

Are Malaysians Ready for the Cashless Society? Evidence from Malaysia's Undergraduates

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Abstract

Moving to create a greater Malaysia, Bank Negara Malaysia is set to launch its digital banking framework by the end of 2019. Aligned with the goal, this study is conducted to examine the motivational factors affecting the adoption of cashless transaction system among undergraduates in Malaysia. This study adopted Technology Acceptance Model (TAM) to examine the motivational factors that lead to the adoption of cashless transaction system. Findings shown that Perceived Usefulness (PU) and Perceived Ease of Use (PEoU) are positively associated to dependent variables, Adoption of Cashless Transaction System (ADT). In which PU has the greatest effects towards the adoption of cashless transaction system.

Keywords: Technology Acceptance Model (TAM), Adoption of Cashless Transaction System (ADT)

Introduction

It is known that there is about 20% of the total payment in Malaysia involved electronic wallets (Yuen, 2019). Through the cooperation between banks and the payment industry, endeavors were made to improve and extend the entrance to the industry. By recognizing and expelling the obstructions to more prominent appropriation of electronic payments, and give the essential help to guarantee the smooth change to electronic payments are among the steps were taken by all parties to ensure we are closer towards cashless society. Cashless transaction is known as "... payment that eliminates the usage of money as a medium of exchange for good and services by allowing electronic transfer payments" (Tee & Ong, 2016, pp.1). Nonetheless, the question arise on the readiness of Malaysians to be a part of the cashless society. Numerous studies are being conducted on online banking and mobile banking on developed countries like United States, United Kingdom, Japan and South Korea (Cudjoe, Anim, & Nyanyofio, 2015). However, there are limited studies conducted to examine the motivational factors specifically Malaysians on the adoption of cashless transaction system. Thus, this study is conducted on examining the motivational factors on adoption of cashless transaction among undergraduates in Malaysia in order to close the research gap.

Literature Review

In this study, the author is adopting Technology Acceptance Model (TAM) to examine the motivational factors that contribute towards the adoption of cashless transaction system among undergraduates. According to Davis (1985), TAM is an information systems theory that examines the factors influence the user decision to adopt the new technology. Past researches had proven that the validity of Technology Acceptance Model (TAM) in effectively forecasting intention to utilise new technology such as mobile banking (Maroofi, Kahrarian, & Deghani, 2013), online banking (Ajam & Nor, 2013) and m-payment systems (Lee, Park, Chung & Blackeney, 2012). According to Jan, Jager, Ameziane and Sultan (2019), TAM is also being adopted to examine the use of smartphone advertising in Malaysia. Finally, Chua, Lim and Khin (2019) also adopted TAM in examining the relationship among consumers towards the adoption of Fintech products and services in Malaysia. Hence it has been proven that TAM is one of the applicable model to examine the motivational factors for the adoption of cashless transaction system among undergraduates in Malaysia.

In this study, the adoption of cashless transaction system among undergraduates (ADT) will be the dependent variable and Perceived Usefulness (PU), Perceived Ease of Use (PEoU), Perceived Credibility (PC) and Perceived Self-Efficacy (PSE) will be the independent variables.

Adoption of Cashless Transaction System (ADT)

As stated by Kaur (2017), digital transaction system is improving and more people have started to accept cashless transaction thus it is inline towards a cashless economy. Although monetary terms are still widely available around the world, it is said to be more like electronic or digital forms than previous perceptions (Ejoh, Adebisi & Okpa, 2014). From the research study of Tee and Ong (2016), they believe that the expansion of the cashless payment is driven by the expansion of implementation of information technology segment. Moreover, this perspective was claimed by Oginni, Mohammed, and Michael (2013) where they proposed that technological innovation has altered along with the perspective of payment systems, to show that the society is now drifting towards an electronic world. Currently, payments can be advantageous, specified by Mallat (2007), those advantages are included independence of payment, queue avoidance, secure access to payment services and its availability. Therefore, this study is conducted among undergraduates in Malaysia because they are known as tech savvy generation where electronic wallet has even been implemented through their tertiary education (Mustafa, 2017).

Perceived Usefulness (PU)

Perceived usefulness is being defined as the consumers' perceptions resulted from the past experience (Davis, Bagozzi and Warshaw, 1992). As alluded by Davis (1993), the individual's perception with regards with the application of new technology which will enhance or improve their existing performance is being defined as perceived usefulness. Previous studies also testified that PU is positively related to the adoption of new technology usage.

Krishanan, Khin, Teng, and Chinna (2016) found that PU is positively significant towards the intention of adopting of new banking technology in Singapore. Besides, Mohammadi (2015) also found a positive relationship between PU and the adoption of new technology. In addition, the relationship between PU and user's attitude towards, and intention towards using e-banking was examined by Obeid and Akram (2016). It was assumed that people use e-banking due to its benefits and its usefulness. Therefore, PU was demonstrated to be significant and have positive impact on cashless transaction and the following hypothesis is constructed.

H1: There is a positive relationship between perceived usefulness and the adoption of cashless transaction system among undergraduates.

Perceived Ease of Use (PEoU)

Besides that, PEoU is being referred as a degree to where an individual believes that using a particular system would be free of effort (Davis, 1989). In TAM, PEoU is the main factor that will affect the customers' acceptance of information system (Davis et al., 1989). Moreover, Davis (1989) defined PEoU as the opinion of users in relation to the ease of services (Rehman, Rizwan, Ahmed & Khan, 2013).

Study done by Lee and Blackeney (2012), also concluded that there is a positive relationship between PEoU in influencing users' intention and the adoption of technology. On the other hand, Kucukusta, Law, Besbes, and Legoharel (2015), Chong, Chan and Ooi (2012) and Hernandez, Jimenez and Martin (2009) concluded a causal relationship between PEoU and its adoption. Krishanan et al. (2016) proposed that PEoU will bring an effect to the users' attitude towards the usage whereas the PEoU brings a significant effect to the PU in relation to continue the reception of e-book reading existence in northern Taiwan. Other studies found PEoU to antecedents and positively impact towards the adoption of new technology (e.g., Gefen, Karahanna & Straub, 2003; Khurshid, Rizwaan & Tasneem, 2014). In this research study, PEoU is being referred as a degree of undergraduate students' perceptions on how easy it is use cashless transaction system that make them free of effort. Hence, the undergraduate students will understand and operate the adoption of cashless transaction systems easily and the below hypothesis is put forward.

H2: There is a positive relationship between perceived ease of use and the adoption of cashless transaction system among undergraduates.

Perceived Credibility (PC)

According to Suh and Han (2002), PC is being defined as trustworthiness of the personnel based on the unforeseen circumstances. Wang, Wang, Lin and Tang (2003), believed that security and privacy issues happen on mobile banking will not affect the trustworthiness and reliability of mobile banking. In the perspective of the consumers, consumers are more willing to subscribe services from their usual service providers due to the trust issue (Reichheld & Schefter, 2003). Aside from that, most of the users are worried on the possibility and issues of disclosing their own private information which included their username and password (Priya, Vikas & Shaikh, 2018). Hence, it may conclude that the credibility of mobile banking depends on different factors such as reputation, information and economic reasoning (Erdem & Swait, 2004). If there is a high degree of uncertainty about the legality of mobile transactions, it will influence people's intention to adopt mobile banking (Riquelme & Rios, 2010; Bankole, Bankole & Brown., 2011). Therefore, it can be concluded that when there is a higher credibility of mobile banking, there is a tendency that the risk of customer's perception will be lower and willingness of customers to adopt the mobile banking will be increased (Luarn & Lin 2005; Lewis, Palmer & Moll, 2010). However, Lewis et al. (2010) argued that there is a significant negative correlation between credibility and risk perception, which will have a positive impact on the adoption of mobile banking. In the study, PC is considered as undergraduates' opinions on protecting their personal transaction details and personal information against unauthorized access in adoption of cashless transaction system. Thus, the hypothesis formulated is:

H3: There is a positive relationship between perceived credibility and the adoption of cashless transaction system among undergraduates.

Perceived Self-Efficacy (PSE)

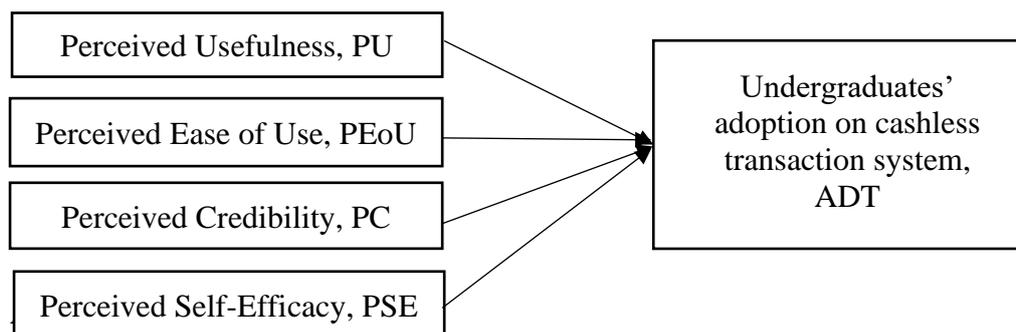
Bandura (1997) stated that self-efficacy is the judgement of an individual to organize and execute courses of action required to attain designated types of performances. Self-efficacy was being highlighted in the research studies of the banking information system (Reid & Levy, 2008), adoption of mobile data services (Yang, 2010), online shopping (Faqih, 2013) and the employees' apparel retailing technologies in the management strategies (Lewis & Loker, 2014). The researchers also found that there is a positive relationship between self-efficacy and the adoption of new technologies. Since cashless forms of payments entirely involve no physical contact with service provider's staffs, the users need to be confidence and preparation that they will not get any assistance if they face any issues or problems (Omol, Abeka & Wauyo, 2017). According to the researches that conducted by Jones and Hubona (2006); Li, Dong & Chen, (2011), it was mentioned that users who involved in more various types of communication media and functions have a higher tendency on self-efficacy as compare with individual who has a lower self-efficacy. Hence, self-efficacy is found to be influential on the usage of cashless transaction systems perspective.

Moreover, Jeong and Yoon (2013) found out that self-efficacy has a positive relationship with structural assurance. It is a confidence that mobile money user prefer to use a mobile money application (Baganzi & Lau, 2017). In this study, perceived self-efficacy is investigating the user's perception when they are using the cashless transaction systems. It is commonly known that undergraduates in Malaysia understand better in the usage cashless transaction system and judge their capability in adoption of cashless transaction system. The hypothesis formulated as:

H4: There is a positive relationship between perceived self-efficacy and the adoption of cashless transaction system among undergraduates.

Method***Research Framework***

Based on the above literature review, thus the below research framework is being constructed.



In this study, questionnaires were being conducted through online, goggle form because the intention of this study is to examine the motivational factors that affecting the adoption of cashless transaction system among undergraduates thus distributing questionnaires through online platform will be able to eliminate the non-tech savvy respondents. A total of 150 respondents were collected through online goggle form which these respondents are from Johor, Melaka and Selangor. This is because Johor, Melaka and Selangor have a better access to the technology of cashless system. Finally, the collected data was analysed statistically using Statistical Package for the Social Sciences (SPSS) version 23.

Findings***Pilot Study***

In this study, pilot study is being carried by analysing 30 respondents gathered through online goggle form. The pre-test is to ensure that respondents understand the questions and able to give their most accurate responses. It makes sure the reliability of questionnaires. This study presents reliability analysis by using Cronbach's Alpha of more than 0.7 is applied to pilot test of 30 respondents.

Table 1: Reliability of Pilot Test

Variables	Cronbach's Alpha	N of items
Adoption of Cashless Transaction System	0.847	5
Perceived Usefulness	0.965	5
Perceived Ease of Use	0.947	5
Perceived Credibility	0.944	5
Perceived Self-Efficacy	0.901	5

As shown above, all the tested variables are more than 0.7 with Perceived Usefulness (PU) being the highest variable which is 0.965. Therefore, it is reliable to carry out the study.

Descriptive Analysis

As shown in Table 2 is the descriptive analysis, the majority of the respondents are female (72.7%) while 27.3% male respondents. The age of the respondents who are from age 21 to 22 is 60.0%, followed by 19 to 20 years old at 19.30%, 22 to 23 years old at 12.0%, above 25 years old is 5.30% and finally 3.30% for those aged 24 to 25. Among the respondents, 97.30% are single whereas 2.70% are married.

Moreover, it is observed that majority of the respondents are Chinese (91.3%), followed by India (5.3%) and Malay (2.0%). The results also show 1.30% of other whose are Bidayuh and Peranakan.

Reliability Test:

Tavakol and Dennick (2011) stated that validity and accuracy of data interpretation can be increased by using reliability test analysis. The value of Cronbach's Alpha that is considered acceptable is greater than 0.7. For the value is greater than 0.7 which is mean the value is good. Whereas, the value is excellent if it is more than 0.9.

Table 3 has shown the reliability test among the 150 respondents . All the variables are greater than 0.7 which are ADT (0.907), PU (0.95), PEoU (0.904), PC (0.900) and PSE (0.876). It illustrate the value of all variable are excellent as all are greater than 0.9 except PSE. The highest Conbach's Alpha vale is 0.952 from PU. Hence, the results of reliability analysis indicate that the data in this study is reliable and high internal consistency.

Table 2: Descriptive Analysis

	Percentage
Gender	
Female	72.70%
Male	27.30%
Age	
19-20	19.3
21-22	60
22-23	12
24-25	3.3
25 and above	5.3
Marital Status	
Single	97.3
Married	2.7
Race	
Malay	2
Chinese	91.3
India	5.3
Bidayuh and Peranakan	1.3

Table 3: Reliability Test

Variables	Cronbach's Alpha	N of items
Adoption of Cashless Transaction System	0.907	5
Perceived Usefulness	0.952	5
Perceived Ease of Use	0.904	5
Perceived Credibility	0.900	5
Perceived Self-Efficacy	0.876	5

Multiple Linear Regression

Analysis of multiple linear regression is adopted to test the hypotheses. This is because the purpose of this study is to determine the directional relationship the independent variables: PU, PEOU, PC and PSE with the with the dependent variable, ADT. H1, H2, H3 and H4 were tested. As shown in Table 4, the R-Square in this research is 0.639. This illustrates that approximately 63.9% variations of adoption of cashless transaction system can be explained by perceived usefulness, perceived ease of use, perceived credibility and perceived self-efficacy.

All the four independent variables have shown a positive relationship with the adoption of cashless transaction system among undergraduates. The results showed that H1 is significant at $p\text{-value} < 0.01$, H2 is significant at $p\text{-value} < 0.05$, and both H3 and H4 are rejected at $p\text{-value} < 0.05$.

Table 4: Multiple Linear Regression

	Variable	Standardized Beta	P-Value
H1	PU -> ADT	0.372	.000***
H2	PEoU -> ADT	0.236	.018**
H3	PC -> ADT	0.145	.086
H4	PSE -> ADT	0.141	.076
R ²	0.639		

Notes: PU = Perceived Usefulness, PEoU = Perceived Ease of Use, PC = Perceived Credibility, PSE = Perceived Self-Efficacy, ADT = Adoption of Cashless Transaction System

** P-value<0.05

*** P-value<0.01

Discussions of the Study

As shown previously, the p-value for perceived usefulness (PU) with the undergraduates' adoption on cashless transaction systems is 0.000 which have less than p-value 0.01. Based on the findings, PU has the greatest effects. It is suggested that undergraduates' perception on the usefulness of cashless transaction systems affects their usage on cashless transaction systems. In other words, undergraduates believe that cashless transaction system is useful for them. This result is consistent with prior research studies that the usefulness of a new technology is the most basic determinant why user's using it. PU of consumers on mobile commerce has also been found to be significant to affect their usage intention (Masruri, Abdurrosyid & Nanda, 2018). Another related study on mobile banking has also proven that if the customers perceive the technology is contributing usefulness to their daily life, they will have a higher tendency to adopt the particular system because of the functional utilities (Raza *et al.*, 2017). In hospitality industry, the usage of cashless transaction systems which is online payments also found to be influenced by perceived usefulness and it can be one of a predominant factor (Bahari, Abdullah, Kamal, Johari & Zulkafli,., 2018). Thus, it is consistent with the studies conducted previously. Besides that, the p-value of the perceived ease of use (PEoU) with the undergraduates' adoption on cashless transaction systems is 0.018 which have less than the p-value 0.05, this means that there is a positive relationship between dependent variable (ADT) and independent variable (PEoU). Hence, H2 is supported. It means PEoU has contributed to the adoption of cashless transaction system among undergraduates. According to Obeid and Akram (2016), PEoU has a positive effect on attitude towards usage of e-banking. This is because e-banking is believed to be easily used by users. Moreover, in another related study on e-commerce system has also proven that the customer find less effort is needed when they perform e-commerce system. It can be explained that the higher convenience of e-commerce system will affect the undergraduates' adoption on cashless transaction systems (Budyastuti & Iskandar, 2018).

The findings for perceived credibility (PC) and perceived self-efficacy (PSE) have shown no significant relationship towards the adoption of cashless transactions system among undergraduates in Malaysia. This is mainly due to the demographic of the respondents where they are undergraduates. This is because undergraduates are technology savvy and thus their adoption towards the new system seems to be not significant challenging. Furthermore, they are born in the era of technology where they believe the relevant authorities will take the necessary precautions to protect the transaction and thus they have less concern on the PC.

Limitations of the study

Although this study meets the ideal objective, it experiences its limitations. One of the limitations in this study is its sample size, there are only 150 undergraduates which majority of the respondents are female, thus it creates a greater opportunity for further researchers to conduct the related study with a greater sample size and evenly distributed in term of gender and races. Furthermore, the data collected mostly focuses at the central to southern region, thus it is suggested that the further researchers should conduct the study throughout the whole regions of Malaysia. Besides, further researchers may further their study on the independent variables, PC and PSE by using different method because both of the variables is not significant. Finally, future researchers may adopt other than Technology Acceptance Model (TAM) in order to have a better understand the motivations of consumers in adopting new technology.

Conclusions and Implications

The findings indicated that Perceived Usefulness (PU) and Perceived Ease of Use (PEoU) are positively associated to the adoption of cashless transaction system among undergraduates. This indicated that user friendly interface should be the focus for industry players when deciding on the in design of the cashless transaction system.

Lastly, the findings for perceived credibility (PC) and perceived self-efficacy (PSE) have shown no significant positive relationship towards the adoption of cashless transactions system among undergraduates in Malaysia. This may indicated that more awareness should be created among the relevant authorities. According to OECD (2017) the development of financial technology will increase the trust level in financial products by making them more accessible, transparent and comprehensible. These developments are likely to be valuable in interacting with millennial, who expect to use technology to access financial services and who are now entering the workforce. Thus, Malaysia government has placed a significant efforts to exploit the technology in service industry. As illustrated by Malaysian Investment Development Authority [MIDA] (2019), Malaysian government is eagerly moving towards K-economy which allows companies to do business in an information technology environment and gain competitive advantages from the pool of graduates and business friendly policies. Hence, it is very important to understand the adoption level among undergraduates towards cashless transaction system in order to provide insights to government on Malaysians readiness to transform to cashless society. This is because undergraduates will be the generation that going to determine the future direction of Malaysia's economy direction.

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