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CONTENTS

Factors Affecting Consumers' Cashless Payment Behaviours Admist the COVID-19 Pandemic

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ABSTRACT

The COVID-19 lockdown has caused many to shift to online shopping and increased the use of cashless payments. However, the statistics from Bank Negara Malaysia show that both the amounts of cash circulation and cash withdrawals from automatic teller machines (ATMs) in Malaysia still continues to rise. Hence, this study examines the influence of the COVID-19 pandemic on consumer behavioural intention to use cashless payments. This study applied the unified theory of acceptance and use of technology (UTAUT) model to examine the factors affecting consumers' behaviour in adopting cashless payment with the COVID-19 pandemic acting as the moderating variable. The findings show that performance expectancy, effort expectancy, and social influence have significantly affected consumers' behavioural intention to use cashless payments except for facilitating conditions. The findings demonstrate that COVID-19 has significantly moderated the relationship between four variables (performance expectancy, effort expectancy, social influence, and facilitating conditions) on the behavioural intention to use cashless payment. This study further shows that the majority of respondents will have a high propensity towards the use of cashless payments in the future and always try to use cashless as their primary payment method. In brief, the pandemic has switched consumers' behaviour and accelerated the adoption of cashless payment in Malaysia. Practitioners and cashless payment providers can use these findings as a guide to encourage consumers to integrate cashless as their preferred means of payment. This change could help Malaysia successfully transform into a fully cashless society.

Keywords: COVID-19, cashless payment, UTAUT, consumer behaviour, Malaysia

INTRODUCTION

The COVID-19 pandemic has spread around the world. It has affected all markets and sectors of the economy, along with disrupting daily life. To keep safe from the infections, people are adopting to the "new normal". Many retailers and consumers preferred cashless payments during this period as it could minimise the handling of physical cash and human contact. This has significantly impacted consumer behaviour and rapidly accelerated the adoption of cashless payments during the COVID-19 pandemic.

In Malaysia, the Prime Minister announced the Movement Control Order (MCO) on 18 March 2020 due to a significant increase in COVID-19 cases. During the MCO, businesses and stores considered as non-essential temporarily closed their operations to limit the places that people could gather. The lockdown and social distancing norms have started to change consumer behaviours. Due to stay-at-home and work-from-home practices, many people shifted towards online shopping, increasing the use of cashless payment.

However, according to Povera (2020), the Ministry of Finance reported that only 5 percent of total daily payments are cashless. Khairun and Yasmin (2010) revealed that the biggest concern of using cashless payment is inadequate ICT (information and communication technology) knowledge and security issues. A study by Soo et al. (2019) stated that consumers in Malaysia have strong concerns of the security risk of mobile payments as they do not have confidence in the security of the electronic network and payment applications.

Another important factor is the financial literacy of consumers. Bank Negara Malaysia (2018) reported that one of every three Malaysians consider themselves as having basic financial literacy, especially among low-income households. This statistic is supported by a report by Tan and Cheong (2018). They found that Malaysia is still in its infancy in terms of the use of e-wallets and still lags behind regional players, such as Singapore, India, and China.

The concept of behaviour here is the act of people accepting or refusing to use the system. Kumari and Khanna (2017) described that a cashless payment is a behavioural change in the people where people use digital money or plastic cards to make transactions and eliminates the usage of physical cash as a medium of exchange. According to Tee and Ong (2016), the adoption of one type of cashless payment will affect another type of cashless payment in short run. To reduce and to avoid the spread of COVID-19, many people opted to use cashless payments. It is believed that this could accelerate the process of moving towards cashless payments in Malaysia and shift consumer's payment behaviour to cashless even after the pandemic.

This study investigates the influence of the COVID-19 pandemic on consumer payment behaviour in Malaysia. The unified theory of acceptance and use of technology (UTAUT) model is used to examine the factors that affect consumer behaviour when adopting cashless payment. The COVID-19 pandemic acts as a moderation variable that influences consumer payment behaviour and facilitates the adoption of cashless payment in Malaysia.

LITERATURE REVIEW

Before presenting the framework, it will be good to provide an account of the state of knowledge of the study. A summary of what others said in the area should be exhaustive enough to provide a backdrop of the situation in Malaysia.
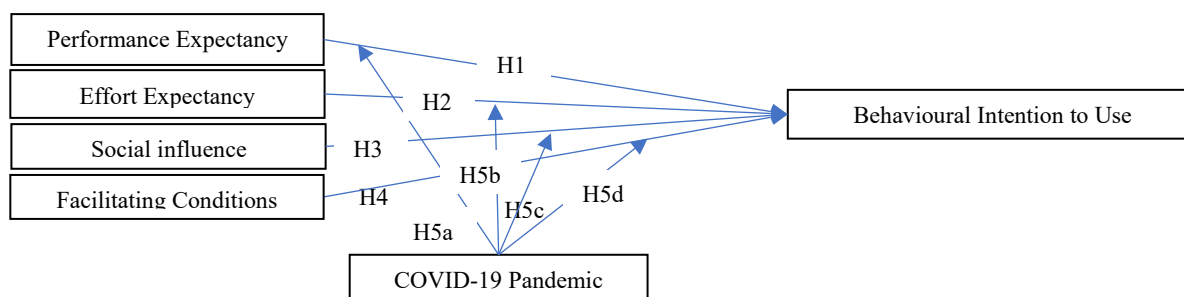
Figure 1: Conceptual framework of the study

The framework in Figure 1 explains the UTAUT model to predict factors affecting consumer behaviour in adopting cashless payments and further extent the model to investigate the influence of the COVID-19. The COVID-19 pandemic act as moderation variable that is believed to influence consumer behaviour and accelerate the adoption of cashless payments in Malaysia.

Behavioural intention (BI) refers to the motivational factors that influence a given behaviour where the stronger the intention to perform the behaviour, the more likely the behaviour will be performed. The behavioural intention is examined as a dependent variable in this study to measure consumer acceptance to using cashless payments.

Performance expectancy (PE) is the degree to which an individual believes that the use of the technology will provide benefits in performing certain activities according to Venkatesh et al. (2003). He found that performance expectancy is the strongest predictor of intention where customer's intention to use the technology depends on how they perceive the usefulness of the technology.

This is supported by studies such as Martins et al. (2014), Bhatiasevi (2016), Sarfaraz (2017), Friadi et al. (2018) and Savic and Vasić (2019). In this study, the PE measures the degree to which an individual believes that using cashless payments will help them to attain benefits in performing payment transactions. By having the perception that using cashless payment is useful and effective, it will increase the behavioural intention to use cashless payment. Therefore, this study hypothesizes that:
H_1: Performance expectancy has a positive effect on behavioural intention to use cashless payments.

Effort expectancy (EE) is the degree of ease associated with the use of the technology as defined by Venkatesh et al. (2003). Martins et al. (2014), Bhatiasevi (2016), Sarfaraz (2017) and Friadi et al. (2018) found that the ease of use of the technology significantly affects the behavioural intention to use.

However, Savic and Vasić (2019) showed the effort expectancy has the weakest impact on the intention to use mobile banking. In this study, the EE measures the perceived ease of use of cashless payments. When the consumer feels that the easier the cashless payment is to use and does not require much effort, the behavioural intention to use cashless payment will increase. Therefore, this study hypothesizes that: H_2: Effort expectancy has a positive effect on behavioural intention to use cashless payments.

Social influence (SI) is the degree to which an individual is influenced by an important person to use a new system according to Venkatesh et al. (2003). Savic and Vasić (2019) found that social influence significantly impacts behavioural intention to use mobile banking. However, Sarfaraz (2017) showed that there is no relationship between social influence and mobile banking adoption in the country of Jordan.

In this study, the SI measures the effect of environmental factors which is the influence of an important person on an individual that will affect their intention to use the technology. By having a majority of important people like family members and close friends who think that using cashless payment is a wise choice, then the behavioural intention to use cashless payment increases. Therefore, this study hypothesizes that: H_3: Social influence has a positive effect on behavioural intention to use cashless payment.

Facilitating conditions (FC) is the degree to which an individual believes that sufficient organizational and technical infrastructure exists to support the use of the system. Friadi et al. (2018) found that the availability of resources, self-efficacy and expectation of easy requirements encourage the intention to use smartphone-based e-money. However, Bhatiasevi (2016) showed that the adoption of mobile banking in Thailand was not supported by facilitating conditions.

The study of Martins et al. (2014) also found that the behavioural usage of internet banking was not influenced by facilitating conditions. In this study, the FC reflects the conditions that support the use of cashless payments. By having a condition that an individual has necessary knowledge and is supported with the infrastructure for cashless payments, the higher the behavioural intention to use cashless payments. Therefore, this study hypothesizes that: H_4: Facilitating conditions has a positive effect on behavioural intention to use cashless payment.

The existing literature demonstrates limited evidence to show the influence of COVID-19 on cashless payments. However, there is a study that investigated the changes of consumer behaviour due to the COVID-19 pandemic. The survey ("Consumer purchase behavioural changes," 2020) showed that Malaysians were shopping online more compared to before the pandemic. In addition, the RM50 ePenjana incentive, where users can redeem RM50 credit from supported eWallet providers, encouraged people to use cashless payment during the COVID-19 pandemic. Hence, this may imply that the pandemic acted as a catalyst in accelerating the migration to a cashless society.

Therefore, this study hypothesizes that:

H_{5a}: The COVID-19 pandemic has a positively moderate relationship between performance expectancy and the behavioural intention to use cashless payment.

H_{5b}: The COVID-19 pandemic has a positively moderate relationship between effort expectancy and the behavioural intention to use cashless payment.

H_{5c}: The COVID-19 pandemic has a positively moderate relationship between social influence and the behavioural intention to use cashless payment.

H_{5d}: The COVID-19 pandemic has a positively moderate relationship between facilitating conditions and the behavioural intention to use cashless payment.

METHODOLOGY

Sampling and Data Collection

The primary data is collected through quantitative and qualitative research. The quantitative data was obtained using a questionnaire survey. The target population of interest were consumers, including both users and non-users of cashless payments in Malaysia

The sample for the quantitative data was selected using convenience sampling based on the consideration of ease to respondents at any time. The respondents across the states in Malaysia were surveyed through the distribution of online and hard copy self-administered questionnaires during November and December 2020. The distribution of a hardcopy survey questionnaire also met the needs of respondents with low financial literacy and English deficiencies, especially the elderly, respondents in rural areas and those with a lower education level.

The survey statements utilise a five-point Likert scale that invites respondents to indicate their agreement level, with a rating of 1 meaning that the respondent strongly disagrees with the statement, and a rating of 5 meaning that the respondent strongly agrees with the statement. The five-point Likert scale was employed due to its common use from previous studies in this area of research.

Meanwhile, the qualitative data was collected through focus group interviews with six interviewees including users and non-users of cashless payment. The participation to this study was completely voluntary. Participants were informed about the aim of the study before they completed the questionnaire. A total of 462 questionnaires were collected and 40 questionnaires were excluded due to incomplete data. This left 422 responses, indicating a 91.34% response rate which was used for analysis to address the objectives of this study.

FINDINGS

Demographic Profiles

Table 1 shows the demographic profile of the 422 questionnaire respondents and 6 interviewees in this study. For the questionnaire respondents, there were 30.33% males and 69.67% females. The majority of respondents were 18 to 24 (66.67%) in age, followed by an age range of 25 to 34 (13.74%), an age range of 35 to 44 (8.77%), an age range of 45 to 54 (4.27%), an age range of 55 to 64 (3.32%), and age 65 and above (2.13%). The education level of the majority of the respondents was university/college at 74.17%, while 12.80% being graduate school, 6.40% being primary school, 5.69% being high school, and 0.95% at other education levels.

A total of 62.56% were Malay respondents, 23.46% were Chinese respondents, 11.37% were Indian respondents, and 2.61% were other races. For income level, the majority of the respondents were dependent (37.68%), followed by income in the range of RM1,000 to RM2,999 (26.54%), below RM1,000 (14.69%), RM5,000 and above (10.66%), and RM3,000 to RM4,999 (10.43%). Further, 65.17% of the respondents were from urban areas and 34.83% of the survey respondents were from rural areas in Malaysia.

Table 1: Demographic Profiles

Demographic	Questionnaire respondents	Interviewees
Gender		
Male	128 (30.33%)	5 (83.33%)
Female	294 (69.67%)	1 (16.67%)
Age		
18-24 years old	286 (67.77%)	0 (0%)
25-34 years old	58 (13.74%)	2 (33.33%)
35-44 years old	37 (8.77%)	0 (0%)
45-54 years old	18 (4.27%)	1 (16.67%)
55-64 years old	14 (3.32%)	2 (33.33%)
65 years old and above	9 (2.13%)	1 (16.67%)
Education Level		
Primary	27 (6.40%)	3 (50%)
High School	24 (5.69%)	3 (50%)

College/University	313 (74.17%)	0 (0%)
Graduate School	54 (12.80%)	0 (0%)
Others	4 (0.95%)	0 (0%)
Ethics		
Malay	264 (62.56%)	3 (50%)
Chinese	99 (23.46%)	3 (50%)
Indian	48 (11.37%)	0 (0%)
Others	11 (2.61%)	0 (0%)
Income Level		
RM1,000 and below	62 (14.69%)	0 (0%)
RM1,000 – RM2,999	112 (26.54%)	4 (66.67%)
RM3,000 – RM4,999	44 (10.43%)	1 (16.67%)
RM5,000 and above	45 (10.66%)	0 (0%)
Dependent	159 (37.68%)	1 (16.67%)
Residence Area		
Urban	275 (65.17%)	2 (33.33%)
Rural	147 (34.83%)	4 (66.67%)

(Convert to infographics)

For the focus group study, there were 83.33% males and 16.67% female interviewees. Two interviewees were in the age range of 25 to 34 years, one interviewee was 50 years old, two interviewees were in the age range of 55 to 64 years old, and one interviewee was 67 years old. All the interviewees' education levels were below tertiary level while 50% of the interviewees were Malay, and 50% were Chinese. The income level for the majority of the interviewees fell in the range of RM1,000 to RM2,999. Majority were residents in rural areas.

Factors Affecting the Behavioural Intention to Use Cashless Payment

The main objective of this study is to investigate the factors that affect the behavioural intention to use cashless payments in Malaysia using the UTAUT model.

Table 2: Items of Variables and the Behavioural Intention to Use Cashless Payment

Statements of Variables	1	2	3	4	5
Performance Expectancy (PE)					
PE1	5 (1%)	25 (6%)	88 (21%)	175 (41%)	129 (31%)
PE2	6 (1%)	28 (7%)	99 (23%)	188 (45%)	101 (24%)
PE3	7 (2%)	16 (4%)	97 (23%)	167 (40%)	135 (32%)
PE4	6 (1%)	21 (5%)	99 (23%)	177 (42%)	119 (28%)
PE5	7 (2%)	20 (5%)	110 (26%)	167 (40%)	118 (28%)
PE6	7 (2%)	21 (5%)	99 (23%)	169 (40%)	126 (30%)
Effort expectancy (EE)					
EE1	8 (2%)	27 (6%)	97 (23%)	183 (43%)	107 (25%)
EE2	11 (3%)	28 (7%)	91 (22%)	192 (45%)	100 (24%)
EE3	11 (3%)	27 (6%)	89 (21%)	201 (48%)	94 (22%)
EE4	7 (2%)	16 (4%)	97 (23%)	195 (46%)	107 (25%)
EE5	6 (1%)	21 (5%)	88 (21%)	194 (46%)	113 (27%)
EE7	7 (2%)	13 (3%)	95 (23%)	176 (42%)	131 (31%)
Social Influence					
SI1	7 (2%)	40 (9%)	155 (37%)	154 (36%)	66 (16%)
SI2	15 (4%)	54 (13%)	155 (37%)	146 (35%)	52 (12%)
SI3	5 (1%)	37 (9%)	134 (32%)	178 (42%)	68 (16%)
SI4	16 (4%)	50 (12%)	160 (38%)	141 (33%)	55 (13%)
SI5	9 (2%)	36 (9%)	152 (36%)	159 (38%)	66 (16%)
SI6	14 (3%)	36 (9%)	145 (34%)	164 (39%)	63 (15%)
Facilitating Conditions					
FC1	4 (1%)	21 (5%)	124 (29%)	186 (44%)	87 (21%)
FC2	7 (2%)	22 (5%)	107 (25%)	186 (44%)	100 (24%)
FC3	12 (3%)	50 (12%)	127 (30%)	159 (38%)	74 (18%)
FC4	4 (1%)	39 (9%)	136 (32%)	170 (40%)	73 (17%)
FC5	12 (3%)	26 (6%)	104 (25%)	190 (45%)	90 (21%)

Note: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Table 2 shows the responses of the respondents of this study for the variables that affect the behavioural intention to use cashless payments.

This study discovered that the performance expectancy was found to be the most influential factors affecting the behavioural intention to use cashless payments in Malaysia. This finding is consistent with the studies of Venkatesh et al. (2003) and Tarhini et al. (2016) where performance expectancy was the strongest predictor of the intention to use technology. The majority of respondents in this study believed that cashless payments help them gain benefits when performing payment transactions. In this instance, 41% of the respondents agreed that using cashless payments would allow them to complete their financial transactions more quickly (PE1).

Cashless payment offers benefits, such as speed and time savings. It enables consumers to carry out financial transactions without visiting brick-and-mortar banks and stores. Indeed, 40% of the respondents agreed that they spent less time doing their financial transactions (PE5), and they also could access these services at any time (PE6). The short transaction time and 24/7 access increased the satisfaction of consumers. Further, 40% of the respondents agreed that using cashless payment for a financial transaction was easier (PE3).

This view is reflected by the 45% of the respondents agreeing with the statements that cashless payment enhance effectiveness (PE2) and 42% agreed with the usefulness (PE4) of cashless payment system when performing financial transactions. The cashless payment transactions are recorded by the system, which allows consumers to keep track of their spending and enables better budgeting. This is supported by studies, such as Martins et al. (2014), Bhatiasevi (2016), Sarfaraz (2017), Friadi et al. (2018) and Savic and Vasić (2019).

This view was also highlighted by users in the interviews as shown in the following statement:

"The cashless payment is useful as it is convenient and provides many benefits. I use the credit card to buy a TV and convert the purchase into instalments. (user 2)"

"I like to use cashless payments. I always get cashback and rewards from using the credit card and e-money. Besides that, I can track my spending from the system. (user 3)"

The second significant variable that influences consumers' behavioural intention to use cashless payments is effort expectancy. The behavioural intention to use cashless payments will increase when consumers believe that the cashless payment system is easy to use. The majority of the respondents agreed to all the statements of effort expectancy. Indeed, 43% of the respondents agreed with the statement that learning to operate cashless payment is easy (EE1). Nowadays, with the stiff competition between banks and fintech companies to offer this service, cashless payment applications and their systems are designed with user-friendly interfaces.

In this study, 45% of the respondents agreed with the statement that the interaction with cashless payment systems is clear and understandable (EE2). Consumers can operate the system with minimum assistance. 48% of the respondents agreed that cashless payment systems (EE3) were flexible. This enabled consumer to quickly master the use of the system (EE4) as agreed by 46% of the respondents.

The cashless payment system is flexible, so consumers can easily conduct financial transactions at anytime and anywhere with just a few simple steps needed to complete their transactions. Overall, the majority of the respondents found cashless payments easy to use (EE5 and EE7). This result is supported by other studies, such as Venkatesh et al. (2003), Martins et al. (2014), Bhatiasevi (2016), Sarfaraz (2017) and Friadi et al. (2018). One user highlighted this effort expectancy in the interview in the statement below:

"I use only e-money. It is easy to use and easy to learn on how to use it compared to other cashless payment. I can operate it without assistance. I simply open my QR code to make payment (user 1)".

Further still, this study found that social influence significantly explains consumer behavioural intention to use cashless payments in Malaysia. There were 37% of the respondents who have a neutral view on the statement on the influence of people who are important to them using cashless payment for their transactions (SI1). Of the statements, most of the respondents expressed a neutral view on the statements regarding influence by family.

There were 37% of the respondents who were neutral about their family likely recommending that they use cashless payments (SI2), and 38% of them also feel neutral about their family thinking that they should use cashless payments (SI4). On the other hand, the majority of the respondents indicated agreement on the statements of the influence of close friends. 42% of the respondents agreed that their close friends were likely to recommend to them to use cashless payments (SI3) and 38% of the respondents agreed that their close friends think they should use it (SI5). This may suggest that the influence of close friends has a greater impact on an individual's behaviour compared to family. It should also be noted that the majority of the respondents in this study were 18 to 24 years old. According to Lu et al. (2003), young people are easily influenced by their peers.

Overall, the findings showed that 39% of the respondents agreed that important people around them would influence their behavioural intention to use cashless payments (SI6). This finding is corroborated with studies, such as Venkatesh et al. (2003), Bhatiasevi (2016) and Savic and Vasić (2019). The following statement during the focus group interview highlights the impact of social influence:

"My friends encouraged me to use. They told me the usefulness and convenience of using cashless payment especially for third party fund transfer (user 3)."

However, as shown in Table 2, the study found that facilitating conditions do not significantly influence consumers' behavioural intention to use cashless payment. This finding suggests that the surrounding environment, such as facilities, necessary knowledge, and resources, are not concerns for an individual when using cashless payments. Boonsiritomachai and Pitchayadejanant (2017) demonstrated that facilitating conditions do not exhibit a direct effect on behavioural intention to use. This finding is consistent with the studies by Oliveira et al. (2014), Martins et al. (2014) and Bhatiasevi (2016) who found that facilitating conditions do not significantly affect the behavioural intention to use a specific technology.

Although facilitating conditions is an insignificant factor in explaining the behavioural intention to use cashless payment, however, as observed from Table 7, the majority of respondents agreed on all the statements of facilitating conditions. There were 44% of the respondents who agreed that their immediate environment supported their use of cashless payment (FC1) and they had the necessary knowledge for using cashless payment (FC2). Also, 45% of the respondents agreed that they had the necessary resources, such as an Internet connection and the devices to use to make a cashless payment (FC5).

Here 38% of the respondents agreed that they did not need assistance when using cashless payment (FC3), while 40% of the respondents agreed that facilities for making cashless payments are widely available in their residence area (FC4). It should be noted as well that the majority of the respondents resided in urban areas. The conditions for using cashless payments are better in urban areas than rural areas.

This factor was highlighted by interviewees as quoted in the following statements:

"It is difficult to use internet banking and mobile banking because it requires the key-in of the TAC for fund transfer within the time given. E-money is easier to use but wet markets here do not accept it (user 1)".

"The cashless payment is supported in my living area; I use it in *kedai runcit* and *hawker center*. I have internet data and devices to use cashless payments (user 3)".

"I usually buy necessities and groceries from retail shops nearby my house, the retailer only accepts cash as payment (non-user 1, 2 and 3)".

The Influence of COVID-19 Pandemic on Behavioural Intention to Use Cashless Payment

This study extends the UTAUT model by including the COVID-19 pandemic as a moderating variable to investigate the influence of the COVID-19 on consumers' behavioural intention to use cashless payments in Malaysia.

The results from the regression analysis of the influence of COVID-19 on Behaviour Intention to use cashless payment demonstrates that social influence is the most significant factor that affected the consumer's behavioural intention to use cashless payments during the COVID-19 pandemic. This finding suggests that the majority of the respondents were influenced by people who are important to them to use cashless payment during this period to keep safe from COVID infections.

The second most influential factor are facilitating conditions. The possible reasons behind this factor could be due to the MCO that was implemented in our country and changed people's lifestyles. Many merchants started to accept cashless payments during the pandemic. For example, e-money is now available at *pasar* and *kedai runcit* which enable consumers to access a QR code for payment.

In addition, some food delivery services provide a platform for traditional food hawkers and market vendors by using cashless payments. Moreover, the ePenjana initiative of the RM50 e-wallet and the waiving of RM1 charges for all ATMs using MEPS by the government during the COVID-19 pandemic has encouraged consumers to adopt cashless payments.

Furthermore, the COVID-19 pandemic has significantly moderated the relationship between effort expectancy and the behavioural intention to use cashless payment. The new stay-at-home living norms have forced people to use cashless payments more frequently than before and enhanced the skills for undertaking cashless payments. Besides that, there is also widespread dissemination of materials demonstrating the cashless payment process, especially for e-money. The behavioural intention to use cashless payments will thus increase when consumers feel it is easy to use.

In addition, it is interesting to note that the performance expectancy that appeared to be the most influential factor for the behavioural intention to use cashless payments is the least strong factor explaining the behavioural intention to use cashless payments when moderated by the COVID-19 pandemic. During the COVID-19 pandemic, people had to adjust to using cashless payment for transactions. This was most likely due to the fact that people believed cashless payment is convenient for ordering food and purchasing goods online during the lockdown period.

Table 3: The influence of COVID-19 Pandemic and the Behavioural Intention to Use Cashless Payment

Influence of COVID-19 pandemic	1	2	3	4	5
COVID2	28 (7%)	61 (14%)	121 (29%)	141 (33%)	71 (17%)
COVID3	7 (2%)	20 (5%)	95 (23%)	166 (39%)	134 (32%)
COVID4	4 (1%)	13 (3%)	97 (23%)	183 (43%)	125 (30%)
COVID5	8 (2%)	17 (4%)	102 (24%)	170 (40%)	125 (30%)
COVID6	10 (2%)	28 (7%)	129 (31%)	155 (37%)	100 (24%)
COVID7	7 (2%)	16 (4%)	87 (21%)	187 (44%)	125 (30%)
COVID8	16 (4%)	51 (12%)	115 (27%)	168 (40%)	72 (17%)
COVID9	17 (4%)	43 (10%)	126 (30%)	161 (38%)	75 (18%)
COVID10	18 (4%)	62 (15%)	192 (45%)	141 (33%)	6 (1%)

Note: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Table 3 shows the responses from the respondents regarding the influence of the COVID-19 pandemic on consumers behavioural intention to use cashless payment.

Due to the COVID-19 pandemic, 33% of the respondents agreed that they purchased via cashless payment more frequently than before (C2). Also, 39% of the respondents agreed that the stay-at-home lifestyle changed their behaviour towards online purchasing (C3). 44% of the respondents agreed that they were using cashless payment during the COVID-19 pandemic (C7). In addition, for the health conscious, 43% of the respondents agreed that they used cashless payment for transactions during the COVID-19 pandemic (C4). 40% of the respondents agreed that this change would protect them from the COVID-19 infection (C5). 38% of the respondents agreed that they did not want to handle

cash and opted to use cashless payments instead during the COVID-19 pandemic (C9) to minimise physical human contact and thereby avoid spreading the virus.

Therefore, 37% of the respondents agreed that they use cashless payments even when visiting stores to buy goods (C6). In addition, 40% of the respondents agreed that many retail merchants in their areas of residence accepted cashless payments during COVID-19 pandemic (C8). To stay safe from infection, cashless payment is one of several ways to limit human contact. This has increased the adoption of cashless payments and fostered the shifting of Malaysia towards a cashless society.

Moreover, it was surprising to note that 45% of the respondents expressed a neutral view of the statement that they would continue using cashless payment in the future (C10). They neither agreed nor disagreed about using cashless payments. Only 1% of the respondents strongly agreed and 33% agreed that they will continue to use cashless payments in the future after COVID-19.

In addition, most of the interviewees did highlight the influence of the COVID-19 pandemic in changing their payment behaviour as showed by the following statements:

"I use cashless payment during the COVID-19 pandemic because I do not want to handle physical cash (user 1)".

"I heard about news that the virus of the COVID-19 could spread with human contact, so I preferred cashless payment during this period. (user 2)".

"Due to the lockdown, I needed to work-from-home. So I always ordered food and shopped online. I use cashless payment more frequently than before (user 3)".

"Due to the COVID-19 pandemic, I would consider learning how to use cashless payment, I worry about being infected by COVID-19, so I asked my sons or daughter to help me with cashless payment transactions during this period (non-user 1)".

"Although I do not know how to use cashless payments, but in this period, I asked my sisters to help me to purchase items online during the COVID-19 pandemic (non-user 3)". Reasons for not using cashless payment among non-users (Table 9)

Table 4: Reasons for Not Using Cashless Payment among Non-Users

Reasons not using cashless payment	1	2	3	4	5
It is hard to use cashless payment due to lack of IT literacy	6 (11%)	8 (15%)	16 (30%)	7 (13%)	17 (31%)
I prefer using traditional method of payment such as cash	0 (0%)	8 (15%)	14 (26%)	14 (26%)	18 (33%)
I worry about safety and security aspects of cashless payment.	0 (0%)	4 (7%)	16 (30%)	10 (19%)	24 (44%)
I have limited resources necessary for the use of cashless payment.	2 (4%)	6 (11%)	20 (37%)	9 (17%)	17 (31%)
There is lack of facilities for using cashless payment.	0 (0%)	5 (9%)	25 (46%)	13 (24%)	11 (20%)
Some merchants are accepting cashless payment but only for transactions above a certain amount.	2 (4%)	4 (7%)	26 (48%)	15 (28%)	7 (13%)

Note: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Table 4 highlights the reasons that discouraged non-users from adopting cashless payment. It provides further insight to cashless payment issuers and the related agencies to take actions to improve the cashless payment conditions and thus increase the adoption for non-users.

This finding revealed that non-users felt that the main reason for not using cashless payment was the safety and security aspect of cashless payments. As such, 44% of the non-users strongly agreed with this statement because the cashless payment systems required financial transactions to be completed through a transfer of digital information, hence, this might expose them to the risk of data leakage.

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The system could also be attacked by hackers. This finding was supported by the study by Rotchanakitumnuai and Speece (2003) where non-internet banking users have higher levels of concern regarding the use of the web for their financial transactions.

In addition, 33% of non-users strongly agreed that they preferred to use a traditional method of payment, such as cash. This view is reflected by the statement where 31% of non-users strongly agreed that it is hard to use cashless payment due to low information technology (IT) literacy. The cashless payment system requires information technology knowledge and skills. Oliveira et al. (2014) demonstrated that Internet banking requires users to have related skills, such as operating computers and connecting to the Internet.

A majority of non-users expressed a neutral view on the statement where they had only limited resources necessary for the use of cashless payments. However, there were 31% of non-users strongly agreeing and 17% agreeing to this statement. It should be noted as well that most of the non-users came from rural areas where poor internet accessibility and connectivity make cashless payments difficult to be carried out.

Besides that, the majority of non-users expressed a neutral view regarding the statement about a lack of facilities for using cashless payments. The point-of-sale is widely available in most residential areas nowadays as the government has facilitated the wider outreach for e-payments. The majority of the non-users also responded neutrally to the statement about merchants only accepting cashless payment for transactions above a certain amount.

Consumer's Post-Adoptive Behaviour on Use of Cashless Payments in Malaysia

This study also investigates consumers' post-adoptive behaviour on the use of cashless payment in Malaysia. Hsieh et al. (2011) described that following the adoption of that technology, consumers will discover more functional features of the technology that support their daily life activities. This knowledge increases the continuance intention of using the technology as explained by Li and Liu (2011). This investigation is important, so that cashless payment issuers can attract more users and survive and succeed in a highly competitive market.

Table 5: Post-Adoptive Behaviour on Use of Cashless Payment

	Total	User	Non-user
Tendency to use cashless payment			
Always try to use	340 (81%)	312 (85%)	28 (52%)
Does not try hard to use	82 (19%)	56 (15%)	26 (48%)
Ability and willingness to use cashless payment in the future			
Able and willing	381 (90%)	352 (96%)	29 (54%)
Unable but willing	12 (3%)	2 (1%)	10 (19%)
Unable and Unwilling	29 (7%)	14 (4%)	15 (28%)

Table 5 shows the post-adoptive behaviour on use of cashless payment. The finding shows that 81% of the respondents always try to use cashless as a payment method. The advantages of cashless payment have encouraged people to adopt it. However, 19% of the respondents indicated that they do not try hard to use cashless payment, and among them, 48% were non-users. This response was probably due to the lack of facilities and infrastructure in their area of residence that do not support the use of cashless payment.

In addition, 90% of the respondents expressed that they remain able and willing to use cashless payments in the future, including 54% of non-users. This finding suggests that they will continue to use cashless payment. Because of the COVID-19 pandemic, people have adjusted to these new norms and switched their payment behaviour to use cashless payment. Three users from the focus group indicated that they are able and willing to use cashless payment in the future. This view was highlighted in the following statements:

"E-money is easy to use. I am able and willing to use it in the future (User 1)."

"I do not face any difficulty in using cashless payment. I would continue to use cashless payment in the future (User 2)."

"I have used credit cards and mobile banking for about 10 years. For mobile banking, it is user-friendly, I can transfer funds to third-party, pay bills and settle credit card balance just with my fingertips. Meanwhile, credit cards provide incentives such as cashback and rewards. So, I am able and willing to continue use it in the future (User 3)."

On the other hand, only 3% of the respondents expressed that they are unable, but willing to use cashless payment. The possible reason could be that cashless payment is not supported where they reside. This includes poor Internet connectivity, lack of facilities, infrastructure support and necessary resources, such as Internet data and devices to complete financial transactions using cashless payment. The three non-users expressed their views about this issue during the interview as shown in the following statements:

"Currently the retailers in my living area accept cash only. In the future, if they accept cashless payment, I will use it. (Non-user 1)."

"I have only a Tabung Haji account and ASB account, so I not able to use cashless payment. But I am willing to use it, if in future, all the retailers accept only cashless payment. (Non-user 2)."

"I willing to use cashless payment, but I cannot use it. Where I live has poor internet connectivity and accessibility. (Non-user 3)."

Meanwhile, 7% of the respondents indicated that they are unable and unwilling to use cashless payment. This opinion is probably due to the fact as mentioned above. Additionally, the habits of using cash and the security issues involved with cashless payment might be the concerns of people who are unwilling to use cashless payment.

Table 6: The Behavioural Intention to Use Cashless Payment

Behavioural Intention to Use (BI)	1	2	3	4	5
BI1	5 (1%)	17 (4%)	116 (27%)	166 (39%)	118 (28%)
BI2	6 (1%)	16 (4%)	98 (23%)	179 (42%)	123 (29%)
BI3	6 (1%)	23 (5%)	119 (28%)	171 (41%)	103 (24%)
BI4	6 (1%)	19 (5%)	116 (27%)	167 (40%)	114 (27%)
BI5	6 (1%)	18 (4%)	102 (24%)	186 (44%)	110 (26%)

Note: 1=Strongly Disagree, 2=Disagree, 3=Neutral, 4=Agree, 5=Strongly Agree

Table 6 shows the majority of the respondents indicated that they agreed with all the statements of behavioural intention to use cashless payment. There were 39% of the respondents agreeing that they intended to use cashless payments in the future (BI1). Also, 42% of the respondents agreed that they believed they would use cashless payment for future transactions (BI2). The respondents also indicated that they planned to use cashless payment for their next transactions (BI3) with 41% agreeing. This is because a majority of them believed that using cashless payment is a wise choice as a medium of payment (BI4), which was agreed with by 40% of the respondents. Also, 44% of the respondents agreed that they could see themselves using cashless payment for handling payment transactions (BI5).

This finding suggests that the majority of the respondents were satisfied with cashless payment systems, and this increased their continuance intention to use cashless payment in the future.

IMPLICATIONS OF THE STUDY

To move into a cashless society, it is essential to ensure that Malaysians are willing and also able to use cashless payments for their transactions.

In considering the benefits of cashless payments, it must be noted that cashless payment systems can keep a record of all financial transactions and therefore consumers can easily track their finances through the website or applications. This offers greater effectiveness in managing personal finances. Additionally, features such as refunds and cashback guarantees should help increase the adoption of cashless payment throughout Malaysia in the future.

However, the lack of knowledge about using cashless payments is one of the barriers to the wider use of cashless payment as shown in this study. To achieve a cashless society, there is a need to increase both information technology and financial literacy among Malaysians. By improving literacy, more Malaysians will be able to access innovative financial products and cashless payments.

Besides that, the availability of cashless payment infrastructure and the required resources to use cashless payments are also of concern to consumers. Cashless payment requires financial transactions to be performed online which then requires owning a smartphone or similar device. This technology might not be affordable for some people, as the cost of access to Internet data is borne by the consumer. Therefore, to transform the country into a cashless society and increase financial inclusion, policy makers should provide free Internet access to the cashless payment system.

Lastly, cash is still widely used in Malaysia, as reported by the Ministry of Finance Malaysia (2020). People still feel comfortable making transactions with cash since it is physically visible. Therefore, to increase the adoption of cashless payment, cashless payment channels and instruments must be made widely available, safe to use, and as convenient as cash.

CONCLUSION

The results of this study showed that the behavioural intention to use cashless payment is significantly affected by performance expectancy, effort expectancy, and social influence. However, the facilitating conditions were found to be insignificant in its influence of consumer behavioural intention to use cashless payment.

On the other hand, this study highlights that the COVID-19 pandemic has significantly moderated the relationship between factors such as performance expectancy, effort expectancy, social influence, and facilitating conditions with the behavioural intention to use cashless payment. During this period, many people are making online purchases. Additionally, the promotions, rewards, and incentives offered by the government and cashless payment providers had encouraged more people to use cashless payment during this period. Indeed, cashless payment is one of the alternatives that could limit human contact and keep people safe from COVID.

In addition, the findings of this study show that the majority of the respondents do have a high tendency to use cashless payment. This choice may be due to the advantages of cashless payment that encourage people to use it. Cashless payment is thus gaining traction in Malaysia, especially with the encouragement from the government for moving towards a cashless society and the impact of the COVID-19 pandemic that has changed people's lifestyles.

Besides that, the results also showed that the main reasons discouraging non-users from adopting cashless payment is security and privacy. The cashless payment system requires financial transactions to be completed through a transfer of digital information; hence, this exposes consumer to cybersecurity risks.

Non-users also revealed that it is hard to use cashless payment due to low levels of information technology and financial literacy. Limited resources, lack of facilities, and merchant acceptance are also reasons that have discouraged the use of cashless payment among non-users.

This study found that nearly all of the respondents indicated that they are able and willing to use cashless payment in the future. However, a small number of the respondents expressed that they are willing to use cashless payment, but the conditions do not support them to do so. There is also a small number of the respondents indicating that they are unable and unwilling to use cashless payment. This view could be attributed to their habit of using cash.

To move toward a cashless society, it is important to ensure that people are able to use cashless payment to achieve financial inclusion. This could facilitate Malaysia's successful transformation into a cashless society.

Limitations of the Study

The majority population that analysed in this study was represented by respondents in the age range of 18 to 24 years old. Due to time constraint and MCO implemented in Malaysia, the optimal approach to collect data was through online questionnaire. Although this millennial generation are active internet users and potential users for cashless payment, however, we need to be caution when generalize the findings and discussions in relation to this group in the study.

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