

Grassroots Economy Towards Cashless Society: An Empirical Analysis Of Micro-Merchant's Readiness In Continuing The Usage Of Cashless Payment System

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Abstract: Mobile payment or cashless payment system is rapidly developing in the last few years. Cashless payment system is an emerging market in Indonesia. There are many of users and merchants that have been adopting cashless payment system replacing the conventional transactions. Micro-merchant is one of the stakeholders of mobile payment ecosystem which specifically receiving the low-value payment transaction from the mobile payment users. To measure micro-merchant's readiness in continuing their usage on cashless payment system, we used the Technology Readiness Index (TRI) 2.0 approach. Parasuraman and Colby (2014) developed TRI 2.0 as a research scale in measuring and classifying individuals by their propensity to adopt technology. This research will provide the highlights of current situation of micro-merchant's technology readiness and their continuance intention to adopt cashless payment system based on TR constructs. There are four constructs which are Optimism, Innovativeness, Discomfort and Insecurity that will be tested to find their relationship to the continuance intention in adopting cashless payment system. This research found that optimism is a determinant factor driving the micro-merchants' continuance intention to adopt cashless payment system while discomfort is becoming main inhibitor.

Keywords: Technology readiness, TRI, micro-merchant, cashless payment system, mobile payment

1. INTRODUCTION

The cashless payment system is a behavioral change of people in eliminating the usage of money and allowing payment technology (Kumari & Khanna, 2017). It is a recent innovation that enabling customers and merchants to make a financial transaction for goods and services electronically. Cashless payment system is a transaction between customer and merchant using electronic communication facilities (Joseph & Richard, 2015). The typical of cashless payment scenario is that the consumers are parties making the payment; merchants are parties that receive payments (Karnouskos & FOKUS, 2004). It is an integration of transaction between those parties in a simple way (Liébana-Cabanillas et al, 2014). The cashless payment system is varying. Mobile payment is the most rapid development recently (Aron, 2018). The wide and ubiquitous use of mobile phone, therefore, people likely tend to move from cash to cashless payment (Putri et al, 2017). In addition, the more users who use mobile payment the more merchants are joining the cashless payment system (Au & Kauffman, 2008). Consequently, the ubiquitous of mobile payment users will affect to the proliferation of merchants. Ultimately, it creates value of interaction between customer and merchant in terms of payment link. The users intention in adopting cashless payment is still below expectation although the mobile payment ecosystem such as financial institution, multi-national operators (MNO) and merchants endorsed the using of cashless payment services (Humbani & Wiese, 2017).

In addition, Ng (2017) found that the adoption of electronic payments in Singapore were failed due to lack of merchants who were prepared to accept modes of cashless payment. From those two statements, it can be seen that mobile payment user and merchant have the same problem, low adoption. However, current phenomenon in Indonesia shows a contradictory situation, especially in a city, many people already used the cashless payment system for transactions, both from users and merchants. This is becoming a trend nowadays due to the various promotion from third party provider (TPP) to attract users and merchants to use their cashless payment system. However, many researchers only discussed consumer's adoption on mobile payment system while contingency factors and other dimension are beneficial to understanding mobile payment ecosystem in a more holistic manner (Dahlberg et al, 2015). Furthermore, there is a lack of insight into merchant behavior, and their interaction with other actors in the mobile payment ecosystem (Guo & Bouwman, 2015). At this point, we have an insight of the needs to discuss the adoption of cashless payment system from other perspective. In line with current phenomenon in Indonesia, we need to discuss the pertaining merchant propensity to embrace and use the cashless payment system continuously so that its implementation can be carried out continually in the future. TRI model explained the people's readiness to interact with technology (Parasuraman, 2000; Parasuraman & Colby, 2014) which considers individual differences (Parasuraman, 2000; Liljander et al, 2006; Humbani & Wiese, 2017). TR constructs proposed four dimensions which are optimism, innovativeness, discomfort and insecurity, to capture the positive (Drivers), and negative (Inhibitors) technology feelings. People's technology readiness is determined by the sequence of factors that drive and inhibit the technology adoption (Celik & Kocaman, 2017). In addition, practical applications of the TRI scale aimed at deepening understanding of technology's role in marketing to and serving customers (Parasuraman, 2000). Individual differences are important factor that determine the success of a technology implementation (Humbani & Wiese, 2017). In an instance,

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merchant's owners who adopt cashless payment system in their outlet display the readiness to interact with new technology in their workplace. Otherwise, they are not ready. It might be some factors driving and inhibiting their intention to adopt cashless payment system. TR constructs could explain factors that drive and inhibit people in using technology. In Indonesia, there are many merchants who have adopted cashless payment system. To maintain their proliferation, we need to know to what extent their intention in continuing the cashless payment system adoption. It should be related to their readiness in adopting technology. It, therefore, could be considered that TR constructs is suitable to measure factor that driving and inhibiting merchants' continuance intention to adopt cashless payments system. The term of 'cashless journey' means the several stages of the journey towards establishing electronic payments based on local factors (Meenakshi, 2017). The focus on the last mile in the cashless journey should be on the low-value payment merchants (Ng, 2018). In Indonesia, many low-value merchants in grassroots level, termed as micro-merchants, have been adopting cashless payment system. Their existence is mostly in informal sector such as hawker centers or traditional markets. The structure of a micro-merchant comprises of an owner who runs their business independently with a very flat organization, in some cases many of them run the business by their own selves. Micro-merchant owner who directly responsible for daily transactions through cashless payment system could be taking into account as an individual. In addition, micro-merchant owner who authorize their front liner to manage daily transactions could be also termed as an individual who decided to use cashless payment system. Micro-merchants who use cashless payment system is becoming an emerging market in Indonesia. Data shows that the number of micro-business in 2017 reached 62.93 million business units (Ministry of Cooperatives and SMEs, 2018). There is an evidence that 9,600 units of business have been adopting cashless payment system provided by one of local TPP. However, positive and negative feelings have their constraints. These constraints might affect to micro-merchants' continuance intention to adopt cashless payment system. In addition, TPP have promoted their technology-based service to micro-merchants with huge resources and they will not success and recover their costs without knowing micro-merchants' readiness to interact with technology. Therefore, further discussions of this research will specifically explain the current situation of micro merchant's readiness and answer the relationships between their readiness to interact with technology and their continuance intention to adopt cashless payment system, measured by TR constructs. Optimism dimension was strongly related with users' eagerness to adopt technology in terms of convenience, freedom and control (Liljander et al, 2006). In addition, optimism dimension is important factor for users of technology in terms of convenience and practicality offered by technology (Pires et al, 2011). Innovativeness dimension cannot explain customer readiness in adopting technology (Liljander et al, 2006; Humbani & Wiese, 2017; Pires et al 2011). Nevertheless, Lin & Chang (2011) found that there is association between innovativeness and willingness to try new technology services. Discomfort and insecurity dimensions did not show a reliable result measuring the people's readiness to adopt technologies (Liljander et al, 2006). Humbani & Wiese (2017) found that inhibitors factor partially supported the

people's readiness in adopting technology; Insecurity shows significant inhibitor of users' readiness to adopt technology while discomfort insignificant one. Based on this findings, Humbani & Wiese (2017) raise the need to explore more about the impact of discomfort factor on the adoption of technology. Demographic factors are found to explain the differences in readiness to use digital financial services (Trinugroho et al, 2017). Higher education level, male and younger age have positive attitudes toward technology readiness (Rojas-Méndez et al, 2017). Research showed that declining physiological abilities with age, older people are less able to do information-processing tasks and allocate attention to information related to work (Phang, et al., 2006). Female students are moderately motivated to adopt information and communication technology while male students are highly motivated in terms of control, flexibility, and efficiency (Gombachika & Khangamwa, 2013). Considering the actors of micro-merchant are vary, thus, the micro-merchant owner demographic needs to be assessed whether it has a significant result in continuance intention to adopt cashless payment system. It will provide the insights of market segmentation that leads to employ effective marketing strategy in promoting the use of cashless payment system. This research will focus on micro-merchant that has low-value payment with less than Rp.150.000 (≈10€) per-transaction at average. The type of business of merchant is selling products or services at hawker centers and traditional markets that using QR code technology as their payment medium. Respondents are limited to merchant's owner because they are the individual who specifically decided whether using cashless payment technology. Since there is evidence that early implementation of cashless payment system by TPPs are in Jakarta, data collection will be held in Jakarta and its surrounding area.

2. LITERATURE REVIEW

TRI is a research scale in measuring and classifying individuals by their propensity to adopt technology in their daily lives (Parasuraman, 2000). The scale can be used with any population such as consumer, business, employee (Parasuraman & Colby, 2000). TRI considers psychometric properties of individual to explain people's intention to adopt a new technology (Parasuraman, 2000). Because the characters of each people are different, their beliefs about various aspects of technology and the relative strength of each characters are related to their openness to technology (Humbani & Wiese, 2017; Walzuch et al, 2007). Parasuraman & Colby (2014) updated and streamlined TRI to TRI 2.0 and found that it is as a robust predictor of technology-related behavioral intentions. TRI 2.0 can be used as an important psychographic variable to measure people's technology readiness (Parasuraman & Colby, 2014). TR constructs is an overall frame of mind resulting from a gestalt of mental enablers and inhibitors that collectively determine a person's predisposition to use new technology (Parasuraman, 2000). TRI dimensions are differentiated between drivers and inhibitors of technology adoption. Positive and negative feelings about technology may co-exist, yet the relative dominance of the two types of feelings is likely to vary across individuals (Parasuraman, 2000). To measure the micro-merchants' readiness to adopt cashless payment system is by employing the four dimensions: optimism, innovativeness, discomfort and insecurity to this study. Optimism and

innovativeness are drivers of TR, while discomfort and insecurity are inhibitors.

- Optimism is a positive view of technology and a belief that it offers people increased control, flexibility, and efficiency in their lives.
- Innovativeness is defined as the tendency to become a technology pioneer and become the leader.
- Discomfort is defined as a lack of perceived control over technology and a feeling of being overwhelmed by it
- Insecurity reflects the feeling of general distrust, skepticism, and concern related to the harmful consequences towards new technologies

There is some potential application suggested by Parasuraman (2000) of TR Index development which consist two general applications (Parasuraman and Colby, 2014). First, the application can be used for assessing given population data which can consist a country, a profession, market segment, or any particular demographic interest. Second, it can facilitate the dynamics understanding for numerous technologies adoption by providing four TR dimensions measurement. A logical explanation for the contrary relationship between insertion and use rates from technology adoption shows that new adopters are not as experienced as some early adopters and therefore may not be passionate users (Parasuraman, 2000).

3. RESEARCH MODEL AND HYPOTHESES

To investigate the impact of TR dimensions on micro-merchant's continuance intention to adopt cashless payment system, this study proposed the research model which can be seen on Figure 1.

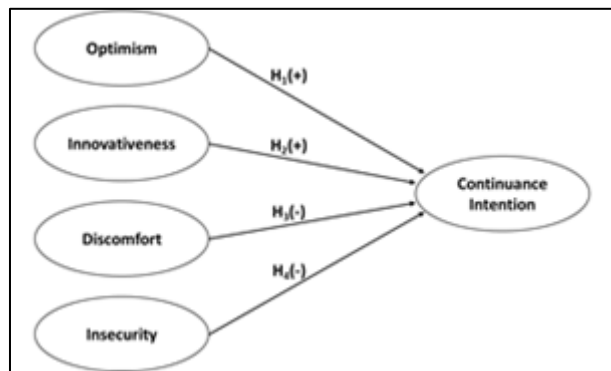


Figure 1 Research model

The higher TR levels are corresponding with higher cutting-edge technology adoption rates, which optimism and innovativeness become contributed motivators to TR (Parasuraman & Colby, 2014). A positive outcome can be effectively reached by an optimist than a pessimist, because an optimist will likely to use more coping strategies (Walczuch et al, 2007). Ariani et al (2018) contend that optimism factor is a positive perception to understanding knowledge with the certainty of easy to master, flexible, and efficient. Customers have to feel that they can control the service of technologies and accessibility is the most certain profit of using electronic services (Ilijander et al, 2006). Optimism is, therefore, a motivator that has a positive impact on technology adoption.

H₁: Optimism has a positive effect on a micro-merchant's continuance intention to adopt cashless payment system.

Personal Innovativeness is related to the user's desire to embrace new information technology (Lee et al, 2012; Rogers, 1995). Innovative individuals and novice adopters will have less complexity in the belief about new technologies (Walczuch et al, 2007). The higher levels of personal innovativeness in information technology will grow more positive impression about innovation (Humbani & Wiese, 2017)

H₂: Innovativeness has a positive effect on a micro-merchant's continuance intention to adopt cashless payment system.

The inhibitors which draw away from TR are discomfort and insecurity (Parasuraman & Colby, 2014). Based on previous study, high level of discomfort could lead negative behavior towards technology (Parasuraman & Colby, 2014, Humbani & Wiese, 2018). Technology anxiety could be the cause of negative impact and influences on technology adoption and experience (Celik & Kocaman, 2017).

H₃: Discomfort has a negative effect on a micro-merchant's continuance intention to adopt cashless payment system.

Insecurity can make users feel cautious to use technology and become a negative driver of technology adoption (Lin and Chang, 2018). Insecurity also reflects mistrust, hesitation, and increase user concerns about the risk consequences of new technology (Parasuraman & Colby, 2014). Cellular payment services are more likely to get negative impact from insecurity (Humbani & Wiese, 2018). The contributor of slow adoption in e-commerce is a perceived lack of security system which become an important general acknowledge (Ilijander et al, 2006).

H₄: Insecurity has a negative effect on a micro-merchant's continuance intention to adopt cashless payment system

4. METHODOLOGY

4.1 Subjects and data collection

Offline to online and online only surveys were conducted during May 13 2019 to June 27 2019 in various places where the micro-merchants exist, such as hawker centers and traditional markets in Jakarta and its surrounding area. Offline to online survey means that we conducted survey on the spot and asked respondents to administered questionnaire using our or their gadget. This survey was supported by some independent data collectors. Typically, respondents self-administered their questionnaire. Yet, fewer respondents were assisted to answer questionnaire due to lack of eyesight or other technical problems. In total 229 cases were gathered and there is no missing data, because respondents could not submit their response when there is a blank answer. The questionnaire was administered to convenience samples limited to micro-merchant owners. They are the only individuals or persons who required participating in this survey. Otherwise, we revoke their response. We found that only one respondent who is not the micro-merchant owner. The respondents were collected of more male (65.5%). Dominance respondents were in their thirties (49.1%) which

dominated by high school degree (47.8%). The respondents were engaged in various type of business but mostly culinary business (51.3%). Degree of low-value payment dominated by value of Rp.15.000-150.000 (\approx 1-10€) per-transaction (97.8%). It is in line with the micropayment concept where the most suitable area for mobile payment transactions is in point of sales whose transaction sizes range from micropayment (maximum 10 €) to macro payment (10-100 €) (Mallat & Tuunainen, 2008). Ng (2018) also explained that the low-value payment would be less than S\$100 and in many instances even less than S\$40. Almost of respondents had experience using cashless payment technology between 3-12 months (88.2%). This indicates that the adoption of cashless payment system in the middle of micro-merchants could be considered as an emerging market and it became a new trend for the past year. Average transaction per-day were dominated by 11-15 transactions per-day (36.8%). The main reason of their use on cashless payment technology is mainly caused by the peer pressure (46.1%). Detailed descriptive statistics related to the respondent characteristics are shown in the Table 1.

Table 1
Descriptive statistic of respondents' characteristics

Measure	Value	Frequency	Percentage
Gender	Male	150	65.8
	Female	78	34.2
Age	<20	0	0.0
	20-29	64	28.1
	30-39	112	49.1
	40-49	51	22.4
	>49	1	0.4
Education level	Less than high school	51	22.4
	High school graduated	109	47.8
	Some college or two-year degree	19	8.3
	4-year college degree	44	19.3
	Graduate or professional degree	5	2.2
Type of business	Small shops	22	9.6
	Culinary outlet	117	51.3
	Street vendors	89	39.0
TPP	Go-Pay	195	85.5
	OVO	29	12.7
	Other	4	1.6
Degree of cashless payment experience	<3 months	7	3.1
	3-6 months	93	40.8
	7-12 months	108	47.4
	>12 months	20	8.8
Degree of average transaction per-day	<5	6	2.6
	6-10	51	22.4
	11-15	84	36.8
	16-20	71	31.1
	>20	16	7.0
Degree of	<Rp.15.000 (\approx 1€)	2	0.9

Measure	Value	Frequency	Percentage
average low-value payment per-transaction	Rp.15.000-150.000 (\approx 1-10€)	223	97.8
	>Rp.150.000 (\approx 10€)	3	1.3
Main reason to use cashless payment system services	Efficiency	46	20.2
	Incentive program	21	9.2
	Merchant's promotion	52	22.8
	TPP marketing strategy	4	1.8
	Peer pressure	105	46.1

4.2 Measures

Dependent variable for this research is the continuance intention of micro-merchants to adopt cashless payment technology and the explanatory variables are the four dimensions of TR construct. This study using the 16 item TRI 2.0 scales (Parasuraman & Colby, 2013) to measures the four dimensions of TR constructs. Anticipating the insignificant results of dimensions that were occurred from previous studies, we employed additional items provided by TRI 2.0 that eliminated for refinements process by Parasuraman & Colby (2013). We considered that some of eliminated questions are culture related to Indonesians. Some of the items proposed in TR scale may be related to the last or past concerns, which also related with some cultural concerns (Liljander et al, 2006). Thus, some items may need to be adapted because of cultural differentiation and the development levels of technology at different countries. Hence, to measure the four dimensions as shown in Table 2, the measurements using 8 items for optimism, 6 items for innovativeness, 8 items for discomfort, and 7 items for insecurity. The items of adoption represented by continuance intention to adopt cashless payment system adapted from study related to technology acceptance (Suh & Han, 2002).

Table 2
Technology Readiness items used and its comparison to the TRI 1.0 items

TRI 2.0	Scale Item (2012 wording)	TRI 1.0
Optimism		
OPT1	New technologies contribute to a better quality of life	New item
OPT2	Technology gives me more freedom of mobility	OPT8
OPT3	Technology gives people more control over their daily lives	OPT1
OPT4	Technology makes me more productive in my personal life	New item
OPT7	Technology makes me more efficient in my occupation	OPT6
OPT10	Products and services that use the newest technologies are much more convenient to use	OPT2
OPT11	I rely on technology to keep up to date on topics I care about	New item
OPT12	Communications technology and the Internet help people build stronger relationships	New item
Innovativeness		
INN1	Other people come to me for advice on new technologies	INN1
INN2	In general, I am among the first in my circle of friends to acquire new technology when it appears	INN3
INN3	I can usually figure out new high-tech products and services without help from others	INN4
INN4	I keep up with the latest technological developments in my areas of interest	INN5

TRI 2.0	Scale Item (2012 wording)	TRI 1.0
INN5	I enjoy the challenge of figuring out high tech gadgets	INN6
INN8	I find new technologies to be mentally stimulating	OPT7
Discomfort		
DIS1	When I get technical support from a provider of a high-tech product or service, sometimes feel as if I am being taken advantage of by someone who knows more than I do	DIS4
DIS2	Technical support lines are not helpful because they don't explain things in terms I understand	DIS1
DIS3	Sometimes, I think that technology systems are not designed for use by ordinary people	DIS2
DIS4	There is no such thing as a manual for a high-tech product or service that's written in plain language	DIS3
DIS5	It is embarrassing when I have trouble with a high-tech gadget while people are watching	DIS6
DIS10	Technology always seems to fail at the worst possible time	DIS10
DIS12	If I buy a high-tech product or service, I prefer to have the basic model over one with a lot of extra features	DIS5
DIS13	In my circle of friends, people are admired more if they own the latest gadgets	New item
Insecurity		
INS1	People are too dependent on technology to do things for them	New item
INS2	Too much technology distracts people to a point that is harmful	New item
INS3	Technology lowers the quality of relationships by reducing personal interaction	New item
INS4	I do not feel confident doing business with a place that can only be reached online	INS4
INS7	When I call a business, I prefer talking to a person rather than interacting with an automated system	INS8
INS8	Whenever something gets automated, you need to check carefully that the system is not making mistakes	INS6
INS9	Any business transaction you do electronically should be confirmed later with a separate communication	INS5

We measured a respondent's continuance intention to adopt cashless payment system as once over a period of weeks. The questionnaire was translated into Bahasa and the degree of meaning is endeavored to be appropriate to its original wording. The pilot of questionnaire was conducted by micro-merchant owners who graduated from master of management. Respondents will determine their options (agreement or disagreement) with the translated items compared with the original items. The question items were adjusted based on the pilot test result and research supervisor advices. The questionnaire using a five-point Likert-scale questions to collect data for the constructs of the research model. The survey instrument consisted of 3 main sections. In the section 1, respondents have to answer all Likert-scale questions on TR (5 = strongly agree to 1 = strongly disagree) related on how they feel about cashless technology. Section 2 included questions about demographic and current use of cashless payment system by micro-merchant. And in the section 3, respondents have to answer all Likert-scale questions which related to continuance intention for adopting cashless payment technology. We randomized the statements

specifically for the section 1 as suggested by the TRI 2.0 authors

5. DATA ANALYSIS AND DISCUSSION

5.1 Normality

Normality tests were conducted by visual analysis of the Regression Standardized Residual, Probability-Plot (P-P), and the scatter plot (Pallant, 2016). Table 3 reports mean, standard deviations, skewness and kurtosis for the overall TRI components and pairwise correlations among them. The TR scale ranges start from 5 (strongly agree) to 1 (strongly disagree), which the range of 3 represent the midpoint value (neutral). The mean of TRI score is 3.688, slightly above the midpoint. Micro-merchants are generally optimistic about technology (4.080) and the rest of dimensions also show slightly above the mid-point; innovativeness (3.527), discomfort (3.240) and insecurity (3.890). The distribution of TRI scores is near normal, with skewness (0.277) is fairly symmetrical, between -0.5 and 0.5, and kurtosis close to 3.0 (2.289). The correlations matrix below shows the significant value at $p < 0.01$, except for innovativeness and insecurity. The correlation between innovativeness and insecurity has no significant relationship, almost zero correlation. This indicates that innovativeness and insecurity dimension have no any association.

Table 3
Summary statistics for TRI constructs

Items	Mean	S.D.	Skewness	Kurtosis	Correlation Coefficient				
					OPT	INN	DIS	INS	TR
Optimism	4.080	.398	-.001	-.327	1.000				
Innovativeness	3.527	.421	.085	1.475	.302	1.000			
Discomfort	3.240	.563	-.127	-.394	-.264	.260	1.000		
Insecurity	3.890	.464	-.483	.463	.268	.017*	.299	1.000	
Overall TR	3.688	.282	.277	2.289	.473	.580	.668	.673	1.000

Note: All mean values are on a 5-point scale. The overall TR score for each respondent was obtained by averaging the scores on the four components. All correlations are significant at $p < 0.01$ level (2-tailed), except for innovativeness and insecurity correlation.

5.2 Validity and reliability measurement item

Technology Readiness construct has 4 factors: optimism and innovativeness as drivers; and discomfort and insecurity as inhibitors. We found that there are items that have lower factor loadings than recommended value. For the smoothing purposes, we took the items out for the next calculation. Some of first four items of each dimension (which are 16 items of TRI 2.0) are not showing good validity in this case. Table 4 shows Cronbach's Alpha value and factor loading which used to assess validity. Some items were erased from further research because the factor loadings were below the rule-of-thumb, which specified the value at least equal to or greater than 0.5 as acceptable (Hair et al., 2006). All the other items were maintained as they exceeded the cut-off point of 0.5 of factor loading. As seen in Table 3, the result is demonstrating convergent validity in construct.

Table 4
Validity and reliability measurement item

Construct	Item	Factor Loading	Cronbach's Alpha	CR	AVE
Recommended value		>.5	>.5	>.7	>.5
Optimism	OPT1	.677	.668	.800	.500
	OPT2	.734			
	OPT4	.731			
	OPT11	.683			
Innovativeness	INN5	.584	.081	.677	.520
	INN8	.836			
Discomfort	DIS2	.625	.594	.746	.427
	DIS5	.571			
	DIS10	.638			
	DIS12	.763			
Insecurity	INS1	.865	.596	.776	.541
	INS3	.602			
	INS7	.716			
Continuance Intention	USE1	.816	.860	.905	.704
	USE2	.853			
	USE3	.859			
	USE4	.827			

Coefficients of the Cronbach's Alpha (internal consistency) were outpace the cut-off point of 0.5 for each construct which indicate the good accuracy of the scales, except for innovativeness dimension (0.081). The minimum acceptable value for composite reliability is 0.70, even sometimes the value can be decreased, which means the internal consistency of the common range is low. Innovativeness has the smallest Cronbach's alpha coefficients instead of other factors which indicates that innovativeness does not account as a reliable item and cannot be used as a measurement item. Low internal consistency from the innovativeness dimension indicates that there is more variance answer in innovativeness factor. In our survey, 45.8% of micro-merchants have a main reason to adopt the cashless payment system because of peer pressure. It means that micro-merchants only follow the progression of their environment. This phenomenon occurs because of the push strategy of TPP who offer cashless payment system products and services to micro-merchants. TPP only provides promotional programs that have benefits for micro merchants without regard the aspects of their technological readiness. Based on this phenomenon, micro-merchants do not need to be innovative to use the cashless payment system because TPP has provided products and services that are easy to demonstrate to micro-merchants. Thus, internal consistency of the innovativeness dimension does not show good results due to the individual innovativeness has been preceded by the progression of the environment which lead to more variance answers.

5.3 Hypotheses testing

Multiple-regression testing was used to determine the impact of the drivers and inhibitors recognized in mobile payment system acceptance by business owners. The result in Table 4 indicates that Optimism and Innovativeness is a significant driver and Discomfort is a significant inhibitor to continue adopting the cashless payment system while Insecurity is not significant inhibitor. However, Optimism has the strongest contribution that influence the significance of the TR construct ($\beta=0.366$) to continue adopting the cashless payment system.

Overall, TR constructs explained the variance to adopting the cashless payment system is 36.7% ($R^2=0.367$).

Table 5
Micro-merchant continuance to adopt cashless payment system regressed on technology readiness

Constructs	β	t	Sig.
Optimism	.366	5.965	.0000
Innovativeness	.124	2.013	.0044
Discomfort	-.224	4.857	.0000
Insecurity	.125	2.080	.0038

Optimism of micro-merchants contributed significantly to continue adopting the cashless payment system in terms of control and flexibility. Generally, micro-merchant owners view technology positively. This is supported by the phenomenon of smartphone usage in Indonesia, where Indonesians in urban areas are currently very dependent on the function of smartphones for various purposes. The presence of a cashless payment system in a smartphone becomes something that is believed by micro-merchant's owners as a function that can increase their productivity, especially in conducting transactions in their store. In additional, the new technology be expected to help improve the quality of life by micro merchant's owner in Indonesia. Cashless payment system as a new technological innovation in conducting trading transactions is believed to be able to control transactions and make transactions more flexible. Innovativeness construct from the respondent's characteristic did not propose any potential explanation in provision of innovative tendency to affect the continuance adopting the cashless payment system because it did not have a good internal consistency. However, it shows the positive relationship significant result with continuance intention for using cashless payment system so can be justified that innovative construct have a partially supported hypothesis. High curiosity of the new products and awareness that the new technology is mentally stimulating became two aspects that contributed to a significant result. Generally, the owner of micro-merchant still has no tendency to become a pioneer in technology. Based from the finding of the TRI, most of the micro-merchant are hesitator (see Table 8).

Table 6
The result of the hypotheses tested in this study

Alternative hypothesis	Result
H ₁ : Optimism on a micro-merchant's has a positive effect for continuance intention to adopt cashless payment system.	H ₁ : Supported
H ₂ : Innovativeness on a micro-merchant's has a positive effect for continuance to adopt cashless payment system.	H ₂ : Partially Supported
H ₃ : Discomfort on a micro-merchant's has a positive effect for continuance intention to adopt cashless payment system.	H ₃ : Supported
H ₄ : Insecurity on a micro-merchant's has a positive effect for continuance intention to adopt cashless payment system.	H ₄ : Not Supported

Discomfort factor on a micro-merchant's has a negative effect for continuance intention to adopt cashless payment system so that the hypothesis is supported. This indicates that micro-merchants have a a feeling of being overwhelmed by

technology and deficiency of perceived control over it. This negative effect is felt by micro-merchants in the form that they feel that support lines cannot understand the explanation of the problem at hand. Then, micro-merchants still feel embarrassed at others seeing they have problems with the cashless payment system that might fail to function when other people want to transact. Micro-merchants are also a category that wants to have ordinary technology. Complex systems or features will make them feel difficulties. Insecurity factor was significantly affected the continuing intention to use but in the inverted perspective; positively affect the continuance intention to use. This insight could be seen as a phenomenon that micro-merchant's general distrust and skepticism towards technologies not prevent them to keep using cashless payment system for their daily transactions. In reality, micro-merchants prefer to interact with humans directly rather than with automated systems. This is still used for peer pressure reason where micro-merchants' environment have already used automated and sophisticated systems that cause them to participate in it. However, they have not yet realized that using the system has security issues.

5.4 Demographic effect

Gender, level of education, and age are count as a moderating effect of continuance adoption on cashless payment system for micro-merchant. We found that the age, education and gender level have no significant impact in moderating the optimism, innovativeness and discomfort construct. The findings lead us to the insight that male or female, younger or older generation and lower or higher education has no impact in their continuance intention to use cashless payment system. In short, A belief that it offers them increased control, flexibility at work and they have same positive perspective of cashless payment system. As shown in Table 7, the result indicates that there is no interaction effect of gender, level of education, and age from the other factor tested of this study. Based from the significance of F change indicates that there is no moderating effect towards the various factors that influencing continuance intention to adopt cashless payment system where technologies are experiencing rapid growth.

Table 7

The result of demographic effect

Model	R Squared	F Change	Sig. F Change
1 ^a	.314	.294	.830
2 ^b	.340	3.204	.024
3 ^c	.335	2.659	.049

- Predictors: (Constant), Zscore(DIS), Zscore(OPT), Zscore(INN), ZDISGEN, ZOPTGEN, ZINNGEN
- Predictors: (Constant), Zscore(DIS), Zscore(OPT), Zscore(INN), ZOPTAGE, ZDISAGE, ZINNGAGE
- Predictors: (Constant), Zscore(DIS), Zscore(OPT), Zscore(INN), ZOPTEDU, ZDISEDU, ZINNEDU

5.5 TR Segmentation Analysis

The distinctive character of the four TR dimensions implied by the comparatively small pairwise correlations. A relatively small pairwise correlation means segmentation analysis. The distinctive feature of the four TR dimensions a combination of aspects suggests that customer segmentation based on their TR results may be insightful (Parasuraman & Colby, 2014). Parasuraman and Colby (2014) developed 5 segmentations using K-means analysis based on TRI 1.0 score, which: Laggards (low motivation, low high inhibition), Paranoids

(moderate motivation, high inhibition) and Explorer (motivation, low inhibition). In the. In the next research, Parasuraman & Colby (2014) change K-means analysis to latent class analysis. K-means was found 84% similar with latent class analysis which more robust. This research tries to explain those cluster using K-means. Label adjustment cluster which done by Parasuraman & Colby (2014) as shown in Table 8.

Based on the distinct combinations of technology-related beliefs associated with each (Parasuraman & Colby, 2014):

- Skeptics (25.00% of micro-merchants), with less extreme positive and negative beliefs, it tends to have a detached view of technology.
- Explorers (12.72%), it tends to be highly motivated and have low levels of resistance.
- Avoiders (14.04%), tend to be highly resistant and lowly motivated.
- Pioneers (10.53%), positive and negative views on technology tend to be strong.
- Hesitators (37.72%), highlights because of their low level of innovation.

Based on that clustering, found that micro-merchants are dominated by people who still have hesitate and skeptical. From this research, there is insight which show that micro-merchants see technology is a basic thing and depend on the benefit which used. As an example, in the cashless payment system concept, micro-merchant looked that technology can help their daily work productivity in speed up the transaction in peak hour. Besides, insight has been found where micro-merchant would still use technology even if innovativeness rate is low. As an example, peer pressure reason at using cashless payment system is a reflection from the low rate of innovativeness.

Table 8
Latent Class Segmentation

Segments (n)	%	Mean (Ranks) and R ² Value				
		OPT	INN	DIS	INS	TRI
1. Skeptics (57)	25.00	4.48 (1)	3.62 (3)	2.90 (4)	4.16 (2)	3.79 (2)
2. Explorers (29)	12.72	3.98 (4)	2.93 (5)	2.51 (5)	3.75 (4)	3.30 (5)
3. Avoiders (32)	14.04	3.99 (3)	3.70 (2)	2.93 (3)	3.15 (5)	3.44 (4)
4. Pioneers (24)	10.53	4.29 (2)	3.85 (1)	4.00 (1)	4.42 (1)	4.15 (1)
5. Hesitator (86)	37.72	3.82 (5)	3.51 (4)	3.61 (2)	3.88 (3)	3.72 (3)

6. CONCLUSION

A principal objective from this research is to highlight the current situation of micro-merchant's readiness in continuing their usage on cashless payment system. We found that micro-merchants are currently dominated by skeptical users and hesitators. This indicates that micro-merchant's owners have a lower degree of innovativeness which lead to that innovativeness construct has a partially supported to the continuance intention in adopting cashless payment system.

Refers to other findings, optimism is a determinant factor affecting positively and significantly the continuance intention to use cashless payment system. Micro-merchants have a positive feeling in continuing their use in terms of convenience, flexibility, control and efficiency. Although there is evidence that the reason for using a cashless payment system is peer pressure, however there is also an evidence that they use cashless payment system because it can support their daily transactions efficiently (see table 1). This indicates that the sense of optimism by the micro-merchant's owner affects continuance intention to adopt cashless payment technology. On contrary, micro-merchant perceived lack of control over technology that could be predicted that it will prevent their continuance intention to use. Discomfort construct showed that it is a main inhibitor for micro-merchant in adopting cashless payment system. Micro-merchants could be seen as individuals who neglect the general distrust and skepticism towards cashless payment system. Their concerns about the possible disadvantageous consequences of technology that might be affect their continuance intention to use cashless payment system. Nevertheless, insecurity factor will not prevent their continuance intention to use. Overall, based on this research, the critical point of the success of cashless payment system implementation depends on micro-merchant's positive and negative feelings about technology. Since there are findings that technology readiness was speculated to be a causal former of users' intentions to use technology (Lin et al, 2007), it might be useful for TPP to understand the level of merchant's technology readiness before they implement marketing strategy. The knowledge about their readiness will brings to the effective marketing strategy and resources efficiency.

6.1 Managerial implications

The implications of our management findings are that managers need to realize that optimism is a major factor encouraging micro-marketers to continue to use cashless payment. For that reason, cashless payment technology should be designed to improve the efficiency of micro-merchant's business. The managers must also consider another reason why micro-merchant tries to implement cashless payment system, which is the cashback promotion that could attract more consumers and increasing the number of daily transactions. In addition, discomfort factor also shows inhibition of micro-merchant continuance intention for adopting cashless payment system. The manager should be aware of the micro merchant's lack of perceived control over technology. Cashless payment system should make micro-merchant to have a better control over technology and help them in daily transactions, so that discomfort factor could be minimalized. At least for now, there is no need to worry over micro merchant's insecurity factor. Marketing strategy could be done using push system over the available technology now. Along with the marketing process, managers also need to improve the quality of the system continually so that there will be no insecurity for micro-merchant.

6.2 Limitations and further research issues

This study has constraints as in any other study. These constraints, however, could provide guidance for future studies. First, there might be differences between micro-merchant in Indonesia compared to other developing countries. Further studies might produce a different result.

Second, the sample data are not evenly collected throughout Indonesia. Therefore, further studies are needed in other developing countries to evaluate and validate the outcomes of this research. In addition, the research shows that innovativeness and insecurity are negligible elements of the research to continuance intention. These results are surprising and inconsistent with previous studies. Continuous study is required to investigate further the effect of these three elements on the continued use of cashless payments system in micro-merchants' perspective. Lastly, we did not provide information that the promotion given by TPP affects the continuance intention to adopt cashless payment system. Future study should involve this factor in order to reflect the promotion effect to the continuance intention to adopt cashless payment system

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Figure 4 Street Food Vendors Merchant Using Go-Pay

APPENDICES

Micro-merchant's cashless payment system illustration



Figure 2 Food Stall Merchant Using OVO QR Code



Figure 3 Traditional Market Merchant Using T-Cash QR Code