Digital Transaction Model in Micro, Small, and Medium Enterprises (MSMEs) to Target Millenial Generation Consumers in Yogyakarta, Indonesia

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Abstract: The current millennial generation is the majority generation in Indonesia, this generation has characteristics that are accustomed to using digital technology. This generation is undoubtedly responsible for driving the growth of Micro, Small and Medium Enterprises (MSMEs). This study aims to understand the factors that significantly influence the adoption of digital transactions in micro, small, and medium enterprises (MSMEs) in the millennial consumer generation in Yogyakarta. This study combines the TAM (Technology Acceptance Model), TPB (Theory of Planned Behaviour) and transaction costs which include the variables of perceived ease of use, perceived risk, subjective norms, and transaction costs. In this research, CFA (Confirmatory Factor Analysis) is utilized. The study utilizes a quantitative research design that utilizes primary data obtained through questionnaire distribution. The questionnaires collected in this study were 100 respondents. The sampling method used was purposive sampling. The data was analyzed with SPSS 25 using multiple regression analysis techniques. Data testing in this study used the T test and F test. The results of the T test by comparing the T-calculated value with the T-Table showed that the variables perceived of use, transaction costs and subjective norms had an influence on the dependent variable, namely adoption, while the variable perceived risk had no influence on the adoption variable. Then, using the F test, the results showed that all independent variables had a simultaneous influence on the dependent variable. The results show that reduced transaction costs, perceived ease of use, and the role of peer influence are factors that significantly influence Micro, Small and Medium Enterprises (MSMEs) in adopting digital transactions. Meanwhile, the perceived risk factors for using technology do not significantly affect MSMEs in adopting digital transactions.

1 INTRODUCTION

In Indonesia, the current millennial generation is the majority generation. Based on The National Socioeconomic Survey (SUSENAS) in 2017, it is known that the number of millennials is currently around 33.75% of the total population in Indonesia or around 88 million people. The millennial generation is the generation born between 1980 and 2000 (Central Agency of Statistics, 2018).

The millennial generation is a generation that is accustomed to using digital technology. This generation drives innovation in the digital payment industry. It is known that 98% of millennials use smartphones and 97% of them actively use social media (Mamanaova, 2019). The preference of 65% of millennials is to use their phones to make payments for certain products or services (Mamanaova, 2019). The reason why millennials use cellphones is that they believe it is more comfortable, saves time, and provides more options (Visa, 2016). The use of digital wallets allows a business to expand market reach and attract the attention of consumers and is one of the strategies in an effort to face competition between similar products and businesses (Erlina, 2021). The focus for several industries, particularly the Small, Micro, and Medium Enterprises industry, is on this.

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Apart from that, the reason why many consumers use digital transactions is also supported by circumstances that require them to be more cashless. According to Bagas (2021), which cites Neurosensum, the pandemic in Indonesia has resulted in an increase in the number of digital wallet users over the past year. Neurosensum data indicates that the growth of digital wallet users has increased by 44 percent. The pandemic in Indonesia has forced people to comply with the rules limiting direct social contact and maintaining physical distance from each other, so that the existence of digital wallets can support people in implementing these rules.

Micro, Small, and Medium Enterprises (MSMEs) contribute 60.5 percent to the Gross Domestic Product (GDP), 96.9 percent employment, and 16.6 percent exports (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2023). Currently, the number of MSMEs in Indonesia is around 60 million (Ministry of Cooperatives and SMEs of the Republic of Indonesia, 2023). Table 1 below were criteria's for MSMEs according to Law of the Republic of Indonesia Number 8 of 2003.

Table 1: MSMEs Criteria by Capital and Sales.

Business Scale	Capital (IDR)	Sales (IDR)
Micro	up to 50 billion	up to 300 billion
Small	up to 500 billion	up to 2.5 million
Medium	up to 2.5 million	up to 50 million

In Yogyakarta, the number of Micro, Small and Medium Enterprises (MSMEs) was 344,293 units (Bappeda.jogjaprov.go.id., 2023). Based on the type of business, there are 326.114 units of Micro, 16.069 units of Small and 2,110 units of Medium Enterprises (Bappeda.jogjaprov.go.id., 2023). Based on location, Bantul Regency has 87.429 units, Gunungkidul has 54.306 units, Kulon Progo has 36.298 units, Sleman has 114.609 units, and Yogyakarta City has 32.917 units (Bappeda. jogjaprov.go.id., 2023).

The Technology Acceptance Model (TAM) and Theory of Planned Behavior (TPB) are two factors that can influence MSMEs to adopt digital transactions. TAM is a model based on perceptions of digital transaction adoption (Davis et al., 1989). TAM aims to track how users react to digital transactions, whether they accept or reject them. TAM is a model that focuses on two main factors that influence technology adoption: perceived usefulness and perceived ease of use.

Perceived usefulness is the user's belief that a technology will improve their performance, while perceived ease of use is the user's belief that a technology is easy to learn and use. TAM has been validated as an effective model for predicting the adoption of digital transactions by MSMEs in several studies.

TPB explains individual behaviour based on attitudes, social norms and the ease or difficulty of doing it (Ajzen, 2001). Human behaviour (individual) is formed from the presence of certain motivations. The TPB is a more comprehensive model that includes three factors that influence human behavior: attitudes, social norms, and perceived behavioral control. Attitudes are the user's positive or negative feelings about a technology, social norms are the perceived pressure from others to use or not use the technology, and perceived behavioural control is the user's belief that they have the ability to use the technology. TPB has been shown to be a reliable model for predicting MSMEs' adoption of digital transactions in a number of studies.

2 LITERATURE REVIEW

2.1 Technology Acceptance Model

The Technology Acceptance Model (TAM) was a theory adapted from Theory of Reasoned Action (TRA) and developed by Davis et al. (1989). TAM is the most widely applied technology acceptance methodology for business units (Wu, 2009). TAM has two specific factors, namely Perceived Usefulness (PU) and Perceived Ease of Use (PEU) (Davis et al., 1989).

PU, namely someone who believes that adopting technology can provide benefits, increase performance and productivity, and efficiency (Davis et al., 1989). PEU, someone believes that using digital transactions is something that is easy to do and does not require much effort to do (Davis et al., 1989). PU and PEU are factors that influence attitudes towards use (Attitude Toward Using/ATU), namely a person's attitude towards technology acceptance, namely the adoption of digital transactions. This attitude will lead to Behavioural Intention to Use (BI), namely a person's desire to adopt digital transactions and finally Actual system use.

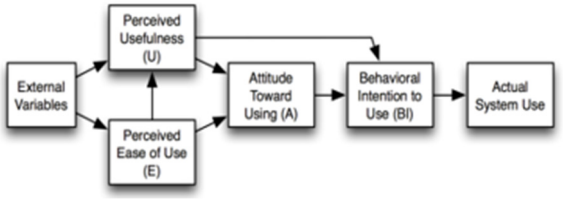

Figure 1: Theory Acceptance Model.

2.2 Theory of Planned Behaviour

Theory of Planned Behavior is a theory that developed from TRA. TPB explains about human behaviour (Ajzan & Madden, 1989). The existence of a certain behavioural intention (intention to do something) is the basis of human behavior. Factors that influence behavioural intention, namely attitude, subjective and perceived behavioural control.

Subjective norms are social norms or surrounding norms that are felt by humans to do or not to do behaviour (Ajzen, 1991). In this case, social factors become the cause of the formation of certain behaviours. For example, one of MSMEs adopts digital transactions due to the influence of other MSMEs who use digital technology in their transactions, which attracts consumer interest. Behavioural intention/BI means that the person concerned has the intention to take action, in this case, namely to accept technology. The stronger a person's intention, the more likely the person is expected to try the behaviour, the more likely the behaviour will be carried out (Ajzen and Madden, 1986: Ajzen, 1991). For example, in this study, the intention of MSMEs to adopt high-digital transactions eventually led to their adoption. Perceived behavioural control, namely the ease or difficulty that someone feels in doing something.

TPB is then refined by adding trust and perceived risk (Mazzocchi et al., 2005). Perceived risk is the potential for loss when users use digital transactions in their transactions (Mazzocchi et al., 2005).

3 HYPOTHESES AND FRAMEWORK

Figure 2 displays the theoretical model linking the Technology Acceptance Model (perceived ease of use) (Davis, 1989), Theory of Planned Behaviour (subjective norms, perceived risk (Ajzen, 1991), transaction cost (Dodgson et al., 2015), and adoption of digital transactions.

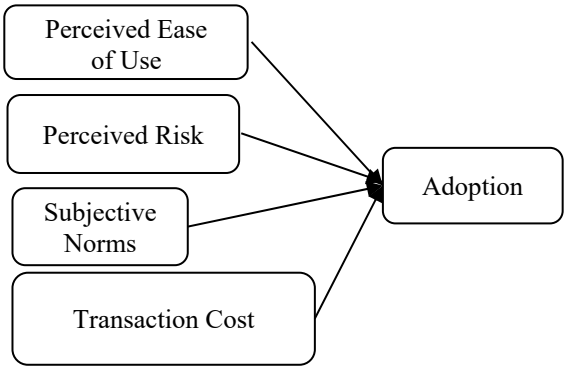

Figure 2: Research Framework.

Users prefer applications or technology that are easy to use because there is no need to spend excessive effort. Excessive effort can drain the resource. According to theory Davis (1989), an application or technology perceived to be easier to use than another is more likely to be used. In this study, the respondents are MSMEs, they focused on profit and minimazed costs. Learning a new application or technology definitely costs a lot of money, so people will choose to use something that is easier to use. We hypothesise as follows:

H1: *Perceived ease of use positively influences the adoption of digital transactions.*

No user likes risk, especially if the risk has a negative impact on the company and consumers. Choosing an application or technology must be more careful. Users will choose and use applications or technology that have minimal risk. We hypothesise as follows:

H2: *Perceived risk positively influences the adoption of digital transactions.*

According to (Ajzen, 1991), the role of social pressure or peer influence in the adoption of technology has had mixed results. Conley and Udry (2010) found that peer exposure had a positive impact on technology adoption. The study above shows that companies can be influenced by the actions of others to adopt technology. Companies will not want to be left behind in adopting technology that can bring in many profits and consumers. We hypothesise as follows:

H3: *Subjective norms positively influence the adoption of digital transactions.*

The primary objective of companies, particularly MSMEs, in adopting digital transactions is to decrease transaction costs. Digital transactions also provide many benefits, according to Dodgson et al.

(2015) that digital transactions have the potential to offer opportunities for revenue growth, reduce the costs of handling cash, and startup costs to provide new opportunities for economic and social entrepreneurship. We hypothesise as follows:

H4**:** *Transaction costs positively influence the adoption of digital transactions.*
There are many considerations when companies adopt digital transactions. The more benefits a company receives, the more likely it is to adopt digital transactions. Ease of using technology, low risk, low transaction costs can be obtained by users by adopting digital transactions, we hypothesise as follows:

H5**:** *Perceived ease of use, perceived risk, subjective norms, and transaction costs simultaneously positively influence the adoption of digital transactions.*

4 RESULT AND DISCUSSION

4.1 Method and Data Collection Result

Confirmatory factor analysis (CFA) is a research technique that tests if the proposal structure model can explain the data collected. CFA is based on the assumption that the data collected can be represented by several laten factors, which cannot be observed directly. CFA is multivariate analysis method used to test or confirm a hypothesis model (hair et al., 2019). The data we use in this research is primary, namely by distributing questionnaires to respondents. After distributing the questionnaire to the respondents, the total number of questionnaires filled out was 100. Thus, the quantity of questionnaires that can be processed is 100. These questionnaires were analysed using Multiple Regression Analysis (MRA) with SPSS 25.

4.2 Demographic Characteristics of Respondents

After collecting the data, it is processed to observe the demographic characteristics of the respondents, which are presented in Table 2 as follows.

Table 2: Characteristics of respondents.

No	Characteristics	Category	Quantity	(%)
1.	Gender	Man	72	72%
		Woman	28	28%
		Total	100	100%
2.	Aged	<25 years old	16	16%
		25-30 years old	8	8%
		31-35 years old	49	49%
		36-40 years old	10	10%
		>40 years old	17	17%
		Total	100	100%
3.	Duration of MSMEs Establishment	1-3 years	21	21%
		4-7 years	52	52%
		8-10 years	11	11%
		>10 years	16	16%
		Total	100	100%
4.	Type of MSMEs	Micro business	17	17%
		Small Business	56	56%
		Medium Business	27	27%
		Total	100	100%

Based on Table 2, it can be seen that the total number of respondents was 100 respondents with the majority being male with total 72 respondents (72%) and the majority of the MSMEs have been established for 4-7 years, comprising 52 respondents (52%). The most types of MSMEs are small business totalling 56 (56%).

4.3 Hypothesis Testing

The hypothesis testing carried out in this study was testing Multiple Regression Analysis (MRA) using the SPSS 25 application. The multiple regression analysis test consisted of two tests, the T-test and F-test.

4.3.1 T- Test

Table 3: Table of T-Test Result.

Variable	T-Table	Calculated T-value	Sig.
Perceived ease of use	8.620	1.985	0.00
Perceived risk	-0,135	1.985	0.893
Transaction cost	3.888	1.985	0.00
Subjective norms	7.295	1.985	0.00
Dependent variable: Adoption			

The sig value for testing X1 (perceived of use) to Y (adoption) is 0.00 <0.05 and the t-count value is 8.620 > t table 1.985, so it can be concluded that H1 is accepted which means there is an influence between X1 (perceived of use) on Y (adoption).

Other than that sig value. for testing X2 (perceived risk) to Y (adoption) is 0.893 > 0.05 and the t-count is -0.135 <t table 1.985. So, it can be concluded that hypothesis H2 is rejected, which means that there is no effect of perceived risk on adoption Y.

The Sig. value for testing X3 (transaction cost) on Y (adoption) is 0.00 <0.05 and the t-count value is 3.888 > t table 1.985, so it can be concluded that H3 is accepted which means there is an influence between X3 (transaction cost) on Y (adoption).

The Sig. value for testing X4 (subjective norm) on Y (adoption) is 0.00 <0.05 and the t-count value is 7.295 > t table 1.985, so it can be concluded that H4 is accepted which means there is an influence between X4 (subjective cost) on Y (adoption).

4.3.2 F-Test

Table 4: Table of F-Test Result.

T- Table	Calculated T-Value	Sig.
2.47	222.941	.000

Based on the output above it is known that the significance value for the influence of X1, X2, X3 and X4 simultaneously on Y is 0.000 <0.50 and the calculated F value is 222.941 > F table 2.47, so it can be concluded that H5 is accepted which means there is an influence of X1, X2, X3 and X4 simultaneously against Y.

4.3.3 Coefficient of Determination

Table 5: Table of Coef. Determination.

R-Value	R Square	Adjusted R Square	Std. Error of the Estimate
0.951	0.904	0.900	0.235

Based on the output above, it is known that the R Square value is 0.904, this means that the simultaneous influence of X1, X2, X3 and X4 on the Y variable is 90.4% and the other 9.6% is influenced by other variables not examined in this study.

4.4 Result

This research aims to test hypotheses and analyze the influence of digital transaction models on micro, small, and medium enterprises (MSMEs) to target millennial generation consumers in Yogyakarta, Indonesia. The analysis of hypothesis 1 shows that perceived ease of use is a factor in adoption. This is because individual users find it easy to use and do not need to spend a lot of time learning it, according to Davis, Bagozzi and Warshaw (1989) who state that PEOU (Perceived Ease of Use) positively influences the intention to use information technology.

In research conducted by Anjali and Ranjani (2020), it was stated that perceived ease of use influences the intention to adopt digital transactions among Indian micro businesses. This is because micro, small and medium enterprises (MSMEs) usually have limited resources and do not have many staff, resulting in limited services provided by the workforce to customers, in this case the use of technology is highly recommended because it can increase effectiveness and efficiency.

The results of hypothesis 2 prove that perceived risk does not influence adoption. This means that consumers, namely the millennial generation, assume that the risks associated with implementing digital transactions in their activities of buying something at micro, small and medium enterprises (MSMeS) can still be borne, apart from that, consumers who decide to use digital transactions feel increasingly accustomed to adoption. People should become familiar with technology that involves digital transactions to make them

comfortable using it and ensure that the risks are not excessive. This is also in line with previous research such as research conducted by Kim and Malhotra (2005) which found that perceived risk did not have a significant influence on the use of information technology.

Hypothesis 3's findings demonstrate the influence of transaction costs on adoption. Transaction costs are costs incurred to carry out transactions both commercial and non-commercial. These costs can be direct costs, such as commission fees, administration, and shipping costs, or indirect costs, such as time and labor costs. So transaction costs have a significant influence on adoption because low transaction costs can encourage technology adoption, while high transaction costs can be an obstacle to technology adoption.

The results of hypothesis 4 also prove that there is an influence between subjective norms on adoption. Subjective norms are a person's perception of what others expect of them when adopting a technology. Subjective norms have an influence on technology adoption because they can increase the intention to use a technology. Research conducted by Herniyati, et.al. (2022) found that subjective norms have a positive influence on the intention to use the figma application. The research results show that the higher the subjective norm, the higher the intention to use the figma application.

5 CONCLUSIONS

Based on the results of the research that has been done, it can be concluded that perceived ease of use has a positive effect on the adoption of digital transactions (hypothesis 1) and the perceived risk variable does not affect the adoption of digital transactions. Besides that, transaction costs have an influence on the adoption of digital transactions (hypothesis 3) and subjective costs also have an influence on the adoption of digital transactions (hypothesis 4) then from the research it is also known that simultaneously there is an influence between variables X1, X2, X3 X4 on Y (Adoption).

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