



# Cashless Payment Acceptance among Consumers in Thailand: A Case Study on Digital Wallets

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## ABSTRACT

This paper focuses on the digital wallets as an alternative payment method that has been rapidly emerging in Thailand's cashless society. On December 22, 2015, the government launched a national electronic payment plan which aims to transform the country into a cashless society. The cashless payment in Thailand consists of credit cards, direct debit, mobile/Internet banking, True wallet, Rabbit Line Pay, Air Pay, M-Pay, Grab Pay, PromptPay, and QR code. Moreover, Cashless payment assists users to make financial transactions more transparent and efficient while also assisting the government with tax collection accuracy. However, the purpose of the study is to find the preference of university students from Thailand for digital payment methods over cash in their average daily expenditure and also to determine the reason behind digital wallets usage, its impact on Thailand's cashless society trend, and what areas to be improved for digital wallet to promote its usage, which ultimately promote cashless society in Thailand as a whole, bringing economic benefits and national development. Moreover, during this Covid-19 Pandemic time consumers became more familiar with the cashless payment method over cash transaction.

However, from a managerial perspective, this study could help businesses to better understand university students' perception toward digital wallets payment application and recognized what critical factors affected to the adoption of digital wallet payment application. The result of this study could be utilized to develop a consumers' payment experience in order to expand digital wallet payment applications.

**Keywords:** Cashless society, Digital wallet, True wallet, Rabbit Line pay, ease of use

## INTRODUCTION

At present, the world has entered the digital era and it is undeniable that the global economy, Thailand economy included, is being driven by technological advancements and shifting consumer behavior toward the use of online platforms (Thailand Board of Investment, 2016). Cashless society has been the sole goal of all countries around the world, and research on the implementation of cashless transactions have been widely carried out. (Olusola, Oludele, Chibueze & Samuel, 2013) Moreover, Government is promoting "Thailand 4.0" as a national development plan, which pursues to promote the adoption and innovation of cashless payment and digital wallets among SMEs, manufacturing companies and the formal and informal service sector in all over Thailand. Consumers are adopting online platforms rapidly allowing Thailand to achieve the highest percentage in the online C2C or customer-to-customer market

in the world (Booasang, 2017). Online payment systems are more convenient because the recipient can get money and manage money in real time (World Bank Development Research Group, 2017). According to the central bank, cash usage will continue to decline in the long run and will be replaced by e-payment eventually. In 2030, cash usage is projected to decrease by 4% or 25 billion baht from 2020, by 15% or 108 billion by 2040. Moreover, Millennials and Generation Z who are currently studying in the Universities, quite familiar with the modern technologies which actually help them to adopt online payment through various digital wallets. Cashless transactions have increased significantly in the last decade, not just in developed countries but also in many developing countries.

If we consider Sweden as an example, then we can observe the country is going to become cashless society. In Sweden, majority of retailers are willing to spend less cash. They usually use Swish and mobile payment methods like iZettle to make it easier for small and medium business owners to operate cash-free. However, People in Thailand are increasingly using mobile phones and tablets to conduct financial transactions at any time and from any location. Online account management, online money transfers, and the QR code "scan-and-pay" system are all popular apps here in Thailand. Despite this, some stores still require cash payment, and the truly cashless society has yet to emerge. According to the central bank, cash usage will continue to decline over the long term, replaced by e-payment. In 2030, cash usage is expected to dip by 4% or 25 billion baht from 2020, then fall by 15% or 108 billion in 2040. In recent years, the financial industry has observed the so-called "Fintech revolution." The traditional financial industry has undergone significant changes. Many banks, all around the world are shutting down cash machines and branches since they need to cut costs to boost profits. Branches require staff. (Scott, 2018). Alipay has become the world's largest mobile payment system. Together with WeChat Pay, they dominate China's \$5.7trn mobile payment sector. Alipay has an existence in over 70 countries including the United Kingdom, United State of America, Japan, South Korea, and Australia. Due to the popularization of mobile payment facilities, many Chinese cities have become a cashless society, as 40% of Chinese people carry almost no cash when going out (Lu, 2018).

However, the objectives of this paper are to determine the reason why consumers use digital wallet as a payment method and also which digital wallets has been used mostly by consumers at present. It is quite common that the shift toward digital payment systems is particularly common among students in higher education institutions. They are familiar to these payment options by their simplicity, offers, and the fact that they are cheaper and faster payment methods. The educational institution itself seems to play a significant in training the younger generation to adopt the ideas needed for complete adoption a truly cashless and digitized society Moreover, to identify the areas of improvement to promote digital wallets usage and also finding the scope whether digital wallets can be used in formal and informal sector which ultimately helps promote cashless society in Thailand as a whole.

In this paper, the main focus is on eWallets, its usage, functionality and how its influences the trend on cashless society in Thailand. The scope of the study is to focus on the major digital wallet service providers in Thailand based on its popularity and downloads. The major digital Wallet service providers are Rabbit Line Pay, True Money Wallet, PromptPay, Blue pay etc.

## LITERATURE REVIEW

A literature study is conducted to gain a better knowledge of the areas in which research has already been conducted as well as to shed light on potential areas that have yet to be explored. With this in mind, an attempt has been made to conduct a quick study of the work being done in the field of cashless economy. According to Woodford (2003), Cashless economy is defined as one in which there are assumed to be no transactions frictions that can be reduced through the use of money balances, and that accordingly provide a reason for holding such balances even when they earn rate of return. Some researchers already assessed the impact of different methods of digital payment systems. Davies (2017), in his work, sought to find out how technological development over time affected transactions changes. In addition to this, he investigated the attitudes and perspectives of university students regarding cashless transactions and examined the disadvantages of cashless payments. A number of research shown that technological advancement is playing a role in the upcoming cashless society. One being Tee & Ong (2016) who believes that the development of the cashless payments will be driven by the evolution in information technology. This view is also taken by Oginni et al. (2013) who indicated technological innovation has changed the perspective of payment systems, showing that they are now drifting more towards an electronic world. Thailand Business News (2018) reported that most large Thai banks such as Siam Commercial Bank (SCB), Kasikorn (KBANK), Bangkok Bank (BBL), Bank of Ayudhaya (BAY), and Krungthai Bank (KTB) has begun to emphasize and adapt their digital strategy to their operating models in 2018 due to the dynamic change in demand conditions and the disruptive changes in information technology. In particular, Kbank, for instance, reported 7.3 million users on its mobile banking channel, which registered 3billion transactions by the end of 2017, which represents ten times increase from 2014. Similarly, the Krungsri Bank expressed that it would invest 20 billion baht in developing a digital banking platform and improving its technological infrastructure. Simultaneously, Siam Commercial Bank (SCB) confirmed investing 40 billion baht for its digital banking strategies (Chaimankong, B., Chaimankong, M., Jernsittiparsert, K., & Chetthamrongchai, P. (2021). According to Thailand E-Payment Trade Association (TEPA), Electronic transactions will be part of the Thailand 4.0 initiative, helping businesses reduce operating costs, increase consumer confidence and make it more convenient for consumers to pay for products and service fees. In addition, it becomes one of the hottest centers of attention for Thailand in 2010s due to strong deny from Bank of Thailand (BOT) for the Bitcoin Co. Ltd.'s proposal about legalization of Bitcoin in Thailand in the year of 2013 and strong support from General Prayuth Chan-o-cha's government on the usage of Prompt Pay in the year of 2017 for achieving her "Thailand 4.0" policy (Bitcoin Co. Ltd., 2013; Bunyamanee, 2017).

However, mobile payment means a regulated payment services that runs only through mobile devices. Whether it's mobile money transfers, digital wallet, or SMS payment, these all belong to the term of mobile payment. (Kim, Mirusmonov & Lee, 2010; Schierz et al., 2010; Yang, Liu, Li & Yu, 2015; Zhou, 2013) There are some digital wallet payment applications have been introduced in the market in order to accelerated the movement of the cashless societies. These have been launched by Government and private organization to support the cashless movement. Among all these digital wallets, few have been using by most of the consumers. So, from this study we would like to see why digital wallet is quite popular among students and how to introduce these digital wallets among other consumers to follow the Government Thailand 4.0 initiative. We were therefore keen to learn that what factors lead the consumers to use digital wallets and what factor leads them not to use electronic payment services. However, the literature review postulated an overview of digital wallet payment application and also different

framework that had been used to study the digital wallet payment perception towards cashless society which used to develop the research methodology for this study

## **RESEARCH METHODOLOGY**

The research is descriptive in nature. As it rigorously evaluates the process of digital wallet in Thailand, this study used a descriptive research method to investigate the digital wallet payment system and its current limitations, as well as make recommendations for future improvements in the area that can be expanded for better economic development. It is important to know that descriptive research depends on available literature documents, peer-reviewed journals, genuine databases (Euromonitor, Worldpay Annual Report), news articles, etc. This study, reviewed according to literature reviews, describes the potential consequences of digital wallet systems in a cashless economy. The research provides general information of digital wallet payment application, global trend of using digital wallet payment application, and an overview of digital wallet payment applications that commonly use in Thailand.

## **DISSCUSSION & RESULT**

### **Advancing towards Cashless Society**

Cashless topic has been in the news for some time. The introduction of digital payment systems is progressing rapidly in many countries. Credit and debit card payments began to replace cash many years ago. Recently, new electronic payment platforms such as digital wallets and other mobile applications have become widespread. In some countries, a completely cashless society may soon emerge. The first thing we observe in Thailand's trend towards a cashless society is that more and more merchants are turning to online payment services. Online payments are usually widely used in restaurants in malls, but now they are everywhere, and street carts can also offer online payment services and scan QR codes. At present "COVID" is another major drive for Thailand's rapid transition towards a cashless society, as everyone prefers not to handle cash directly. Therefore, small and medium enterprise need to adapt digital wallets in order march with the Thailand Cashless society. If the store can allow customers to pay online (including selling e-commerce), there is an opportunity to attract more customers. Another thing we see this year is the development of a national electronic payment system supported by the government. Thailand has been in a cashless society for some time, so without government support, a cashless society is hard to imagine. Today we can see that the Government is encouraging people to spend more money online. For example, the Government launched cash handout for the needed through electronic payment systems like the Paotang app. In the future, access to public welfare may lead to more online payments. In addition, the state also encourages the use of electronic cards such as: BMTA bus ticket that can be paid through electronic cards. However, in near future electronic payment will be using by the mass people in the informal sectors as well to be considered as one of the fewest cashless countries in the World.

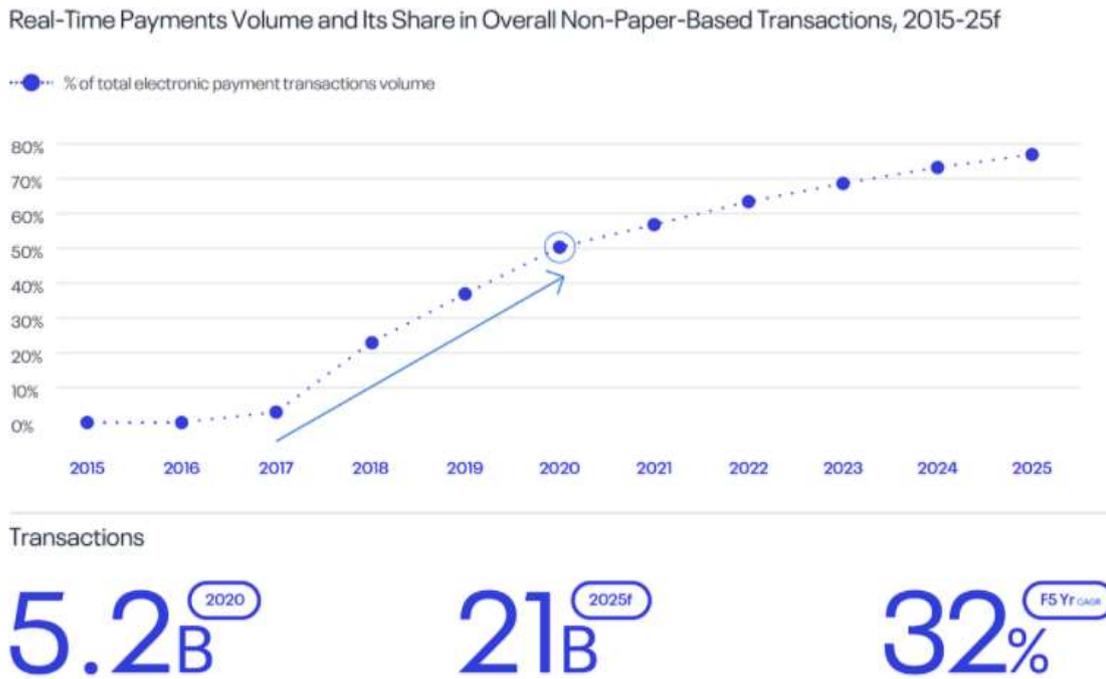


Figure 1: Electronic Payment transaction value in Thailand. Source: Nation Multimedia.

However, following figure shows that large number of populations are using internet here in Thailand.

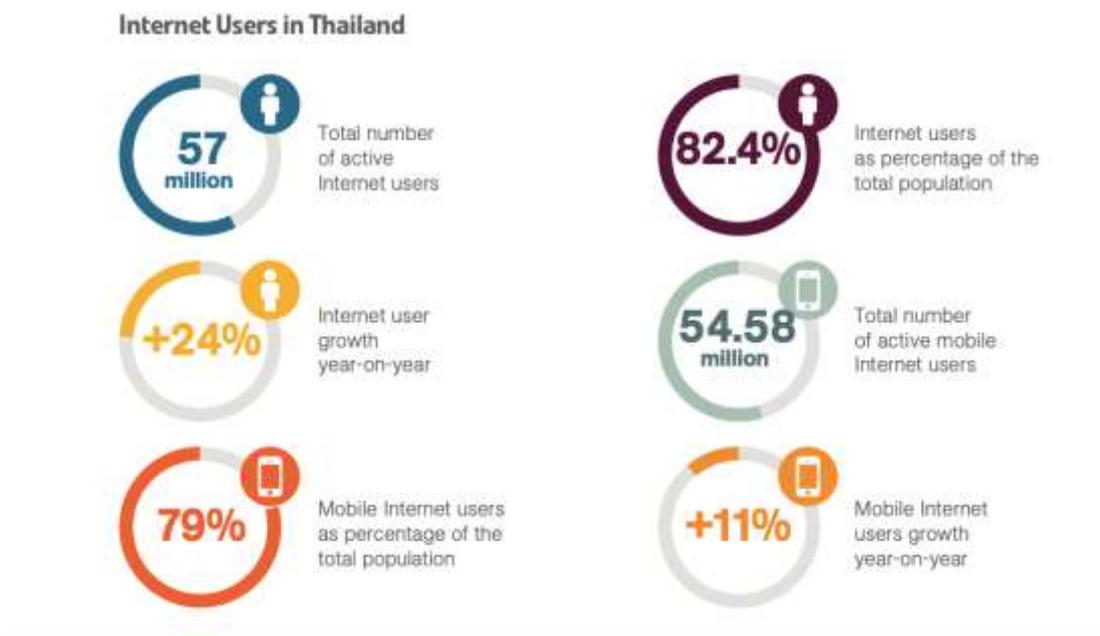


Figure 2: Internet users in Thailand. Source: e-commerce in Thailand: A guide for Australian Business.

From the above-mentioned data, we concur that it is possible for Thailand to become cashless society by 2023 (reference). However, current observation indicates that it is highly unlikely to achieve by that given time because of:

- It not widely introduces in the retailing section
- Small scale business
- Street vendors
- Other informal sectors in regional of Thailand.
- Lack of government initiative to popularize
- Lack of use of the smart devices.

However, it is noteworthy that the government and the Ministry of Finance have assigned the Bank of Thailand to implement a national e-payment strategy and reform the infrastructure of the domestic banking system (Lamsam, 2018).

Paripunyapat and Kraiwanit (2019) noted that Transactions with banks that are processed over the Internet include many terms such as e-banking, cyber banking, digital banking, and Internet banking (IBanking). These trading services are provided over the internet and customers do not require to go to the bank. The term "mobile banking" refers to various financial transactions performed via a dedicated mobile phone application. This has been popularize in South Asian and in African region. Besides the tech companies, Thailand's government has been actively promoting digital payments by launching their own initiatives. A major one is the electronic interbank transfer system are:

- Rabbit LINE pay
- true wallet
- Prompt pay
- Grab pay

Research results show that the COVID 19 crisis poses new challenges and opportunities in the Thai banking industry, as related research shows Abeam consulting (2020). Banks need to adapt the way they provide financial services especially in the face of intensifying competition with new entrants and the resulting pressure on profitability. Current marketing and sales efforts to build a bank's digital image and keep it digital customers before they escape seem to be able to improve the situation in the short term. Nevertheless, much remains work that needs to be done to ensure the protection of profits in the future. According to the Bank of Thailand, electronic payment has recently gained popularity in Thailand as Internet and mobile banking transactions have increased by more than 72% and PromptPay transfers have reached up to 28.6 million per day (April 2021). With the ongoing pandemic and growing consumer familiarity with electronic payments in the current situation, the use of electronic payments is expected to continue to grow strongly this year as well. This is in line with international data published in the Digital Global Overview Report 2021, Thailand is one of the first countries in the world to adopt mobile making users in 2020, which has increased almost 70% compared to 2019. According to the Hironari Tomioka, President and CEO of NTT DATA (Thailand) Co., Ltd., "When investing in electronic payment systems to increase business opportunities, we need to develop the entire ecosystem to enable secure digital payment innovation. From structural design to system development planning and promotion. You need to be careful because you can actually meet your needs, up to the strategy to do it. Flexibility to system upgrades with new technologies that will continue to fit your lifestyle and create a better payment experience for your customers.

## Digital Wallet in the Market:

Digital wallet is a similar way to carry credit or debit card information in digital format on mobile devices. Instead of shopping with a physical plastic card, you can pay with your smartphone, tablet, or smartwatch. This is the main purpose of cashless society. Currently, few electronic wallets are making great strides in the market, and the government is adopting the Thailand 4.0 initiative to make society cashless as soon as possible. Over the last two years, Southeast Asia has gained more than 70 million online shoppers. Thailand is one of the fastest growing mobile payment countries in the region. Mobile payment transaction volumes are expected to increase by 30% each of the next four years. Some digital wallets are discussed below:



Figure 3: Digital wallet market share in the market. Source: fortumo.com

### True Money Wallet

TrueMoney wallet is 16.8% and is at the top of the list of recommended payment methods in Thailand. With an acceptance fee of only 1% of the transaction amount, compared to about 1.52.8% for debit and credit card transactions, it is cheaper for merchants than accepting a card. According to Nirun Fuwattananukul Deputy Director and Head of Commercial at TrueMoney Thailand “TrueMoney Wallet is a payment solution for the young, tech-savvy generation of consumers, including: College students, young professionals, non-credit cardholders. The True Money Wallet allows users to scan and pay bills, top up phone credit and make purchases. It also provides the wallet infrastructure for the hugely popular 7-Eleven app. Moreover, True Money has launched a remittance service that facilitates cross-border remittance from Myanmar and Cambodia to Thailand. This provides an easy way for Thailand’s 3 million migrant workers — many of whom are unbanked — to transfer cash home to their families, without the need for a traditional banking transaction. True Money is accepted at 200,000 locations nationwide. The company will expand its partnership with merchants who provide offline payment services compatible with True Money.

### Rabbit Line Pay:

Rabbit LINE Pay is the most famous mobile payment application like PayPal in USA and Alipay in China and positioning themselves as one of the biggest players in the cashless society in Thailand. They also merged with Rabbit and turned out as Rabbit-Pay – a way for commuters

pay for BTS train fares. The company then teamed up with LINE — to take advantage of its 41 million users — and expanded into offering several other services. According to Line, the two become three in 2018 (appsynth online, 2018). LINE Thailand has contributed to the tremendous growth of the fintech sector in recent years. One of the good examples of Rabbit LINE pay is that they collaborated with Samitivej hospital. The hospital has an official LINE account. This enables its customers to access useful information when inside the hospital, book appointments, ask doctors questions about healthcare, and pay bills (through the LINE app) (appsynth online,2018). Apparently, they try to make the smooth life for its consumers. Rabbit LINE Pay, aims at bringing payment in the hands of all Thai people, as a part of their daily lives, taking Thailand into the cashless society era.

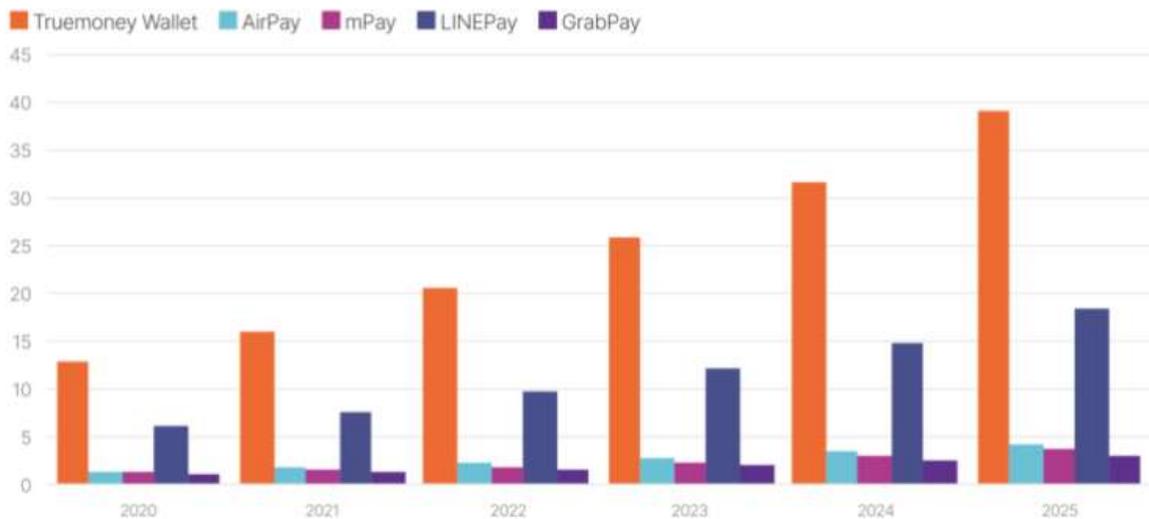


Figure 4: Digital wallet users Source: fortumo.com

### Prompt Pay:

PromptPay is a real-time proxy payment service developed by Thai bank and Mastercard company Vocalink. As one of the fastest growing instant payment services in the world, PromptPay has helped SMEs expand their opportunities and create a more comprehensive economy for the Thai people. In 2021, Thai customers used Prompt Pay for an average of about 800 million transactions each month (Bank of Thailand). Thailand has a total population of just over 70 million, but up to 80% of the population said they used payment providers. ID number, Entity registration number and digital wallet ID act as a central platform to link between various payment service providers. Make payments and transfers more convenient and faster and has a lower fee structure. The government can use it as a tool to receive - pay with flexibility. to the recipient directly, accurately and transparently, including the service provider can expand the customer base providing services to the target group. PromptPay is therefore a game changer that modernizes Thailand's digital payments, providing services that offer to the digital lifestyles of people and entrepreneurs who rely more on technology in their daily lives or running their businesses. Whether online shopping, using mobile banking or e-Wallet applications to conduct financial transactions instead of going to a bank to pay.



Figure 5: Prompt Pay source: Bank of Thailand.

### **Air Pay:**

AirPay has advanced from simply facilitating online transactions for the Garena gaming community to providing a wider range of payment services for both physical and digital goods and services including utility bills, phone credit, movie tickets, and ecommerce (appsynth online, 2018). This golden era of cashless society has captured the needs of Thai SMEs, and thus Air Pay fills in the gap and facilitates the needs for online transactions and a complete service of the online platform. AirPay is expecting the tide to shift to ecommerce with a goal of one million AirPay Card owners in Thailand by the end of this year (ecommerceiq.asia, 2017). Air pay is also come up with new services which is a virtual prepaid card called AirPay Card in partnership with MasterCard. So, it would be the best for Thai consumer who do not possess any Credit card. AirPay to recently announcing a campaign that offers a reward up to 1 million THB (\$29,463) for users who adopt cashless transactions (ecommerceiq.asia, 2017). This app mainly created to focus on urban millennials who does all types of transactions directly through their phones,” The AirPay Counter, on the other hand, is a more traditional payments option that allow users to top up their AirPay e-wallet through cash payment at an internet café or convenience store.

### **mPay:**

mPAY Wallet is a mobile wallet provided by Thai telecommunications company AIS. Customers link their mPAY wallet to their mobile number and load money into it or connect to their bank account. You can pay online by selecting the mPAY logo and entering your phone number, or you can pay via your bank account and redirect to mobile / online banking.

### **Adoption of Digital wallet in Thailand:**

The number of smartphone users in Thailand is expected to reach 61.76 million by 2025, and has been growing at full speed since 2015. This high mobile penetration has led to the exponential growth of digital payment systems, especially digital wallets. According to JP Morgan global payment trends, this shows that nearly 37 million people in Thailand, or 71%

of all internet users, made online purchases using mobile devices. Of this number, one in five customers using e-wallets prefer mobile wallets for payments on e-commerce platforms. According to the same report, digital Wallets has already overtaken card transactions, making it the fourth most popular payment method in Thailand, after internet banking, cash and over-the-counter payments. The surge in mobile payments in the country is mainly due to the surprisingly high mobile penetration rate of 63.9%. The Thai mobile operator has a customer base of 91 million, AIS has 40.1 million subscribers, DTAC has 20.6 million subscribers, and True Move has 30.6 million customers.

However, in near future, we can expect that so many digital wallet apps will pop up and more business (formal and informal) sectors will accept the digital wallet payment.

### Reason behind using Digital wallet:

- **Digital wallets are the most ideal payment method:** There are more than 52 million smartphone users in Thailand, of which nearly 37 million shopping online using their mobile phones. Of these numbers, one in five customers prefer to pay for digital wallets, making digital wallets the fourth most popular payment method in the country. In addition, Thailand is also the second fastest growing mobile payment country in Southeast Asia. As for the merchant, one can take advantage of this tremendous popularity of mobile payments by providing the ability to pay directly from your prospect's smartphone using their preferred payment method.
- **Digital wallets are affordable payment method:** There is almost nothing that enables mobile payments for your business costs. However, not necessary to have an expensive electronics gadgets or registration fees just to set up payments for your electronic wallet. All you need is a QR code sign and a mobile phone to accept e-wallet payments. All of these are provided by the acquirer or wallet issuer. If you already have a paid point-of-sale device, you can easily enable mobile wallet payments.
- **Digital wallet payments provide a smooth checkout experience:** The smooth and convenient checkout process is one of the many reasons why many Thai customers prefer to pay with an electronic wallet. Not only is the electronic wallet integrated with the smartphone, but the transaction is completed in just seconds, reducing the need for traders to wait. In addition, unlike cash and card payments, mobile contactless payments require less physical intervention, giving sellers a secure experience for their customers.
- **Digital wallets are secured:** From a security perspective, digital wallets have a better infrastructure that benefits both customers and merchants. Whether you use an NFC or QR code for all payments, you can be assured that your customers can deal with you with the confidence.

### CONCLUSION AND RECOMMENDATION

Digital wallets are one of Thailand's rising technologies; that serve as the foundation of cashless society. The direct relationship between individual daily expense and digital wallets have made users easier to familiar, positive perception and intention to use digital wallets. Thus, digital wallets are the assumption to prove the readiness of cashless society's trend in Thailand. In order to popularize in this form of economy all the e-wallet providers should have come with a strategic vision to reach those people who have significant contribution in Thai economy. Thailand has an ecosystem that makes digital payments the best recommended choice for all industries. Digital payments make it easier and better efficiency of transactions between both the public and private sectors. It is important to note that most of office goes

and middle-class people are not comfortable keeping cash in the wallet. Lately, swapping, inserting and tapping have been more popularize concept in the world. So, it is high time to advance this digital wallet process into the important economic sectors in Thailand. Author have suggested some of the major initiative can be taken into account are given below:

- Government should introduce a regulatory regime for retailers and informal sectors to mandatory use of e-wallet payment systems and this can improve to combat tax evaders.
- Government should increase facility and reliability on digital transactions.
- Provide incentive for using to popularize the digital wallet system such as supply the e-items, reduce the transaction fees etc.
- Propose awareness workshop among the consumers and also in informal sectors
- Educate people with the security and the risk factors of digital wallets.

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