The effects of factors influencing on user behavior intention to use mobile payment: Evidence from Cambodia

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CHRONICLE	ABSTRACT
	Mobile payment is considered as a technology innovation which is being exploited and further expanded in both developed and developing or emerging countries. It is considered as an alternative method to cash payment method. This study is employed with the objective of exploring how Cambodian user behavior intention is affected by perceived transaction convenience, perceived transaction speed, social influences, and facilitating condition. Each factor is measured by different items and there are 38 items developed in this study. The data is collected by distributing questionnaires to Cambodian users and 329 questionnaires are collected successfully.

1. Introduction

Cambodia, a 16 million resident country, is geographically located in ASEAN. The country achieves gross domestic product (GDP) at US$24.1 billion in 2018 (The World Bank, 2019a). GDP growth rate in 2017 and 2018 is 7.0% and 7.5% respectively and the momentum is the same in 2019 and 2020 (The Asian Development Bank, 2019). Gross national income (GNI) of Cambodia is improved significantly compared to 2000s periods, from US$300 per year in 2000 to more than US$1,421 in 2018 (The World Bank, 2019a). Inflation rate is also controllable at 2.6% in 2018 compared to 3.2% in 2017 although current account balance is still observing deficit status (The Asian Development Bank, 2019). Cambodia is also increasingly integrating with the global economic and it joins lower-middle income status by the end of 2025 (The World Bank, 2019b). Along with economic development, Cambodian government targets developing its banking system. According to National Bank of Cambodia (2019), total banking asset in Cambodia was grown at 21.4% in 2018 and it is equivalent to more than US$34.5 billion or 143.6% to national GDP. There are more than 43 commercial banks which are operating in Cambodian banking system. The market is explored by financial lease companies, foreign commercial banks, and

micro-finance institutions (U.S. International Trade Administration, 2018). In spite of that, Cambodian residents still have low access to formal financial services (Seng & Lay, 2018). Being aware of this issue, National Bank of Cambodia (NBC) puts payment systems as one of the strategic directions to further develop the country's banking system, to increase formal financial services to different people, to reduce transaction cost, and to stabilize the financial system stability (NBC, 2019).

The development of payment system in Cambodia is supported by innovative technology solutions provided by financial technology (fintech) company (International Monetary Fund, 2018). According to NBC (2019), electronic payment and mobile payment system are playing a crucial role financial inclusion and it is important setup to support Cambodia to integrate with other countries in ASEAN. The application of mobile payment system in Cambodia is promised since mobile phone is popular and mobile subscriber is 173% (Open Institute, 2016). Behind that, Cambodia has 1.5 million people who are working overseas and the demand of money transfer through online channel is becoming more important (Fintech News, 2018). Moreover, the development of mobile technology gives the opportunity to poor and low-income people to access formal financial services (Ouma et al., 2017). Therefore, it is believed that mobile payment is to become the certain trend in Cambodia. This research paper is developed with the objective of analyzing current behavior intention of Cambodian users towards mobile payment services. It is perceived that previous researchers only focus on the role of mobile payment to improve financial inclusion of the country (Seng & Lay, 2018; Lay, 2017). Currently, there are numerous mobile payment service providers in Cambodia but there are no empirical evidences found in terms of behavior intention towards this payment service. By employing four factors of Unified theory of acceptance and use of technology (UTAUT), this paper explains how behavior intention towards mobile payment services is influenced by perceived transaction convenience, perceived transaction speed, social influences, and facilitating condition.

2. Literature Survey

Mobile payment (mobile payment) is the application of mobile technologies to deliver a new payment method to individual customers (Jain, 2014). Mobile payment is also defined as the transaction through mobile network (Richter, 2017). It is reported that more than 3 billion smartphones will be used by 2020 (eMarketer, 2016). The transaction through different mobile devices is growing subsequently (Dotzauer & Haiss, 2017). Users in developed countries like U.S. prefer purchasing goods through their smartphone (Kang et al., 2015). Many applications are developed and installed into the users' mobile devices to search for production information and comparison, to place their orders, to purchase, and to provide their feedbacks online (Kerviler et al., 2016). Some giant technologies like Apple Inc. and Samsung introduce their own technologies to integrate mobile payment services to their smartphones (Gerstner, 2016). Estimated revenues from mobile payment reaches nearly US$800 billion in 2017 and its value is projected exceedingly US$1,000 in 2019 (The Statista, 2018). World Pay (2017) reports that e-wallet which is known as mobile payment service increases its share in global payment from 18% in 2016 to 46% by 2021. In this context, mobile payment services are expected replacing cash payment method due to its convenience and the integration of extra services (Staykova & Damsgaard, 2015). However, mobile payment is still in early stage of development and therefore it lacks of standards, posing the concerns to the users (Liu et al., 2015). Previous literatures confirm that the expansion of mobile payment is depended on both the users, the merchant, and the providers (Slade et al., 2014; Thakur & Srivastava, 2014; Pidugu, 2015). The values of mobile payment are perceived as it brings the convenience to the users due to less cash carry (Teo et al., 2015), higher secure for higher value of transactions (Leong et al., 2013), and improve individual financial management (Oliveira et al., 2016). Mobile payment services are carried out by using communication technologies. According to Mathew (2004), there are some common technologies used in mobile payment services, namely short message services (SMS), near field communication (NFC), and radio frequency identification (RFID). SMS is oldest communication technology while NFC and RFID are developed recently and they are developed to resolve the limitation of SMS as

it cannot be integrated by different value-added services (Gerstner, 2015). According to Chae and Hedman (2015), NFC is better technology since it allows the service providers to integrate higher security technology such as biometric protection and different value-added services such as mobile wallet.

3. Research Model and Hypothesis

The research model is depicted in Fig. 1 in which behavior intention receives direct effects from four factors, namely social influence, facilitating condition, perceived transaction convenience, and perceived transaction speed.
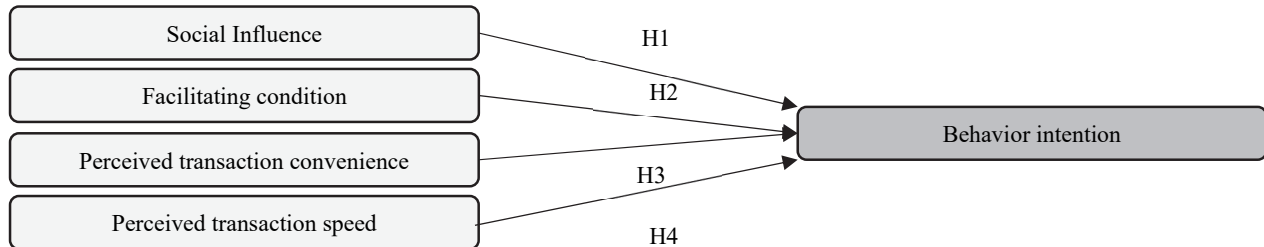

Fig. 1. Research model

3.1 Social influence

Social influence is defined as the situation of individual behavior is affected by other people (Karahanna et al., 1999). There are empirical evidences to confirm significant effect of social influence on behavior intention towards technology innovation (Martins et al., 2014; Yu, 2012). A survey research is conducted by Abrahao et al. (2016) amongst Brazilian user dictates that social influence plays prominent role. Similar finding is found in the survey of Khan and Alshare (2015) and social influences have positive and significant effects to behavior intention. Cambodia is in Asia when the culture and other people's viewpoint have significant effects to individual behavior. Thus, the first hypothesis is proposed as

H_1: Social influences has significant effect on behavior intention.

3.2 Facilitating condition

Facilitating condition refers to the users' skills to configure their mobile devices for different purposes (Yu, 2012). Empirical evidence indicates that facilitating condition is important explanatory variable to behavior intention. Indeed, when Chen and Chang (2013) survey 189 respondents to capture their attitude towards the use of NFC technology, they identify that facilitating condition has significant effect on behavior intention. Miladinovic and Xiang (2016) conduct quantitative research method among users of mobile shopping services and they confirm that the regression weight of facilitating condition to explain behavior intention is significant. However, facilitating condition does not affect behavior intention in an empirical evidence developed and published by Akar and Mardikyan (2014). Thus, the second hypothesis is proposed as follows:

H_2: Facilitating condition has significant effect on behavior intention.

3.3 Perceived transaction convenience

Perceived transaction convenience is defined as the users' perception of a transaction upon on time and effort (Berry et al., 2002). In a study of mobile payment, convenience of transaction is one of the core benefits of this payment option and it reduces the cash in hand of users (Chen, 2008). Although perceived transaction convenience is found significantly impacting on electronic commercial activities (Eastin, 2002), later empirical evidences provided by Teo et al. (2015) confirm its significant role to behavior intention. Hayashi (2012) identifies that when users feel mobile payment transaction can be done easily

and conveniently, they are willing to use this payment method. Liu and Tai (2016) confirm that perceived transaction convenient has indirect effect to behavior intention to use mobile payment. Thus, the third hypothesis is proposed:

H₃: Perceived transaction convenience has significant effect on behavior intention.

3.4 Perceived transaction speed

Perceived transaction speed is defined as the speed of finishing a transaction made by the users (Chen, 2008). In mobile banking services, the higher perceived transaction speed, the higher use of mobile banking services (Yang, 2009). Recent development of mobile connectivity technology enables the users to fasten the process of making payment through their mobile devices (Carlsson et al., 2006). In the study about user behavior intention towards the Internet, Lin and Lu (2003) identify that the connection speed is most important factor. Zhou and Seah (2015) indicate that transaction speed is the determinant of public adoption of mobile electronic government. Seetharaman et al. (2017) highlight the role of transaction speed to behavior intention of mobile wallet users in Singapore. Thus, the last hypothesis is proposed:

H₄: Perceived transaction speed has significant effect on behavior intention.

4. Research Methodology

 A questionnaire is used to collect the data for hypothesis testing. The questionnaire has 38 items in which social influence is measured by 7 items, facilitating condition is measured by 8 items, perceived transaction convenience is measured by 7 items, and perceived transaction speed is measured by 7 items, and behavior intention is measured by 9 items. The data is collected from questionnaires and there are 329 respondents to be participated into the survey. They provide their attitude towards each item through Likert scale of 5 points (1 – strongly disagree, 2 – disagree, 3 – neutral, 4 – agree, 5 – strongly agree). The characteristics of the respondents are identified by using demographic variables (gender, age, education, marital status, and monthly income). Quantitative research method is applied with some statistical analyses to be conducted, including descriptive statistics, reliability test, exploratory factor analysis (EFA), and structure equation modelling (SEM).

5. Empirical Analysis

5.1. The characteristics of the respondents

The characteristics of 329 respondents are summarized in Table 1. Cambodian users are using mobile payment services which are being provided by True Money, Pi Pay, Electronic cash of ABA Bank, electronic money of Metfone, SmartLuy, and Wing. In which, highest number of respondents is using e-money by Metfone (229 respondents, 69.60%). There are three main purposes of using mobile payment, including paying bills, transferring money, and purchasing products and services online. Obtained result shows that Cambodian prefers using mobile payment to pay their bills (168 people, 51.06%). There is significant number of respondents who are using mobile payment for transferring money (125 people, 37.99%). In addition, the number of respondents who perform at least 3 transactions through mobile payment services is 254 people (77.20%). Descriptive statistics show that only 83 female respondents who are participated into the survey (25.23% of the sample). Most of the respondents are less than 35 years old (310 people, 94.22%). In which, the age group of 21-25 and 26-30 consume the highest number of respondents. The sample includes some people who are 46-50 years old but none of them are more than 50. In the sample, there are 245 respondents who achieve bachelor education, 56 people achieve master degree, and 28 people only has high school as highest education. The occupation of 329 respondents is revealed and obtained result shows that 237 respondents are professionals, 31 respondents are managers, 11 respondents are students, and 40 respondents are self-employed. Finally, monthly income is captured and it is divided into less than 1 million Riel, 1-3 million Riel, 3-5 million Riel, and more than 5 million Riel and 235 respondents have monthly income more than 3 million Riel, 72 respondents earn 1-3 million Riel, and 22 respondents earn less than 1 million Riel per month. Obtained result provides the first insight of Cambodian mobile payment users.

Table 1
Demographic description

Variables	Characteristics	Number	%	Variables	Characteristics	Number	%
	True Money	11	3.34	Marital	Single	251	76.29
	Pi Pay	20	6.08	(n=329)	Married	78	23.71
Providers	E-cash	9	2.74	Occupation	Professional	237	72.04
(n=329)	E-money	229	69.6	(n=329)	Management	41	12.46
	SmartLuy	11	3.34		Student	11	3.34
	Wing	49	14.89		Self-employed	40	12.16
Purposes	Pay bills	168	51.06	Monthly	Less than 1 million	22	6.69
(n=329)	Transfer money	125	37.99	Income	1-3 million Riel	72	21.88
	Purchasing products/services online	36	10.94	(n=329)	3-5 million Riel	155	47.11
	One mobile payment transaction	5	1.52		More than 5 million	80	24.32
Frequency	Two mobile payment transactions	70	21.28	Gender	Male	246	74.77
(n=329)	Three mobile payment transactions	105	31.91	(n=329)	Female	83	25.23
	More than three mobile payment	149	45.29	Education	High school and below	28	8.51
Age	Less than 20	19	5.78	(n=329)	Bachelor	245	74.47
(n=329)	21-25	111	33.74		Master	56	17.02
	26-30	130	39.51				
	31-35	50	15.2				
	36-40	9	2.74				
	41-45	8	2.43				
	46-50	2	0.61				

5.2. Descriptive statistics

Descriptive statistics provides the mean value and standard deviation of each item (See Table 2):

Table 2
Descriptive statistics

Items	N	Min	Max	Mean	Std. Deviation	Items	N	Min	Max	Mean	Std. Deviation
SI1	329	1	5	3.57	1.031	PTC5	329	1	5	3.43	1.172
SI2	329	1	5	3.51	1.068	PTC6	329	1	5	3.94	0.98
SI3	329	1	5	3.48	1.054	PTC7	329	1	5	3.34	0.984
SI4	329	1	5	3.47	1.129	PTS1	329	1	5	3.32	1.155
SI5	329	1	5	3.5	0.898	PTS2	329	1	5	3.45	1.173
SI6	329	1	5	3.34	1.142	PTS3	329	1	5	3.2	1.183
SI7	329	1	5	3.53	0.904	PTS4	329	1	5	3.47	1.153
FC1	329	1	5	3.56	0.98	PTS5	329	1	5	3.38	1.041
FC2	329	1	5	3.28	0.878	PTS6	329	1	5	3.4	0.992
FC3	329	1	5	3.57	1.034	PTS7	329	1	5	3.45	0.933
FC4	329	1	5	3.63	0.759	BI1	329	1	5	3.79	1.043
FC5	329	1	5	3.44	1.011	BI2	329	1	5	3.75	1.067
FC6	329	1	5	3.65	0.861	BI3	329	1	5	3.81	0.993
FC7	329	1	5	3.7	0.875	BI4	329	1	5	3.78	1.005
FC8	329	1	5	3.28	0.824	BI5	329	1	5	3.15	1.062
PTC1	329	1	5	3.58	0.894	BI6	329	1	5	3.84	0.972
PTC2	329	1	5	3.77	0.856	BI7	329	2	5	3.82	0.761
PTC3	329	1	5	3.45	0.952	BI8	329	1	5	3.78	0.971
PTC4	329	1	5	3.81	1.091	BI9	329	1	5	3.78	1.01

Behavior intention has 9 items. Mean values of BI1-BI9 are 3.79, 3.75, 3.81, 3.78, 3.15, 3.84, 3.82, 3.78, and 3.78, respectively. Only mean value of BI5 is more than 3.5. Other items have mean values more than 3.5. Only the statement of Cambodian users will provide personal information to mobile payment services without hesitate is neither agreed nor disagreed by the respondents. Social influence has 7 items. Mean values of SI1-SI7 are 3.57, 3.51, 3.48, 3.47, 3.50, 3.34, and 3.53. Only SI3, SI4, and SI6 have mean values less than 3.5. SI1, IS2, SI5, and SI7 have mean values more than 3.5. It concludes that Cambodian users agree that mobile payment is compatible with their daily activities, mobile payment use is affected by other people, mobile payment is more important than traditional payment, and their

decision of using Gmobile payment is affected by advertising contexts.

Facilitating condition has 8 items. Mean values of FC1-FC8 are 3.56, 3.28, 3.57, 3.63, 3.44, 3.65, 3.70, and 3.28, respectively. Herein, FC2, FC5, and FC8 have mean values less than 3.5 and other items have mean values more than 3.5. It indicates that Cambodian users agree that they know how to use mobile payment, their mobile devices' performance is not affected when using mobile payment, and they are voluntarily using mobile payment.

Perceived transaction convenience has 7 items. Mean values of PTC1-PTC7 are 3.58, 3.77, 3.45, 3.81, 3.43, 3.94, and 3.34, respectively. Thus, only PTC3, PTC5, and PTC7 have mean values between 2.5 and 3.5. Cambodian users acknowledge that they can use mobile payment with convenience, mobile payment is not complicated, they can perform mobile payment anytime, and they are updated by transaction details after mobile payment is made, and their issues are resolved quickly by the providers.

Perceived transaction speed has 7 items. Mean values of PTS1-PTS7 are 3.32, 3.45, 3.20, 3.47, 3.38, 3.40, and 3.45, respectively. Herein, all items have mean values less than 3.5 and 2.5. Cambodian users are neither agreed nor disagreed with the statements of download speed of mobile payment services satisfies them, no-queue for transaction since everything is done virtually, attractive mobile payment's website design, fast responses, mobile payment saves times, and real-time updates.

5.3. Reliability analysis

Reliability test is conducted and obtained result is presented below:

Table 3
Reliability test analysis

Factors	Cronbach's alpha	Item	Corrected item-total correlation	Cronbach's alpha if Item deleted
Behavior intention	0.897	BI1	0.690	0.884
		BI2	0.603	0.891
		BI3	0.589	0.892
		BI4	0.678	0.885
		BI5	0.543	0.896
		BI6	0.650	0.887
		BI7	0.942	0.871
		BI8	0.681	0.885
		BI9	0.675	0.885
Facilitating condition	0.899	FC1	0.643	0.890
		FC2	0.717	0.883
		FC3	0.583	0.897
		FC4	0.868	0.873
		FC5	0.605	0.895
		FC6	0.761	0.879
		FC7	0.651	0.889
		FC8	0.729	0.883
Social influences	0.895	SI1	0.713	0.878
		SI2	0.718	0.877
		SI3	0.669	0.883
		SI4	0.653	0.886
		SI5	0.819	0.868
		SI6	0.585	0.894
		SI7	0.769	0.873
Perceived transaction speed	0.873	PTS1	0.525	0.872
		PTS2	0.599	0.862
		PTS3	0.598	0.863
		PTS4	0.582	0.864
		PTS5	0.766	0.840
		PTS6	0.772	0.840
		PTS7	0.785	0.840
Perceived transaction convenience	0.862	PTC1	0.576	0.850
		PTC2	0.636	0.843
		PTC3	0.624	0.844
		PTC4	0.601	0.848
		PTC5	0.613	0.848
		PTC6	0.784	0.821
		PTC7	0.621	0.844

Cronbach's alpha of behavior intention is 0.897 and it is higher than minimum required value as 0.7. Nine items of this factor have corrected item-total correlation more than 0.3 that is listed in the third column of Table 3 (*Corrected item-total correlation: BI1 = 0.690, BI2 = 0.603, BI3 = 0.589, BI4 = 0.678, BI5 = 0.543, BI6 = 0.650, BI7 = 0.942, BI8 = 0.681, BI9 = 0.675*). The last column of Table 3 provides the new Cronbach's alpha when one item is deleted. When deleting each item of behavior intention, none of new Cronbach's alpha has value more than 0.897 (*Cronbach's alpha if item deleted: BI1 = 0.884, BI2 = 0.891, BI3 = 0.892, BI4 = 0.885, BI5 = 0.896, BI6 = 0.887, BI7 = 0.871, BI8 = 0.885, BI9 = 0.885*). It is concluded that this factor has very good reliability level.

Cronbach's alpha of facilitating condition is 0.899 and it is higher than 0.7. All items of this factors have corrected item-total correlation more than 0.3 (*Corrected item-total correlation: FC1 = 0.643, FC2 = 0.717, FC3 = 0.583, FC4 = 0.868, FC5 = 0.605, FC6 = 0.761, FC7 = 0.651, FC8 = 0.729*). The last column shows that when deleting one item of facilitating condition, new Cronbach's alpha values are less than 0.899 (*Cronbach's alpha if item deleted: FC1 = 0.890, FC2 = 0.883   , FC3 = 0.897, FC4 = 0.873, FC5 = 0.895, FC6 = 0.879, FC7 = 0.889, FC8 = 0.883*). It is concluded that facilitating condition has very good reliability level or the internal consistency between items of facilitating condition is very high.

Cronbach's alpha of social influences is calculated at 0.895 and it is higher than 0.7. Corrected item-total correlation of all items belonged to social influences are more than 0.3 (*Corrected item-total correlation: SI1 = 0.713, SI2 = 0.718, SI3 = 0.669, SI4 = 0.653, SI5 = 0.819, SI6 = 0.585, SI7 = 0.769*). Cronbach's alpha when deleting each item of social influences are all less than 0.895 (*Cronbach's alpha if item deleted: SI1 = 0.878, SI2 = 0.877, SI3 = 0.883, SI4 = 0.886, SI5 = 0.868, SI6 = 0.894, SI7 = 0.873*). Thus, this factor has good internal consistency between its items.

Cronbach's alpha of perceived transaction speed and perceived transaction convenience are calculated at 0.873 and 0.862. Both of values are higher than 0.7. Corrected item-total correlation values of each item is more than 0.3 (*Corrected item-total correlation: PTS1 = 0.525, PTS2 = 0.599, PTS3 = 0.598, PTS4 = 0.582, PTS5 = 0.766, PTS6 = 0.772, PTS7 = 0.785, PTC1 = 0.576, PTC2 = 0.636, PTC3 = 0.624, PTC4 = 0.601, PTC5 = 0.613, PTC6 = 0.784, PTC7 = 0.621*). The deletion of these items do not increase Cronbach's alpha of perceived transaction speed more than 0.873 (*Cronbach's alpha if item deleted: PTS1 = 0.872, PTS2 = 0.862, PTS3 = 0.863, PTS4 = 0.864, PTS5 = 0.840, PTS6 = 0.840, PTS7 = 0.840*) and Cronbach's alpha of perceived transaction convenience more than 0.862 (*Cronbach's alpha if item deleted: PTC1 = 0.850, PTC2 = 0.843, PTC3 = 0.844, PTC4 = 0.848, PTC5 = 0.848, PTC6 = 0.821, PTC7 = 0.844*).

5.4. EFA analysis

EFA analysis is conducted and obtained result is summarized in Table 4. All items of behavior intention, social influences, facilitating condition, perceived transaction speed, and perceived transaction convenience are inputted to EFA analysis. KMO value is achieved at 0.854 and it is higher than 0.5. Bartlett's test is significant at 95% confidence level. Both KMO and Bartlett's test pass the requirement of EFA. After EFA is run, the items are grouped into specific components. There are 5 components with initial eigenvalues more than 1.0 and other components with initial eigenvalues less than 1.0 are removed.

Component 1 is behavior intention with all items have factor loading values more than 0.5. BI7 has highest factor loading value (0.946) and it has highest effect to component 1 while BI3 has smallest factor loading value (0.630).

Component 2 is facilitating condition with all items have factor loading values more than 0.5. FC4 has highest factor loading value (0.906) and it has highest effect to component 2 while FC3 has smallest factor loading value (0.694).

Table 4
EFA analysis result after Varimax rotation

| | | | | KMO = 0.854 | |
| | | | | Bartlett's test = 7389.281; p-value < 0.0001 | |
Component	Initial Eigenvalues	% of Variance	Item	Factor loading	Communalities
Component 1	7.134	18.774	BI1	0.779	0.614
			BI2	0.671	0.478
			BI3	0.630	0.475
			BI4	0.753	0.583
			BI5	0.644	0.436
			BI6	0.722	0.544
			BI7	0.946	0.927
			BI8	0.742	0.591
			BI9	0.722	0.588
Component 2	5.203	13.692	FC1	0.719	0.546
			FC2	0.780	0.665
			FC3	0.694	0.491
			FC4	0.906	0.841
			FC5	0.705	0.510
			FC6	0.824	0.694
			FC7	0.744	0.570
			FC8	0.787	0.688
Component 3	4.062	10.690	SI1	0.804	0.654
			SI2	0.789	0.653
			SI3	0.757	0.586
			SI4	0.740	0.567
			SI5	0.873	0.786
			SI6	0.684	0.470
			SI7	0.827	0.737
Component 4	3.397	8.939	PTS1	0.592	0.433
			PTS2	0.696	0.495
			PTS3	0.705	0.510
			PTS4	0.690	0.494
			PTS5	0.845	0.732
			PTS6	0.858	0.754
			PTS7	0.862	0.755
Component 5	3.058	8.047	PTC1	0.704	0.504
			PTC2	0.721	0.556
			PTC3	0.722	0.542
			PTC4	0.691	0.522
			PTC5	0.735	0.558
			PTC6	0.823	0.767
			PTC7	0.729	0.541

Component 3 is social influences with all items have factor loading values more than 0.5. SI5 has highest factor loading value (0.873) and it has highest effect to component 3 while SI6 has smallest factor loading value (0.684).

Component 4 and component 5 are named as perceived transaction speed and perceived transaction convenience and all items have factor loading values more than 0.5. In component 4, PTS7 has highest factor loading value (0.862) and it has highest effect to component 4 while PTS1 has smallest factor loading value (0.592).

In component 6, PTC6 has highest factor loading value (0.823) and it has highest effect to component 1 while PTC4 has smallest factor loading value (0.691). Achieved result from EFA confirms that the proposed research model is good for using because none of the items which is belonged to one factor is grouped to another factor.

5.4. Evaluation of research model

It is denoted that Chi-square/df (CMIN/DF) is 1.822 and it is lower than 5. CFI value is calculated at 0.926 which is higher than 0.9 and RMSEA is 0.050 which is less than 0.08. According to the results, Normed Chi-Square, CFI and RMSEA qualify the benchmark and suggest a good fit. It is concluded the model is perfectly fit with the dataset. In the next section, the researcher goes to Structural Model Analysis (See Fig. 2 and Fig. 3).
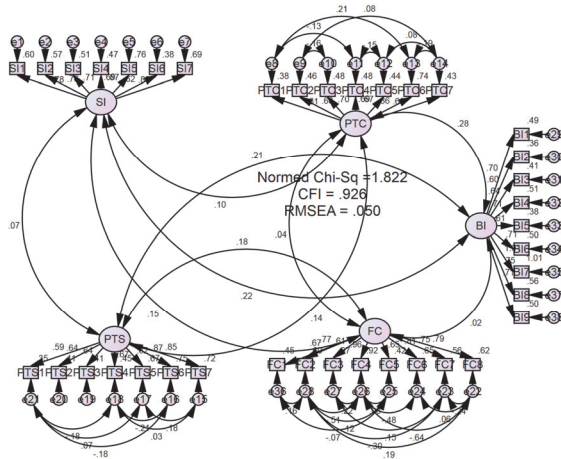
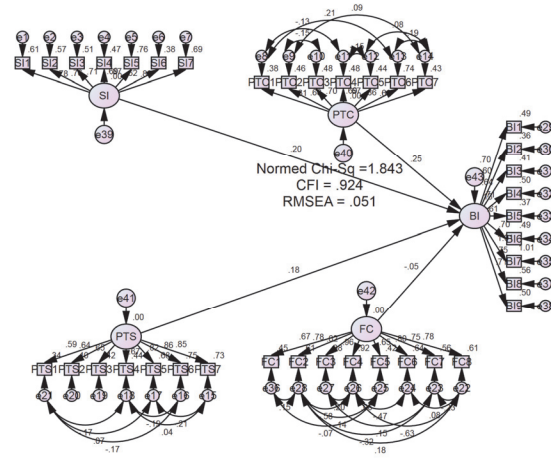**Fig. 2.** Confirmatory factor analysis (CFA) of overall Measurement Model

Fig. 3. Confirmatory factor analysis (CFA) of overall Structural

Table 5
CFA results for Overall Measurement Model

Goodness of fit statistics	Initial Model	Modified Model	Threshold value for the fit indices	Results
Normed Chi-Square	1.822	No Modification	< 5.0	Qualify the benchmark
CFI	0.926	No Modification	> 0.9	Qualify the benchmark
RMSEA	0.050	No Modification	< 0.08	Qualify the benchmark

To evaluate research model, AMOS is utilized and the output of model fit is presented in Table 5 above.

Structural Equation Modelling (SEM) is conducted and the result of model fit is dictated in the Table 6:

Table 6
CFA results for Overall Structural Model

Goodness of fit statistics	Initial Model	Modified Model	Threshold value for the fit indices	Results
Normed Chi-Square	1.843	No Modifications	< 5.0	Qualify the benchmark
CFI	0.924	No Modifications	> 0.9	Qualify the benchmark
RMSEA	0.051	No Modifications	< 0.08	Qualify the benchmark

Chi-square value is to evaluate absolute fit of default model or the proposed research model in section 3. The requirement is that Chi-square test value must be significant or p-value mustn't be higher than 0.05 or proposed research model is fit with the data. According to above result, it means that the proposed model is fit with the data. It is denoted that Chi-square/df (CMIN/DF) is 1.843 and it is lower than 5. CFI value is calculated at 0.924 which is higher than 0.9 and RMSEA is 0.051 which is less than 0.08. According to the results, Normed Chi-Square, CFI and RMSEA qualify the benchmark and suggest a good fit. It is concluded the model is perfectly fit with the dataset.

5.5. Hypothesis testing

Hypothesis testing result is presented in Table 7:

Table 7
Hypothesis testing

	Effect			Estimate	S.E.	C.R.	P	Results
H1	Behavior Intention	←	Social Influence	0.179	0.05	3.539	***	Accepted
H3	Behavior Intention	←	Perceived Transaction Convenience	0.329	0.079	4.158	***	Accepted
H4	Behavior Intention	←	Perceived Transaction Speed	0.161	0.05	3.226	0.001	Accepted
H2	Behavior Intention	←	Facilitating Condition	-0.053	0.058	-0.914	0.36	Rejected

There are four hypotheses to be proposed. The effect of social influence on behavior intention is examined in hypothesis 1 and estimated coefficient is 0.179 and p-value < 0.05, therefore, H1 is accepted. The effect of facilitating condition on behavior intention is examined in hypothesis 2 and estimated coefficient is -0.053 and p-value is 0.36 > 0.05, therefore, H2 is rejected. The effect of perceived transaction convenience on behavior intention is examined in hypothesis 3 and estimated coefficient is 0.329 and p-value < 0.05; therefore, H3 is accepted. Finally, the effect of perceived transaction speed on behavior intention is examined in hypothesis 4 and estimated coefficient is 0.161 and p-value is< 0.05, therefore, H4 is accepted. Moreover, estimated coefficient of perceived transaction convenience is highest (0.329). Thus, this factor has highest effect to behavior intention. In the contrast, coefficient of perceived transaction speed is smallest compared to other significant factors so that it has smallest effect on behavior intention towards mobile payment services in Cambodia.

6. Discussion of empirical results

A research model is developed to explore how Cambodian user behavior intention is influenced by four factors listed in UTAUT model, including social influence, facilitating condition, perceived transaction speed, and perceived transaction convenience. The data is collected successfully by 329 users in Cambodia. All factors and their items are validated through reliability test and EFA analysis. Obtained result shows that all factors achieve very good reliability level or their internal consistency is high. EFA analysis confirms the construct between variables. SEM is used to verify hypotheses and obtained result the effects of social influence, perceived transaction convenience, and perceived transaction speed on behavior intention are confirmed. In the contrast, the effect of facilitating condition on behavior intention is rejected. Achieved empirical results are similar to previous empirical evidences. Significant effect of social influence on behavior intention is confirmed by Abrahao et al. (2016) and Khan and Alshare (2015). Positive and significant effect of facilitating condition on behavior intention is affirmed by Chen and Chang (2013) but it is not found among Cambodian users. Perceived transaction speed and perceived transaction convenience effect significantly behavior intention and it is widely supported by numerous researchers (Teo et al., 2015; Hayashi, 2012; Chen, 2008).

7. Conclusion and future researches

Perceived transaction convenience has maintained the highest influence on behavior intention of Cambodian users towards mobile payment. Therefore, mobile payment provides in the country should provide the services with high technological standards and secured by good technologies. It enables the convenience to the users when they perform transactions through mobile payment services. Moreover, the fees of using mobile payment services should be revised and it must not be high to attract more users. The speed of transaction should be taken into account and it is achieved through the upgrade of servers' support. In addition, perceived transaction speed is depended on the internet connection used by the users. Cambodian government should further improve the connection speed through the improvement of 4-Generation network and start building the 5 – Generation network for Cambodia future development because many developed countries and developing countries regards applying the AI (Artificial Intelligence) and IoT (Internet of Technology) in all kinds of economic field, including government departments. The cost of using mobile internet should be controlled by the government. One of important finding in this study is that social influence impacts significantly on behavior intention. Therefore, mobile payment providers must provide appropriate advertising contexts on social media to increase the

customer knowledge and customer awareness towards mobile payment services. The research paper has limitation of which the data is collected through questionnaire with Cambodian users. Since mobile payment services is still in early development stage in the country, the respondents may not have sufficient understandings about this payment method. Nearly 70% of respondents are using mobile payment services provided by Metfone and it is a concern since their assessments are not representative for other users who are using different mobile payment services providers. Moreover, only three variables affect significantly behavior intention. Facilitating condition does not affect significantly behavior intention and it can be explained by the bias in sample selection. In the future, other researchers should expand the research model and they should employ more factors to gain better explanation to behavior intention such as effort expectancy and performance expectancy. Future researchers may involve demographic variables such as gender and age to measure moderating effects between variables.

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