

Digital Cashless Payment Readiness Model on MSMEs Using Technological-Organization-Environment (TOE) Framework: Study on MSME Users Gopay and Ovocash)

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ABSTRACT

The success of a good business is determined by a strategy that is able to compete with its competitors, one of which is by using a non-cash payment system (digital) so as to provide convenience for consumers to make payments anywhere and anytime there both for online and offline sales. Non-cash payment methods have begun to be applied by businesses by starting to cooperate with the largest digital platforms in Indonesia, namely Go Pay and OVO cash. The purpose of this study is to see the readiness of micro, small and medium enterprises in using digital payment methods with a TOE (technology-organization-environment) approach and then see if they are ready to use digital payment seen from these 3 sides, this study represents samples from 5 cities in Sumatra Island namely Aceh, Medan, Jambi, Pekanbaru and Lampung. The study used a sample of respondents, who have collaborated with GoPay and OVOCash applications totaling 175 MSMEs. This research uses PLS and Path Analysis techniques with the SPSS test tool. The results showed that MSMEs in sumatra region can absorb the use of digital payments seen in terms of Technology with a percentage absorption of 75.8%, Organization by 41.2% and Environment by 58.2%. The conclusion of this study is that there is a readiness of businesses from 5 major cities in Sumatra to use digital payments Gopay and OVO cash that makes their business easier.

Keywords: Digital Cashless Payment, MSME, TOE Framework.

1. INTRODUCTION

Every company or business is required to create a good and integrated competitive strategy because competition is the key to the success or failure of a business, where consumer satisfaction will also depend on the business strategy used by a business. The increasing intensity of competition makes companies always pay attention to the needs and desires of consumers by providing a more satisfactory service than what their competitors already do. Companies with high quality and competitiveness that are able to have many consumers. Technological changes and the social environment that occur in society also change the lifestyle of people where information technology such as internet and e-commerce with more efficient and practical means of communication has been able to change the way consumers live including the way of shopping.

Bank Indonesia stated that in 2018 Go Pay was able to register itself as the highest mobile payment platform with a percentage of 79.3%, then OVO 58.4% [1]. In the use of transactions on MSMEs, Go Pay and OVO that have cooperated with Grabpay where GrabPay consumers now pay are replaced with OVO Cash. Therefore, this research is limited to two large vendors namely GoPay and OVO Cash. Although GoPay and OVO are easy to find in MSMEs but in their implementation some MSMEs still encounter confusion and difficulties especially for micro businesses and small businesses that still have difficulty in making Mobile Payment transactions because they have not mastered the technology or feel the need for extra time to make transactions with mobile payment. Based on preliminary surveys, most consumers prepare cash to make payments to micro-businesses such as food stalls and small exchanges.

The purpose of this research is to get an idea of the level of readiness of MSMEs in Sumatra island where the level of readiness may differ from MSMEs located in Java island which is notabene in a more modern environment. Some previous researchers have conducted studies with the same variables but with narrower research scope and fewer objects. This research was conducted with a broader scope of research namely MSMEs located in the island territory of Sumatra so that they can get an idea of the level of readiness of MSMEs in Sumatra Island where the level of readiness may differ from MSMEs located in Java island which is notabene in a more modern environment.

2. METHODS

2.1. Data Source

Based on the source, the data can be divided into two, namely Primary Data and Secondary Data :

- a. Primary data is data created by researchers for the special purpose of solving the problems that are being handled. The data were collected by researcher directly from the first source or object where research is conducted.
- b. Secondary data is data that has been collected for purposes other than to solve the problem at hand. This data can be found quickly. In this study, the secondary data source is literature, articles, journals and websites on the internet with regard to the research conducted.

2.2. Operationalization of Research Variables

The operational definition describes a particular method that is used by researchers to operationalize the construct, thus allowing other researchers to conduct repeatability of measurements in the same way or trying to distribute construct a better measurement. In this study, the operational definition outlined in the following table:

Table 1: Variable Operational Research

Variable	Sub variables	Code	Indicators	Measuring Scale
Technology	Relative Advantage	T01 T02 T03 T04	<ul style="list-style-type: none"> ● Advantages of using systems/applications ● Excellence in maintenance ● Excellence in time ● Excellence in Services 	Ordinal
	Compability	T05 T06 T07 T08	<ul style="list-style-type: none"> ● According to transaction needs ● According to Life Style ● Consistent with business needs ● In accordance with the values of the organization/business adopted. 	Ordinal
	Complexity	T09 T10 T11 T12	<ul style="list-style-type: none"> ● Ease of using the system ● App system does not confuse users ● The Flow of system is easy to understand ● No difficulty at all in using the system 	
Organization	Organizational Competency	O1 O2 O3 O4	<ul style="list-style-type: none"> ● Application of IT in business ● Organizational ability to adapt ● Teamwork ● Management efforts for organizations 	
	Management Support	O5 O6 O7 O8	<ul style="list-style-type: none"> ● Reliable owner (top Management) ● Good leadership ● Good business management ● How to troubleshoot issues in your organization 	
	Training and Education	O9 O10 O11 O12	<ul style="list-style-type: none"> ● Training to improve user knowledge ● Organizations initiating employee training and learning ● Continuous understanding for users ● Trainings makes user more confident. 	

Environment	Competitive Pressure	E1 E2 E3 E4	<ul style="list-style-type: none"> • Competitiveness with competitors • Advantages for businesses • Attract more customers • Higher selling value 	Ordinal
	Trading Partner Support	E5 E6 E7 E8	<ul style="list-style-type: none"> • System tested • Guaranteed in security • Insurance guarantee • Trading Partner Support 	
Adoption	Adoption Intention	A1 A2 A3	<ul style="list-style-type: none"> • Desire to use technology • Interest in the development of businesses using technology • Suggest using technology to business associates 	

2.3. Population and Sample

In this study, the population was a business consumer (MSME) of GoPay and OVO Cash application users spread across five major cities in Sumatra, namely Aceh, Medan, Jambi, Pekanbaru and Lampung amounting to 259,701 MSMEs. This population does not represent the number of MSMEs who already use Gopay and OVO Cash applications because the data is not available definitively, so for the population of Gopay and OVO Cash users themselves who each year increase cannot be known the exact number. Based on the information, the sampling in this study used the formula Hair that if the sample size is too large, then the method becomes so sensitive that it is difficult to get goodness of fit so it is recommended that the minimum sample size is 5-10 observations for each observed parameter. Thus, in this study jumlah parameters are as many as 35 items, so jumlah the recommended sample is $35 \times 5 = 175$ MSMEs. The technique of sampling is simple random sampling that is the technique to get samples directly done in the sampling unit.

2.4. Data Analysis Method

This research uses the Partial Least Square (PLS) analysis method which is a multivariate statistical technique that can handle many variable responses as well as variable explanatory at once. Partial Least Square is a technique that can handle many variables even if there is multicolineity between these variables. To test the validity and reability of the feeding indicator is used outer model. Path analysis is used to see how the TOE Framework variable affects Adoption Intention.

3. RESULT

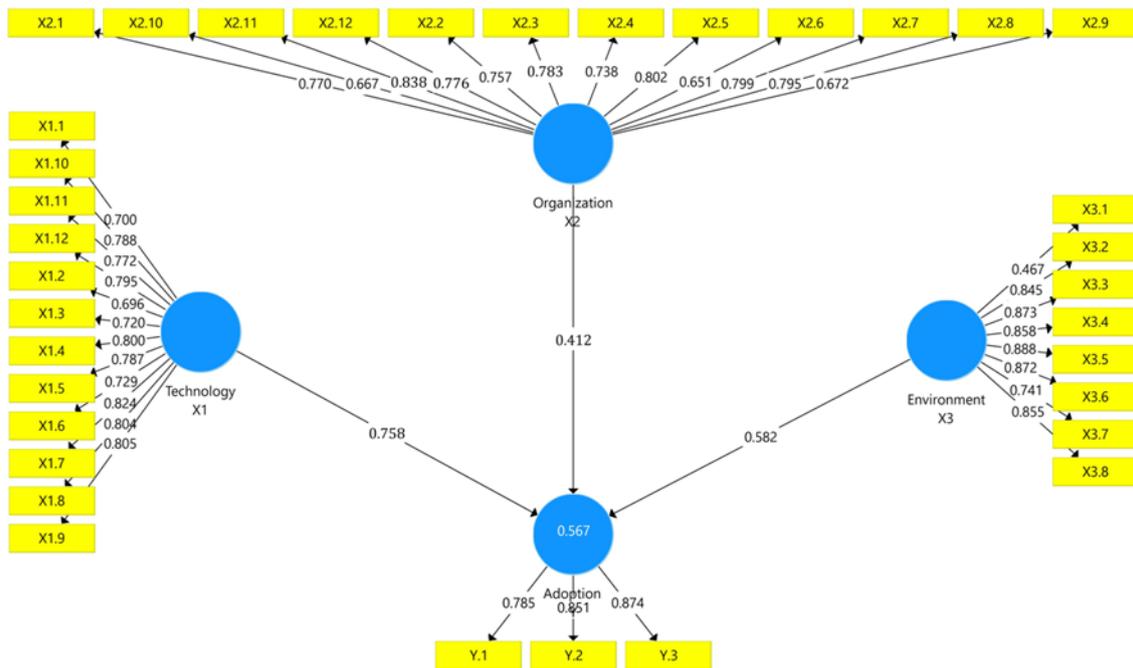
Respondents in this study consisted of several characteristics: characteristics of respondents based on gender, age, marital status, business domicile, business type, type of application and length of use of the application. For more details can be seen in the following tables.

Table 2. Distribution Characteristics of Respondents Table Research

Sex	Male	79	44,89%
	Female	97	55,11%
Total		176	
Age	20 – 30 years old	112	63,64%
	31 – 40 years old	50	28,41%
	> 40 years old	14	7,95%
Total		176	
Marital Status	Unmarried	87	49,43%
	Married	89	50,57%
Total		176	
Business domicile	Aceh	12	6,82%
	Medan	17	9,66%
	Pekanbaru	17	9,66%
	Palembang	10	5,68%
	Jambi	113	64,20%
	Lampung	7	3,98%
Total		176	
Business Type	Culinary	96	54,55%
	Fashion	29	16,48%
	Medical supplies	10	5,68%
	cosmetics	9	5,11%

	Electronic	7	3,98%
	Services	16	9,09%
	Others	9	5,11%
Total		176	
Applications used	GoPay	46	26,14%
	OVOCASH	67	38,07%
	GoPay dan OVOCASH	63	35,80%
	Total	176	
Length of cooperation	< 1 Year	88	50,00%
	1 – 3 years	82	46,59%
	> 3 years	6	3,41%
Total		176	

Based on the results of this study, the following are models obtained from the calculation results using SmartPLS:



The initial measurement is calculated by measuring the loading factor result, which if the score is greater than 0.6

then it is considered significant. The results of loading factor measurement can be seen as follows:

Table 3. Outer Loading Factors

	Adoption (Y)	Environment (X3)	Organization (X1)	Technology (Y)
X1.1				0.700
X1.10				0.788
X1.11				0.772
X1.12				0.795
X1.3				0.720
X1.4				0.800
X1.5				0.787
X1.6				0.729
X1.7				0.824
X1.8				0.804

X1.9				0.805
X2.1			0.770	
X2.11			0.838	
X2.12			0.776	
X2.2			0.757	
X2.3			0.783	
X2.4			0.738	
X2.5			0.802	
X2.7			0.799	
X2.8			0.795	
X3.2		0.845		
X3.3		0.873		
X3.4		0.858		
X3.5		0.888		
X3.6		0.872		
X3.7		0.741		
X3.8		0.855		
Y.1	0.785			
Y.2	0.851			
Y.3	0.874			

Based on the table above, in performing the initial analysis data there are loading factor values on indicators

X1.2, X2.10, X2.6, X2.9 and X3.1 smaller than 0.6 then all five indicators are not included in the model.

Table 4. Construct Reliability and Validity

	Cronbach's Alpha	rho_A	Composite Reliability	Average Variance Extracted (AVE)
Adoption_Y	0,790	0,819	0,876	0,702
Environment_X3	0,921	0,939	0,937	0,657
Organization_X2	0,916	0,933	0,926	0,512
Technology_X1	0,937	0,943	0,946	0,592

The analysis of Cronbach's alpha in the table above shows that the score is more than 0.7 where the adoption variable is 0.790, the environment is 0.921, the organization is 0.916 and the technology is 0.937. The results showed that the accuracy and reliability of all the variables in this study. Composite reliability with a score above 0.7 can then be declared to meet the reability. Based on the table above, it is seen that each variable in this study scored for composite reliability above 0.7 where the variable adoption variable is 0.876, the environment is 0.937, the organization is 0.926 and the technology is 0.946. The results show that the variable as a whole is declared realibel. Validity measurement through Average Variance Extracted (AVE) where the score above 0.5 is declared to meet validity. Based on the table above it is seen that the overall variable score of

Average Variance Extracted (AVE) is above 0.5, where the adoption variable is 0.702, the environment is 0.657, the organization is 0.512 and the technology is 0.592. The results show that the variable as a whole is declared to meet validity.

Table 5. R Square Value

	R Square	R Square Adjusted
Adoption_(Y)	0,582	0,572

The value of R Square in the table above obtained a value of 0.582 with a criterion of 0.3 means technology, organization and environmet are able to contribute or influence 0.582 on adoption.

Table 6. Path Coefficients

	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	T Statistics (O/STDEV)	P Values	Result
Environment_X3 -> Adoption_(Y)	0,582	0,572	0,161	6,865	0,000	Accepted
Organization_X2 -> Adoption_(Y)	0,412	0,403	0,131	7,125	0,004	Accepted
Technology_X1 -> Adoption_(Y)	0,758	0,698	0,164	5,983	0,000	Accepted

The results of the environmental impact test on adoption amounted to 0.582 and P value of 0.000 with a significant level of 0.05. This indicates there is a positive influence of the environment on adoption, so if the environment increases by 1 (one) then adoption will increase by 0.582. The results of the organization's influence test on adoption amounted to 0.412 and P value of 0.004 with a significant level of 0.05. This indicates that there is a positive influence on adoption, so if the environment increases by 1 (one) then adoption will increase by 0.412.

The results of the technology influence test on adoption amounted to 0.758 and P value of 0.000 with a significant level of 0.05. This indicates that there is a positive influence of technology on adoption, so if the environment increases by 1 (one) then adoption will increase by 0.758.

4. DISCUSSIONS

4.1. Technology has a positive effect on Adoption

Based on the results of the analysis seen in the structural model, it can be seen that Technology has a positive and significant effect with a qualified loading factor value of more than 0.6. It is also supported by a coefficient path result of 0.758 which means the hypothesis linking Technology Adoption has a positively significant influence. This influence is quite large when viewed from its value of 75.8% so it can be said that the readiness level of MSMEs is already good in adopting technology for their business. These results are similar to previous research that has stated that technology that is increasingly advanced and tends to be easy to use has a great influence for a person or group of people to adopt it thus simplifying their work [2]. Organization has a positive influence on Adoption

Structural model results show that organization has a positive influence on Adoption with loading factor value of more than 0.6. Meanwhile, the results of the path analysis show a coefficient number of 0.412 which means the hypothesis linking Organization Adoption has a positive and significant influence, with an influence of

0.412 or 41.2%. The more prepared an organization is to use technology, the higher the intention of the organization's management in adopting technology. This is in line with the actions taken by top management in supporting and emphasizing their employees in using technology to facilitate and simplify their work, more often training is given to employees it will increase the motivation of employees to use technology. The results of this study support previous research that concluded that the Organization has an influence on Adoption [3] [4].

4.2. Environment has a positive influence on Adoption

Based on the results of the analysis on the Structural Model, variable Environment has a positive and significant influence with a loading factor value of more than 0.6 and a magnitude of influence of 0, 582 or 58.2% which means that the Environment has a strong enough influence for an organization or business to absorb the use of technology through digital payment. The higher the technology used by the competitors, the stronger the desire to adopt technology for its business, especially if supported by the convenience provided by the business partner, namely the digital payment service provider. This opinion is in line with previous research conducted by Purwantini and Hakim [5] which concluded that variable Environment has an influence on Adoption Intention.

5. CONCLUSION

1. The results of the analysis show that MSMEs are ready to use GoPay and OVO as payment methods in their Businesses influenced by variable Technology- Organization – Environment (TOE).
2. The most dominant factor influencing the intention of using Digital payment is Technology, then followed by Environment and Organization.
3. All variables (Technology-Organization-Environment) have a positive and significant relationship to Adoption Intention so it can be said that all variables affect the intention of use

(Adoption Intention) digital payment by MSMEs.

Country: Evidence From Indonesia. *Procedia – Social and Behavioural Science*, 195, 145-150.

RECOMMENDATIONS

1. For the company of digital payment service providers namely GOJEK and OVO in order to be able to conduct mentoring education for MSMEs in order to be able to Go Digital because the organization factor gives the lowest influence on this research, meaning there is still a reluctance from MSMEs to literate technology due to lack of motivation.
2. For MSMEs who have implemented payment methods with GoPay and OVO in order to maintain and increase the use of technology in their business in order to have a wider market and high competitiveness so as not to lose to competitors.
3. For researchers in order to strengthen the weaknesses in this study, where the spread of questionnaires is disproportionate between regions so that it can be made in percentage so as to get a more proportionate and valid dissemination of respondents, pay attention to the editorial on the questionnaire to make it easier for respondents to understand and strengthen indicators so that no items are deleted or invalid, and expand the research area with more diverse digital payment service provider objects.

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