowerment of Micro, Small, and Medium Enterprises. MSMEs contribute to the Indonesian economy by absorbing up to 97 percent of the workforce and attracting up to 60.4 percent of total investment. In March 2021, a Bank Indonesia survey showed that 87.5% of MSMEs were affected by the COVID-19 pandemic. This prompted the government to recognize the need to digitize MSMEs by utilizing e-commerce platforms to market their products (Coordinating Ministry for Economic Affairs, 2021). In 2019, as many as 4.10 billion people used the Internet, which accounted for 54 percent of the world's population. This number increased to 4.90 billion in 2021, representing 63 percent of the population, in line with the growth of information and communication technology (ICT). The Development Index for 2021 is 5.76, indicating a 3% increase from the previous year. These figures demonstrate the importance of information and

communication technology in maintaining the continuity of worlds of business, work, education, services, entertainment, and socialization (Central Bureau of Statistics Indonesia, 2022).

MSMEs are tasked with selling goods and services to customers (Malesev & Cherry, 2021). MSMEs have an essential role in economic growth, especially in Indonesia. If the income of MSMEs increases, it will positively impact Indonesia's GDP (Erlanitasari et al., 2020). MSMEs face external constraints and challenges to competitiveness due to business globalization, such as modern markets, information technology advances, and consumer changes (Qosasi et al., 2019). According to (Qosasi et al., 2019), small businesses operating in traditional markets face various constraints ranging from weak business resources, management, bargaining power, legality, competitiveness challenges, and technology. Contrary to traditional systems, information technology offers significant opportunities for MSMEs (Chouki et al., 2020), which can compete with other business sectors, improve customer interaction, management effectiveness, rapid delivery, and globalization (Matarazzo et al., 2020); (Kurniawati et al., 2021); (Thathsarani & Jianguo, 2022).

Some MSMEs in Indonesia still rely on traditional systems and may require attention from industry researchers, as MSMEs have unique characteristics that differ from large-scale businesses (Sugandini et al., 2018). Despite the potential benefits, there are still areas for improvement in the adoption of information technology by MSMEs, as they still need to fully utilize the technology (Malesev & Cherry, 2021). Conversely, existing MSME technologies may not be helpful, causing some MSMEs to distrust information technology opportunities (Malesev & Cherry, 2021).

On the other hand, adopting technology can provide new opportunities for business, market development, customer insight, and a better experience (Zamani, 2022). Technology adoption is an action taken by using technology to complete tasks that can positively impact performance and is used according to the needs of the user's task (Daradkeh, 2019). The relationship between technology adoption and individual performance has given rise to theoretical models (DeLone & McLean, 2016), two of which are task technology fit (TTF) and the technology acceptance model (TAM), which have been used to study technology adoption in different user contexts (Daradkeh, 2019). TTF is used to measure users' task fit with technology (Erskine et al., 2019); (Sinha et al., 2019) and service characteristics (Huang et al., 2017), while TAM is used to look at differences in attitudes and engagement of technology users and indicates that a person has the intention to use technology (Daradkeh, 2019). TAM is also considered adequate to predict user acceptance and technology adoption in various fields (Cranmer et al., 2016); (Granić, 2023). Previous research found a relationship between TTF and TAM, with TTF values positively increasing perceived ease of use (PEOU) (Alqatan et al., 2017); (Daradkeh, 2019). However, some MSMEs have tried to adopt technology but struggle to keep up with frequent changes, and they do not prioritize human resources to integrate technology, resulting in wasted time (Malesev & Cherry, 2021). On the other hand, previous research states that perceived ease of use (PEOU) is influenced by self-efficacy and the belief that a system provides convenience in its capabilities (Ozturk, 2016); (Zhang et al., 2017). So, higher levels of self-efficacy will lead to a higher willingness to adopt and use technology (Venkatesh et al., 2003).

Therefore, further research is needed to find evidence of other contributions to the existing literature and look at the integration between the tasks performed by MSMEs by utilizing technology

and the influence of one's beliefs on the acceptance of technology use. Thus, the researcher aims to produce recommendations to answer how self-efficacy and technology adoption can help stakeholders and MSME actors utilize technology in their business activities.

Task Technology Fit

Task Technology Fit is a model where technology helps individuals carry out their tasks. When technology can support existing tasks, it can help users carry out their tasks smoothly and efficiently. TTF refers to matching technological capabilities with job requirements, namely technological capabilities to support tasks, and can be defined as the extent to which technology enables individuals to perform a portfolio of tasks (Bere, 2018); (Daradkeh, 2019); (Fu et al., 2020). Based on the TTF perspective, task characteristics (TC) are actions so that users can use information technology, and technology characteristics (TNC) are tools used by system users in carrying out their tasks (Diar et al., 2018); (Hsieh & Lin, 2020); (Vörös et al., 2021).

Tasks are defined broadly as the actions performed by individuals in converting inputs into outputs; tasks can be thought of as a part of a person's work through a sequence of actions to achieve a goal ("The Effect of Individual and Task Characteristics on Decision Aid Reliance," 2017); (Vörös et al., 2021). There have been two types of task characteristics: equivocality and interdependence. When task equivocality and task interdependence are high, there is greater enthusiasm for technology, and this combination can be utilized to find relevant technological requirements (Lee & Lee, 2018); (Fu et al., 2020). Tasks are supported by technological facilities that will assist in decision-making (Daradkeh, 2019), which influences the compatibility between tasks and technology. When the task and technology do not match, the user may feel uninterested in using the technology for the task. In addition, the influence exerted by the task is based on the complexity of the task (Muchenje & Seppänen, 2023); when it is more complex, it will affect the tasks and technology fit (Rai & Selnes, 2019). Based on the literature, we propose the following hypothesis:

H1 : Task characteristic has a positive effect on TTF.

Technology is a tool used to perform specific tasks. Technology can provide convenience to a system, accuracy, effective customer relations, flexibility, and reliability (Wu & Chen, 2017); (Omotayo & Haliru, 2020). Technology has become ubiquitous through online shopping and web-based search engines, supporting consumer and company interactions and creating marketing innovations (Hoffman et al., 2022). Based on research by (Blom et al., 2021), technology can improve customer service by identifying data collected on purchase history so that promotions can be aligned and effectively tailored to customer needs. The use of technology makes business activities in MSMEs more efficient, which affects the product innovation that will be carried out (Ardolino et al., 2017)(Marco et al., 2018). It will impact the match between technology and tasks as well as the functionality of the technology, whether it suits the user or not (Muchenje & Seppänen, 2023). Therefore, the following hypotheses were proposed:

H2 : Technology characteristic has a positive effect on TTF.

Integrated TTF and TAM

Previous research indicates that the integrated model of TTF and TAM provides more explanatory power than the model alone and thus should lead to a better understanding of choices about the use of IT (Daradkeh, 2019). The higher the TTF, the higher the level of information system

use, which shows the perceived benefits of the technology itself (Ratna et al., 2018). The use of technology is considered to be better if it combines the TTF and TAM models (Vanduhe et al., 2020). However, the TTF model does consider not only beliefs about perceived ease of use (PEOU), but also the extent to which a system can meet the capabilities and requirements of business actors' analytical tasks (Daradkeh, 2019). (Vanduhe et al., 2020) said that TTF is used to evaluate user performance. The effectiveness of technology acceptance is based on the user and how the user maximizes the task (Wu & Chen, 2017). The utility match between technology and task requires acceptance from the user (Vanduhe et al., 2020), so it is possible to match the technology and task when the user accepts and finds it easy to use the technology (Wu & Chen, 2017). Based on the literature, we propose the following hypothesis:

H3 : TTF has a positive effect on PEOU.

Technology Acceptance Model (TAM)

TAM is a theory that has been widely embraced in theoretical studies and is frequently used to forecast technology acceptance (Vanduhe et al., 2020). Before new technologies are widely adopted, TAM aims to forecast how people will use them and investigate how information systems are created. The Theory of Reasoned Action (TRA) was used to establish TAM, which was then used to investigate how external factors can affect beliefs, attitudes, and intentions about the usage of new technologies. The willingness of the user to employ technology to assist intended tasks is referred to as TAM. Perceptions of usefulness and ease of use, in accordance with TAM, moderate the effect of other external factors on the user's intentions (N.-H. Chen, 2019). TAM has evolved into a crucial framework for comprehending how people embrace or reject technology throughout time (Granić & Marangunić, 2019). According to (Kamal et al., 2020), TAM has been used to anticipate how new technologies will be received and has been shown to explain acceptance behavior in a variety of information system domains. TAM identifies two beliefs as the primary determinants of technology acceptance behavior, namely perceived ease of use (PEOU) and perceived usefulness (PU), and explains and estimates the acceptance of system information based on these beliefs (Anggraeny & Baihaqi, 2021).

In the context of this research, the author examines Davis' TAM theory of Perceived Ease of Use (PEOU), Perceived Usefulness (PU), Attitude Toward Use (ATU), and Intention to Use (ITU) by developing Self-Efficacy (SE) as an external variable.

Self-Efficacy, Perceived Ease of Use, Perceived Usefulness, Attitude Toward Use, Intention to Use

Self-efficacy is defined as the belief that a person has the ability to perform certain behaviors (Anggraeny & Baihaqi, 2021). In the context of technology use, self-efficacy is an assessment of a person's ability to use technology (Musyaffi et al., 2021). In the context of entrepreneurship, self-efficacy indicates the ability possessed by the entrepreneur to complete tasks and achieve goals within a specified time frame (Jegadeeswari et al., 2020). Self-efficacy influences people's behavior choices, willingness to put out effort, and length of time spent overcoming challenges; in addition, it is the best indicator of perceived ease of use (Ozturk, 2016); (Murillo et al., 2021). Based on the literature, we propose the following hypothesis:

H4 : Self-efficacy has a positive effect on PEOU.

Perceived ease of use is a crucial concept that influences how a technology is adopted (L. Chen & Aklikokou, 2020). PEOU is a perception in which a person believes that the ease of use of a system is considered an essential factor for adopting technology in the long term and does not need to make various efforts to use it. Besides, the greater the perceived use of technology, the greater the possibility of using a platform (Prastiawan et al., 2021). While perceived usefulness (PU) refers to "the degree to which a person believes that using a particular system would be free from effort," PEOU stands for "the degree to which a person believes that using a particular system would be free from effort". PEOU can increase PU and improve understanding of technology adoption (Barhoumi, 2016). Likewise, when developing companies, entrepreneurs use new technologies that are easy to implement (Ojo et al., 2019). Previous studies have shown that PEOU has a positive effect on PU (Huang et al., 2017). Based on the literature, we propose the following hypothesis:
H5 : PEOU has a positive effect on PU.

PU is a perception felt by consumers where they believe that technology will increase efficiency at work (Lanlan et al., 2019). PU is defined as the probability that consumers use certain applications to improve performance, but some consumers are said to expect the use of systems or applications that do not require effort to use them (Daradkeh, 2019). Two variables PEOU and PU have an impact on users' intentions to accept and use modern technology. These two elements influence how users feel about new technologies (Wu & Chen, 2017). The characteristics of technological acceptance are PEOU and PU (Huang et al., 2017). The concept of perceived ease of use has been applied in a variety of contexts, including email, e-commerce, mobile commerce, and the intention to use internet services (Moslehpour et al., 2018). PEOU and PU are assumed to be the main factors influencing a person's attitude and behavior toward intending to use technology. According to recent literature on technology adoption, PU and PEOU are crucial elements for enhancing the predictive validity of the TAM (Pipitwanichakarn & Wongtada, 2019). Previous research has demonstrated that PEOU has a positive effect on ATU (Huang et al., 2017). Users typically adopt good attitudes toward technology and believe it to be useful when they find it simple to use (Huang et al., 2017). PEOU reflects user convenience, which impacts technology acceptance and user behavior (Lanlan et al., 2019). People's attitudes towards use of technology are also influenced by PEOU and PU, while PU itself is also influenced by PEOU (Dhingra & Mudgal, 2019). Based on the literature, we propose the following hypothesis:
H6: PU has a positive effect on attitude toward use.
H7: PEOU has a positive effect on attitude toward use.

Attitudes are the user's perspectives and emotions relating to a psychological issue (Siyam, 2019). Researchers define attitude as an evaluation of a person's liking or disliking of an object or behavior. This concept has been studied in several research contexts (Nedra et al., 2019). Attitude toward use of technology is defined as the extent to which a person is interested in or not interested in using internet-based technology for learning. Successful system adoption is greatly influenced by a person's attitude toward using new technology and systems; if users are unwilling to accept the new technology and systems, they will not fully benefit from them. Accordingly, the more accepting users are of the new system, the more likely they are to change their practices and begin using the

system (Yoon et al., 2020). Similar to how attitude toward using a system can be a sign of system effectiveness, success is not always reliant on the system's objective quality (Yoon et al., 2020).

The word intention refers to the subjective possibility of people taking specific actions. Intention to use is considered a behavior that emphasizes the intention to use and positively affects the actual user; therefore, intention to use has a positive relationship with the user (Izkair & Lakulu, 2021). Successful system adoption is greatly influenced by a person's attitude toward utilizing new technology and systems (Yoon et al., 2020). A person's disposition (attitude) toward an intent behavior that displays either avoidance of or acceptance of a particular technology is represented by the nature of technology usage factors, which are the stimuli that cause an emotional response or reaction (Bervell et al., 2020). Intention to use was significantly influenced by attitude toward use. Attitude toward use of technology has a significant impact on the user's intention (Dhingra & Mudgal, 2019) Based on the literature, we propose the following hypothesis:

H8: Attitude toward use has a positive effect on intention to use.

Based on previous research and the theoretical concepts explained above, the conceptual research framework will be formed according to Figure 1.

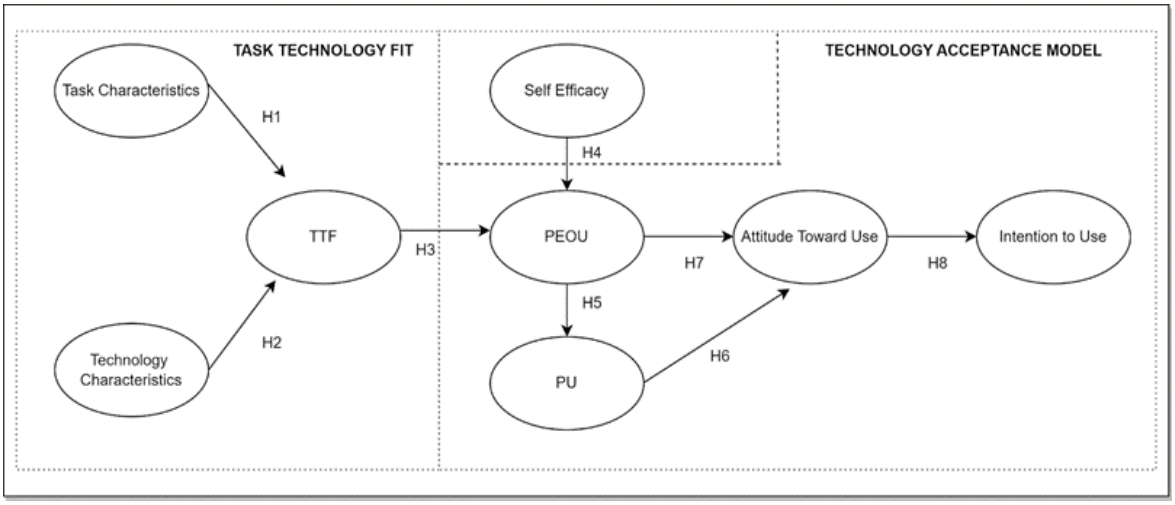

Figure 1. The Conceptual Research Framework

METHOD

This research is descriptive with a quantitative approach. In this study, quantitative data will be collected with various questions in the form of a questionnaire. The sampling method used in this study is nonprobability sampling using convenience sampling. The unit of analysis in this study is MSME actors who have yet to use IT in their business activities. This study's target population was Micro, Small, and Medium Enterprises (MSMEs) in North Sulawesi, specifically about 385,000 MSME actors in the microbusiness sector (Ministry of Cooperatives and MSMEs North Sulawesi). Sample size using the calculation method from (Black & Babin, 2019) contains 41 item indicators, so the number of samples we used was 269 respondents with the following specific criteria :

1. Respondents met the retail trader business segmentation criteria for Micro, Small, and Medium Enterprises (MSMEs) under Law No. 20 of 2008 concerning MSMEs.

2. Respondents are MSMEs in Manado City who have been running businesses without using technology in their business activities.

This study will test the data collected using the following sequence: reliability testing, validity testing, hypothesis testing, and R square using partial least squares structural equation modeling (PLS-SEM), which is widely applied to represent structural division models (Black & Babin, 2019), allowing researchers to simultaneously model and display complex relationships between several dependent and independent variables (Hair Jr et al., 2021) using the SmartPLS software.

The construct measures were adopted from previous studies and measured using a six-point Likert scale. The first section of the questionnaire was used to collect basic information about the respondents, such as their gender, age, and education. The second part was developed based on the three variable of task technology fit model (TTF) that are task characteristic (TC1-TC6) were measured in terms of the item suggested by (Tam & Oliveira, 2016) and (Daradkeh, 2019), technology characteristic (TNC1-TNC7) were measured in terms of the item suggested by (Tam & Oliveira, 2016), and (Daradkeh, 2019), task technology fit (TTF1-TTF6) were measured in terms of the item suggested by (Daradkeh, 2019), and five variable of technology acceptance model (TAM) that are self efficacy (SE1-SE4) were measured in terms of the item suggested by (Rahmawati, 2019), perceived ease of use (PEOU1-PEOU5) were measured in terms of the item suggested by (Rafique et al., 2020), Majid and Mawaddah (2020), perceived usefulness (PU1-PU5) were measured in terms of the item suggested by (Daradkeh, 2019), (Sukendro et al., 2020), and (Majid & Mawaddah, 2022), attitude toward use (ATU1-ATU4) were measured in terms of the item suggested by (Sukendro et al., 2020) and (Majid & Mawaddah, 2022), intention to use (ITU1-ITU4) were measured in terms of the item suggested by (Sukendro et al., 2020) and (Rafique et al., 2020).

RESULTS AND DISCUSSION

Respondent Characteristic

During the data collectiodataod, 269 respondents completed the survey form, which c,ould be categorized as an acceptable data set after conducting an outlier checking procedure. Table 1 presents an overview of the respondents who were involved.

Table 1. Respondent Characteristics

		Frequency	Percentage (%)
Gender	Male	123	45.7
	Female	146	54.3
	Total	269	100.0
Age	<20	7	2.6
	20-30	78	29.0
	31-40	93	34.6
	>40	91	33.8
	Total	269	100.0
Education	Elementary School	9	3.3
	Junior High School	20	7.4
	Senior High School	124	46.1
	Associate's Degree	27	10.0
	Bachelor's Degree	83	30.9
	Master's Degree	6	2.2

		Frequency	Percentage (%)
	Total	269	100.0
	Culinary	112	41.6
	Fashion	41	15.2
	Educational	4	1.5
	Retail	68	25.3
Type of	Creative Economy	6	2.2
Business	Agriculture	4	1.5
	Livestock	9	3.3
	Fishery	6	2.2
	Others	19	7.1
	Total	269	100.0
	<2	43	16.0
	3-5	119	44.2
Age of Business	6-8	48	17.8
	>8	59	21.9
	Total	269	100.0
	<IDR 3.000.000	42	15.6
	IDR 3.000.000 - IDR 6.000.000	118	43.9
Average	IDR 6,000,001 - IDR 9,000,000	67	24.9
Earnings	IDR 9.000.001 - IDR 12.000.000	22	8.2
	>IDR 12.000.000	20	7.4
	Total	269	100.0

Measurement Model Evaluation

The measurement model's evaluation focused on assessing the reliability and validity of each construct where factor loading and AVE are more significant than 0.5 and composite reliability. Cronbach's, alpha is more significant than 0.7 (Hair Jr et al., 2021). As seen in Table 2, factor loadings of TC 1, TC 2, and ATU 2 are lower than 0.5. Besidesthisthe, the Task Characteristics variable values of AVE and Croncbach's alpha are lower than the minimum threshold, so they are unacceptable.

Table 2. The Summary of The Measurement Model Evaluation

Construct	Test Item	Validity Factor Loading	Test AVE	Composite reliability	Reliability Test Cronbach's alpha
Task Characteristics	TC 1	0.42	0.38	0.77	0.63
(TC)	TC 2	0.21			
	TC 3	0.69			
	TC 4	0.74			
	TC 5	0.76			
	TC 6	0.68			
Technology Characteristics	INC 1	0.86	0.61	0.91	0.89
(TNC)	TNC 2	0.83			
	TNC 3	0.71			
	TNC 4	0.71			
	TNC 5	0.76			
	TNC 6	0.80			
	TNC 7	0.77			
Task Technology Fit	TTF 1	0.50	0.51	0.86	0.80
(TTF)	TTF 2	0.77			
	TTF 3	0.68			

Construct	Test Item	Validity Factor Loading	Test AVE	Composite reliability	Reliability Test Cronbach's alpha
	TTF 4	0.75			
	TTF 5	0.76			
	TTF 6	0.78			
self-efficacy (SE)	SE 1	0.93	0.73	0.91	0.87
	SE 2	0.67			
	SE 3	0.92			
	SE 4	0.88			
Perceived Ease of Use (PEOU)	PEOU 1	0.86	0.67	0.91	0.87
	PEOU 2	0.84			
	PEOU 3	0.74			
	PEOU 4	0.79			
	PEOU 5	0.84			
Perceived Usefulness (PU)	PU 1	0.91	0.78	0.95	0.93
	PU 2	0.89			
	PU 3	0.86			
	PU 4	0.88			
	PU 5	0.87			
Attitude Towards Use (ATU)	ATU 1	0.88	0.62	0.86	0.77
	ATU 2	0.34			
	ATU 3	0.87			
	ATU4	0.91			
Intention to Use (ITU)	ITU 1	0.92	0.82	0.95	0.92
	ITU 2	0.86			
	ITU 3	0.92			
	ITU 4	0.91			

Based on Table 2, items that have a value below the minimum threshold are removed and recalculated. The final results of the PLS-SEM calculation for the validity and reliability tests are in Table 3, where several removed items also affected the value of HTMT, so the final results for the validity and reliability tests are in Table 3. The task characteristic variable has the lowest AVE value and reliability test, where the AVE value of TC shows that an average of 58% of the variance captured by the indicator is still acceptable. Overall, the values of the validity test and reliability test are acceptable.

Table 3. The Final Summary of the Measurement Model Evaluation

Construct	Test Item	Validity Factor Loading	Test AVE	Composite Reliability	Reliability Test Cronbach's alpha
Task Characteristics (TC)	TC3	0.80	0.58	0.85	0.76
	TC4	0.85			
	TC5	0.72			
	TC6	0.67			
Technology Characteristics (TNC)	TNC 2	0.85	0.72	0.89	0.81
	TNC 6	0.87			
	TNC 7	0.82			
Task Technology Fit (TTF)	TTF 2	0.81	0.68	0.86	0.76
	TTF 5	0.82			
	TTF 6	0.84			

Construct	Test Item	Validity Factor Loading	Test AVE	Composite Reliability	Reliability Test Cronbach's alpha
Self Efficacy (SE)	SE 1	0.93	0.73	0.91	0.87
	SE 2	0.67			
	SE 3	0.92			
	SE 4	0.88			
Perceived Ease of Use (PEOU)	PEOU 2	0.87	0.67	0.90	0.83
	PEOU 3	0.77			
	PEOU 4	0.76			
	PEOU 5	0.87			
Perceived Usefulness (PU)	PU 2	0.90	0.78	0.93	0.91
	PU 3	0.86			
	PU 4	0.89			
	PU 5	0.88			
Attitude Towards Use (ATU)	ATU 1	0.89	0.80	0.92	0.88
	ATU 3	0.88			
	ATU4	0.92			
Intention to Use (ITU)	ITU 1	0.92	0.82	0.95	0.93
	ITU 2	0.86			
	ITU 3	0.92			
	ITU 4	0.91			

Furthermore, the discriminant validity of the construct is referred to as the heterotrait-monotrait ratio (HTMT). The rule of thumb threshold for HTMT is below 0.90 (Hair Jr et al., 2021). According to Table 4, it can be inferred that HTMT values were highly accepted.

Table 4. The discriminant validity test (Heterotrait-Monotrait Ratio (HTMT)) summary

Construct	TC	TNC	TTF	SE	PEOU	PU	ATU	ITU
TC								
TNC	0.470							
TTF	0.466	0.824						
SE	0.430	0.646	0.702					
PEOU	0.501	0.884	0.851	0.879				
PU	0.426	0.840	0.739	0.585	0.868			
ATU	0.407	0.877	0.894	0.649	0.850	0.822		
ITU	0.385	0.852	0.823	0.667	0.865	0.897	0.898	

As observed in Table 4, the constructs of ITU-ATU and ITU-PU exhibit relatively high values, which are still considered acceptable.

Structural Model Evaluation

The coefficient provides the squared relationship between the actual and expected values of the variables; thus, it incorporates the notion of variance degree inside the endogenous constructs by default. Every exogenous construct supports this. Furthermore, it is identifiable. According to (Chin, 1998), the R square value is considered high when it is over 0.67, 0.33 to 0.67 is moderate, and 0.19 to 0.33 is weak. According to Table 4, the R Square values of Task Technology Fit, Perceived Ease of Use, Perceived Usefulness, Attitude Toward Use, and Intention to Use were categorized as moderate. So, it is concluded that the effect of the Task Characteristic and Technology Characteristics variables on Task Technology Fit is 45.9%. In addition, the effect of Task Technology

Fit and Self Efficacy on Perceived Ease of Use is 67.2%, and the effect of Perceived Ease of Use on Perceived Usefulness is 56.70%. Furthermore, Perceived Ease of Use and Perceived Usefulness strongly affect Attitudes toward Use by 61%. Lastly, the attitude toward use on intention to use increased by 65.6%.

Table 5. R square of the endogenous latent variables

Construct	R Square	R Square Adjusted	Result
TTF	1.459	0.455	Moderate
PEOU	0.672	0.670	Moderate
PU	0.567	0.566	Moderate
ATU	0.610	0.607	Moderate
ITU	0.655	0.655	Moderate

The structural model evaluation aims to analyze the provided hypotheses. The path coefficient analysis was used to do this. The model was designed to process a data set using a bootstrap resampling technique to determine the path's importance. A total of 5,000 resamples were used in this study. In this investigation, a two-tailed t-test was used. Table 6 displays the hypothesis testing findings of the integrated model used in this investigation.

Table 6. Result of Structural Model Research Hypotheses

Hypothesis	Relationship	Path Coefficient (B)	t-value	p-value	Significance
H1	TC -> TTF	0.140	2.624	0.0009	Yes
H2	TNC -> TTF	0.613	12.353	0.0000	Yes
H3	TTF -> PEOU	0.352	6.263	0.0000	Yes
H4	SE -> PEOU	0.562	10.807	0.0000	Yes
H5	PEOU -> PU	0.753	23.010	0.0000	Yes
H6	PU -> ATU	0.429	5.352	0.0000	Yes
H7	PEOU -> ATU	0.405	4.979	0.0000	Yes
H8	ATU -> ITU	0.810	25,054	0.0000	Yes

Note (s): t-value > 1.96 (Significance level: 5% (p<0.05) (Hair Jr et al., 2021).

The authors focused on hypothesis testing of the structural model utilized in the current research. The significance level of 5% is used in the evaluation of research hypotheses (p<0.05) and t-value > 1.96 of the relationship among the variables (Hair Jr et al., 2021). The table above shows that the relationship between variables has a significant positive effect where the t-value is > 1.96 and the p-value is 0.05. Therefore, H1 to H8 are proven and accepted. TabTables shows that Technology CharacteristiCharacteristicsaracteristiCharacteristicsws more influence Task Technology Fit that the specific characteristics of the technology used in completing the task have a more significant influence on the perceived fit. In other words, the technology's features, functions, or capabilities play a more significant role in determining how good TTF is.

On the other hand, Self-efficacy provides a more significant influence than Task Technology Fit, which shows that individual beliefs in their abilities have a more significant impact on perceptions of how easily the technology can be used compared to how well the technology can fit the task.

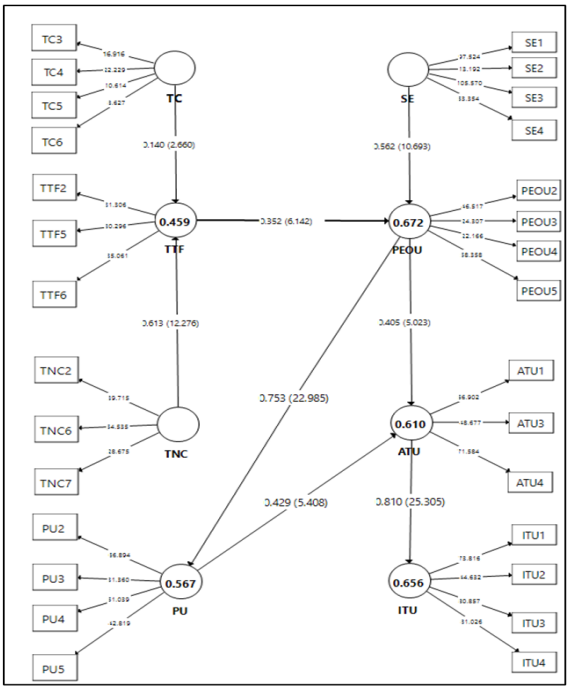

Figure 2. The output of path coefficient, t-value, and R square structural model evaluation

Based on the results of the validity and reliability tests, it can be concluded that all items are acceptable. The HTMT value shows that all indicators have validity in their latent variables. Each independent variable has a moderate influence on the dependent variable. From the existing hypothesis, TC and TNC positively influence TTF, so the better the value of task characteristics and technology characteristics, the more it will affect MSMEs to utilize technology in business activities. Furthermore, PEOU is influenced by SE, which shows that the beliefs of MSME actors in the use of technology positively influence their perceptions of the ease of using technology. In addition, PEOU and PU positively influence ATU, which shows that the more MSME actors feel the ease and usefulness of technology, which provides efficiency in business activities, the more it will influence the acceptance of technology use. Furthermore, ATU has a positive influence on ITU, so when MSME actors accept the use of technology, it will impact their tendency to use technology in business activities.

CONCLUSION

Utilizing technology is an important competitive advantage in today's business environment. Businesses are adopting technology for use on their premises. This study examines the acceptance and application of technology by MSMEs that still carry out their business activities traditionally. It also develops and tests the integration of TTF and TAM models in technology adoption. Analysis of the survey data in this study yielded significant findings that support the eight research hypotheses. The results showed that the TTF model with the variables TC, TNC, and TTF had a positive effect on the TAM model with the PEOU, PU, ATU, and ITU variables, but when compared to TTF, SE had a greater influence on PEOU. So that the integration of TTF and TAM by combining SE as an external variable can provide a better explanation of the use of technology than using only the TTF or TAM

models. This study has several important implications for research and practice as it offers an amalgamation of insights from SE and two competing technology adoption models, TTF and TAM. Thus, this is an initial effort to predict technology adoption in MSMEs business activities.

The managerial implications of the results of this study are that they can be used as a reference for MSMEs to adopt technology and be more active in their technological capabilities in their business activities. The results of this study make a positive contribution to existing problems where there is a gap in technology utilization and some MSMEs have tried to use technology but currently need to use technology. This study offers several practical recommendations for stakeholders with an interest in empowering MSMEs, including the government, entrepreneurs, and MSMEs. Based on respondent data, the highest percentage at the education level of MSME actors is senior high school. These data are relevant to the results of testing the hypothesis that SE has a greater influence on PEOU. So to increase the self-efficacy of MSMEs actors, the government can provide programmes such as outreach, training, enrichment, and so on related to how to use technology so as to improve self-efficacy in the use of technology for MSMEs actors. Apart from providing opportunities for the government and entrepreneurs, it can also be an opportunity to collaborate with banking and non-banking companies to provide a digital ecosystem for MSMEs. In addition, every need for technology utilisation by MSMEs is influenced by the type of business being run. Technology can be offered according to existing needs because convenience and usability also affect the intention of MSMEs to use it. Entrepreneurs can see most of the business fields that have not used technology, so they can offer tools to run MSMEs businesses.

Managerial and theoretical implications must be considered because this study has limitations. In this research, the measurement of self-efficacy in the use of technology for MSMEs actors is only carried out in general; there is no grouping of MSMEs who are fluent and not fluent in using technology, and educational background may show different research results, so that specific factors cannot be identified that influence the decisions and behaviour of SMEs towards the use of technology. In addition, this study also has limited target types of businesses for MSMEs because the types of existing businesses can influence their decisions to use technology, as seen from the results of hypothesis testing, which show that technology characteristics have a positive effect on TTF. Therefore, it is hoped that in future research, categorization needs to be done to find out specifically the factors that significantly influence the decisions and behaviour of MSMEs towards the use of technology.

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