



VietNam Situation and International experience in developing a two-sided market for non-cash payment services

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According to surveys, the two-sided market has been present in Vietnam in many fields. Although the concept of a two-sided market is not yet popular, the emergence of many e-payment platforms, applications providing technology solutions, social networking channels, employment, wedding websites etc. have proven the existence and strong development of this market in Vietnam. Studying the experiences of some countries (including Sweden, Singapore and China), the author points out lessons that Vietnam can selectively apply to develop a two-sided market for non-cash payment services.

Keywords: Two-sided market, e-payment, non-cash payment, payment-services.

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In Vietnam, there are two main forms of payment, which are payment on delivery (COD: Cash On Delivery) and non-cash payment. In the context of Vietnam, COD means delivery service - collection of money. In other words, when placing an order, the buyer will have the product delivered to the door and pay after receiving the goods; This amount will be paid by the consignee. Meanwhile, non-cash payment is a form of payment through other means such as using collection and payment services, bank cards, online payment without changing the cash equivalent value. That is, the buyer and seller will use the services of intermediary organizations to complete the payment procedure. In Vietnam, Two-sided market is becoming more and more popular and is considered as one of the important issues in promoting transparency of economic and financial activities and anti-corruption. In particular, the economic context creates favorable conditions, as well as difficulties affecting the development of this form of payment. Vietnam is also a developing country, with people's psychology and habits still preferring to accumulate and cash spending. Therefore, it is very necessary to refer to the experience of developing non-cash payment service in the world, from which to have a solution suitable to the country's reality. However, in the world, the term "payment service" is used with the same meaning as the payment service in Vietnam. Therefore, in this study, the term "payment service" will be used instead.

In order to provide an overview and clearer view of the development of payment services in Vietnam and the world, the research paper "Vietnam context and international experience in developing two-sided market in the payment service" non-cash payment service" is performed, with the following contents: (1) Payment service in the context of Vietnam's economy; (2) International experience in developing payment services; (3) Policy suggestions; and (4) Conclusion.

I. Payment services in the context of Vietnam's economy

1.1. Advantage

1.1.1. The government regularly introduces policies to promote the development of payment services

In Vietnam, Decision No. 291/2006/QĐ-TTg was issued by the Prime Minister on December 29, 2006 approving the "Project on non-cash payment for the period 2006-2010 and orientation to 2020" is considered the first legal corridor to mention payment services. However, this project only focuses on deploying payment services through promoting the development of bank card services, because at this time bank cards are mainly used for ATM-withdrawal, while Payment on POS machine is quite new.

In 2012, Decision No. 101/2012/ND-CP dated November 22, 2012 on payment services of the Government specified conditions for providing intermediary payment services. Decree 101 was born, creating a basic legal foundation for payment activities, contributing to strongly promoting payment services in the economy. Therefore, more and more e-wallets, also known as online wallets - an account to pay for online transactions, were born, but still had to undergo pilot activities. The State Bank of Vietnam (SBV) has begun to issue official operating licenses to Fintech companies operating in the field of payment intermediary services.

Then, on February 23, 2018, the Prime Minister signed and promulgated Decision No. 241/QĐ-TTg approving "Project on promoting payment through banks with public services: Tax, electricity, water, education, etc. fees, hospital fees and payment of social security programs". Vietnam State Bank also issue policy to encourage payment service, financial education, some rule protect the right of consumers, and at the same time improve the quality and efficiency of payment services.

In Resolution No. 02/2019/NQ-CP of the Government on continuing to perform tasks and solutions to improve the business environment, improve national competitiveness in 2019 and orientation to 2021, the Government The government has requested to promote electronic payment and provide level 4 online public services such as tuition fees, hospital fees, electricity, water, environment, etc.

It can be seen that the legal environment for payment service activities in Vietnam is increasingly being improved and in line with new development trends. As a result, payment service activities in Vietnam have had a strong development, with the exciting competition in the development of non-credit retail services of commercial banks, technology companies supporting the service. payment services, payment intermediaries, etc. Along with that is the response from many public service providers when realizing the economic benefits of cooperation in the development of payment services.

1.1.2 Vietnam-Enterprises support to promote payment service

Vietnamese commercial banks are implementing synchronously the application of new payment support technologies and solutions to increase the convenience of card usage for users and improve payment security to help encourage users to pay. more card usage. They also start to encourage some groceries, Convenience store, small market to use QR code, VN pay.

In addition, Vietnamese commercial banks are coordinating with public service providers, such as tax, customs, treasury, social insurance, electricity, petrol, and hospital fees, tuition fees, post and telecommunications, social insurance, cable television, etc. to develop payment services.

Many businesses develop more software and applications on mobile phones to serve payment services, such as VNPAY-QR, ZaloPay, etc. Vietnamese enterprises such as VNPT, Viettel, MobiFone are already available. ready to enter the electronic payment market by Mobile Money. This is a form of payment service with many advantages, especially convenience, low cost, good coverage, etc. At the same time, to encourage people to use these applications, businesses also reduce payment service fees, payment discounts through online payment applications and offer a series of promotions for economic transactions using these applications.

1.1.3. Impact of Covid-19 on Vietnamese 's payment habits

Electronic payment in Vietnam has many advantages, with a young population structure, a fast-growing economy and a growing middle class... Especially, during Covid-19, the restriction of contact, social distancing is creating an enabling environment for rapid growth of payment services. According to a survey by Visa, in the context of the COVID-19 epidemic, 57% of consumers have up to three e-wallet apps on their phones, 55% of consumers prefer apps that can do all transactions.

Most recently, in December 2021, MoMo completed the 5th round of funding (Series E) with an investment of about 200 million USD from global investors, including Mizuho, Ward Ferry, Goodwater Capital and Kora Management. This funding round is led by Mizuho - Global Bank of Japan. In 2022, the e-wallet market will be fiercely competitive, which may push e-wallet providers to merge into a few leading regional and local super apps to dominate the market. Seizing that opportunity, businesses providing electronic payment services are planning to expand markets, diversify services, and link partners to compete to increase market share and customers.

1.2 Disadvantage

Although the Vietnamese market has many suitable conditions for the development of payment services, there are still many problems that make it difficult to promote payment services in a short time and difficult to achieve the goals set by the government. proposed by the government.

Firstly, people's habits and awareness about payment services are still limited. Cash is still a preferred payment tool and has long been a hard-to-change habit of Vietnamese consumers and businesses. The habit of using cash in payment is currently a major obstacle in the development of payment services.

Secondly, the services and means of payment are inconvenience . Although, the Vietnam State Bank has implemented a number of market-oriented programs aimed at promoting the development of the domestic card POS network. The expansion of the domestic card acceptance network still faces many challenges. many difficulties and obstacles.

Thirdly, Confidence in payment services is not high due to increasing crime in this field. Fraud arises mainly related to card account fraud and counterfeit cards, followed by other types such as stolen and lost cards. In which, card account fraud which often occurs with transactions without card presentation still accounts for a significantly higher rate than counterfeit card fraud.

Fourth, the legal framework is not yet complete. With the development of science and technology and communication, many new payment services were born but the legal corridor has not been established. Mechanisms and policies to promote payment services have not been synchronized, and have not encouraged strong investment in infrastructure; the combination of administrative measures and economic stimulus measures is not strong enough to bring the policy into practice.

II. Experiences of countries in developing a two-sided market for non-cash payment services

2.1 Sweden

Sweden is one of the countries that has achieved the most obvious results in the development of non-cash payment services. Specifically, in 2015, the total value of cash accounted for only 2% of the value of all payment transactions in Sweden and is forecast to decrease to only 0.5% by 2020 (Phuc et al., 2019). To achieve the above results, the system of commercial banks (two-sided intermediaries) has implemented many important policies as follows:

Firstly, raise awareness and encourage people to use payment services. Specifically, very early on, commercial banks in Sweden have encouraged companies, businesses and employees to limit the use of cash payment. Credit cards and ATM cards have been promoted since the 1990s, when commercial banks began to charge fees for checks (Thang, 2016).

Second, develop technical infrastructure for payment services. Accordingly, the basic solutions are: Sweden develops and implements many applications to support electronic payment (e-payment) on the phone. For people with bank accounts and smartphones, they can transfer money from one account to another, regardless of whether they are in the same system or not, instantly and at no cost. For retailers, they mainly use the Zettle system - a very cheap and easy to use system. The system helps to receive Visa card payments - a card used a lot in Sweden and a mini card reader attached to the phone charging port. It is these innovations in technology that have driven the implementation of payment services.

In addition, the Swedish Government also applied strong and administrative measures to drastically reduce cash payments. The Swedish government has banned the use of cash in some public services, typically in public transport such as buses or trains. However, for the elderly and pensioners, Sweden still maintains a system of some convenience stores with a combination of payment between e-payment and cash. Along with that, in order to gradually orient this group, the Government and commercial banks themselves always give maximum incentives and support. At the same time, pension reforms and comfortable maternity leave have helped Sweden maintain and raise the employment rate and the retirement age of its people. Therefore, the Swedish Government expects that some pressure on maintaining cash in payment and circulation will soon be resolved (Tháng, 2016).

2.2 Singapore

From 1985, Singapore started a campaign to promote payment services for small transactions with the introduction of Electronic Payment System at Point of Sale called NETS and developed by a consortium of the same name, allowing payment at retail stores by ATM card.

The NETS system, the result of the combined initiative of three major banks in Singapore, DBS Bank, OCBC Bank and United Overseas Bank (UOB), has been at the forefront of Singapore's social development strategy for payment services. This outcome is the result of advances in internet connectivity and cloud computing technology, along with widespread adoption of mobile devices and mobile applications.

Specifically, in 2017, the launch of PayNow allowed Singaporeans to transfer money between banks and facilitated the development of the payment service system. However, the success of NETSPay and NETS QR (two payment services developed by NETS Corporation) in cash-intensive areas such as street vendors is considered a key driver to encourage small-value transactions applying electronic payment. NETSPay mobile wallet allows customers to make payments using smartphones. NETS QR integrates all QR code payment transactions in a single e-payment device, with the support of contactless technology and QR code and chip-based terminals to save store space.

The SGQR system, developed by the Monetary Authority of Singapore, incorporates different e-payment solutions in a single QR code label. This facilitates smooth checkout at any retail store. The simultaneous introduction of the Fast And Secure Money Transfer (FAST) payment system also allows customers to transfer funds within the Singapore banking system instantly. SGQR and FAST have thus enabled customers to make 24/7 payments that were not possible before. In an environment where retailers only need to use e-wallets like GrabPay to pay at any time, these payment systems will make it easier for retailers to accept e-payment.

Despite advances in the field of e-payment, street vendors in 114 public sales centers in Singapore still find it difficult to change their habits in using e-payment solutions due to the transaction value at the counters. They are often small and take too long for the e-payment system to process, even with the SGQR and FAST payment systems. For example, if the payment transaction is made on a Friday, it will take the system entire 2 weekend days to process and the street vendor will not receive the transaction amount until the next working week.

However, since January 17, 2019, this issue has been completely resolved. NETS has implemented a new system function that allows for faster transaction processing. Street vendors will now receive their sales the same day, including weekends and public holidays. NETS payments received before 5pm will be credited to DBS, OCBC or UOB bank accounts by 11pm on the same day. This includes QR code payments via DBS PayLah! OCBC PayAnyone and UOB Mighty but not including CashCard and Nets FlashPay payment transactions (two payment services developed by the NETS bundle) (State Bank, 2019b).

As part of a unified payments framework, NETS will be the only party to reconcile accounts, so merchants do not need to deal with different e-payment companies. NETS will also provide street vendors with a payment terminal that can be used for both card payments and QR codes. This allows different types of e-payment to run on a unified system for smooth money transfers.

In particular, in order to encourage the popularization of non-cash payment, street vendors will not have to pay fees for the first 3 years of using NEST. The government will also pay the payment system transaction fee. This means that street vendors won't have to pay any extra fees - an effective way to expand payment services to retail vendors. Street vendors rely heavily on cash, using the NETS e-payment solution will allow sellers to receive regular sales payments. The complex day transaction settlement problems faced by street vendors have also been solved by NETS. The advantage of having 20 identical e-payment systems will help sellers reach a wider audience (SBV, 2019b).

2.3 China

Currently, in China, there is still a large part of the population without a bank account, while telecommunications companies have widespread coverage, payment via mobile phones or e-wallets has an opportunity. developed very strongly (Hac, 2019). Therefore, the Chinese government has taken advantage of the opportunity and has appropriate support policies to achieve success in the field of mobile payments, specifically:

Firstly, mobile payments are promoted by the growth of online shopping activities. Surveys in China show that 95% of people use the internet by mobile phones (Hac, 2019). For example, Alipay, a payment service of Alibaba Group, has quickly become popular in China. However, Alipay also faces a big challenge as Tencent, a Chinese investment holding company with subsidiaries providing media, entertainment, internet and mobile value-added services, and operates online advertising services in China, presenting payment functionality through an application on the Wechat mobile platform.

Secondly, smart wallets, which are a special improvement, when mobile applications can connect online to direct retail transactions, are built, developed and widely applied. These transactions are done through a matrix barcode (QR code). QR codes are now ubiquitous in Chinese-language retail stores and restaurants (Hac, 2019). Users only need to open the Wechat or Alipay application to capture the QR code and pay or the seller collects the customer's money by capturing the customer's QR code.

Thirdly, expanded e-payment provides better access to retail customers who are ignored by most banks in China because they only borrow money in small amounts. In addition, this group of customers does not receive a credit rating because China has not yet built a complete personal credit rating system. This has made banks hesitant to lend money to these individuals (Hac, 2019). However, with the advent of e-payment, credit ratings for customers were created using personal information and online shopping history. Therefore, small groups of customers have the opportunity to access credit services more easily. In fact, Alibaba and JD.com, China's two largest electronic payment gateways, have allowed consumers to borrow for less than 10,000 yuan (Hac, 2019).

Two-sided market participants also play an important role in the development of mobile payment services, such as:

Mobile network providers: In 2008, the Chinese government implemented reforms and established three mobile network providers China Mobile, China Telecom and China Unicom (reducing the number of providers from 6 to 3) (Hac, 2019). The main mission of these providers is to promote China's telecommunications market, especially when 3G technology was licensed in late 2008. These three carriers have created a tight monopoly with a large position in the market and pursue a vertical integration strategy either directly acquiring, or investing in companies or forming strategic alliances.

Commercial banks and other financial institutions: For banks and other financial institutions, the factors affecting their market strategy in the mobile payment industry are the infant consumer credit market, inexperience in consumer credit and lack of direct access to consumers over networks where mobile service providers dominate. The solution for the main banks is to combine with the carriers or build their own credit infrastructure by attracting businesses or the retail industry.

Chinese banks have pursued both strategies. In addition, banks have tried to create a parallel credit system. In 2009, the PBOC developed a standard online interbank financial services platform, the second generation of an online payment system called Super Internet Bank or Super e bank (Hac, 2019).

E-commerce platform payments: With the boom of e-commerce and the recession of credit cards, China has led the world in mobile payments. These third-party service providers have taken over the market, threatening the efforts of banks and network service providers. Alibaba even built its own network even overseas, of which 110,000 stores accept Alipay (Hac, 2019).

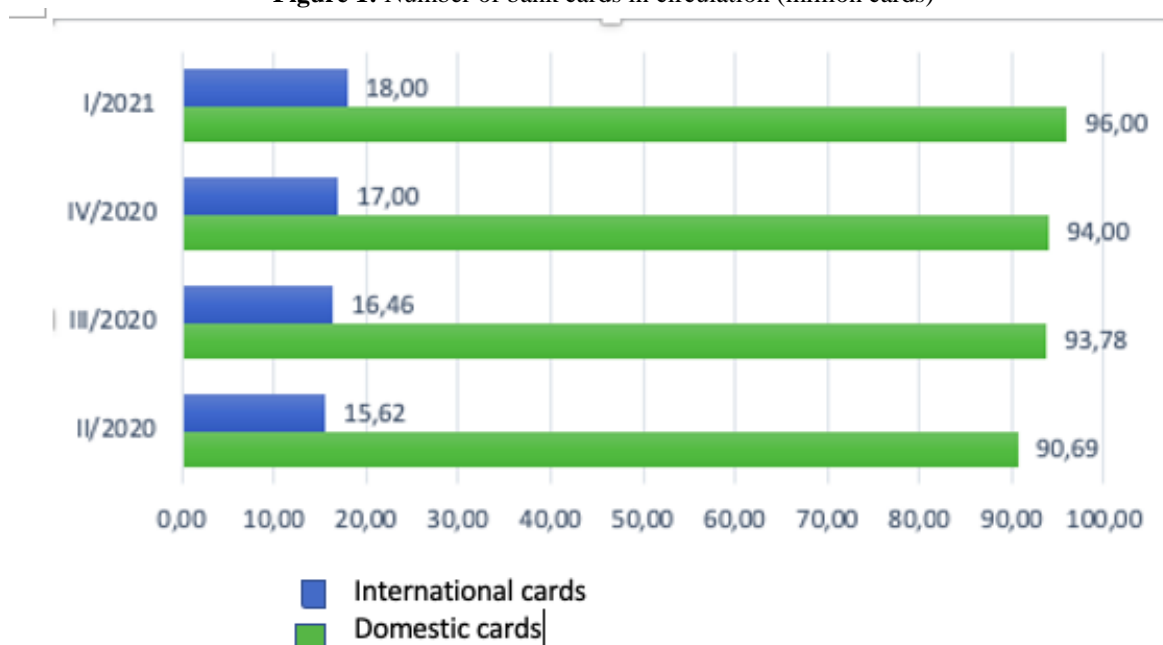
III. Situation of two-sided market development for non-cash payment services in Vietnam

Payment via card

Since the Vietnamese market first issued a bank card (in 1996), by June 2016, the number of issued cards has reached over 106 million cards (an increase of 3.4 times compared to the end of 2010) with 48 issuing banks; in which, debit card accounted for 90.66%, credit card accounted for 3.53%, prepaid card was 5.81% (Luu Phươc Ven, 2019).

To reflect the current status of card operations, since the fourth quarter of 2019, the State Bank of Vietnam (SBV) has announced the total number of cards in circulation instead of the accumulated total number of issued cards. By the end of the second quarter of 2020, the total number of cards in circulation is 106.31 million cards, of which 90.69 are domestic cards (accounting for 85.31%) and 15.62 million international cards (accounting for 14.69 %) (SBV, 2020).

Figure 1: Number of bank cards in circulation (million cards)



Source: State Bank of Vietnam, 2021

The number of cards in circulation at the end of 2019 reached 103 million cards (an increase of 16.5 million cards compared to 2018), of which the number of new cards issued in the year was 22 million cards. In 2020, the number of cards increased more slowly and there were 111 million cards nationwide, partly due to the slower increase in the number of newly issued cards due to the impact of the COVID-19 epidemic. As of the first quarter of 2021, the number of cards in circulation nationwide is 114 million, of which domestic cards are 96 million, accounting for 84.2% of the total number of cards in circulation, and international cards are 18 million, accounting for 15.8%.

Interbank e-payment

Interbank e-payment is considered as one of the forms of commerce in Vietnam. Transactions through the interbank e-payment system are operated effectively with the number of transactions and the value increasing almost steadily over the years.

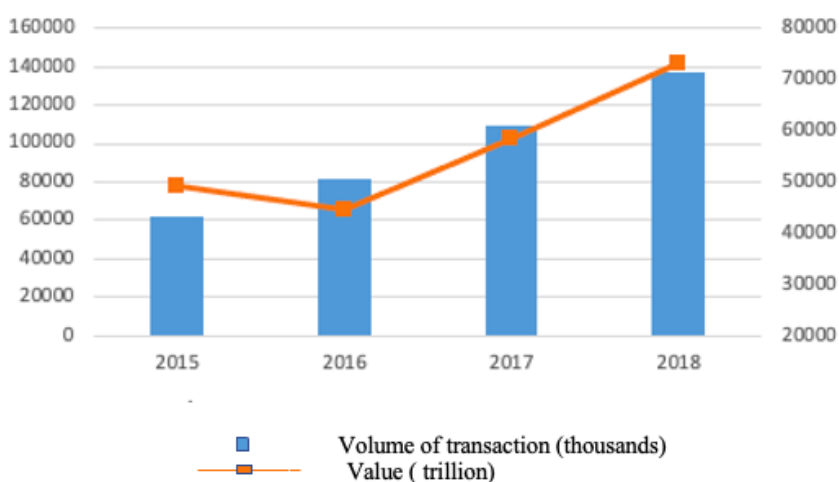


Figure 2: Transactions through the interbank electronic payment system

Source: Compiled from SBV's Annual Report

The total value of transactions through the Interbank E-payment System in the first 6 months of 2019 reached over 64,160 thousand transactions, equivalent to nearly VND 35,728 trillion (an increase of about 23.23% in the number of transactions and an increase of 17.63% in terms of transaction value over the same period last year) (Nguyen Thanh Thao, 2020).

Payment via e-wallet

For payment methods via e-wallets, in the first quarter of 2019, the total number of transactions by e-wallets reached nearly 77,454 thousand transactions with a total transaction value of nearly 29.5 trillion dong (up 55.5% in terms of quantity and 77.7% in value over the same period in 2018), an average of about 380,864 VND/transaction; The average number of transactions of an e-wallet is about 2.54 transactions/month, the average transaction value of an e-wallet is more than 966,000 VND/month (Le Van Tuyen, 2019).

Payment via internet and mobile phone

Along with the convenience brought by payment methods, transactions via the Internet and mobile phones have also increased rapidly. The number of transactions in 2018 through the Internet was 255 million times, corresponding to a value of VND 16 quadrillion, up 33.6% and 19.5% respectively compared to the end of 2017. Transaction value via phone mobile phones reached more than 185 million transactions, with a transaction value of nearly VND 1.8 quadrillion, up 41% and 169% respectively compared to the end of 2017 (SBV, 2018).

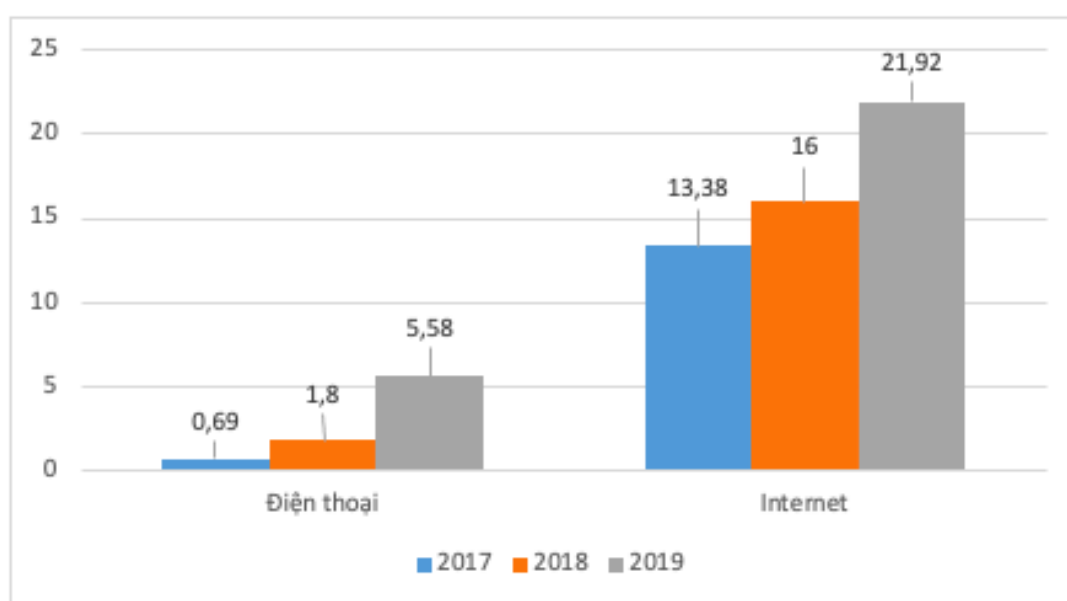


Figure 3: Transaction value via internet and phone in the period 2017-2019 (VND quadrillion)
Source: State Bank, 2018

IV. Lessons for Vietnam on developing a two-sided market for non-cash payment services

From the international experience and the progress of developing a two-sided market for non-cash payment services in Vietnam, the author draws a number of lessons that Vietnam can selectively apply to develop the two-sided market for customers with the non-cash payment service, specifically:

Firstly, Vietnam is a developing country, with people's mentality still heavy on the accumulation and use of cash in payment and consumption, strong measures will not be effective immediately.

Secondly, some issues require a gradual shift. Payment services in Vietnam are marked by the introduction and use of ATM cards. However, the ATM card itself is also in need of improvement to improve the quality and scale of use. Many Vietnamese people only use ATM cards to withdraw cash, completely unaware of POS card machines; meanwhile, the investment in ATMs is expensive and inefficient for commercial banks.

Thirdly, develop payment acceptance infrastructure for small and medium-sized enterprises in order to apply widely to customers and businesses.

Fourth, on the basis of the existing network and platform to distribute electronic payment products and services,

thereby expanding electronic payment methods quickly and reducing costs.

Fifth, the SBV needs to have an orientation with the commercial banking system to create a common electronic infrastructure for businesses to reduce barriers and costs when making payments other than the banking system. Forming interoperability to break the barrier of limiting electronic transactions in a single payment platform, thereby increasing the applicability and acceptance of payments.

Sixth, develop a legal system to promote technology innovation and responsible use. Accordingly, the legal framework for payment services needs to be completed soon in the direction of promotion, encouragement, orientation and high effectiveness. Along with that, it is necessary to have policies to encourage and improve the convenience of electronic payments in order to quickly and widely apply this electronic payment method.

V. Policy suggestion

There is no denying the great benefits of developing payment services for the entire economy as well as for the banking system and for each individual person. When payment services are encouraged and included as the main payment method in society, bringing many benefits to promote sustainable economic development, it will create transparency in spending and transactions, helping the cash flow to be circulated more clearly and smoothly. Thus, there are some suitable solution.

Firstly, the State needs to perfect the legal framework and supervision mechanism in payment services. The contents that need to be improved are not only the system of legal documents related to payment activities in general in the economy, both cash payments and payment services, but also need to create a favorable environment. fair competition,

Secondly, change people's habits and perceptions in seeing cash as a preferred payment tool and has long become a hard-to-change habit of consumers and many businesses.. Therefore, in order to develop payment services, it is necessary to first help each citizen understand the benefits of this means of payment. If people have a fuller understanding, they will feel safer, more convenient and more comfortable when using the services provided by the bank, thereby inevitably arising the need to use them.

Third, there are specific solutions from the State Bank as well as commercial banks. Accordingly, banks need to integrate cards with payment cards that people are using commonly to reduce the registration procedure for opening a card and this card can be used in many banking systems. Modernizing the bank's electronic payment system will help the bank build a modern infrastructure to provide a wide range of products and services to better satisfy the needs of customers. reduce operating costs, enhance management efficiency and increase business efficiency.

Fourth, modernize technology and payment systems. Building a modern payment system is the long-term goal of Vietnam's banking industry. A better organized, safer, less risky payment system will not only increase payment sales, make payment services more and more complete in the eyes of consumers, but also contribute positively to the activities of other services to develop.

Fifth, in order for Fintech to officially provide payment services, including public services, the Government has assigned the State Bank to study and build a legal framework to allow companies to Fintech participates. Banks are also determined to cooperate with Fintech companies because Fintech companies have many advantages. This forces the bank to change the way it operates, and at the same time, the utility services must be diversified and coordinated. Recently, Fintech companies have also cooperated with banks since customers are required to have a bank account and money into e-wallets must come from bank money, cash in and out of e-wallets must also be informed. via the bank. This is also a premise for favorable cooperation between the bank and Fintech, ensuring a variety of payment methods for customers.

VI. Conclusion

Payment services are an indispensable method in the trend of economic development to promote the production and exchange of goods and services to develop rapidly according to the market mechanism. Payment business has been and will be a potential market for the whole world and directly in Vietnam. However, for the proportion of payment for payment services in the total payment volume across the country to reach 90% by 2025 according to the government's scheme, there are still many difficulties. To achieve that goal, it is necessary to have the coordination and support of both the State and enterprises operating in the field of payment services in raising people's awareness of the benefits of payment services and payment services. propose solutions to overcome problems that slow down the development of payment services.

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