

# Digital Wallet in Vietnam

## Challenges and Solutions

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**Abstract**—Following the popularization of digital wallet service in the world, daily life activities of citizens have become more and more convenient. To raise the economic position in the world and improve the living standard, Vietnam has been applying the service for years. As a think tank of the government, State Bank of Vietnam has not only issued many Decrees and Circulars on regulations and instructions of digital wallet operation mechanism but also arranged a lot of seminars on market researches and development strategy for the digital wallet. However, at the stage of rocketing development, Vietnam is now facing a lot of challenges and difficulties to deal with the requirements and demand of its actual market conditions. Under the view of governmental development researchers, this study will propose some methods to improve the quality of the digital wallet management system based on the existing problems, the advantages of Vietnam's current status, and the lessons withdraw from other countries.

**Keywords**—digital wallet; e-wallet; mobile wallet; non-cash payment; cashless payment; payment service; E-Commerce; Fin-tech

### I. INTRODUCTION

World Payment Report 2018 reveals that global non-cash transaction volumes grew at 10.1% in 2016 to reach US\$482.6 billion [1]. It is reported that the volumes of global digital wallet transactions are estimated to be about US\$41.8 billion in 2016, accounts for about 8.6% of all non-cash transactions. The fastest growth in the e-commerce market has been seen in Asia-Pacific compared to other regions, with a turnover of US\$461 billion in 2012 (27% global share) and 23% of transactions using digital wallets in the Asia Pacific [2]. This trend is expected to evolve over the next five years.

Digital wallet has become a popular payment method in many countries, while in Vietnam it is only at the beginning, expanding market share. In 2008, the State Bank of Vietnam (SBV) started to license digital wallets, but only in the last 3 years has seen the rapid growth of some digital wallets. This study will focus on some basic existing problems and then suggest some methods to develop the digital wallet market in Vietnam.

#### A. General understanding

As defined by Wikipedia, a digital wallet refers to an electronic device or online service that allows an individual to make electronic transactions. This can include purchasing

items on-line with a computer or using a smartphone to purchase something at a store.

People are usually confused about “mobile wallet”, “e-wallet” and “digital wallet”. Someone thinks they are the same; the others suppose that they are different. However, Sadhana Balaji (2018) said that digital wallets/ e-wallets are the online counter of the physical wallets [3].

Using the digital wallet has a lot of advantages in comparison with other payment methods:

- Convenience and accessibility: Customers no longer need to carry cash, physical cards or visit an ATM. Customers can pay anytime from any part of the world. E-wallet allows electronic payment of bills such as electricity, water, internet and TV, purchase of lifestyle services such as movie tickets, transport fees, hotel booking, etc., as well as money transfer and remittance via QR code and connection with bank accounts for cash withdrawals and recharge.

- Lower risk: Comparing to traditional transactions digital transactions are much more secure because they are processed by secure gateways which are hard to tamper with, no worry about losing cash or cards.

- Easily traceable: Details of payments are stored in a merchant-specific database. Payment information is easily retrieved. Ambiguity and confusion while tracking down payments will be minimized.

#### B. Overview of digital wallet in Vietnam

In recent years, the development of technology has been accompanied by the rise of e-commerce services along with many other forms, digital wallets are considered as one of the useful non-cash payment tools.

According to the Vietnam E-Commerce Report 2019 conducted by the Ministry of Industry and Trade of Vietnam, cash on delivery still is the most popular payment method in Vietnam with a rate of 82% in 2017 and increased slightly to 88% in 2019 [4].

The rate on online shoppers used the digital wallet payment method in 2018 to raise 10% compare to it in 2017. However, compared to other payment methods, the rate of using digital wallet payment is still too small number even though the digital wallet has been tested for about 10 years in Vietnam. Vietnam's population is about 97 million, of which 64 million internet user accounts for 66% of the population, 72% of the adult population that own smartphone [5]. The size of Vietnam's e-

commerce market in 2018 was estimated at US\$8.06 billion, up 30% compared to 2017. The percentage of online shoppers using digital wallets was not as expected. Customers seem not willing to change the habit of using cash in daily life.

According to statistics of the SBV, currently, about 63% of the population has a bank account. Till the end of 2019, Vietnam has 23 brands of digital wallets, there are about 4.2 million accounts associated with bank accounts. However, up to the present time, there is no digital wallet that can link with all banks in Vietnam. With too many digital wallet providers operating in Vietnam, each digital wallet has its own strengths and ecosystems, a new problem arises. Users have to install a bunch of different applications, also merchants can't be expected to serve all the different types of digital wallets.

In recent years, VIMO has cooperated with We Chat and Ali Pay to launch We Chat and Ali Pay payment for Chinese tourists in Vietnam. With this cooperation, Chinese tourists coming to Vietnam will be accepted to pay via e-wallet Ali Pay and We Chat Pay at 4,000 locations accepting payment via VIMO digital wallet nationwide.

Recognizing the importance of digital payment in strengthening the digital economy, the Government has also introduced some measures to overcome the lag compared to neighboring countries. In early January 2019, the Government of Vietnam issued a resolution requiring 100% of schools, hospitals, electricity companies, telecommunications companies, etc., in urban areas to collect tuition fees charges and electricity with non-cash payment methods, preferably on mobile devices, and POS machines. At the same time, the State Bank of Vietnam has been tasked by the Government to provide solutions and methods to encourage people to use digital wallets.

As mentioned above, the study to improve digital wallet management will take a very important role to fulfill the government target.

## II. EXISTING CHALLENGES OF DIGITAL WALLET IN VIETNAM

### A. Government policies

There are still loopholes in law corridors and regulations which make it inaccurate to apply to the new area of technology. Moreover, the speed of upgrading, correcting, and supplementing the new regulations is slower than that of market development.

There have been a series of legal documents issued by the government with many replacements recently. They are including:

Decision No.2453/QĐ-TTg dated December 27, 2011 of The Prime Minister on approving the scheme to step up non-cash payments in Vietnam during 2011-2015.

Decision No.2545 /QĐ-TTg dated December 20, 2016 of The Prime Minister on approving the scheme for development of non-cash payments in Vietnam during 2016-2020.

Decree No.101/2012/ND-CP dated November 22, 2012 of Government on non-cash payments.

Decree No.80/2016/ND CP dated July 1, 2016 on amendments to government decree no.101/2012/ND-CP dated November 22, 2012 on non-cash payments.

Circular No.39/2014/TT-NHNN dated December 11, 2014, of the State Bank of Vietnam on guiding the intermediary payment services.

Circular No.23/2019/TT-NHNN dated November 22, 2019, of the State Bank of Vietnam on amendments and supplements to Circular No.39/2014/TT-NHNN dated on December 11, 2014, on instructions about the intermediary payment services. The circular takes effect from January 7, 2020.

Going further into the current progress of preparing the draft Decree to replace Decree No.101/2012/ND-CP. In December 2019, one seminar on collecting comments on the draft Decree proved a lot of controversial comments. In this draft, one of the hottest topics, the SBV has a foreign ownership limit of 49% for organizations providing intermediary payment service. The purpose of applying this ratio is to provide stability and safety in the national monetary policy and avoid the manipulation of foreign investors to ensure national sovereignty in banking activities, creating favorable conditions for domestic investors to seize opportunities. Applying the capital contribution ratio of foreign investors is a new regulation, causing changes in investment strategies with a lot of controversies.

In fact, there are many payment intermediary providers with more foreign investment capital than the regulations such as 90% of 1Pay's capital belongs to True Money (Thailand), NTT Data Group (Japan) bought 64% of Payoo's capital, two Korean investors, Global Payment Service and UTC Investment Co., Ltd, hold 65% of VNPT EPAY capital, some foreign investors such as Warburg Pincus, Goldman Sachs, and Standard Chartered Private Equity hold about 64% of MoMo's capital, MOL Access Portal bought 50% of Ngan Luong capital, etc.

- One question that appeared is how to deal with payment intermediary service providers that have been operating with the foreign investment ratio of greater than 49% while the draft does not mention this issue. If the foreign-invested capital is withdrawn to the prescribed level of 49%, it is necessary to provide the best solution to avoid negative impacts. If not, there will be a risk of manipulation by foreign investors.
- Intermediary payment services and the financial technology sector are generally at an early stage of development in Vietnam. These are the type associated with the ongoing development of techniques and modern technology, requiring huge capital needs. There will be a question if the limitation of foreign investment capital affects the development and competitiveness of providers. At the consultation workshop for collecting opinions of enterprises Draft decree on non-cash payment was held in December 2019, Mr. Nguyen Ba Diep - Vice President of M Services, operating the MoMo e-wallet - once shared that, to build

and develop a digital wallet in Vietnam market with the scale of about 10 million users in the context of now it takes 200 million USD. With such a large sum of money, Vietnamese investors are not ready for investment but also few investors have enough capital to prepare for "losses in the plan" in the long term. Also at this workshop, Mr. Nishikawa, a member of the Board of Directors of Vietnam Community Online Services Joint Stock Company (Payoo E-wallet), representing NTT investor (Japan) said that foreign investors have contributed not only to the investment capital but also to the development of technology and knowledge, so the SBV should consider restricting foreign investment. Ms. Virginia Foote, AmCham Vietnam representative, co-chair of Vietnam Business Forum (VBF) said that the limit of foreign ownership will seriously limit the ability of Fin-tech Vietnam to develop in the region. Similarly, lawyer Phung Anh Tuan, Vice President General Secretary of the Association of Financial Investors (VAFI), Director of VCI Legal Law Firm said that payment intermediaries are currently estimated to account for 90% of activity and value of Fin-tech. Limiting foreign investment will affect the whole Fin-tech field. Fin-tech now needs foreign investment to develop, from investment in technology, market to human resources. Restricting foreign investment will significantly affect the development of Fin-tech which is an important foundation in developing digital wallets.

The possibility to apply this limit in the new decree is causing uncertainty in the investment environment and many worries for payment intermediary service providers, slow down the speed of development.

There also some awareness of a lack of mechanisms to manage international payment transactions. Under current legal provisions, international payments must comply with provisions of laws on foreign exchange control or the international payment agreements that Vietnam has taken part in as a party. However, in the current legal documents, there is no specific regulation on cooperation between Vietnamese payment intermediaries and foreign payment intermediaries and foreign banks. There is no regulation on credit institutions and foreign banks' branches which are entitled to assign payment service agents. In fact, there are still many unauthorized payment activities in which goods exchange activities on the territory of Vietnam but the payment implemented in the foreign digital money accounts of sellers and buyers. The regulators have no tools to control the cash flow, to avoid tax evasion, to determine the value of goods exchange, to collect taxes, consequently, leads to negative impacts on the market of domestic legal digital wallets. Currently, the SBV is accepting proposals to deploy new payment models of organizations such as banks, intermediary payment service providers proposing payment cooperation with Ali Pay, We Chat Pay, Union Pays, Nong Hyup Bank, this model is to serve international tourists coming to Vietnam and is implemented through a bank or intermediary payment service licensed by the SBV. However, the SBV has not had a clear legal basis as well as the authority to allow piloting.

## *B. Education situation for digital wallet market*

The lack of knowledge of the SBV's staff about modern payment mechanism is a factor hampering the development of the system, even though the SBV has held many training courses for its staff, the results still do not meet requirements. At the Financial technology in the smart economy international conference was held in June 2019, Mr. Pham Xuan Hoe - Deputy Director of Banking Strategy Institute (SBV) said that according to one survey, the demand for high-quality human resources for Fin-tech industry from businesses as well as state management agencies is huge. Fin-tech personnel requires developed all 3 aspects - financial knowledge, IT skills, and foreign language skills. However, the number of personnel meeting all 3 requirements is very small. In the traditional training programs, not any Fin-tech teaching program in the any university of Vietnam until 2018, people in finance and banking do not understand information technology and information technology people do not understand financial operations. Even the legal building agencies for Fin-tech today do not know much about it, so even though they wanted to, it was hard for them to change to keep up with such new creative models.

## *C. Lack of information and trust in the digital wallet*

According to Mr. Phan Cu Nhan, Director of the Department of International Cooperation and Communications of Vietnam Bank for Social Policies, most customers do not trust the service and especially the security of technology with applications of financial services on mobile phones. This is the barrier relating to customers that makes the digital wallet market difficult to develop.

In the same aspect, Mr. Gaurav Sharma, CEO of BIDV MetLife Life Insurance Company, said that although the number of Internet users and smartphones has increased rapidly, the majority of Vietnamese people have not used banking services via smartphones and the Internet. This number of customers is not easily accessible because they do not trust the service provided. Mr. Gaurav stated that people still use cash because they feel sure and trustworthy.

## III. THE PROPOSED METHOD TO IMPROVE DIGITAL WALLET PAYMENT

### *A. Improving governmental management by completing the legal framework*

The content to be modified includes but is not limited to the following: regulations for foreign investors to participate in the field of intermediate payments, regulations relating to the operation of cross-border payments, etc.

Digital wallet services related to banking activities, directly impacting the interests of service users, as well as affecting security and safety in national monetary policy. Therefore, state management agencies must have appropriate policies, including the regulations on the rate of foreign investors' capital contribution to this field. Most countries have set limits on foreign ownership in this sector (in Indonesia, China, the ownership ratio of foreign investors in intermediaries of payment does not exceed 20% equity capital and this figure in

Malaysia is 30% ...). Limiting the capital ratio of foreign investors will make it difficult for businesses that have been investing in payment intermediaries but the proportion of foreign investors' equity exceeds this ratio. On the other hand, this ratio will also significantly limit the attractiveness of foreign investors when they want to invest in intermediary payment services. These are significant impacts that need to be carefully assessed. It is necessary to study the experience of many other countries to prove that Vietnam's ceiling on the proportion of foreign investors' capital contribution is consistent with the trend of regulations of other countries in the world. Research on how to deal with businesses with foreign investment of more than 49% should be conducted in parallel to minimize the damage to businesses.

Along with the development of technology, arise the need to promote cooperation in cross-border payment service models between banks licensed to conduct foreign exchange operations on international markets, and intermediary payment service providers to support connection for banks with international payment organizations, the legal basis needs to be improved and supplemented to meet practical needs and improve the management effectiveness of state agencies.

Only when the legal framework is complete, the investment and business environment will be stable for businesses to develop, and the state management agencies will also be easier to manage.

#### *B. Creating a sufficient and quality workforce*

Carry out a study about the demand for sector in terms of human resources with the expected numbers of staff for the development of digital wallet service. Focus on how to meet 3 aspects - financial knowledge, IT skills and foreign languages skills

Improve the educational and training situation by the cooperation between universities and organizations in domestic and international markets. Online education is also a sufficient method.

Not only businesses need this human resource, but state management agencies in this field also need it because they only manage well when they understand it. So the SBV, banks, and businesses should take the initiative in training and retraining to adapt to the enormous changes in the industry. Universities need to grasp the market's drastic changing trend to adjust orientation and training programs. At the same time, both sides need to establish closer relationships for more effective manpower. Therefore, a fin-tech teaching program is extremely necessary to train human resources to meet both pieces of knowledge of technology and business finance.

#### *C. Creating a good using environment*

A good environment is an environment in which users can easily access information about digital wallets and use them conveniently.

Each digital wallet provider has its propaganda to attract users but reality shows that this is not enough when most people do not trust digital wallets. State management agencies should take measures in parallel with digital wallet providers to

create more trust for people. The propaganda needs to provide information on the advantages of using digital wallets through interesting and easily understood content to raise awareness and strengthen the confidence of people and businesses in electronic payment services in general. Securities, scams, and even privacy concerns also need to be provided. Propaganda methods need to be changed to suit each target.

To expand the network to accept payment via digital wallets, the government should take the lead by deploying it in public agencies and public services. For example, accepting digital wallet payment or integrating monthly ticket on digital wallets in China public transport has shown that it will reduce the operating costs for the transport unit when cutting one ticket sale-man each bus (real situation in Vietnam), avoid revenue loss and more convenient for people when not have to buy paper tickets or carry hard cards. Encouraging business units to accept digital wallet payment by incentive and support policies is necessary.

Enhance network security, confidentiality, and security of digital payment information. The SBV should proactively monitor and update the situation of domestic and international cybersecurity to warn and direct units in the whole industry to promptly prevent and handle security risks and vulnerabilities of Information Technology. Moreover, the SBV should formulate cooperation programs, exchange information and coordinate with the Ministry of Public Security, the Ministry of Information and Communications in preventing hi-tech crimes as well as deploying safety and network security solutions in electricity payment.

## IV. CONCLUSION

Digital wallet payment is a new trend of payment methods in the world. The huge amount of foreign investor capital poured into this field in Vietnam reveals that Vietnam digital wallet market is full of potential. However, digital wallets are still in the early stages to attract users and expand the network with banks and retailers. Changing people's cash spending habits is not only a big challenge for service providers but also a goal that the government aims to achieve. Apart from the efforts of the service providers themselves, the development of digital wallets depends greatly on the support of the government about completing the legal framework, creating a good environment for using the digital wallet, and creating a sufficient and quality workforce.

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