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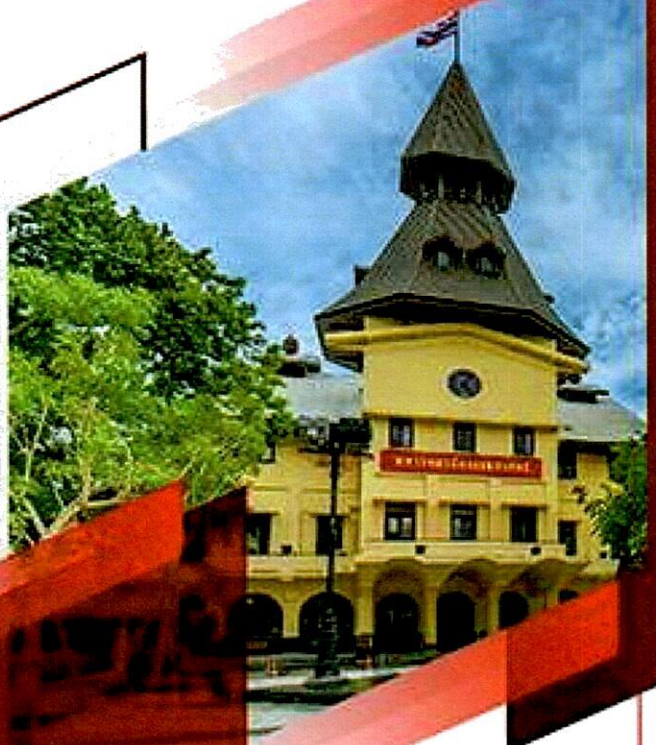

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Motivation Factors and Obstacle Factors for Mobile Financial Transactions among Thai Consumers

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Abstract

This study aims to investigate motivation factors and obstacle factors affecting the acceptance of consumers on mobile transaction. The data were collected from 500 consumers who have ever used transaction via mobile in Bangkok area and vicinity. The results showed that the most frequently used transaction was money transferring, followed by M-banking. On the other hand, the least frequently used transaction on mobile was fund buying. The results of Principal Component Analysis showed that the motivation factors for using mobile transaction were: (1) Benefits of System and Social Facilitation; (2) Convenience and Accessibility; (3) Ease of Use and Fee; and (4) Setting. The results also revealed that obstacle factors on mobile transaction were (1) The Efficiency of System and (2) The Security. This study shed light on what factors motivated and obstructed the acceptance for doing mobile transaction in order to support Thailand becomes full cashless society. Moreover, SWOT analysis was conducted based on quantitative analysis in order to propose strategies or guidelines to improve cashless system.

Keywords Cashless society; Motivating factors; Obstacle factors; Mobile financial transaction

1. Introduction

Thailand is developing according to the Thailand 4.0 policy. The government promotes "The National e-Payment Master Plan" to digital economy and cashless society. A cashless society is a situation in which the financial transactions are made by digital currencies. In other words, cashless society means the cashless transaction. Banks and financial institutions tend to offer discounts on purchase with credit or debit cards and online wallets. It is possible that offering attractive deals for payments have made Thais comfortable with paperless transactions.

According to the pandemic of Covid-19 in Thailand, the replacement of traditional forms of payment, based on cash, by innovative payments has become a trend. This means that consumers tended to prefer cashless transactions when they believed that handling cash presents a higher risk of infection. Moreover, the habits they developed during periods of social distancing restrictions and lockdowns appear to further diminish transacting in cash (Wisniewski, 2021). Because of disease outbreaks, doing financial transactions via mobile phones tended to increase among Thais. Not only for Thai, but also all over the world becomes cashless society. Yet, it seems that consumers all over the world do cashless transaction because of necessity, and the consumers encounter with dilemma. It is an appropriate time for the government to strongly encourage all relevant sectors to support the electronic financial transaction model. The decision of choice of payment and the success of cashless transactions depended on several factors (Swiecka et al., 2021). Based on the research gap, this study attempts to apply the technology acceptance model (TAM) to explore the dimensions of motivation and obstacle factors of financial transactions via mobile phones since TAM is an appropriate model for understanding the new technology adoption and it can explain human behavior regarding the acceptance of modern technology. The research questions of this study were:

Research Question 1 (RQ1): What are the dimensions of motivation factors of financial transactions via mobile phones?

Research Question 2 (RQ2): What are the dimensions of obstacle factors of financial transactions via mobile phones?

Based on these two research questions, this study seeks to provide contributions from two perspectives. Firstly, this study reveals motivation factors of using mobile financial transaction to fulfill the actual information of what factors motivated consumers to intend using cashless transaction. Revealing motivation factors probably cause current consumers to continue using financial transaction. Secondly, since cashless transaction makes life easier, yet there are seemingly some factors which can be the problems to use it. Provided that obstacle factors of cashless transaction among consumers explore, the government and related sectors may launch the campaign, policy or guideline in order to improve the situation or eliminate the obstacles and make our country become full cashless society. Additionally, application developers may obtain a benefit along with financial institutions because they can develop the application which more users friendly. This study also provides the government and banking industry recommendations to enable consumers to enhance mobile transaction services in the future.

2. Literature reviews

2.1 Technology acceptance model

Revealing the reasons of accepting or rejecting technology or innovation has proven to be one of the most challenging issues in information systems (IS) research (Swanson, 1988). An influential and the most well-known model to study factors affecting the decision of technology or innovation using was The Technology Acceptance Model or TAM (Charness & Boot, 2016). TAM was frequently derived when the researchers wanted to predict and explained user acceptance and rejection of computer-based technology. The key variables in TAM are Perceived Usefulness (PU) and Perceived Ease of Use (PEOU). Systematic reviews have shown that these two variables typically explain 40 percent of an individual's intention to use a technology in a variety of contexts including healthcare, and that intention to use may or may not predict actual use of technology (Wu and Du, 2012 as cited in T.M., Peek, 2014). This theory also stated that there were four factors affecting behavioral intention: 1) External variables, 2) Perceived Ease of Use, 3) Perceived Usefulness and 4) Attitude. Finally, behavioral intention probably influenced technology acceptance and use (Vongsumeth, 2013). This theory has been adapted to this study because mobile financial transactions is an activity which consumers are able to do via their mobile phones. It seems to be a current financial activity working through technology. The system users may perceive as they may get into trouble to use, or it was a waste of time. Then, it was possible that the users did not want to adopt this technology. While TAM has been criticized on a number of grounds, it serves as a useful general framework and is consistent with a number of investigations into the factors that motivate and obstruct consumers' intention to use new technology (Braun, 2013, as cited in Charness and Boot, 2016). The results of TAM analysis would show the driving force and restraining force influencing people' behaviors on accepting and rejecting for the use of technology and innovation.

2.2 Electronic Payment

Presently, our world becomes undeniably digital and the payment through electronic transactions is well adopted in doing financial activities. An electronic payment is the process of value transferring from one payment account to another through a digital device (Better Than Cash Alliance, 2022). Electronic payment system (EPS) includes payments made with bank transfers, mobile money, and payment cards including credit, debit and prepaid cards and the system requires sender and receiver of the transaction to proceed with the transaction using a system utilized by a bank and financial service provider (Phurkwattanakul & Methavasaraphak, 2021). The instrument of an electronic payment means an instrument of payment between parties, for which transactions occur through electronic means (Raden etc., 2020). The contactless payments are growing in popularity due to speed and seamless experience. Since the use of contactless payments increases, wireless technologies and mobile device technologies become an important role. These technologies are means for doing electronic commerce (e-commerce) (Ngai & Gunasekaran, 2007). People can operate to buy goods and/or services via wireless technologies through mobile devices. Mobile commerce is one of the most popular types of electronic commerce. When the consumers do mobile commerce, they tend to use mobile wallets which are a fast-growing payment option (Duangphasuk etc., 2020). A mobile wallet is a type of virtual wallet that stores credit card numbers, debit card numbers, and loyalty card numbers. It is accessible through an app installed on a mobile device, such as a smartphone or tablet (CFI Education Inc., 2022). Mobile Banking

or M-banking is a definition term that occurs when consumers do an electronic payment. It is a financial process that consumers manage business transactions by using mobile devices, such as smartphones and mobile tablets (Naruetharadhol et al., 2021). It is one of the most convenient modes of banking in the digital era as it gives consumers instant access to the bank accounts. M-banking is different from internet banking because internet banking uses internet browsing software, while M-banking uses applications. M-banking allows consumers to conduct banking transactions conveniently from at any location and any time. It breaks even and is time-saving innovation allowing all kinds of bank account holders (Bank India Limited, 2022). Mobile banking was already gaining popularity when the coronavirus pandemic struck, but the disruptions and restrictions caused by COVID-19 have moved banking by app from novelty to necessity. For this study, mobile financial transactions refer to a set of financial services doing via mobile devices through bank applications for payment goods, services, and bills.

2.3 Cashless Society in Thailand

Cashless society was formerly known as Cashless Economy. A cashless society is a society that focuses on online payments, including paying through a QR code scanning system, spending via credit or debit cards, mobile banking transfers, online money transfer etc. All of which use technology, the internet, and smartphone as a tool for transactions. In Thailand, people increasingly use mobile phones and tablets to conduct financial transactions. Presently, most Thais have embraced the use of smartphones and tend to react more positively to new technology. This probably leads to the changing behavior of financial services and the campaign driving by the government such as the initiative of PromptPay, a system that makes it easy to send payments to registered individuals and businesses by using only their mobile phone numbers or national identification card numbers (Siam Commercial Bank Public Company Limited, 2022).

According to the data of the Bank of Thailand during 2015 -2019, the use of electronic payment channels tended to increase (Septech & Socatiyanurak, 2021). The financial information of Bank of Thailand indicated that changing of financial traditional form to cashless form in Thailand affected the amount of cash flow to continuously increased with an annual rate of 5% (Septech & Socatiyanurak, 2021). Moreover, the tendency of adopting financial transactions such as direct credit, direct debit, ITMX bulk payment, money transferring, and products and services payment among Thai people has risen in 2015 – 2019. Thailand is likely to develop from a cash economy society to a cashless society. It shows that a cashless society's economic transition towards a cashless society and related personal factors, including gender and age, occupation, educational background, and income correlated with electronic payment behavior (Septech & Socatiyanurak, 2021). Because of the tendency of people changing behavior, the economic structure has been changed and transformed from a cash economy to a cashless society in Thailand. The growth of cashless society, especially in form of Electronic Commerce or E-Commerce was likely to be adopted (Economides, 2001); however, the attempt of driving cashless society successfully still have restriction. Nicko van Someren (2002) revealed that there were commonly three factors which impede many countries becoming full cashless society including 1) Legal; 2) Technology, and 3) Social. Thai people need some supporting in order to urge Thailand to become cashless society entirely. For instance, the ongoing development of new and better digital technologies is likely helping drive adoption of cashless payment systems. The government should support change by promoting digital infrastructure development that will conform to its National e-Payment Master Plan. Therefore, there is a room for this study to explore what factors will be focused for encouraging Thailand cashless society.

3. Research methodology

3.1 Population and sampling

This study employed a survey method. The data were collected from 500 consumers who have ever done mobile financial transaction in Bangkok area and vicinity. The sample size of this study was shown in Table 1.

Table 1 Ranking of demographic data

Variables	Frequency	Proportion (%)
Gender		
1. Female	373	74.60
2. Male	123	24.60
3. Others	4	0.80
Age		
1. <20	24	4.80
2. 21 - 30	240	48.0
3. 31 - 40	178	35.60
4. 41 - 50	48	9.60
5. >50	10	2.00
Educational Background		
1. Secondary Education	24	4.40
2. Diploma	41	8.20
3. Bachelor's degree	290	58.20
4. Master's degree	117	23.40
5. Doctor's degree	28	5.60
Occupation		
1. Student	199	39.80
2. Employee	174	34.80
3. Personal business owner	22	4.40
4. Freelancer	21	4.20
5. Laborer	1	0.20
6. Seller	4	0.80
7. State enterpriser	13	2.60
8. Government servicer	46	9.20
9. Unemployed	16	3.20
10. Steward /Maid/ Retiree	4	0.80
Income (baht)		
1. <=15,000	214	42.80
2. 15,001-30,000	86	17.20
3. 30,001-45,000	81	16.20
4. > 45,000	119	23.80

3.2 Instrumentation

In terms of instrumentation, the data were collected quantitatively by using questionnaire which consisted of two parts. The first part contained demographic data questions. Another part was used to investigate the dimensions of motivation and obstacle of financial transactions. The questionnaire of this part was adapted from Technology Acceptance Model (TAM) questionnaire of Masihuddin et al. (2017), Swiecka & Beata (2019), and Weng (2018). Responses were given according to a five-point Likert-type scale. In order to reduce confusion for respondents who was Thai consumers, the questionnaire was constructed in Thai. The original English version of the questionnaire was translated into Thai by an English lecturer working in the university for more than ten years. The questionnaire items were piloted among 30 consumers to find the reliability by using Cronbach's alpha and the 30 consumers were excluded in the study. The reliability of the questionnaire was 0.938 which was acceptable since 0.7 is an acceptable reliability coefficient (Nunnally, 1978). In addition, the items were sent to five raters in order to evaluate validity by using Index of Consistency Values (IOC). The IOC values of all question items were more than 0.6. Yet, some items were suggested to edit in terms of ambiguous words.

4. Results

From this study, it was found that 462 consumers have ever used mobile transactions. So, they were accounted for this study, and the rest of 38 consumers were excluded in the study. The ranking was shown in table 2.

As shown in Table 2, the most popular financial transaction via mobile phones was transfer, followed by M-banking and Bill payment.

Table 2 Ranking of Type of financial transactions via mobile phones

Ranking	Type of financial transactions via mobile phones	N = 462	
		Frequency	%
1	Transfer	457	98.92
2	M – Banking	451	97.62
3	Bill payment	395	85.50
4	QR payment	339	73.38
5	Promptpay	290	62.77
6	Cardless ATM	280	60.61
7	M-Wallet	211	45.67
8	Digital Salak	48	10.39
9	Mutual Funds	4	0.87

4.1 Dimensions of motivation factors

To answer research questions 1, the results were analyzed by a factor analysis technique. To assess whether the set of items in the correlation matrix was suitable for principal components analysis, the Kaiser-Meyer Olkin (KMO) measure of sampling adequacy was computed. If the KMO statistic yields high values above 0.70, then correlations among items are sufficiently high to make factor analysis suitable (de Vaus, 2002). For this study, the KMO computed was 0.936. In order to investigate the dimensions of motivation factors for mobile financial transaction, the 31 questionnaire items were analyzed by using Principal Component Analysis (PCA) to extract dimensions. To determine the number of dimensions, three criteria were used: Eigenvalues, scree plot and interpretability of the dimension meaning. According to determination based on Eigenvalues, only dimensions with Eigenvalues greater than 1.0 were retained (Field, 2017; Rietveld & van Hout, 2011). After factor extraction, it might be difficult to interpret and label the factors from the factor loadings. In the principal component analysis, the first factor accounted for the most part of the whole variance, so most items of motivation loaded on this factor. Because of this, Varimax rotation was used to ensure that most variables have high loadings on the most important factors and small loadings on all other factors. According to eigenvalues, there were five dimensions greater than 1.0.

Table 3 Eigenvalues of Factor Analysis (Motivation Factors)

Total Variance Explained						
	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	11.228	36.220	36.220	6.831	22.036	22.036
2	4.055	13.082	49.301	5.278	17.026	39.062
3	1.514	4.884	54.186	2.733	8.816	47.878
4	1.071	3.454	57.639	2.241	7.229	55.107
5	1.012	3.265	60.905	1.797	5.797	60.905
6	.962	3.105	64.009			
Extraction Method: Principal Component Analysis.						

The results in Table 3 show that there are five dimensions extracted from the questionnaire. The first dimension accounted for 36.22%, the second dimension accounted for 13.08%, the third dimension accounted for 4.88%, the fourth dimension accounted for 3.45%, and the last dimension accounted for 3.27%. Thus, these dimensions accounted for 60.91% of the whole variance.

Then, the scree plot was used to determine the best number of dimensions and keep factors that occur before it was flatten. The table and the scree plot show that the first factor accounts for the largest proportion of variance. Besides, the scree plot gradually flattens from the fifth dimension. For interpretations of factor loadings, the criterion of 0.40 or above was employed (Field, 2018). Thus, there were four dimensions to label.

As we have seen from Table 4, it was found that there were four dimensions of motivation factors for mobile financial transaction. They include (1) Benefits of System and Social Facilitation; (2) Convenience and Accessibility; (3) Ease of Use and Fee; and (4) Setting.

Dimension 1 Benefits of System and Social Facilitation

There were thirteen important loading features in this factor. They were all positive loadings. This factor contained item from question 19 (Mobile financial transactions control your daily spending well), 23 (Doing mobile financial transactions are safe from scams), 21 (There is no error for doing mobile financial transactions), 30 (Mobile financial transactions control your spending habits), 18 (You get cash back when doing mobile financial transactions), 20 (Mobile financial transactions improve your social status), 24 (You are excited when doing mobile financial transactions via your mobile phone), 12 (You can easily get a refund if something goes wrong), 17 (You get a variety of discounts), 16 (You do mobile financial transactions on your mobile phone because people influencing your behavior think you should), 8 (Mobile financial transactions are highly reliable), 22 (Mobile financial transactions can keep your payment history securely), and 13 (You are fun when doing mobile financial transactions). Question item 19 contained the highest loading in this factor (.810). All of these important loading variables can be implied that consumers
decided to use financial transaction because the system was helpful, and users would receive the benefits of the system. They can easily get a refund if something goes wrong. In addition, people influencing their behavior probably suggested that they should do financial transactions on their mobile phone. Thus, this dimension was labelled as Benefit of System and Social Facilitation.

Dimension 2 Convenience and Accessibility

There were ten important loading features in this factor. They were all positive loadings. This factor contained item from question 6 (Accessing the Internet is now easy.), 14 (You can make payments anywhere), 7 (Most electronic commerce supports mobile payment), 9 (Mobile financial transactions are very easy to use), 10 (You can track financial transactions history), 15 (You have freedom to use), 11 (Mobile financial transactions reduce the use of paper). 31 (You think that you are able to do mobile financial transactions), 28 (Doing mobile financial transactions is more convenient than net banking), and 29 (Mobile financial transactions are more efficient than traditional forms of payment). Question item 6 contained the highest loading in this factor (.756). All important loading variables related to usability. They can do transaction at place and time which they prefer, so this dimension was named as Convenience and Accessibility.

Dimension 3 Ease of use and Fee

There were three important loading features in this factor. They were all positive loadings. This factor contained item from question 25 (Doing mobile financial transactions successfully take only few steps), 26 (Mobile financial transactions fees are reasonable), and 27 (Mobile financial transactions setting is not complicated). Question item 25 contained the highest loading in this factor (.729). This dimension was related to the easy step and setting together with reasonable fees. Thus, this dimension was defined as Ease of use and Fee.

Dimension 4 Setting

There were three important loading features in this factor. They were all positive loadings. This dimension contained question 4 (You can easily adjust the security settings.), 2 (You can easily customize your payment), and 1 (You can use the service in all digital channels). Question item 4 contained the highest loading in this factor (.649). All important loading features related to function setting, so this dimension was labelled as Setting.

4.2 Dimensions of obstacle factors

The results were also analyzed by a factor analysis technique in order to answer research questions 2. To assess whether the set of items in the correlation matrix was suitable for principal components analysis, the Kaiser-Meyer Olkin (KMO) measure of sampling adequacy was computed. If the KMO statistic yields high values above 0.70, then correlations among items are sufficiently high to make factor analysis suitable (de Vaus, 2002). For this study, the KMO computed was 0.884. In order to investigate the dimension of obstacle, the 9 questionnaire items were analyzed by using Principal Component Analysis (PCA) to extract dimensions. To determine the number of dimensions, three criteria were used: Eigenvalues, scree plot and interpretability of the dimension meaning. According to determination based on Eigenvalues, only dimensions with Eigenvalues greater than 1.0 were retained (Field, 2017; Rietveld & van Hout, 2011). After factor extraction, it might be difficult to interpret and label the factors from the factor loadings. In the principal component analysis, the first factor accounted for the most part of the whole variance, so most items of obstacle loaded on this factor. Because of this, Varimax rotation was used to ensure that most variables have high loadings on the most important factors and small loadings on all other factors. According to eigenvalues, there were two dimensions greater than 1.0.

Table 5 Eigenvalues of Factor Analysis (Obstacle Factors)

Total Variance Explained						
	Initial Eigenvalues			Rotation Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	5.182	57.576	57.576	3.742	41.576	41.576
2	1.374	15.272	72.848	2.814	31.272	72.848
3	.730	8.108	80.956			
Extraction Method: Principal Component Analysis.						

The results in Table 5 show that there are two dimensions extracted from the questionnaire. The first dimension accounted for 57.58% and the second dimension accounted for 15.27%. Thus, these dimensions accounted for 72.85% of the whole variance.

Then, the scree plot was used to determine the best number of dimensions and keep factors that occur before it was flatten. The table and the scree plot show that the first factor accounts for the largest proportion of variance. Besides, the scree plot gradually flattens from the second dimension. For interpretations of factor loadings, the criterion of .40 or above was employed (Field, 2017). Thus, there were two dimensions to label.

Table 6 Dimensions of Obstacle

Factor and Items	Dimension 1: The efficiency of system	Dimension 2: The security
1. You are concerned that you are not able to do mobile financial transactions (e.g., complicated sign-up process).	.857	
7. You are concerned that you will waste time to learn and use the service.	.843	
2. You are concerned that you are not able to use the service efficiently and meet your actual needs.	.838	
9. You are concerned that equipment (e.g., phones, tablets, computers) cannot support the use of financial transactions.	.749	
6. You are concerned that you have to pay more for doing mobile banking transactions (e.g., monthly service fees).	.657	
8. You are concerned about time for accessing mobile financial transactions. (e.g., You need to transfer money midnight, yet the system is closed.)	.615	
3. You are concerned about the privacy protection of mobile financial transactions. (e.g., the disclosure of some account information)		880.
5. You are concerned that your money will be stolen from doing mobile financial transactions.		867.
4. You are concerned about the security of doing mobile financial transactions.		860.

As we have seen from Table 6, it was found that there were two dimensions of obstacle factors for mobile financial transactions. They include the efficiency of system and the security.

Dimension 1 The Efficiency of System

There were six important loading features in this factor. They were all positive loadings. This factor contained item from question 1 (You are concerned that you are not able to do mobile financial transactions (e.g., complicated sign-up process), 7 (You are concerned that you will waste time to learn and use the service), 2 (You are concerned that you are not able to use the service efficiently and meet your actual needs), 9 (You are concerned that equipment (e.g., phones, tablets, computers) cannot support the use of financial transactions), 6 (You are concerned that you have to pay more for doing mobile banking transactions (e.g., monthly service fees)) and 8 (You are concerned about time for accessing mobile financial transactions. (e.g., You need to transfer money midnight, yet the system is closed)). Question item 1 contained the highest loading in this factor (.857). All important loading variables related to usability concerns, so this dimension was named as "The Efficiency of System".

Dimension 2 The Security

There were three important loading features in this factor. They were all positive loadings. This factor contained item from question 3 (You are concerned about the privacy protection of mobile financial transactions. (e.g., the disclosure of some account information), 5 (You are concerned that your money will be stolen from doing mobile financial transactions), and 4 (You are concerned about the security of doing mobile financial transactions). Question item 3 contained the highest loading in this factor (.880). All of these important loading variables can be implied that they are concerned about the privacy protection. Thus, this dimension was labelled as "The security".

4.3 SWOT analysis

SWOT Analysis is a tool which can be used for organizational strategic planning and strategic management. The SWOT stands for Strengths, Weaknesses, Opportunities and Threats (Namugenyi et al., 2019). Strengths refers to internal capabilities and positive factors of business establishments which are relevant for firms to achieve their objectives, while weaknesses can be defined as internal factors or constraints which might impede or hinder the performance of a company. Opportunities in the SWOT analysis refers to factors or features facilitating the business establishments with links outside organizations, while threats seem to be external negative factors to the company which can restrain or delay the achievable goals (Eastwood et al., 2016 as cited in Namugenyi et al., 2019).

According to the results of factor analysis of this study, motivation and obstacle factors were revealed. In order to propose strategies or policies to drive cashless payment methods, those factors were systematically and theoretically analyzed. The Strengths, Weaknesses, Opportunities and Threats were shown in Table 7.

Table 7 SWOT Analysis

Strengths	**Weakness**
1) Benefits of System and Social Facilitation 2) Convenience and Accessibility 3) Ease of use and Fee 4) Setting	1) The Efficiency of System 2) The Security
Opportunities	**Threats**
1) PromptPay policy and The 50-50 co-payment scheme 2) Internet signal 3) Internet fee 4) Covid-19 Situation	1) Personal Data Protection Act 2) Cyber Crime

As shown in Table 7, the motivation factors for this study are: 1) Benefits of System and Social Facilitation; 2) Convenience and Accessibility; 3) Ease of use and Fee and 4) Setting. Factors of motivation are strategies, incentives, recognitions and any other elements that increase people motivation to effectively perform their duties or achieve a particular goal. Since the strengths in SWOT analysis are favorable internal activities, processes, and behaviors that contribute to the success, these four motivation factors can be viewed as strengths of using mobile financial transactions. The consumers decided to use cashless system, for they perceived that the transaction or system were beneficial, convenient, easy to use, charging reasonable fees and user-friendly design. It can be said that these four factors were internal capabilities and positive factors which are relevant to achieve the goal of making Thai consumers use mobile financial transaction efficiently.

Conversely, there may be obstacles for using mobile financial transaction: 1) The Efficiency of System and 2) The Security. These factors obstruct or impede Thai consumers, so they were viewed as weakness to achieve the goal of using mobile financial transaction. This means that the consumers may not decide to use cashless system because they perceived that they were not able to do, and the system were unsecure. As weakness was a characteristic that was negative and unfavourable, these obstacle factors can be referred to weakness which need to be eliminated if we want Thai consumers to achieve the goal of using mobile financial transaction.

In order to thoroughly understand actual factors influencing the use of mobile financial transaction, opportunities and threats were exposed. According to the strengths, the majority of consumers tended to use mobile financial transaction because they perceived that they would get the benefits of using and people surrounding them thought they should use and help them

use. It can be implied that the consumers probably use cashless system if they learned that it was helpful for their lives. The top-down policies or campaigns driven by a government, an upper-level organization, seemed to be important opportunities because Thai people need to do, and they would receive welfare and benefits. For instance, launching prompt-pay policy and 50-50 co-payment scheme (Kon La Krueng-Half-Half) increased numbers of people using cashless transaction. The people who registered for PromptPay would conveniently and quickly receive funds from the government, such as tax rebates, welfare payments, and support allowances, which were transferred to people's registered accounts. In order to following the policy or campaign, Thai people registered via their mobile phones and use their phones to do financial transactions. For the 50-50 co-payment scheme, registered individuals would subsidize for half of their purchases at shops, and the government subsidized the other half. So, people were supported the spending from the government. Other factors which can be opportunities for increasing the use of cashless system were the Thailand's digital transformation project by supporting Internet signal and Internet fees. Because of the pandemic of Coronavirus, Internet access has been shown to be a necessity for everyone, households and enterprises. In order to keep sustain social activity and increase digital literacy, the top priority of the government was to install a national internet gateway in Thailand and advance the availability of quality Internet services to all inhabitants, specifically including low income and rural groups. The government also launched "Village Broadband Internet Project" which help Thai people more easily access to the Internet and pay less. It cannot be denied that this was an opportunity for Thai people got close to cashless system. Another opportunity was the pandemic of Covid-19 situation. Staying away from others was a rule for protecting people from Coronavirus. It causes people switch to touchless technology to minimize the spread of Covid-19. So, it is an opportunity for people to choose cashless system.

In order to evaluate external factors which impeded consumers to use cashless system, the laws or the rules about using digital platform or technology were taking into account. Relating to the security which can be seen as weakness or obstacle factors, the relating law or rules for security can be assumed to be threats. So, the threats of using mobile financial transaction can be Personal Data Protection Act and Cyber Crime. Personal Data Protection Act (PDPA) was Thailand's consolidated law to govern data protection in the digital age which key aspects included data processing, data collection, data storage, and data consent protocols. Because the PDPA becomes fully enforceable, data collectors and users need to ensure systems are compliant with the necessary requirements. If people did not follow law, they would get penalty. Therefore, this can be seen as an external factor which restrained people from using cashless transaction since people may feel unsecure and being afraid of using system relating to digital and technology. Although it was the law for protecting people's rights to data and supporting the digital economy, people may concern toughly as it can be disadvantages and risks for them. Another threat was cyber crime. Cybercrime is a criminal activity that uses a computer, a computer network or a networked device which continues to rise in scale and complexity, affecting essential services, businesses, and individuals. Cyber criminals seek to exploit human or security vulnerabilities in order to steal passwords, data or money directly. So, people may be aware of their privacy and security to use since they need to register and give individual information, especially financial data on the system. And the ways to avoid or protects themselves against cybercrime seemed to be difficult and complex.

5. Discussion and conclusion

According to the results, it was found that Thai consumers tended to use financial mobile transaction since 462 out of 500 have experienced using mobile transaction. Banking service is expanding throughout the world in terms of payments, mobile top-ups, credit applications, receipt alerts, bank account transactions, money transfers, and other banking transactions through mobile devices (Hanafizadeh et al., 2014). Moreover, according to the pandemic of the COVID-19, the people need to stay socially distancing, they are increasingly interested in mobile transactions. Access to financial services is regarded as one of the most pressing issues confronting communities worldwide sequel to the COVID-19 pandemic (Yan etc., 2021). The coronavirus (COVID-19) epidemic has made consumers more adapted to the digital world, such as online shopping and payment. For this study, Thai consumers were motivated to use cashless transaction in four dimensions including 1) Benefits of System and Social Facilitation; 2) Convenience and Accessibility; 3) Ease of use and Fee; and 4) Setting. Based on factor analysis, the first dimension accounted for 36.22% which is the most valuable of whole variance, so this dimension was most emphasized by Thai consumers. It can be assumed that Thai consumers were motivated most because of Benefits of System and Social Facilitation. This means the majority of Thai consumers perceived that doing financial transaction via mobile phone can control daily spending and spending habit, improve social status, provide a variety of discounts, keep payment history securely, so the consumers would get benefits from using it. In addition, social facilitation or people influencing their behavior think should do. As mentioned in the study of Laforet and Li (2005), the attitude of customers affects M-banking adoption in that country. It is consistent with previous studies since people who have an impact on consumers behavior believed that they should do financial transactions on their mobile phone (Nawayseh 2020; Venkatesh et al. 2003, 2012; Xie et al. 2021).

The rest of motivation factors (the second, the third and the fourth factors) were Convenience and Accessibility, Ease of use and Fee, and Setting. These three factors were shown that the related factors for use and access affected their choice payments. It can be assumed that the driving factors affecting consumer acceptance of financial transactions via mobile phones were convenience of use, ease of Internet access and easiness to customize payments and adjust security information. Since the present cost of the Internet using seemed to be greatly reduced and the area of internet services or Wi-Fi providing is spread more throughout the country, especially in Bangkok Metropolitan Region, people feel more comfortable to use. This result is supported by Mortimer et al. (2015) who studied the differences between M-banking adoption in Australia and Thailand and found that the perceived usefulness and perceived ease of use affected the intention to use M-banking in both countries. In addition, the demand for M-banking services has increased due to the expansion of smartphone usage, resulting in each bank offering a new application which reach and being friendly for its customers (Naruetharadhol et al.,2021). The easiness of application setting was one of motivating factors which consistent with the study of mobile payment of J. Zhang et al. (2019) who revealed that the vital factors such as the perception of interface design features affected the use of mobile payment. The study of Naruetharadhol et al. (2021) also found that security, enjoyment, functionality, customization, design, and convenience are related to each other and can form M-banking. Likewise, banking institutions are currently seeking to provide heightened convenience to customers and customers can conduct various transactions such as payments and money transfers via mobile phones. Thus, mobile financial transaction has continually become crucial in everyday lives and become widespread in Thailand.

Although the majority of consumers intended to use mobile financial transaction, yet there were some obstacles shown in this study. Firstly, the efficiency of system, that is, the complicated process, the difficulty of services learning and the worrying that they are not able to use affected their intention to use. This dimension accounted for 57.58% which is the most