



## MOBILE PAYMENT ADOPTION INTENTION DURING PANDEMIC COVID-19 IN INDONESIA

Dewi Mustikasari Immanuel<sup>1\*</sup>, Yuli Kartika Dewi<sup>2</sup>

<sup>1</sup> Faculty of Management and Business, Ciputra University, Surabaya, Indonesia  
Email: dewi.immanuel@ciputra.ac.id

<sup>2</sup> Faculty of Management and Business, Ciputra University, Surabaya, Indonesia

\* Corresponding Author

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### Abstract:

Essentially, the fast development of technology, especially the internet, has created a shift in consumer behaviour with regards to shopping that has leaned toward online shopping. This drives the sprouting of many different types of mobile payment (M-payment) that can be used as a payment tool. Moreover, the world is currently facing the COVID-19 pandemic, in addition, Indonesia is currently doing a mass scale social distancing (PSBB) to stop the infection of COVID-19, among other things limiting out of the home movement, and practicing physical distancing. This appeal makes shops advising payments using M-payment or cashless. Hence, the main purpose of this study is to identify the impact of the COVID-19 pandemic on consumer attitude in Indonesia specifically in the adoption of mobile payment (M-payment) as the safe way to do payments. The assumption of M-payment adoption is based on situational influences, personal knowledge, and perceived usefulness. The research model has been empirically tested using 217 responses from a field questionnaire conducted in a number of large cities in Indonesia – by using the multiple regression analysis techniques. The findings of the study reveal that situational influences, personal attitude, personal knowledge have a significant effect on M-payment adoption in this global pandemic of Covid-19. Meanwhile, perceived usefulness has no significant effect on M-payment adoption in this global pandemic of Covid-19. A suggestion for the M-payment providers, despite PU having no significant effect, it continues to be one of the drawing factors for people to use M-payment, hence it's best for the M-payment to continue providing benefits to its users to increase cashless payment in order to stop the spread of COVID-19. Why is it important to continue providing benefits for users? Because this study has shown that personal attitudes and personal knowledge have a significant effect on the interest of M-payment users, which means during this COVID-19 pandemic, positive attitude and people's knowledge regarding M-payment has been shaped due to the

situation, therefore, by continuously providing benefits, M-payment platforms could increase the number of people using M-payment.

**Keywords:**

Perceived Usefulness, M-Payment Adoption, Personal Attitude, Personal Knowledge, Situational Influences

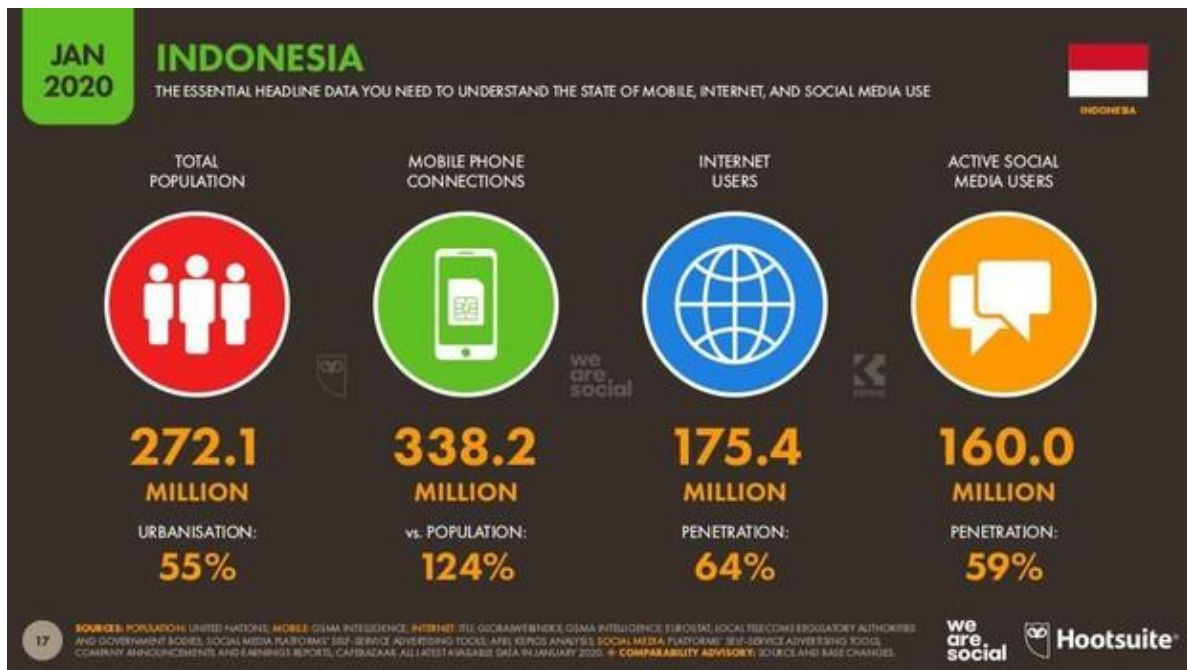
## Introduction

The COVID-19 pandemic that has impacted the world since the end of 2019 remains a highly interesting topic of interest for deeper research and explored. This is due to the significant impact across layers of society which shook the global economy (Maital, 2020), perverts the view of life and modifying lifestyles. An increasing number of analysis and models are made to withstand and overcome this crisis that is difficult to predict in the foreseeable future. Right now, the impact of the COVID-19 pandemic resonates across many nations, including Indonesia.

Indonesia is a country in Southeast Asia with a population of 217 million people with Java island being the most populated. Followed by Sumatera, Sulawesi, Kalimantan, Bali and Nusa Tenggara. The Papua and Maluku island has the lowest population based on the estimation (www.detik.com). Higher population density in an island makes the rate of infection of COVID-19 higher. In population dense locations, the negative impact of the COVID-19 is difficult to control and avoided.

According to the I-2020 trimester record of events published by Centre for Statistics Indonesia on 5<sup>th</sup> May 2020, the global economy in the first trimester is forecasted to experience contraction following the COVID-19 global spread that began in Wuhan, China, at the end of 2019. The economy of some of Indonesia's trading partners experience contractions as a result of the restricted activities and lockdown to control the spread of COVID-19. On 10<sup>th</sup> April, a number of regions in Indonesia started to implement Mass Scale Social Distancing policy (PSBB) which began from the province of DKI Jakarta, West Java, Banten and Riau, whilst East Java begins its social distancing procedure on 28 April 2020. With the implementation of PSBB, the population movement outside of their homes is restricted and avoids mass gathering of people. Hence, to fulfill the shopping demand of daily consumptions, customers are advised to utilise the online shopping service, and to further prevent the spread of the COVID-19 mobile payment (m-payment) or cashless is highly encouraged. The role of technology here becomes even more crucial especially for communication and online payment.

The rapid growth of communication technology encourages digitalisation along with the increasing demand of smartphone and internet users in Indonesia. According to a survey by Hootsuiteikutip from detik.com, there are 175.4 million internet users in Indonesia. Compared to 2019 statistics, there is a 17% or 25 million user increase in Indonesia as seen in Figure 1.1.



**Figure 1: Internet Users in Indonesia as Of January 2020**

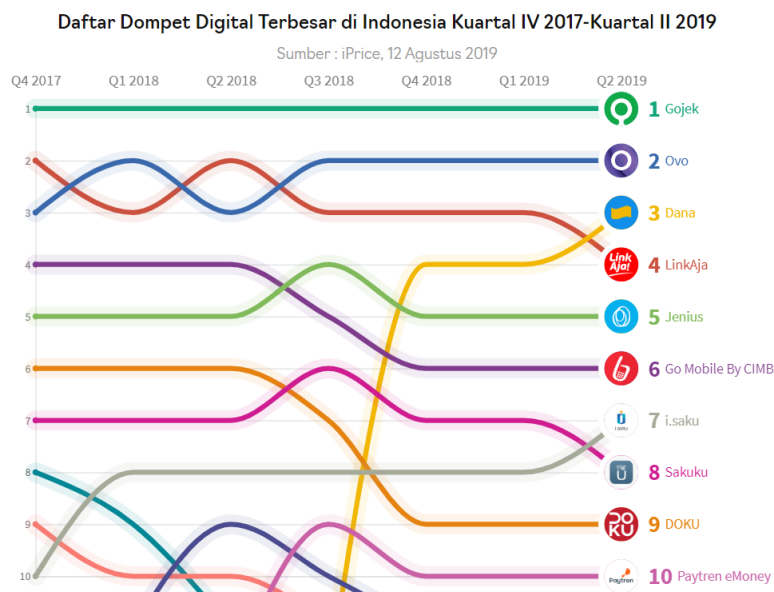
Source: <https://andi.link/hootsuite-we-are-social-indonesian-digital-report-2020/>

Due to the COVID-19 pandemic where there is an increasing need for internet or online to support various activities which are limited to home setting much greater than before. So far through the pandemic, the Association of Internet Service Organiser Indonesia (APJII) recorded a 20% increase in internet and data traffic that the Information Communication Minister even forecast the use of internet at the end of Ramadan month this year will experience a 40% increase that will peak on Idul Fitri due to the PSBB policy.

The issue is that not all smartphone users who have access to the internet have a bank account. It is forecasted that only approximately 60 million people have bank accounts (Untoro et al., 2013) this is due to the geographic factor and the level of their need and understanding of bank transaction that demands much administration, hence m-banking use is not widespread. However, despite the limitation, they continue to do economic transaction that requires transaction support. Catching this opportunity, in 2007, one of the telecommunication operators in Indonesia, Telkomsel, first provided the m-payment service with the t-sel service. The increasing use of cellular phone facilities for transactions without having a bank account, users only need to deposit their phone balance online. The deposit can also be used to pay phone bill and electronic money that can be used to not only to transfer fund, but also as purchasing tool.

M-payment is defined as the transaction between two parties using wireless technology that is supported with consumer-based technology (Ling, 2004). M-payment is also defined as a tool that allows users to complete transactions using mobile device including wireless handset, personal digital assistant (PDA), radio frequency device (RFD), and other communication devices (Untoro et al, 2013). Currently, smartphone is not simply a communication toll, but it also acts as mobile wallet that replaces cash, cheque, or even card payments (Contini et al., 2011; Ramadan & Aita, 2018). In other words, m-payment has eased the purchasing and payment process for commercial transaction through mobile devices such as smartphones by

prioritising flexibility, usability, and comfort in transaction (Phonthanukithaworn, Sellitto, & Fong, 2016). In some aspects, cash payments has been replaced by the use of m-payment especially when consumers realise the range of benefits available from adopting m-payment as a mode of digital transaction (Hampshire, 2017; Riquelme & Rios, 2010). Besides flexibility, ease of use, and speed, consumers who use m-payment often receive cashback, discount, or free delivery of certain products. This further makes the use of m-payment increase in recent times and has become a payment option that produce significant increase of transaction volume (Zhang & Dodgson, 2007; Phonthanukithaworn et al., 2016) and create various m-payment options or digital wallet in Indonesia, such as Gojek (Go-pay), OVO, Dana, LinkAja, and others as shown in Figure 2.



**Figure 2: The List of the Biggest Digital Wallet in Indonesia 2019**

Source: databox.katadata.co.id

The Figure 2 indicates that Gojek (Go-pay) holds the top position as an m-payment mode that has the most active users and other services in the Gojek application. The second and third position are hold by OVO and Dana respectively. With the growing number of phone users everywhere, the m-payment platform has the potential to change the monetary transaction landscape. The m-payment platform is created to adopt a different market approach in different fields, such as the banking and communication sector (de Albuquerque, Diniz, & Cernev, 2014) that support the economic growth through the partnership with partners that has suitable services and products, hence, it becomes one of the marketing strategy that makes it easy for both m-payment partners and consumers.

The m-payment strategy is accompanied by various m-payment services that offers benefits such as cashback, free delivery (Gojek and Grab), or rewards for consumers to entice the interest of potential consumers to use m-payment as their transaction method. According to Wang et al., (2018) various benefits offered by m-payment services can be in a form of an increase of gain and the reduction of fee for consumers from the cashback and or rewards, as well as the scope of business involved in the m-payment service is broad. Therefore, the positive side of using m-payment for transactions can increase the consumer's performance such as time (Wong, 2018). Benefits offered by m-payment service especially during this

COVID-19 pandemic has certainly support and enables consumers to easily perform purchase transactions which shape the consumer behaviour (personal attitude) that supports the use of m-payment. With the increasing usage of m-payment being an essential mode of payment transaction during the COVID-19 pandemic at the moment, it pushes consumers to be informed about the usage, advantages or benefits, and including disadvantages and limitations of the type of the m-payment platform as per its instruction so it improves the consumer's personal knowledge. With the consumer's effort to understand the m-payment they will use more in depth, it is expected that the m-payment platform service offers an ease to be well understood comprehensively be it positively or negatively (Wang et al., 2018) especially during the current COVID-19 pandemic.

The situation of COVID-19 pandemic that facing by many nations, including Indonesia, at the moment cause many changes including consumer purchasing behaviour. There are many factors outside of individual factors such as personality, lifestyle, self-concept, and others that can affect their online purchasing behaviour. However, there are situational factors that holds important role in contributing toward shaping and strengthening the consumer motivation to shop online (Dinh, Nguyen, & Nguyen, 2018), including becoming one of consumer's consideration that can shape motivation to use m-payment as their online payment tool when shopping online. Based on this condition at which this research was conducted, situational factors are shaped by the existence of social distancing, physical distancing, and PSBB policy which means everyone are required to limit direct contact with other people in order to stop the chain of COVID-19 infection. Moreover, in terms of shopping transaction and purchasing method, people are encouraged to do it online. Even before the COVID-19 outbreak, many people have been using m-payment on the basis of comfort, benefits offered, and feeling of security, however, research on the adoption of m-payment in the midst of the COVID-19 situation is not many. Therefore, a timely and appropriate study on the current condition is needed to understand the people's interest of adopting m-payment during this pandemic. This study aims to identify the impact of the pandemic on the interest of adopting m-payment with variables of perceived usefulness, personal attitude, personal knowledge and situational influences.

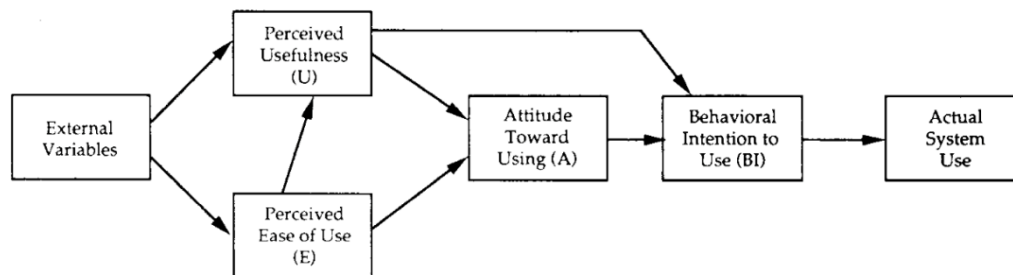
### Literature Review

Technology Acceptance Model (TAM) was first introduced by Davis (1989) to explain the process of users intentional behavior when adopting a new technology and since then TAM has become an influential model and has since been frequently adopted to determine the behaviour of adopting a technology. The behavior of adopting a technology is determined by interest of using a system which then points to perceived usefulness (PU) that users feel from using the system. Many studies that are based on TAM found that PU is identified as one of the main determinants of people's interest when adopting a technology (Aslam, Ham, & Arif, 2017; Chen, 2008; Kim, Mirusmonov, & Lee, 2010; Shankar & Datta, 2018; Zarpou, Saprikis, Markos, & Vlachopoulou, 2012). This explains that one of the main benefits of adopting TAM as a base for studies is because TAM can be made as a theoretical underpinning to measure the effect of external variables on particular use of technological system. The TAM concept can be adapted into the context of m-payment where TAM can be developed to investigate the interest of using m-payment which is a type of new information technology (Kim et al., 2010). Hence, Technology Accept of new technology will be adopted in this present study. TAM offers main structure that underlie the development of the model in this study, including variables PU and intention to use. After reviewing the literature on TAM, the intention of use



to utilise m-payment, and consideration of the current COVID-19 situation, this study includes three additional variables, including personal factor that consists of personal attitude and personal knowledge, and situational influences. Some of these variables are assumed to have an effect on the m-payment adoption intention (MPAI) in the midst of the current pandemic in Indonesia.

Technology Acceptance Model (TAM) has been widely used in many empirical studies involving mobile banking (Hampshire, 2017; Maroofi, Kahrarian, & Dehghani, 2013) dan m-payments (Hampshire, 2017; Swilley, 2010). This theory has also been made the foundation of the present study, where TAM perceives from the psychological perspective when adopting a technology and assess the psychological aspect as the core of adopting a technology (Davis, 1989) and becomes an effective model to explore consumer's interests when using m-payment when compared to other theoretical model (Hampshire, 2017; Mathieson, 1991). TAM is also often used in various studies to predict and understand user's perception on the benefits of using a system and the likelihood of users adopting the online system, hence TAM is very suitable for understanding the adoption of online based system (Lee, 2009). Therefore, the consumer's desire to use m-payment as a paying method could involve three main dimensions, which are perceived risk, perceived benefits, and product trust (Wang et al., 2018).



**Figure 3: The Technology Acceptance Model**

(Davis, 1989)

The result of a study by Pousttchi, et al., (2007) in relation to perceived usefulness (PU), Perceived Ease of Use (PEOU) and task-technology fit stated that the three factors have significant impact on m-payment adoption intention. Similarly, the research by Keramati, Taeb, Larijani and Mojir (2012), found that ease of use, usefulness, trust, compatibility, cost, norm, payment habit, skill, and convenience have significant effect on adoption intention.

A further study from the theory of reasoned action (TRA) that is proposed by Ajzen (1991) is the theory of planned behavior (TPB). TPB adds the concept of perceived behavioral control to TRA as a third predictor of intention. TPB has been implemented and measured on various field, including medicine, education, sociology, business, entrepreneurship and also sports. In the realm of marketing, this theory is supported by prior studies that explored consumer's decision making (Pavlou & Fygenson, 2006). Intention in TPB is affected directly by three factors, personal attitudes, subjective norms and perceived behavioral control (Ajzen, 1991).

A research by Zeithmal et al., found that there are two types of intention, which are positive intention and negative intention. Typically, if someone wants a product or service that they are purchasing, therefore, their intention is positive. However, if someone does not understand the product or service that they are purchasing, therefore, their intention decreased (Wang, et al.,

2018). Hence, consumer's willingness to use is a probability. Probability of someone using a product is determined by their personal knowledge which is part of the personal factor.

The variable of situational influences is proposed by Nguyen, et al., (2020) based on the condition of the COVID-19 pandemic to assess all factors that may not be related to individual's personality or character as decision makers, however, other factors that could possibly trigger certain behaviour of that individual. This variable because up to date to study because there are many external factors that triggers someone to make decisions based on fulfillment of their needs during this pandemic. These four variables are hypothesized to have an effect on the dependent variables, m-payment adoption intention during the COVID-19 pandemic.

### Methodology

The population in this study is Indonesian citizens with a sample size of 217 respondents. The sampling technique used is snowball sampling. The independent variables in this study are perceived usefulness (PU), personal attitude (PA), personal knowledge (PK), each of these variables have four measurement items whilst situational influences (SI) has five measurement items. For dependent variable, which is m-payment adoption intention (MPAI) has four measurement items. Online questionnaire is the instrument used in this study. The measurement items used in this questionnaire are adopted from previous research (Kim et al., 2010; Nguyen et al., 2020; Shankar & Datta, 2018; Wang et al., 2018). Even though the validity and reliability of the items used in this study has been determined in previous studies, this study will test for reliability and validity again prior to the multiple regression analysis. Figure 4 shows the model used in this research.

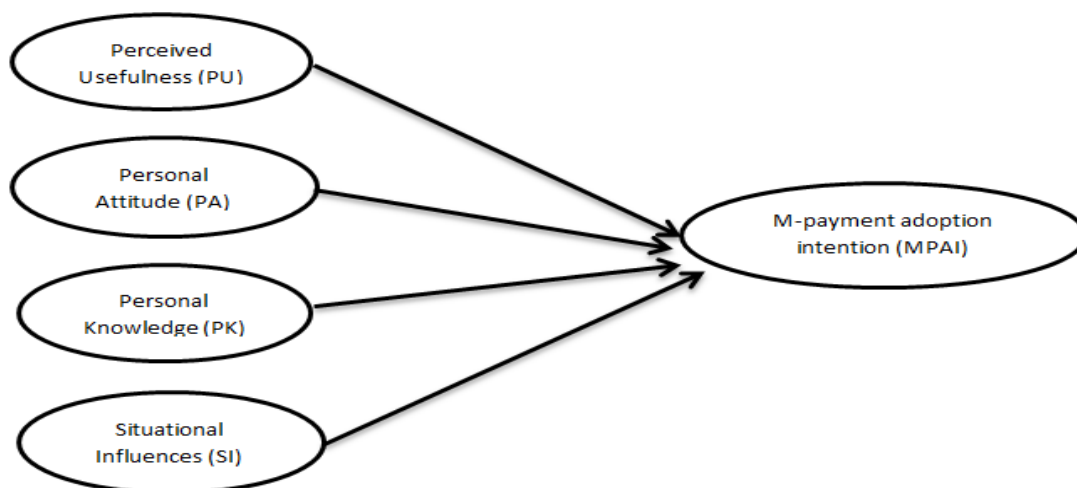


Figure 4: The Research Model

### Findings and Discussion

#### Sample Characteristics

Table 1 shows the descriptive statistics of the respondents in this study. From 217 valid respondents, 96 respondents (44.2%) are male and 121 (55.8%) are female. With regards to age, 12.4% respondents are aged 20 and below, 44.7% respondents are aged 20-30, 22.6%

respondents are aged 31-40, 17,5% respondents are aged 41-50, and 2.8% respondents are aged above 50. In terms of education, 1 respondent (0.5%) is in junior high school, 67 respondents (30.9%) in senior high school, 100 respondents (46.1%) in undergraduate level, and 49% respondents (22.6%) in post-graduate level. The final sample characteristic is employment where 5 respondents (2.3%) are freelancer, 30 respondents (13.8%) are teacher or lecturer, 11 respondents (5.1%) are housewives, 38 respondents (17.5%) are private employee, 1 respondent (0.5%) is government employee, 6 respondents (2.8%) are contract workers, 77 respondents (35.5%) are students, 17 respondents (7.8%) are professional, 2 respondents (0.9%) are pastors, 21 respondents (9.7%) are entrepreneurs, and 9 respondents (4.1%) are categories as others.

**Table 1: The Results of Descriptive Statistics of Research Sample**

| Measure           | Item                   | N   | Percentage |
|-------------------|------------------------|-----|------------|
| <b>Gender</b>     | Male                   | 96  | 44.2       |
|                   | Female                 | 121 | 55.8       |
| <b>Age</b>        | Below 20               | 27  | 12.4       |
|                   | 20-30                  | 97  | 44.7       |
|                   | 31-40                  | 49  | 22.6       |
|                   | 41-50                  | 38  | 17.5       |
|                   | Above 50               | 6   | 2.8        |
| <b>Education</b>  | Junior high school     | 1   | 0.5        |
|                   | Senior high school     | 67  | 30.9       |
|                   | Undergraduate          | 100 | 46.1       |
|                   | Graduate/Post-Graduate | 49  | 22.6       |
| <b>Occupation</b> | Freelance              | 5   | 2.3        |
|                   | Teacher/lecturer       | 30  | 13.8       |
|                   | Housewife              | 11  | 5.1        |
|                   | Private Employee       | 38  | 17.5       |
|                   | Government employee    | 1   | 0.5        |
|                   | Contract worker        | 6   | 2.8        |
|                   | Students               | 77  | 35.5       |
|                   | Professional           | 17  | 7.8        |
|                   | Pastor                 | 2   | 0.9        |
|                   | Entrepreneur           | 21  | 9.7        |
|                   | Others                 | 9   | 4.1        |

### *Description of Statistical Analyses of Variables*

Table 2 shows the descriptive statistics of each variable. The questionnaire uses 5-point Likert scale with a range of highly disagree to highly agree with 217 respondents. The mean range of each questionnaire item is 3.29 – 4.21, dan the standard deviation range is 0.729 – 1.030. As shown in Table 1, the descriptive statistic of perceived usefulness (PU) gives an overall average of the mean is 4.13 ( $\pm 0.856$ ), personal attitude (PA) 4.13 ( $\pm 0.880$ ), personal knowledge 4.13 ( $\pm 0.880$ ), situational influences (SI) 4.10 ( $\pm 0.6104$ ), m-payment adoption intention (MPAI) 3.684 ( $\pm 0.996$ ).



**Table 2: The Description of Each Variable Statistical Analysis Results**

| Variables  | Measurement of variables   | Mean        | Standard deviation |
|--|--|-------------|--------------------|
| <b>Perceived usefulness</b><br>(Shankar and Datta, 2018; Davis, 1989; Kim et al, 2010) | In my opinion, during this COVID-19 pandemic, using m-payment allows me to pay quicker   | 4.14        | .860               |
|  | In my opinion, during this COVID-19 pandemic, m-payment makes it easier to do transactions   | 4.21        | .788               |
|  | In my opinion, during this COVID-19 pandemic, using m-payment is highly beneficial   | 4.14        | .882               |
|  | Throughout this COVID-19 pandemic, I have done payments using m-payment because it is beneficial   | 4.10        | .895               |
|  | <b>Average</b>   | <b>4.13</b> | <b>0.765</b>       |
| <b>Personal attitude</b><br>(Aslam et al., 2017)                                       | In my opinion, using mobile payment service is a great idea during the COVID-19 pandemic   | 4.21        | .787               |
|  | In my opinion, it is wise to use mobile payment transaction during the COVID-19 pandemic   | 4.16        | .846               |
|  | In my opinion, using m-payment is advantageous for me during this COVID-19 pandemic  | 4.10        | .912               |
|  | I like paying with mobile payment better than cash during this COVID-19 pandemic   | 4.06        | .975               |
|  | <b>Average</b>   | <b>4.13</b> | <b>0.779</b>       |
| <b>Personal knowledge</b><br>(Wang, 2018)  | In my opinion, the mobile payment application that I use can be fully understood   | 4.10        | .769               |
|  | In my opinion, I can easily understand the method of mobile payment  | 4.17        | .729               |
|  | I know the benefits I receive if I use mobile payment  | 4.14        | .732               |
|  | I know the disadvantages (or risk) that I may get if I use mobile payment  | 3.97        | .822               |
|  | <b>Average</b>   | <b>4.09</b> | <b>0.682</b>       |
| <b>Situational influences</b><br>(Nguyen et al, 2020)                                  | There are many product and service provider that I need that do not accept cash during the COVID-19 pandemic (the cashless transaction policy) | 3.29        | 1.030              |

|  |   |             |              |
|--|---|-------------|--------------|
|  | There are significant risks related to health that could impact me if I choose to pay with cash during this COVID-19 pandemic | 3.80        | 1.001        |
|  | Recently, more and more product and service provider (use QR code or) suggest to pay with mobile payment                      | 3.75        | .970         |
|  | Product and service provider that I want offers many interesting promotions if I pay using mobile payment                     | 3.76        | .991         |
|  | Paying using mobile payment has become a trend (or norm) since the COVID-19 pandemic  | 3.82        | .987         |
|  | <b>Average</b>  | <b>3.68</b> | <b>0.752</b> |
| <b>M-payment adoption intention (Shankar and Datta, 2018; Kim et al, 2010)</b> | During the COVID-19 pandemic, I use smartphone to do payments more often  | 3.89        | .934         |
|  | During the COVID-19 pandemic, if I have the opportunity to pay with mobile payment, I will do it                              | 4.09        | .843         |
|  | In the next 6 (six) months, I plan to do transactions using mobile payment  | 3.91        | .913         |
|  | In the next 5 years, I will do transaction using mobile payment more often than using cash.                                   | 3.92        | .944         |
|  | <b>Average</b>  | <b>3.95</b> | <b>0.778</b> |

### Reliability and Validity Test

The reliability test is used to measure the consistency of the variable indicators used in a research that is related to the construct of the questions structured in a form of questionnaire. If the data is reliable, it reflects the quality of the questionnaire. A questionnaire is deemed reliable if it has a Cronbach's Alpha  $> 0.70$ . SPSS 22 is used to analyse the data and measure the reliability of each variable items.

According to Table 2, the Cronbach's Alpha value of each questionnaire item per variables used in this study range from 0.878 – 0.916 where this value is greater than the reference value of  $\alpha > 0.70$ , therefore, it can be concluded that the items in this questionnaire is reliable.

**Table 3: The Reliability Analysis Results**

| Variable Description | Reliability statistics |                  |                 | Description |
|----------------------|------------------------|------------------|-----------------|-------------|
|                      | Number of questions    | Cronbach's Alpha | Reference       |             |
| Perceived usefulness | 4                      | 0.916            | Reference value | Reliable    |
| Personal attitude    | 4                      | 0.905            | $\alpha > 0.70$ | Reliable    |

|                                     |   |       |          |
|-------------------------------------|---|-------|----------|
| <b>Personal knowledge</b>           | 4 | 0.916 | Reliable |
| <b>Situational influences</b>       | 5 | 0.812 | Reliable |
| <b>M-payment adoption intention</b> | 4 | 0.878 | Reliable |

**Table 4: The Validity Analysis Results**

| <b>Variable Description</b>         | <b>Measurement Items</b> | <b>Sig. Value</b> | <b>Description</b> |
|-------------------------------------|--------------------------|-------------------|--------------------|
| <b>Perceived usefulness</b>         | PU1                      | 0.00              | Valid              |
|                                     | PU2                      | 0.00              | Valid              |
|                                     | PU3                      | 0.00              | Valid              |
|                                     | PU4                      | 0.00              | Valid              |
| <b>Personal attitude</b>            | PA1                      | 0.00              | Valid              |
|                                     | PA2                      | 0.00              | Valid              |
|                                     | PA3                      | 0.00              | Valid              |
|                                     | PA4                      | 0.00              | Valid              |
| <b>Personal knowledge</b>           | PK1                      | 0.00              | Valid              |
|                                     | PK2                      | 0.00              | Valid              |
|                                     | PK3                      | 0.00              | Valid              |
|                                     | PK4                      | 0.00              | Valid              |
| <b>Situational influences</b>       | SI1                      | 0.00              | Valid              |
|                                     | SI2                      | 0.00              | Valid              |
|                                     | SI3                      | 0.00              | Valid              |
|                                     | SI4                      | 0.00              | Valid              |
|                                     | SI5                      | 0.00              | Valid              |
| <b>M-payment adoption intention</b> | MPAI1                    | 0.00              | Valid              |
|                                     | MPAI2                    | 0.00              | Valid              |
|                                     | MPAI3                    | 0.00              | Valid              |
|                                     | MPAI4                    | 0.00              | Valid              |

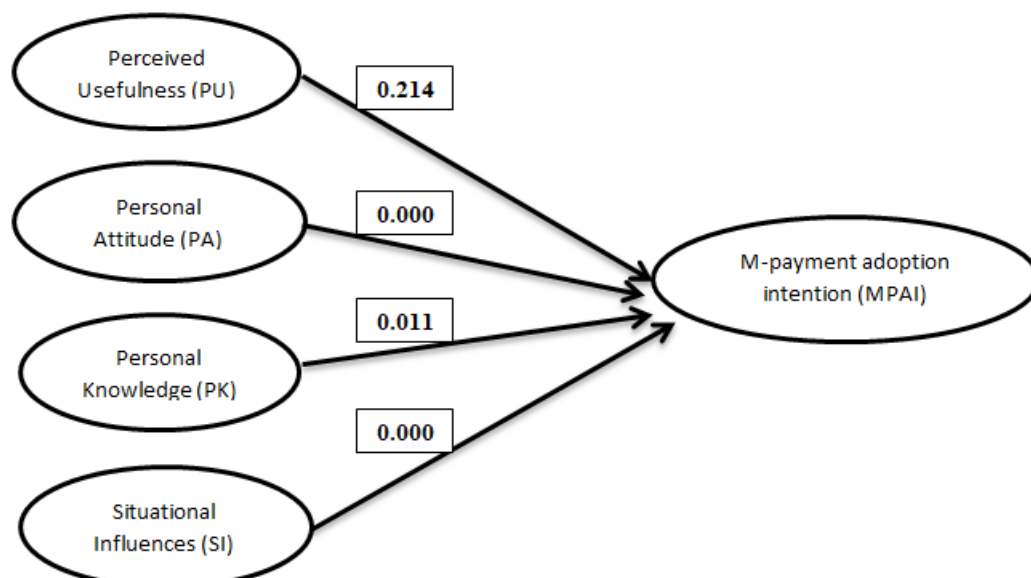
**Multiple Regression Analysis**

Table 5 indicates the results of the multiple regression analysis with multicollinearity test was completed prior. As a reference point, if  $VIF < 10$ , multicollinearity is present (Myers, 1990; Yan, Md-Nor, Abu-Shanab, & Sutanonpaiboon, 2009). Based on the results in Table 5, VIF for all variables are less than 10 which indicates no multicollinearity.

**Table 5: Multiple Regression Result**

| Multiple R = 0.764<br>R Square = 0.584<br>Adjusted R Square = 0.577<br>Standard error = 2.026 |  |       |                       |             |       |
|---|--|-------|-----------------------|-------------|-------|
|   |  | DF    | Sum of Squares        | Mean Square |       |
| <b>Regression</b>   |  | 4     | 1223.687              | 305.922     |       |
| <b>Residual</b>   |  | 212   | 870.184               | 4.105       |       |
| <b>F = 74.531</b>   |  |       | <b>Sig. F = 0.000</b> |             |       |
| Variable  |  | Beta  | t                     | Sig.        | VIF   |
| <b>Perceived Usefulness (PU)</b>  |  | 0.055 | 1.246                 | 0.214       | 1.010 |
| <b>Personal Attitude (PA)</b>   |  | 0.536 | 8.755                 | 0.000       | 1.912 |
| <b>Personal Knowledge (PK)</b>  |  | 0.149 | 2.576                 | 0.011       | 1.710 |
| <b>Situational Influences (SI)</b>  |  | 0.191 | 3.542                 | 0.000       | 1.481 |

The final model from the multiple regression analysis indicated an R-squared value of 58.4% variance in m-payment adoption intention (MPAI) can be explained by the four independent variables in this study, with 41.6% is explained by factors outside of the study. The analysis results also indicate that there are three variables have significant influence on MPAI which are personal attitude (PA) ( $\beta = 0.536$ ,  $p < 0.05$ ), personal knowledge (PK) ( $\beta = 0.149$ ,  $p < 0.05$ ), and situational influences (SI) ( $\beta = 0.191$ ,  $p < 0.05$ ), expect perceived usefulness (PU) ( $\beta = 0.055$ ,  $p > 0.05$ ). Therefore, the final research model is as shown below.



Note: \*Significant at  $< 0.05$

**Figure 5: The Final Model**

## Discussion

In previous studies, perceived usefulness significantly affects user interest in using m-payment (Aslam et al., 2017; Kim et al., 2010; LAI, 2016; Liébana-Cabanillas, de Luna, & Montoro-Ríos, 2017; Shankar & Datta, 2018; Zarm pou et al., 2012; Zhou, 2014). However, the result of this study shows that perceived usefulness does not significantly affect m-payment adoption intention during the current COVID-19 pandemic. This finding is not consistent with the earlier expectation of this study, where it was hypothesized that respondents would consider all the benefits they can receive when using m-payment during the current pandemic, because in accordance to the understanding, perceived usefulness is the consumer's evaluation of all the positives or benefits that they will receive when they use a particular technology, in this case m-payment (Shankar & Datta, 2018).

The possible explanation to this findings is that the COVID-19 condition is not over yet when this study was conducted, this increases respondents' worries causing them to prioritize health and minimize the infection rate of COVID-19, one of the ways is by using m-payment without assessing the benefits offered by the m-payment service provider, such as cashback, discount, reward, and others. This means, without these benefits, respondents will continue to use m-payment as a mode of payment when shopping during this COVID-19 for safety due to the contactless process. Besides that, government appeal also advised on stopping the spread of COVID-19, people are advised to use m-payment when doing transaction and utilise online shopping to avoid physical contact and mass gathering.

Personal attitude (PA) is the variable that significantly affect m-payment adoption intention (MPAI) the most, followed by personal knowledge (PK), this is consistent with the study by (Lee, 2009; Wang et al., 2018). Personal attitude and personal knowledge are part of the individual factors, where consumer's personal attitude is an important factor that can affect the consumer's interest to use m-payment. The interest to do something is a possibility of seeing an action take place which has a role in consumer psychology and attitudes (Ajzen & Fishbein, 1980; Parasuraman, 2005; Wang et al., 2018). In relation to m-payment adoption intention (MPAI), interest as a behaviour can be distinguished into two which is positive and negative interest. To put it simply, if someone has an attitude of being interested and supporting a particular service or product, the interest behavior is positive. On the contrary, if the behavior indicates hesitation, it may reduce the possibility of making an action (Parasuraman, 2005). The more positive the consumer behaviour, the greater the possibility to create trust that leads to the willingness of using m-payment (Wang et al., 2018). During this study, interest and the use of m-payment is being driven by the people's fear of contracting the COVID-19. The next part of the individual factors is personal knowledge that also indicated a significant effect on m-payment adoption intention (MPAI). Personal knowledge is the level of understanding and relevant mastery regarding payment method, instruction, advantages and disadvantages of their m-payment platform (Wang et al., 2018). M-payment has existed since a few years ago and has been adopted as a payment method in doing transaction besides using cash.

However, when compared to a few situations a few years ago with the current faced situation are different in addition to the pandemic that has not yet ended. If previously people have known about m-payment but the importance level to use m-payment at the time was not yet significant compared to today where people are faced with the pandemic. To stop the COVID-19 infection, the government has appealed to apply social distancing, physical distancing, and cashless payment method by using particular m-payment platform. This becomes a



phenomenon that pushes people to follow government appeal under the reason of health concern and stopping the spread of COVID-19, specifically on using m-payment as a payment method. This increases the urgency that m-payment becomes the first option, when previously it was a second option. The COVID-19 situation creates its own unique concerns for each individual in relation to COVID-19 infection. Hence, pushes people to understand how to use m-payment and increase knowledge relating to m-payment platform. With awareness of the understanding that one of the ways to avoid contracting COVID-19 is by not using cash, instead utilising m-payment, therefore it could explain the reason behind personal knowledge (PK) that significantly affect m-payment adoption intention (MPAI).

The COVID-19 pandemic has become one unique situation that brings about situational influence (Nguyen et al., 2020), whereby COVID-19 creates social distancing, physical distancing, cashless payment methods by using m-payment and others. The result of this study found that situational influences (SI) significantly affects m-payment adoption intention (MPAI). As explained above, the current COVID-19 situation has become a unique phenomenon that creates worries and increasing the people's awareness about health, hence people tend to take care of themselves and one of the ways is to avoid physical contact including using cashless payment for transactions. This makes m-payment selected as a payment method to stop the spread of COVID-19.

## Conclusion

This study has analysed four variables that affects m-payment adoption intention during the current COVID-19 pandemic. The result of the three variables, personal attitudes – has significant effect, personal knowledge (PK), and situational influences (SI) significantly affect on m-payment adoption intention (MPAI), while perceived usefulness (PU) does not significantly affect. A suggestion for m-payment provider, despite PU having no significant effect, it continues to be one of the drawing factors for people to use m-payment, hence its best for m-payment to continue providing benefits to its users to increase cashless payment in order to stop the spread of COVID-19. Why is it important to continue providing benefits to user? Because this study has shown that personal attitudes and personal knowledge have a significant effect on the interest of m-payment users, which means during this COVID-19 pandemic, positive attitude and people's knowledge regarding m-payment has been shaped due to the situation, therefore, by continuously providing benefits, m-payment platforms could increase the number of people using m-payment.

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