

# Consumers' Attitudes Towards the Intention to Adopt Mobile Payment System: A Study on Bakong App of National Bank of Cambodia

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# ABSTRACT

Mobile payment has become popular among urban Cambodians. However, it is hard to understand the behavioural intention to adopt mobile payment system owing to a lack of studies focusing on the context of Cambodians' behaviour and preferences in adopting innovations. This study aims to identify factors affecting Cambodian users' attitude and intention in using Bakong, an inter-bank mobile payment app developed by the National Bank of Cambodia, by using the Technological Acceptance Model (TAM). The results illustrate a full support for the positive influence on intention to use mobile payment technology from perceived usefulness, perceived ease of use, attitude, perceived compatibility, and self-efficacy. Perceived trust has a slight concern to influence the Intention to adopt the mobile payment technology, and subjective norm has not fully supported from the Bakong's users at all. The findings from this study bring out some recommendations for future researchers as well as mobile payment developers.

Keywords: Bakong, Consumer Attitude, Mobile Payment, TAM, Intention



## 1 Introduction

### 1.1 Background of study

Fintech is a new financial industry that applies technology to improve activities related to finance (Schueffel et al., 2017). Amer et al. (2015) depicts the development of Fintech as a progressing handle "during which finance and technology have evolved together." It leads to numerous incremental and disruptive innovations, such as internet banking, mobile payments, crowdfunding, peer-to-peer lending, Robo-Advisory, online identification, etc. Chishti & Barberis (2016) displays how the marriage between finance and technology has led to innovation within the financial services sector, through start-up firms (e.g., eToro), at incumbent companies (e.g., Citi), at the government level (e.g., Israel), or through supraorganizations (e.g., Quick). In each of these cases, Fintech has significantly impelled advancement (Schueffel, 2017).

The combination of social and economic factors has brought an energetic and rapidly evolving blockchain ecosystem in Asia (Wang et al., 2019). While four nations have become fast-growing blockchain hubs in Asia, namely China, Japan, Singapore, and South Korea, Cambodia has been running blockchain ventures. In the last few years, Cambodians are sure to have seen the news from at least one of the several blockchain projects under way in the Kingdom such as the National Bank of Cambodia, Entapay, K-Coin, Lockcoin, KH Coin, Serey Coin, etc. According to The World Economic Forum, there are almost 200,000 participants who use Bakong mobile system (Weforum.Org, n.d., 2021).

### 1.2 Research problem

According to (Seng & Lay 2018), the results from the FinScope Consumer Survey Kingdom of Cambodia conducted in 2015 show that mobile money services are used by 36% (3.6 million) of the population, but little is known about the behavioural intention of the Bakong app. As Cambodia takes the step to adopt blockchain for the first time, Bakong is still new for every Cambodian.

Therefore, we have to study further about the Bakong System, especially the factors that enable users to adopt this platform. There is also a previous study on Bakong that concentrates on Bakong Payment System's influence to fund transfer service in ACLEDA Bank Plc. Using a qualitative approach. To add to existing understanding, our research will focus on consumers' attitude towards the intention to adopt Bakong using a quantitative approach.

### 1.3 Research objectives

This research aims to determine users' attitude and intention towards using Bakong mobile payment among Cambodian users. It is also aimed at identifying influential factors that enable the adoption of mobile payment.

### 1.4 Research question

This study aims to answer the following research question: What factors influence consumers' attitude and intention to adopt the Bakong app?



## 1.5 Significance of the study

This study benefits various stakeholders in the financial industry, including mobile payment developers, financial institutions, banks and public policy makers. Thus, mobile payment developers could use the insights to improve their mobile payment platform to serve the customers better and as well as gain more users. Therefore, this study will provide some recommendations to these stakeholders to improve their mobile banking app or mobile payment app.

# 2 Literature Review

# 2.1 Overview of Bakong system

Bakong is designed as a new platform that uses Distributed Ledger Technology (DLT) to enhance the efficiency (cost, speed, and security) of payment system (Bakong et al., 2020). The implementation of Bakong would connect all financial institutions and payment service providers under a single payment platform. It will allow for fund transfers to proceed on a real-time basis without the need for a centralized clearinghouse. Institutions that are current participants of the Fast and Secure Transfers (FAST) payment system would be able to interface directly with Bakong without making changes to their existing infrastructure.

The National Bank of Cambodia (NBC) firstly began exploring and developing Bakong in June 2018 and launched it in October 2020. Bakong is a new mobile payment service that enables easy fund transfer by combining e-wallets, mobile payments, online banking, and financial applications within one easy-to-use interface for any preferred bank account. Bakong provides fund transfers for 25 partners in Cambodia. They include commercial banks, specialized banks, microfinance institutions, and digital wallets. To be on board with the system, the participating banks and institutions need to register with NBC to obtain permission to join the network. After successful registration, they will access the Payment Gateway, so their customers can create accounts under their domain. The Payment Gateway also helps financial institutions. There is no limit to the number of funds transferred per day when using Bakong System.

# 2.2 Theoretical framework of TAM

Davis (1989) developed the Technology Acceptance Model (TAM) on the basis of the Theory of Reasoned Action (TRA) and the Theory of Planned Behaviour (TPB) by Ajzenand and Fishbein (1980) and Ajzen (1991), respectively. TAM suggests perceived usefulness (PU) and perceived ease of use (PEOU) are the main motoring sources by an individual to establish the attitude towards the adoption of specific innovations as well as display the intention of new technology adoption (Davis, 1989).

For technology acceptance fields, the intention has been well studied, including in mobile services (Wang & Li et al., 2012), mobile credit card (Leong et al., 2013; Liébana-Cabanillas et al., 2017), mobile tickets (Suki et al., 2017), mobile banking and wireless of mobile (Kim &, 2009). TAM usually needs to either expand or extend its scope through addition of new



related variables to capture the characteristics of the new technology in question (Venkatesh & Davis, 2000). TAM is a popularly used and empirically proven framework that examines technology acceptance in the field of information technology.

In spite of the fact that TAM has been through several revisions (Lee et al., 2003), it stands as a solid, impactful, and meticulous model for investigating the acceptance behaviour (Davis, 1989; Wu et al., 2011). Keramati (2012), for example, uses TAM to demonstrate service adoption in relation to mobile payment using technological and behavioural factors of mobile payment service. Some variables that were studied, including perceived ease of use (PEOU), perceived usefulness (PU), trust, compatibility, payment habit, norm, cost, convenience, and mobile payment knowledge, are fit to the criteria and research type of mobile payment adoption according to the previous studies (de Luna et al., 2019). Even though PU and relative advantages of the technological perceptions have an effect on mobile payment, trust also has a strong influence on user behaviour of mobile payment (Gao & Waechter et al., 2017). To discover the adoption of mobile payment in Singapore to be an amazing anticipator of behavioural intention (Chandra et al., 2010) extended trust with TAM. Shin (2010) also extended TAM discovering the mobile payment adoption in the US using perceived usefulness, perceived ease of use, trust, and perceived risk affect users' adoption of payment technology. Yan & Yang (2015) presented the positive impact on the user's intention to adopt the technology using trust with TAM in China.

Singh et al. (2020) studied consumer acceptance of three main mobile payment systems including SMS, NFC and QR code. The study identified subjective norms as the most essential variable influencing intention. Many previous studies also demonstrated that subjective norm is statistically correlated with individuals' behavioural intention to use m-payment (Jaradat & Faqih et al., 2014; Schierz et al., 2010; Faqih & Jaradat et al., 2015), and the perceptions of ease of use are determined by self-efficacy and perceptions of external control as well as the perceptions of usefulness by image and output quality. According to (Kim, 2015), self-efficacy has an impact on intention to use payment-type Fintech services.



Figure 1: Technology Acceptance Model (Davis, 1989).



### 2.3 Conceptual framework

Davis (1989) defines perceived usefulness (PU) as the degree to which a person believes that using a particular system would enhance his or her performance. It is one of the two main elements in the Technology Acceptance Model (TAM). Within the context of the mobile payments, PU is conducted as the scope to which other people anticipate that a mobile payment system can extensively enlarge the capacity of performance in transactions (Su, Wang, & Yan., 2018). Customers indicate new payment solutions as a benefit if these systems make their lives easier and this construct incorporates the performance (Davis, 1989; Moore & Benbasat et al., 1991). Shin and Shin (2011) illustrated a positive relationship between PU and user attitude in the context of social network games. The extensive research has provided evidence on the significant effect of PU on attitude towards usage (Muñoz, Hernández-Méndez, & Sánchez-Fernández et al., 2012).

The perceived ease of use (PEOU) is another construct of TAM that refers to the individual's perception that using a particular system is effortless or easy to do (Davis et al., 1989). If a system is perceived as easy to use, it also provides more usefulness to its users (Davis et al., 1992). Ease of use impacted users' attitude towards that system and their use intention (Gefen, Karahanna, & Straub, 2003; Teo, Lim, & Lai, 1999). PEOU is also constructed and approved by various researchers in the mobile services context (Liébana-Cabanillas et al., 2014; Phonthanikit Thaworn et al., 2015; Wang, Wang, Lin, & Tang, 2003; and Nysveen et al., 2005).

Trust plays a major role in inclining the usability of mobile payment. Mayer (1995) described "trust" as the belief of the trustor that the trustee will fulfill the trustor's expectations without taking advantage of the trustor's vulnerabilities. Jarvenpaa & Leidner (1999) have shown the positive effect of trust on consumer purchase intentions. Gefen (2000) highlighted the importance of trust in the user acceptance of Internet related technologies. According to Yan and Pan (2014), has implied that trust in online payment stands as a key initial trust towards mobile payment and when the user's experience with mobile payment is doubtful, they will depend on online payment. Mu & Lee (2017) stated that the user's intention is driven by their trust on their third-party mobile payment that they have studied on Alipay and WeChat apps environment. Perceived trust is expected to have a direct effect on behavioural intentions. Hence, we expected trust to be another variable in online payments for influencing beliefs in mobile payment adoption.

According to Roger (1962), perceived compatibility is defined as an extent to which innovation suits consumer's experiences or activities. Compatibility is defined as the degree to which mobile payment is reconcilable with existing values, behavioural patterns, and experience (Gerhardt et al., 2010). Tornatzky & Klein (1982) found that the perceived compatibility of an individual is a crucial feature leading to the acceptance of a new or particular technological innovation. There is an indication to believe that perceived compatibility has a direct influence towards intention to adopt an innovation (Mallat et al., 2006; Cooper & Zmuetd, 1990).

Subjective norm is defined as an individual's perception that most people who are important to him or her think he or she should or should not perform the behaviour in



question (Ajzen & Fishbein, 1975). In the context of mobile payment, the subjective norm is the degree to which a social environment perceives mobile payment as desirable (Schierz et al., 2010). The importance of the subjective norm in regard to the attitude towards usage has previously been established in the context of mobile internet applications (Nysveen et al., 2005). Some studies conducted in different social settings have reported that subjective norm has some empirical positive influence on behavioural intention (Eze et al., 2011; Sadi & Noordin, 2011; Linck et al., 2006; Shin, 2007; Lu et al., 2008; Gu et al., 2009). Moreover, plenty of authors have identified a direct and positive link between subjective norms and the intention to use (Jin et al., 2012; Li & Zhang, 2012; Yang et al., 2012; Yongmeng, 2013; Li et al., 2014; Jaradat & Faqih, 2014).

Self-efficacy alludes to the degree to which an individual believes that he or she has the capacity to perform a particular task/job using mobile (Venkatesh & Bala, 2008). Khraim (2011) inspected mobile banking services in Jordan concluded that self-efficacy was an important variable in their adoption. The perspective of self-efficacy with respect to consumers' mobile and online purchasing behaviour has emerged as a major determinant in biometric technology adoption and acceptance. The moderating role of self-efficacy on the adoption processes of distinctive IT domains has been inadequately addressed and few insights are accessible on how consumer's perceived self-efficacy moderates key connections of adoption theories of behaviour (Jaradat & Faqih et al., 2014). This clearly showed that perceived self-efficacy among the people played a very critical role in setting perception about ease of use of the technology and service that is being offered.



Figure 2: Conceptual Framework

All in all, this model was established to figure out the factors affecting consumers' attitude and intention to adopt and utilize existing mobile applications for online payment by combining TAM model (perceived usefulness and perceived ease of use) and external variables (perceived compatibility, trust, subjective norms and self-efficacy) that have a positive influence on the intention to adapt with mobile payment technology.



# 2.4. Operational variables

Consumer attitude refers to the initial act of purchasing a certain product or service (Ajzen, 2015). Mobile payment is defined as a special form of electronic handling of payments. Regarding the function of mobile payments, all definitions refer to the transfer of monetary value (Gerhardt et al., 2010).

Intention refers to plans act to in a particular way and represent the motivation toward the behaviour (Keat, 2009). The technology acceptance model (TAM) is an information systems theory that models how users come to accept and use a technology (Encyclopedia. (n.d).)

# 2.5 Summary of research hypotheses

This study has set up following hypotheses to investigate influential factors that enable the adoption of consumers in using mobile payment.

- H1: Perceived usefulness has a positive and significant impact on his/her attitude towards an intention to adopt Bakong Mobile Application.
- H2: Perceived ease of use has a positive and significant impact on his/her attitude toward an intention to adopt Bakong Mobile Application.
- H3: Consumer's rust has a positive and significant impact on his/her intention to adopt a mobile payment system.
- H4: Perceived compatibility has a positive and significant impact on his/her intention to adopt a mobile payment system.
- H5: Subjective norm has a positive and significant impact on the intention towards using mobile payment services.
- H6: Self-efficacy has a positive and significant impact on the intention towards using mobile payment services.
- H7: Attitude has a positive and significant impact on his/her intention to use a mobile payment system.

# 3. Research Methodology

3.1 Research design

This research employed a quantitative approach (Cooper & Schindler et al., 2007) to determine the factors influencing consumer attitude towards Bakong app. After reviewing existing studies, there are not many scientific papers focusing on mobile payment adoption using an extended TAM model. This paper focused on consumer's adoption of the mobile payment system by testing the hypotheses using an extended TAM model. The study focused on a group of individuals who have mobile devices, internet connections, and mobile payment users in the age of 18 to 40 years old, which does not necessarily suggest that the participants have adopted the services.



# 3.2 Sampling site and frame

The intended population for this study is working professionals, employees, business owners, students, and anybody who is familiar with mobile payments apps, between the age of 18 and 40. We intended to gather solid information initially from the point of view of all Cambodians living or working in Phnom Penh only.

# 3.2.1 Research area

This study was conducted in Phnom Penh, focusing on customers' attitudes towards the intention to use the Bakong mobile system. The study selected the users who utilize the existing Bakong mobile system.

# 3.2.2 Determine the sample size

The sample size was determined by to the formula  $n = (z^2 p(1-p))/e^2$ , specifically established by Cochran (1963) for infinite population size. Z is desired confidential level with Z (95%) = 1.96; P is estimate proportion with 50% = 0.5; e is desired level of precision with e = 5% = 0.05; and n is desired population. Assuming that the "e" margin error is set at 5%, we have 385. As a result, the numer of target respondents chosen for the study is 385.

# 3.2.3 Sampling procedure

The researcher employed only probability sampling design that is the random sampling technique. The method would increase a sample's statistical efficiency, adequate data for analysis and enable different research methods and procedures.

# 3.3 Research tools and instruments

The researchers collected the data from respondents through an online survey using Google Form. Google form can generate and clarify the data which displayed clear results from desired samples.

Construct	Item	References
Perceived Usefulness (PU)	<ul> <li>PU1: Using Bakong App would improve my fund transfer performance across participating banks in one platform.</li> <li>PU2: Using Bakong App would enhance my effectiveness in fund transfer performance across participating banks in one platform</li> <li>PU3: Using Bakong App would allow me to transfer money across participating banks in one platform more quickly.</li> <li>PU4: Overall, Bakong App provides a useful mode of</li> </ul>	Bhattacherjee, 2001, Daştan and Gürler, 2016 Davis, 1989 Schierz, Schilke and Wirtz, 2010
Perceived Ease of Use (PEOU)	transferring money. PEOU1: I think learning to use Bakong App is easy. PEOU2: Interaction with the tools in Bakong App is flexible. PEOU3: Interaction with the tools in Bakong App is clear and understandable. PEOU4: Overall, it is easy to interact with Bakong App.	Daştan & Gürler 2016 Davis, 1989, Schierz, Schilke and Wirtz, 2010

#### Table 1: Summary of construct measurements



Construct	Item	References	
	PC1: Using mobile transfers and/or payment services of	Moore and	
Compatibility (PC)	Bakong App fits well with my lifestyle.	Benbasat (1991)	
	PC2: Using mobile transfers and/or payment services of	Plouffe et al.	
$(\mathbf{r} \mathbf{c})$	Bakong App fits well with my habit.	(2001)	
	PC3: Using mobile transfers and/or payment services of		
	Bakong App fits well with the way I like to work.		
Subjective	SN1: People who are important to me recommend using the	Taylor and Todd	
Norm	Bakong mobile payment system.	(1995), Venkatesh	
(SN)	SN2: People who are important to me view the Bakong mobile	and Davis (2000),	
()	payment system as beneficial.	Schierz et al.	
	SN3: People who are important to me think it is a good idea to	(2010)	
	use Bakong mobile payment systems.		
	SE1: I think that I can use Bakong App system even if there	Venkatesh and	
Self-Efficacy	was no one around to tell me what to do as I go.	Bala (2008)	
(SE)	SE2: I could use Bakong App application if I had just the built-		
	in help facility for assistance.		
	SE3: I could use Bakong App application if someone showed		
	me how to do it first.		
	ATT1: Using mobile transfers and/or payment services of	Venkatesh and	
Attitude	Bakong App is a good idea.	Bala (2008)	
(ATT)	ATT2: Using mobile transfers and/or payment services of		
	Bakong App is beneficial.		
	A113: Using mobile transfers and/or payment services of Bakang App is wise		
	ATT4: Using mobile transfers and/or navment services of		
	Bakong App is interesting.		
Intention	IT1: I intend to use Bakong App in making fund transfers.	Davis (1989)	
(IT)	IT2: I intend to use Bakong App in paying for service	Chen, C. C., &	
	whenever I use.	Tsai, J. L. (2019)	
	IT3: I will increase the frequency of using Bakong App.	Venkatesh and Davis (2000)	
	IT4: I will strongly recommend others to use Bakong App.	2 uni (2000)	

Table 1: Summary of construct measurements(continued)

#### 3.4 Data collection

As the study used quantitative data analysis, the researchers collected the responses from the targeted samples, including the people who are currently using the Bakong app. However, due to the covid-19 pandemic and the need to practice social distancing, our data collection is conducted through an online survey (Google Form). The survey was shared with people in researchers' networks, such as employees in the institution, students, and lecturers, as well as through the social media channels and opened for the public in which anyone can access the link. In addition, we also requested ACLEDA Bank, with assistance from the school to help sharing the online survey to their employees at ACLEDA Bank Plc



Headquarters to voluntarily participate in the survey. As of the closing date for the survey, there were 196 respondents participated in the survey.

### 3.5 Data analysis

In the data analysis, we used descriptive statistics and focused on finding the frequencies and means. After all essential information was collected, it was subjected to analysis based on respondents' answers. Firstly, the information collected from the survey to gather the responses upon desired sample sizes will be put into the category or table of Excel sheets. The data in each category will be calculated using formulas of frequency, mean, and percentile. For a better interpretation of data in each category, the analysis was conducted as pie charts displaying the numbers and the percentage of each collected element.

### 3.6 Result of the instrument test for reliability

Cronbarch's Alpha measures internal consistency between items in scale (Blagoeva & Mijoska et al., 2017) and the extent that research with multiple-construct measurements is considerately a routine (Schmitt et al., 1996). Nunnally (1994) asserts that the Cronbach's Alpha, which values more than 0.7 indicates a high reliability.

No	Item	Pilot Cronbach Alpha (n=20)	Pilot Cronbach Alpha (n=196)
1	PU	0.949	0.945
2	PEOU	0.930	0.920
3	PT	0.936	0.923
4	PC	0.923	0.933
5	SN	0.706	0.873
6	SE	0.846	0.770
7	ATT	0.905	0.945
8	IT	0.845	0.895

Table 2: Reliability	Test of Cronbach'	's Alpha on	Each Variable
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According to the Table 2, the Cronbach alpha of all constructs scored more than 0.7 for both pilot test (n=20) and the actual results (n=196). Therefore, the constructs are good to be used and reliable. The combination of all variables statistically exceeds 0.9 which is considered a high reliability.

# 4. **Results of Discussion**

### 4.1 Demographic factor

58.67% of the sample was female, 49.21% male, and 0.51% others. In addition, the age gaps presented that the respondents' age between 16 to 26 years old has got the highest response at 49.49%, followed by the 32.65% of the age between 27 to 37 years old, 16.84% on the age between 38 to 48 years old and 1.02% on more than 48 years old respectively. For educational background, the result showcased that approximately 2.55% was high school students, 33.16% of respondents were undergraduate level, followed by 51.53% of graduate degree, while the 10.71% are with MBA degree, and the rest 1.92% is PhD graduate, respectively. Last but not least, the employment status has illustrated that the majority of



respondents were employees accumulated to 65.82%, while 9.69% of them were government officers. Whereas, the business owners were 5.61% and 14.80% were currently unemployed, and 4.08% respectively.

Table 3: Survey Demographics					
Item	Categories (N = 196)	Frequency	Percentage		
	Female	115	58.67%		
Sex	Male	80	40.82%		
	Other	1	0.51%		
	16 to 26 years old	97	49.49%		
	27 to 37 years old	64	32.65%		
Ages	38 to 48 years old	33	16.84%		
	More than 48 years old	2	1.02%		
	High school student	5	2.55%		
	Undergraduate	65	33.16%		
	Graduate	101	51.53%		
Education	MBA	21	10.71%		
	PhD	2	1.02%		
	Others	2	1.02%		
	Employee	129	65.82%		
	Government officer	19	9.69%		
Employment	Business owner	11	5.61%		
	Currently unemployed	29	14.80%		
	Others	8	4.08%		

### 4.2 Presentation of key findings

### 4.2.1 Analysis of level of agreement

The research used the 7-point rating scale, the mean of each variable explained the effective level of each factor from the respondents. The result showed that all of the variables were stated in "Agree" level based on the reference to the ranges of 7-point scale (Armstrong, 1987).

Table 4: Level of Agreement						
No	Variables	Min	Max	Mean	SD	Level of Agreement
1	PU	1.00	7.00	5.84	1.131	Agree
2	PEOU	1.00	7.00	5.43	1.139	Agree
3	PT	1.00	7.00	5.52	1.119	Agree
4	PC	1.00	7.00	5.38	1.170	Agree
5	SN	1.00	7.00	5.31	1.198	Agree
6	SE	2.25	7.00	5.41	1.022	Agree
7	ATT	1.00	7.00	5.71	1.104	Agree
8	IT	1.00	7.00	5.43	1.142	Agree

\*Note: Neutral: 3.58-4.42, Somewhat Agree: 4.43-5.28, Agree: 5.29-6.14, Strongly Agree: 6.15-7.00 Source: Author's calculation



# 4.2.2 Correlation analysis, validity & reliability test

The correlation level and validity between all constructs of this research were tested. The researchers brought 8 constructs into testing. According to (Pearson, 1926), the correlation's values range from -1 to +1 and were calculated to explore the strength between variables. That means the closer the number in each variable reaches nearly +1, the stronger correlations are, which means the more positive the relationship between two variables is (Pearson, 1926).

	PU	PEOU	PT	PC	SN	SE	ATT	IT
PU	1							
PEOU	$0.770^{**}$	1						
PT	$0.706^{**}$	$0.769^{**}$	1					
PC	$0.727^{**}$	$0.737^{**}$	$0.805^{**}$	1				
SN	0.648**	0.689**	$0.668^{**}$	$0.748^{**}$	1			
SE	$0.662^{**}$	$0.628^{**}$	$0.592^{**}$	0.632**	$0.701^{**}$	1		
ATT	0.811**	$0.729^{**}$	$0.672^{**}$	$0.759^{**}$	$0.684^{**}$	$0.728^{**}$	1	
IT	$0.722^{**}$	0.692**	0.623**	$0.722^{**}$	$0.674^{**}$	$0.707^{**}$	$0.812^{**}$	1

Table 5: Result of Pearson Correlation Matrix

\*\*. Correlation is significant at the 0.01 level (2-tailed).

4.2.3 Significance test of model fitness

Source: Author's calculation

Table 5 illustrates that all the variables are significantly correlated at the significant level of 0.01 (2-tailed). The results also showed the favourable and positive correlations between variables with the lowest of 0.592 of perceived trust towards subjective norms and highest of 0.812 of attitude with intention.

	Table 6: Result of ANOVA of Model Fitness						
Mod	el	Sum of Squares	Df	Mean Square	F	Sig.	
	Regression	181.506	7	25.929	67.115	.000	
1	Residual	72.632	188	.386			
_	Total	254.138	195				

Table 6: Result of ANOVA of Model Fitne

Source: Author's calculation

Concurring to the table above, the TAM model proposed in this study was statistically effective in examining intention to adopt mobile payment. It was apparent with a significance value of 0.000, which is smaller than 0.05.

### 4.2.3.1 First block of regression analysis

In table 7, perceived usefulness and perceived ease of use were run as independent variables while the attitude was the dependent variable. Consequently, hypothesis 1 (H1) outlined the significance level of perceived usefulness at 1%, the Beta of it accumulated to 0.612 ( $\beta = 0.612$ ), which implies that when perceived usefulness goes by 1 standard deviation, it will appear the direct impact around 0.60 towards attitude which is considered to be moderate. Moreover, hypothesis 2 (H2): perceived ease of use (PEOU) is significant at 1%, and has  $\beta = 0.258$ , which demonstrated that when perceived ease of use remains at 1



standard deviation, it will slowly increase on the attitude at approximately 0.3. Thus, H2 was not supported.

		Ũ				
		Unstand	lardized	Standardized		
		Coeffi	cients	Coefficients		
Mod	lel	В	Std.Error	Beta	t	Sig.
1	(Constant)	.871	.241		3.612	.000
	PU	.597	.062	.612	9.654	.000
	PEOU	.250	.061	.258	4.063	.000

Table 7: Regression of PU and PEOU towards Attitude

Dependent Variable: Attitude, PU: Perceived Usefulness, PEOU: Perceived Ease of Use, Source: Author's calculation

### 4.2.3.2 Second block of regression analysis

As for Table 8, perceived trust, perceived compatibility, subjective norm, self-efficacy, and attitude stood as independent variables to run for intention to use as a dependent variable. The result showcased the significance level of perceived compatibility, self-efficacy, and attitude as they were. For perceived trust, it demonstrated the  $\beta = -.026$ , which implies that trust does not affect the intention to use the technology. The table measurably showed the positive impact of perceived compatibility towards intention to use Bakong App with the significance level of  $.021^{**}$  and was a potential factor within the variables with the standard  $\beta = .189$ . The result suggests that subjective norm is not the main reason for Bakong's users' intention to use. Moreover, self-efficacy has a positive impact on intention to use the Bakong app with the significance level of  $.003^{**}$  and was another potential factor within the variable with the variable with the standard  $\beta = .187$ . From the results, perceived compatibility, self-efficacy, and attitude were completely significant, but perceived trust and subjective norm are not fully supported.

Model		Unstan Coeff	dardized icients	Standardized Coefficients	t	Sig.
		В	Std. Error	Beta		
1	(Constant)	.129	.265		.486	.627
	PT	027	.069	026	388	.699
	PC	.184	.079	.189	2.333	.021
	SN	.077	.063	.081	1.222	.223
	SE	.209	.070	.187	2.977	.003
	ATT	.512	.072	.495	7.125	.000

Table 8: Regression of PT, PC, SN, SE, and ATT towards Intention to use Bakong app

Dependent Variable: Intention to use, Source: Author's calculation

#### 4.2.4. Discussions

Table 9 exhibits the summary results from the tested hypotheses with the regression analysis.



Table 9: Hypotheses Result					
Hypotheses	Sig	Result			
H1: Perceived Usefulness has positive and significant impact on his/her					
attitudes towards an intention to adopt Bakong Mobile Application.	.000	Supported			
H2: Perceived Ease of Use has positive and significant impact on					
his/her attitudes toward an intention to adopt Bakong Mobile	.000	Supported			
Application.					
H3: Consumer's Trust has positive and significant impact on his/her					
intention to adopt a mobile payment system.	.699	Unsupported			
H4: Perceived Compatibility has positive and significant impact on					
his/her intention to adopt a mobile payment system.	.021	Supported			
H5: Subjective norm has positive and significant impact on the intention					
towards using mobile payment services.	.223	Unsupported			
H6: Self-efficacy has positive and significant impact on the intention					
towards using mobile payment services.	.003	Supported			
H7: Attitude has positive and significant impact on his/her intention to	.000	Supported			
use a mobile payment system.					

The study found that both perceived usefulness and perceived ease of use had a positive impact on attitude towards the intention to use Bakong app. Simultaneously, the study aligns with the existing research on online shopping payment (Ramayah & Ignatius, 2005); electronic banking (Jahangir & Begum, 2008); and mobile payment services (Schierz et al., 2010). The result infers that Bakong app users perceived the system as practically useful in terms of making payments. The outcome also implies that the app was convenient for the customers to use with the simplicity and understand ability of the app performance. Nevertheless, when integrating trust (H3) into the model, the result on this hypothesis showed that trust did not support the intention to adopt the technology (t = -.388, Sig.  $\le .699$ ) due to existing doubts about using the app based on the majority of the sample. However, the result was in contrast with previous findings by Wong and Mo (2019) that perceived trust has a positive impact on consumer consumers. Likewise, the result also aligns with many existing studies on mobile payment of (Mu & Lee, 2017); (Y. Lu et al., 2011); and mobile banking (Gu et al., 2009), which showed a genuinely positive influence of trust on users' intentions to adopt a particular mobile payment system. On the other hand, perceived compatibility (H4) is proven to be a significant factor that influences the consumers' intention to use the Bakong system. This finding is also supported by past studies such as the studied of mobile service in Vietnam (Liu & Tai, 2016), mobile payment services (Schierz et al., 2010), and mobile service in Thailand (Phonthanukitithaworn et al., 2016). This result implies the use of Bakong app is compatible with users' daily lifestyle, working, and preferences in monitoring their fund transfers. However, when subjective norm is integrated into the model (H5), it is discovered to have a less influence to the users' intention to use the technology. The finding interprets that there is still doubt from most of sample respondents with subjective norm in supporting the intention to use the Bakong app.



Nevertheless, the result is contrary to existing studies such as the studies of factors influencing teachers' intention to use technology (Teo, 2011), the citizen's intention to use e-government services (Gultom, 2020), the behavioural intention to use services of banking system (Algasa et al., 2014), and acceptance of mobile payment in restaurant industry (Cobanoglu et al., 2015). Their research findings suggest that users are influenced by their peers in their decision regarding the intention to adopt a technology. Furthermore, the result showcased that self-efficacy (H6) had a significant impact on the consumers' intention to use the technology system. In other words, the users are more likely to adopt the mobile payment system if they believe and are confident in their skills, knowledge, and ability to perform the platform independently. The result is consistent with the results from previous studies that focus on self-efficacy in the context of mobile payment adoption, such as (Kim et al., 2016), (Jaradat & Faqih, 2014). Last but not least, the essential finding that defined mobile payment adoption was attitude towards intention to use the technology. There is a crucial support for the significance of consumers' attitude on the intention to adopt the mobile payment, resulting in (t = 7.125, Sig.  $\leq$  .000) and supporting H7 pointing out that consumer's attitude has a positive influence on intention to use a mobile payment system. Furthermore, it positively influenced the intention to use mobile payment, which was consistent with Schierz et al. (2010). This outcome reveals that after Cambodian users experienced a mobile payment system, they found it was personally desirable, beneficial, interesting, and modern.

### 5. Conclusion and Recommendations

This research study adopted the Technology Acceptance Model (TAM) with an extension of four variables, including perceived compatibility, trust, subjective norms, and self-efficacy. The result of the research presented that the TAM model was highly significant when adding two more variables including perceived compatibility and self-efficacy. This finding suggests that perceived compatibility and self-efficacy should be added to TAM in a similar study field. However, the outcome finding showed that trust and subjective norm were insignificant when added into TAM. Therefore, trust and subjective norms should not be integrated into the TAM, since it was unsupported when these two variables were integrated into the model.

The study also provides some essential recommendations for practice. Firstly, according to the outcome, most respondents use the Bakong app only once per month, and most are young adults from strong educational background. Thus, it indicates that the Bakong system has less frequent usage, and there are not many people utilizing it yet. Therefore, we highly suggest the builder or developer of the Bakong system consider running more advertising and marketing campaigns to attract more users. Secondly, the research finding stated that perceived usefulness, perceived ease of use, perceived compatibility, and self-efficacy have a positive and significant influence on attitude and intention to adopt mobile payment. This result might assist the marketers in promoting mobile payment adoption and developers to make a proper decision on establishing data by concentrating on increasing the usability and improving the functionality to respond to the



needs of loyal users or new users. Likewise, as it is highly challenging for developers to design systems that offer a mobile environment with highly usable features since mobile technology has limitations in features, designs, usage, and implementation, the developers should investigate how to deliver an appropriate and effective interface design for a mobile device. It means that financial institutions and banks need to ensure the mobile payment services offered to customers meet their current values, needs, and lifestyle. Lastly, the result of the level agreement showed that trust and subjective norms were agreed to impact the intention to adopt the Bakong system by users in Cambodia. Since Cambodians are more likely to adopt the Bakong app when they consider the system reliable and trustworthy, NBC should advertise more about the high security of performing fund transfer transactions on the Bakong app. Moreover, the agreement of subjective norm in behavioural intention suggests that individual social connections and the social status of group affiliation, such as family members, friends, and colleagues, lead to adopting the Bakong app in Cambodia. Consequently, the service providers, including Bakong developers, financial institutions, and banks, potentially need to consider people's social connections and status to increase the degree of adoption of mobile payment services. Therefore, promoting mobile payment services through the social and community network may be useful for increasing the level of adoption in Cambodia.

The study has some limitations. The main scope of this paper focuses on determining the attitude and intention of Bakong users in Cambodia; however, the model was adopted from various prior studies that mostly took place in abroad context. Thus, it does not ensure the accuracy of the model application in the country. In the meantime, the study only includes Bakong platform that currently have limited users, and as a result, only a limited number of respondents contributed in the survey form. The survey questionnaire itself is also shared with a small group of people who mostly reside near researchers' area. Therefore, the sample study can only represent people who live in Phnom Penh rather than more diverse population like provinces across the country. Moreover, given the limited time of research and the global pandemic situation, the researchers also find it challenging to have more access to a bigger sample size that can genuinely represent the whole population.

Hence, with mentioned limitations, further research should consider the following:

- Next researchers should target a larger sample size in order to make the data more comprehensive.
- The items to measure the constructs were entirely adapted from the previous studies. Therefore, further research should implement factor analysis on the questions.
- Future researchers should extent the study on factors that influence people not to use the Bakong app too. It will help researchers receive a wider context and different types of respondents.
- Future research may deploy qualitative techniques or mixed methods to acquire a more in-depth understanding and perspectives of users regarding mobile payment adoption.



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