# THE INFLUENCE OF COVID-19 OUTBREAK ON DIGITAL PAYMENT IN MALAYSIA

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#### ABSTRACT

*COVID-19* outbreak has brought historic disruption to the economy, social, and health sectors around the globe. The closure and shut down of some businesses have caused consumption in many industries to decline. The trends that derived from the crisis have also affected the way people transfer money and execute payments for numerous purposes. Digital payments also have become a crucial solution for people as well as many businesses for financial transactions and stimulate their business into this new normal. This paper aims to investigate the effect of Covid-19 outbreak on the methods of payment before and during the lockdown period. This paper employed questionnaire-based surveys and a simple random sampling method. A total of 400 respondents were administered and analyzed by deploying descriptive analysis. The findings reveal that cash and cheque usage in payment transaction has declined tremendously, while many types of digital payment platform show a substantial increase in response to Covid-19 outbreak. The result may provide insight for practitioners and researchers while assisting the digital payment service providers, government, and financial institutions to have a better understanding and concern of the practicality in the use of digital payment for various financial transactions.

Keywords: Covid-19, Digital Payments, Mobile Payments, Mobile Banking, E-Wallet

### **1. INTRODUCTION**

Digital payment is also known as electronic payment (e-payment), where no physical cash is involved (Vinitha & Vasantha, 2017) has emerged and is widely used as one of the payment solutions for individuals to execute various transactions for good and services. It is also being

utilized by most businesses to drive their business forward as it offers several advantages (Rahman et al., 2020) even though some of the developing countries do not set digital payment systems as a priority before the outbreak (Mansour, 2021). However, the Covid-19 outbreak has offered an unanticipated platform for the digital channel to flourish (Boakye-Adjei, 2020). When the Covid-19 outbreak took place and began spreading around the world in early 2020, the major consequences are not only to the household, health, and economic sector (Al Nawayseh, 2020) but also drives the uptake in technological advancements such as electronic and digital payments (Mansour, 2021).

According to World Payments Report (2020), the Covid-19 outbreak is one of the factors that influence the speed acceleration of the worldwide non-cash transactions in the Middle East and Asia Pacific region and it's predicted to grow at an 11.5% compound annual growth rate (CAGR) between 2019 to 2023. According to Srouji, 2020, UAE shows a robust digital payment acceptance in all sectors including retail, transport, food delivery, and subscription fee services (i.e., music and video). Covid-19 drives the increase in the adoption level of digital payment that is projected to reach a volume of 1.1 trillion non-cash transactions in 2023 (World Payments Report 2020) and benefiting tremendous users (Deloitte, 2020). Hence, the role of digital payment is becoming more significant (GSMA, 2019) in which the Covid-19 outbreak could be a catalyst to hasten the development and use of digital payment (Agur et al., 2020). Moreover, it is expected that by 2025, the adoption of digital payments in Southeast Asia will be more than \$1 trillion in gross transaction value (Bain & Company, 2019). In addition, the current global payment landscape has also diverged our usual method to a new normal of transactions. In contrast, cash usage is likely to further decline due to the outbreak in the emerging markets as well as matures markets (Bruno et al., 2020). Malaysia has shown a sharper deterioration in the use of cheques and cash for numerous payment transactions while the number of non-cash payments has increased by 32.4% (Bank Negara Malaysia, 2019). In 2020, the cheques cleared declined 29% from the previous year, while cash was withdrawn from an Automated Teller Machine (ATM), a proxy of cash usage declined 12% as compared to 2019. On the other hand, the total use of e-payment services in Malaysia recorded double-digit growth of 14% to 5.5 billion transactions in 2020 (Bank Negara Malaysia, 2020). Fintech Malaysia (2021) reported that digital payments are leading and dominating Malaysian fintech space by 20% in 2020.

There are various digital payment methods available as an alternative to cash transactions in the market. Several most popular types of digital payment which can be classified under mobile payment/ digital wallet/ e-wallets in Malaysia are Boost, GrabPay, Touch 'n Go e-Wallet, Razer Pay, BigPay, MaybankPay, and PayPal (Fintech Malaysia, 2021). Following this, Bank Negara Malaysia (BNM) has put exerted efforts such as collaborating with the payments industry to accelerate the transformation of financial sectors to a digital economy as a response to the Covid-19 outbreak. As part of the initiatives and strategy, licensing of digital banks has been implemented to support digital payment systems, economic resilience, and growth (Bank Negara Malaysia, 2020). Bank Negara Malaysia Annual Report (2020) reported a substantial growth of 14% equivalent to 5.5 billion transactions in 2020 in the use of electronic payment (e-payment) as a consequence of the Covid-19 outbreak and Movement Control Order (MCO). Similarly, in 2020, the cash withdrawn from Automated Teller Machine (ATM) has declined to 9% equivalent to RM377.3 billion (Bank Negara Malaysia, 2020). In Malaysia, the retail payment channels can be classified into three types which are (1) internet banking, which enable people to execute common banking transactions via internet access at their convenience and comfort, (2) mobile banking, which allows people to do a similar banking transaction as internet banking but via mobile phones equipped with required banking features, and (3) mobile payment, which enable various payment transactions to a selected merchant via mobile phones.

Nowadays, one of the crucial components to accelerate economic expansion is the acceptance and utilization of digital payments or non-cash transactions. Despite its potential, non-cash transaction payment systems in some emerging countries are yet to extensively use and successfully implemented specifically in Malaysia (Rahman et al., 2020). In this regard, this study contributes to the existing digital payment literature and intends to explore the use of digital payment by identifying the methods of digital payment used by respondents before and during the lockdown period in response to the Covid-19 outbreak. To attain the objective, we conduct an online survey to obtain information regarding the methods of payment before and during lockdown period. The remaining sections exhibit four sections include literature review, research methodology, results and findings, and conclusion.

# 2. LITERATURE REVIEW

# **Overview of the Digital Payment**

Throughout the existing literature, the term digital payment will be used to refer to the transaction between buyer and seller that uses a digital platform. In the transaction, there will no physical cash involved and known as electronic payment (e-payment) also (Vinitha & Vasantha, 2017). Alkhowaiter (2020) classifies several digital payment instruments such as mobile payment, mobile wallets, cryptocurrency, and e-payment as digital payment. In Malaysia, payment systems are under the purview of the Bank Negara Malaysia (BNM). Malaysia's payment system has experienced tremendous transformation especially after the Asian financial crisis (Basir, 2009). As a consequence of the evolution in Malaysia's payment systems, the existing payment system has been further enhanced to cope with the current technology and need. In addition, numerous payment system has been introduced (Basir, 2009) by various providers as the government is undertaking a long-term plan to attain a cashless society (Ishak, 2020). Globally, the digital payment transaction has emerged as the preferred payment solution as the retail customer shift to the digital channel (Capgemini Financial Services Analysis, 2020) particularly with a majority of them stay at home and keep physical distancing, thus opting for digital payments due to Covid-19 outbreak (Allam, 2020). Consumers are replacing paper currency, debit, and credit cards with contactless technology as suggested by World Health Organization (WHO) and Centers for Disease Control (CDC) during the Covid-19 outbreak (C.C & Prathap, 2020).

### **Potential Benefits of Digital Payment**

Overall, a digital payment which available in various types of outlet offers many rewards or rebates to the customer and mostly as the payments solution for bill payments, payment of hotels, mobile reload, medicines, groceries, F&B services, and convenience stores (Ishak, 2020). Digital payment offers numerous advantages to the customers such as safer, convenience, and speed (Karsen et al., 2019; Rahman et al., 2020) and it is very helpful to flatten the curve and break the chain of Covid-19 (Aji et al., 2020) as it reduces and minimizes the visits to physical premises (Rahman et al., 2020). Therefore, promoting better digital payment and digital transfer services are crucial to ensure all payment channels are available for use at all time (Ozili, 2020).

### Factors Influence the Use of Digital Payment

Several empirical studies explore the use of digital payment as a payment solution and they found that perceived usefulness, ease of use, privacy, perceived risk, convenience, and

government support drives the intention to use e-wallet during the Covid-19 outbreak (Ng & Mei, 2019; Karim et al., 2020; Aji et al., 2020). According to Alkhowaiter (2020) some other factors that influence the acceptance and use of electronic payment are interacting technological, political, and cultural factors. In addition, performance expectancy, social influence, price value, security, and privacy are the factors that were found to be significant predictors and influence the intention to accept as well as to use digital payment system in Jordan (Al-Okaily et al., 2020). In addition, trust is one of the important components that significantly influence the adoption and use of e-payment specifically in financial transactions (Al Nawayseh, 2020), and critical as security toward the success of e-payment usage (Oney et al., 2017).

### Ease of Use

Ease of use can be defined as to what extend the effort is required in adopting and using technology (Venkatesh et al., 2003) as well as easy to use and perceived convenience (Najib & Fahma, 2020). The influence of ease of use on the use of digital payment has been long studied in the existing literature. Some scholars found that ease of use has a significant relationship toward the adoption of mobile-based commerce systems (Venkatesh et al., 2003) and important predictors that shape the individual intention to use the digital payment system (Vinitha & Vasantha, 2017). Similarly, some studies also found that consumers will consider ease of use as one of the crucial factors in using mobile payment (Sankaran & Chakraborty 2020; Alkhowaiter, 2020). Despite some issues in the system that may distract, many people are now inclined to use digital payment platforms as they offer more benefits such as convenience, ease of use, fast service, and accessibility (Singh, 2019).

### **Privacy and Security**

Privacy can be described as the ability of a person to monitor their personal and relevant information (Karim et al., 2020). On the other hand, security refers to a set of measures, mechanisms, and computer programs employed to validate, verify and guarantee the privacy and integrity of the person's information source (Oney et al., 2017). A relationship between privacy and security on the use of digital payment has been mentioned in a plethora of existing studies. Security is found to be a crucial predictor and utmost important component (Oney et al., 2017) for deciding the use of e-payment in a financial transaction (Maqableh et al., 2015). Moreover, security has positively influenced the acceptance and intention to use e-payment (Karim et al., 2020). There is also a possibility that the customers will keep away from using e-payment if there is a loophole in the issues of privacy and security (Karim et al., 2020).

# Trust

Trust can be defined as the confidence level in a partner (Oney et al., 2017) which has three characteristics namely competence, benevolence, and integrity (Eze et al., 2008). In addition, trust also found to be an important predictor in adopting and deciding the use of any types of e-payment system (Eze et al., 2008; Maqableh et al., 2015; Oney et al., 2017; Vinitha & Vasantha, 2017; Alkhowaiter, 2020; C.C & Prathap, 2020; Aji et al., 2020; Najib & Fahma, 2020). Some other studies reveal that trust significantly affects individuals' acceptances, intention to use, and attitude towards the use of digital payment (Jung et al., 2020; Najib & Fahma, 2020; Shree et al., 2021). Moreover, the use of digital payment systems among individuals increases when they put trust and confidence in the service providers and regulators (Shree et al., 2021). In contrast, lack of trust will deteriorate and negatively affect the possibility of accepting as well as using digital payment systems (Ozili, 2018; Deloitte, 2020; Shree et al., 2021).

# 3. METHODOLOGY

The questionnaire was administered with a sample size of 400 respondents selected by applying a simple random sampling method. In this study, both the primary data and secondary data have been utilized. Generally, the study is largely based on primary data, but necessary secondary data also have been collected from various sources namely article journals, reports, and websites. The link to the survey is sent mainly through Google Form, email, and WhatsApp. Respondents are surveyed to understand the methods of payment used before and during the lockdown period. The collected data are analyzed by deploying descriptive analysis.

# 4. EMPIRICAL RESULTS

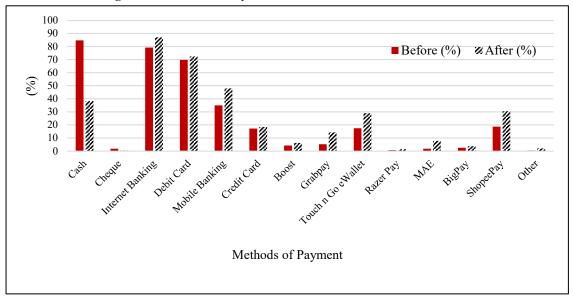
The findings indicate that out of 400 respondents, 56% are female, and 44% males (refer to Table 1). As for the educational level profile, the highest percentages are of those who have obtained a Bachelor Degree (51.5%), Postgraduate Degree (27%), followed by Diploma holders (13.5%), and Sijil Pelajaran Malaysia (SPM)/ Sijil Tinggi Pelajaran Malaysia (STPM) (7.3%). Majority (44.3%) of respondents earn below RM2,500, while 27.3% are those with an income between RM4,850-RM10,959, and 26.8% earn between RM2,500-RM4,849. These results depict that most of the respondents are in the lower-income range and very few participants have a high income. In terms of the age range, a large portion of the respondents are between 25 and 34 years old (36.3%). This result confirms with the survey by Capgemini Financial Services Analysis, 2020, in which respondent within this age group shows an increased usage of digital payment channels. Meanwhile, those in the range of 35-44 and 18-24 years make up 28% and 22% respectively. However, those in 45-54 and 55 years above represent 11.0% and 2.8% respectively. With regards to the respondent's occupation profile, the top three are those working in the private sector (50.9%), the government sector (20%), and students (18%). Business and housewife make up 2.7% and 2.0% respectively. Finally, the survey data shows that 75.5% of respondents are those living in an urban area and rural area (24.5%).

Figure 1 summarizes the results for methods of payment used before and during lockdown period to perform various payment transactions for example utility and bill payment, groceries, household equipment, hotels, recharge, shopping and medical supplies. The findings disclose that the most frequent methods of digital payment used by the respondents before lockdown are cash (84.8%), internet banking (79.3%), debit card (69.8%), mobile banking (35%), ShopeePay (18.75%), credit card (17.25%), and Touch n Go eWallet (17.5%). Meanwhile, Grabpay (5.3%), Boost (4.3%), BigPay (2.5%), MAE (1.8%), cheque (1.75%) and Razer Pay (0.75%) are less frequently used but still represent a significant proportion. However, due to the reinforcement of the Covid-19 Standard Operating Procedure (SOP) which emphasized the physical distancing, self-quarantine policy, and encouraging contactless payment (Aji et al., 2020), several digital payments services or non-cash transactions depict a substantial increase in usage. The significant increment in digital payment used during the lockdown in response to the Covid-19 outbreak is represented by internet banking (87%), debit card (72.5%), mobile banking (48%), and followed by ShopeePay (30.5%). Moreover, the use of Touch n Go eWallet (29%), credit card (18.5%), GrabPay (14.25%), MAE (7.75%), BigPay (3.75%), Razer Pay (1.5%) are slightly increased as compared to before lockdown period. However, cash and cheque transactions are still relevant but the usage has declined to 38.25% and 0.5% respectively during the lockdown. It concludes that there is a substantial difference in the methods of payment between before and during the lockdown period due to precautionary measures against the Covid-19 outbreak.

#### **Table 1: Respondent Profile**

Construct	Characteristics	Frequency	Percentage
Gender	Male	176	44.0
	Female	224	56.0
Age	18-24 years old	88	22.0
	25-34 years old	145	36.3
	35-44 years old	112	28.0
	45-54 years old	44	11.0
	55 & above	11	2.8
Location of	Rural	98	24.5
Residence	Urban	302	75.5
Education Level	Bachelor Degree	206	51.5
	Diploma	54	13.5
	Postgraduate	108	27.0
	STPM/SPM	29	7.3
	Other	3	0.8
Income Level	Below RM2500	177	44.3
(Monthly)	RM2500 - RM4849	107	26.8
	RM4850 – RM10,959	109	27.3
	RM10,960 and above	7	1.8
Occupation	Government	80	20.0
	Private	204	50.9
	Students	72	18.0
	Business	11	2.7
	Housewife	8	2.0
	Agent (unit trust/property etc)	10	2.5
	Other	15	3.8

Figure 1: Methods of Payment Used Before and After Lockdown



# 5. CONCLUSION

From the study that has been carried out, it seems that there are a lot of upsides down in moving towards digital payment society, but undoubtedly, the covid-19 outbreak is now reinforcing existing trends towards increased digitization of payments. This study is aimed at identifying the methods of payment used before and during the lockdown period. The result has provided some useful information in response to the COVID-19 outbreak. Cash payments are very

dominant in numerous payment transactions before lockdown period. However, cash usage has decreased tremendously and substantially drive the uptake in the use of various digital payment platform during lockdown period due to its contactless, convenience, and speed. The substantial increase has shown in the use of various digital payment services such as internet banking, debit card, mobile banking, ShopeePay, Touch n Go eWallet and Grabpay. In summary, despite many challenges in the use of digital payment, this study highlighted that the COVID-19 outbreak might drive the use of digital payment among users.

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