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THE TWO-SIDED MARKET AND ITS IMPACT ON THE DEVELOPMENT OF NON-CASH PAYMENT SERVICES IN VIETNAM

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ABSTRACT

This article researches the two-sided business market and model; analyzes the correlation between the two-sided market and non-cash payment services. On that basis, the article identifies the situation and trend of non-cash payment from the perspective of a two-sided market in Vietnam.

Keywords: Two-Sided Business Model, Service, Non-Cash Payment.

INTRODUCTION

Overview of the Two-Sided Market

A two-sided market is one in which both buyers and sellers interact, exchange and trade products or services directly through an intermediary or a platform for both sides' benefit... In other words, a two-sided market is a place where intermediaries connect groups of customers by providing a separate type of goods and services for each group, from that profit through the connection.

It was not until the early years of the 21st century that the concept of a two-sided market became known and was first introduced by Rochet and Tirole (2003). After that, the works of Parker and Van Alstyne (2005), Armstrong (2006), Fillistruchi (2008), ... step by step contribute to clarifying the nature and importance of this market, both in terms of economics and law aspects. In a two-sided market, there exist intermediaries (or platforms) that provide products, services, or utilities that link two (or more) groups of people using them. Two-sided market literature often uses the terms "seller-user", "seller-customer/buyer" or "users/customers".

In previous studies, a two-sided intermediary is a specific business form of a multi-faceted intermediary, connecting two separate groups of customers with dependent needs. They create value as intermediaries that provide goods, services or technology platforms to connect groups of customers (Osterwalder, Pigneur and Smith, 2010; Eisenmann, Parker and Van Alstyne, 2006).

The two-sided market concept, originally conceived in economics, was gradually applied in management and marketing. On the basis of studying the literature on network externalities, the theory of two-sided markets, Katz and Shapiro (1986) argue that internet intermediaries must bring the two sides of the market on the same "boat" to have where two sides of the market are business objects (B2B) and consumers (B2C). Thus, a dual market refers to two distinct groups of users that provide each other with a network effect. For example, portals and online newspapers are competitors for advertisers and consumers.

In economics, this theory is used to consider the optimal degree of price discrimination among network participants (Rochet and Tirole, 2003). In management and marketing, the model helps define markets for content providers and end consumers and determine the optimal size of two user networks (Le Nagard Assayag and Manceau, 2001; Nair, Chintagunta and Dube, 2004). Accordingly, in general, a two-sided market is a place where an intermediary exists to connect two (or more) customer groups by providing a separate product or service for each group, thereby making profit through this connection (Rochet and Tirole, 2003). The two-sided market consists of three main features: a platform that provides separate services to both sides of the market; users benefit from user participation on the other side of the market; the platform determines the price on both sides of the market. Thus, in a two-sided business model, there are at least three parties involved: an intermediary enterprise that provides goods and services to groups of customers and at least two groups of customers with the need to transact with each other using goods and services provided by enterprises; in which, the above-mentioned intermediary enterprise is called a double-sided enterprise.

In order to confirm the role and importance of the two-sided market for the development of non-cash payment services in Vietnam, in this article, the author focuses on market research and business model; analyze the correlation between the two-sided market and the non-cash payment services. On that basis, identify the situation and development trend of non-cash payment services from the perspective of a two-sided market in Vietnam.

The Correlation between the Two-Sided Market and Non-Cash Payment Services

Currently, the two-sided business model model can be found in many industries, sharing space with traditional product and service offerings, for example: Credit card market (including cardholders and merchants); health maintenance organizations (patients and doctors); operating systems (end users and developers); video game consoles (gamer and game developers);

recruitment websites (job seekers and recruiters); search engines (advertisers and users); and communication networks, such as the internet.

One- side market (Traditional market)



Two-sides market



Figure 1: Difference between Two-Sided Market and One-Sided Market

In the world, there are plenty of successful multinational companies applying the two-sided business model model such as: American Express (credit card), eBay (e-commerce platform), Taobao (an e-commerce platform in China), Facebook (social network), LinkedIn (professional network), Mall of America (shopping mall), Match.com (dating platform), AIESEC (leadership development for youth) by placing talent in companies), Monster.com (recruitment platform) and Sony (game console)...

In Vietnam, although the term "two-sided market" is still vague, forms of two-sided business model through activities in tutoring centers, job brokerage centers, real estate brokers... have appeared for a long time. Along with the boom and strong development of technology, two-sided intermediaries appeared and quickly gained a foothold in the Vietnamese market, especially in the press, e-commerce platforms, social networks and non-cash payment (Truong Trọng Hiếu, 2016). In particular, the outstanding advantages of electronic payment center services have attracted the interest of a large number of customers, which has also created a race between banks and financial institutions in providing this service.

According to the Vietnam Card Association, by the end of 2021, the total number of cards in domestic circulation is 100 million, the number of cards in international circulation is 21 million and card sales of all kinds of member organizations increased 24% compared to 2020. Besides, card products are also increasingly diversified. Most of the international brands such as American Express, Visa, MasterCard, JCB, Diners Club, Discover and UnionPay are already present in Vietnam. In particular, in the past four years, the widespread development of mobile payments is challenging the position of today's popular payment methods - card and bank payments.

VN Pay's report shows that by the beginning of 2021, payment via QR code has grown by 180%, the number of transaction points accepting QR code payment has increased to nearly 8,000 points. Most of the major banks in Vietnam such as Vietcombank, VietinBank, BIDV,

Agribank, ABBANK, SCB, IVB, NCB, SHB, Maritime Bank, VIB... have integrated payment solutions via QR code on Mobile Banking mobile applications. Besides, customers can also use ATM cards/Domestic accounts and international cards such as Visa, MasterCard, JCB to pay for transactions via VNPay-QR payment gateway (VN Pay, 2018). According to Sapo's report (2020), the total number of transactions made through the Napas system in 2021 will increase by 94% in terms of transaction volume and 131% in transaction value compared to 2020. In 2021, transactions ATM cash withdrawals processed through Napas system for the first time decreased by 5% compared to 2020.

Related studies on card payment, phone payment, e-wallet... also show that this is also an activity with features of a two-sided market, with consumers on one side of the market. payment platform and the seller on the other side. However, the main risk in platform development is the “chicken and egg” problem where the number of platform users on one side is insufficient or not reaching the critical mass required for users development on the other side, making it impossible to create cross-party network effects to accelerate the growth of the platform market (Gawer and Cusumano, 2014; Ruutu et al., 2017).

In other words, the problem that organizations providing non-cash payment services such as: international financial institutions such as Visa, MasterCard (the organization providing a payment network via card) or companies of e-wallets (such as Momo, Zalopay), banks are interested in how to attract service acceptance from both customer groups (buyers and sales establishments).

Meanwhile, the theory of the two-sided market states that consumer acceptance and merchant acceptance for a payment method are interdependent (Li et al., 2020). Specifically, when a user on one side accepts a certain non-cash payment platform, they will consider the population size of the corresponding user on the other side (Rochet and Tirole, 2003; Wang and Lai, 2020). In other words, the acceptance of a shopper (users on one side) will depend on the number of establishments accepting that payment method (the number of users on the other side) and vice versa.

However, empirical evidence in Vietnam on such dependence is scarce, especially on the consumer side. The evidence is the research of some banks such as BIDV, Vietcombank, Techcombank... and some studies by Lê Thi Biec Linh (2010), Truong Thi Cam Nhung (2013), Do Thi Lan Phuong (2014) have reviewed. factors affecting the acceptance of the non-cash payment by customers such as the habit of using cash; client's income; benefits of services etc, but still highly differentiated, not linked closely and not considered from the perspective of/in the setting of a two-sided market.

The Development Trend of Non-Cash Payment Services in Vietnam from the Perspective of a Two-Sided Market

It can be seen that the combination of two-sided business enterprises and the non-cash payment method is effective in the context of the rapid development of e-commerce in Vietnam, especially when the non-cash payment methods are also two-way business models. More specifically, in terms of two main aspects: One is the two-sided business enterprises associated with the organizations providing non-cash payment services (banks, e-wallets); Second, the organizations that provide non-cash payment services are also a two-faced business entity, specifically

The Two-Sided Business Enterprises Associated with the Organizations Providing Services of Non-Cash Payment

In Vietnam, e-commerce platforms often associate with many card issuers as well as e-wallet applications in providing payment methods. Specifically, Shopee currently offers four forms of non-cash payment including: Payment by AirPay Wallet, payment by domestic ATM card, payment by international credit/debit card and payment by bank transfer. Shopee cooperates with international cards such as Visa, JCB, Mastercard and American Express, and a series of large banks in Vietnam such as Vietcombank, Vietinbank, BIDV, Techcombank, VPBank, ACB, HSBC, SeABank... Tiki also shook hands with big banks such as VIB, BIDV, OCB, ACB, SHB, Vietinbank, etc. with 3 international brands: Visa, Mastercard and JCB, and two e-wallet partners, Momo and ZaloPay.

The promotion of the use of non-cash payment methods is mainly done through promotional packages such as discount, coin refund, 0% installment payment, etc. However, online payment on electronic exchanges is still low in general. Each month, Tiki has 4.5-5 million orders, but online payment is only about 40%, and the remaining 60% is cash payment (Tú Ân, 2020). The main reason is concerns about product quality as well as safety issues when making online payments.

Applications providing technology services also strongly link with partners such as banks and e-wallets in performing transactions. Grab currently offers 2 main non-cash payment methods: via Moca e-wallet on Grab app and payment via international credit/debit card (Visa, Mastercard, Amex, JCB) or domestic ATM card (SHB, MSB, Vietinbank, Vietcombank, Sacombank, ACB, SCB, OCB, HDBank, Vietcapital Bank, Shinhan Bank, VPBank, Agribank, Ocean Bank, Techcombank, SAIGONBANK, Bac A Bank, ABB, Eximbank, VIB and SeABank).

The promotion of non-cash payment is also conducted mainly through price incentives, reward points, etc. The convenience as well as incentives come from the combination of technology applications such as Grab and the partners providing non-cash payment methods, which are banks and Moca, have generated positive signals in the use of electronic banking, especially in the context of COVID-19 with the restriction of contact, contributing to changing the habit of using cash of Vietnamese people. Specifically, in August 2020, the number of first-time non-cash payment users of a shopping center for Grabmart service increased by 28%, while the number of non-cash transactions for GrabMart increased by 128% compared to the previous month (Banking Times, 2020).

In general, in the future, the combination of these intermediaries with banks and e-wallets will create a big boost for the promotion of non-cash payment in Vietnam. Besides the benefits of promotion; information security, return policies, modern and convenient transaction methods also need to be further enhanced, creating trust for consumers, stimulating online shopping and shifting gradually consumers' habits to non-cash payments.

Banks are Two-Way Intermediaries - Two-Way Business Entities

As a connecting intermediary, banks provide payment services to link service users (accounts, ATM cards, ...) with units accepting these services. By the end of 2019, the whole country had 78 banks deploying payment services via the internet and 49 banks providing payment services via mobile phones (Lê Thị Thanh, 2020). Some banks that provide Mobile Banking application

can be mentioned such as: BIDV, TPBank, MB, VIB, Vietcombank, Vietinbank, OceanBank, Agribank, Eximbank, MaritimeBank, SHB, NamABank...

In particular, the development of payment methods via internet and phone is supported by two important factors: Firstly, the number of mobile devices, including phones and tablets, is increasing rapidly in the past few years; The second is a wireless internet connection system (from 3G carriers) that allows users to keep their devices online 24/24, as long as there is telecommunications signal (Vu Hong Thanh and Vu Duy Linh, 2016).

Along with the strong development of e-commerce, banks strengthen links with businesses and organizations in online payment, reflected in the number and value of transactions through the interbank electronic payment system has almost steadily increased over the years. Besides, with credit and debit card services... credit institutions are two-sided business entities, connecting users of these services with card-accepting units. It can be seen that the strong development of the business model in recent years when the number of cards issued (representing users) as well as the number of POS machines (representing the accepting units) is increasing.

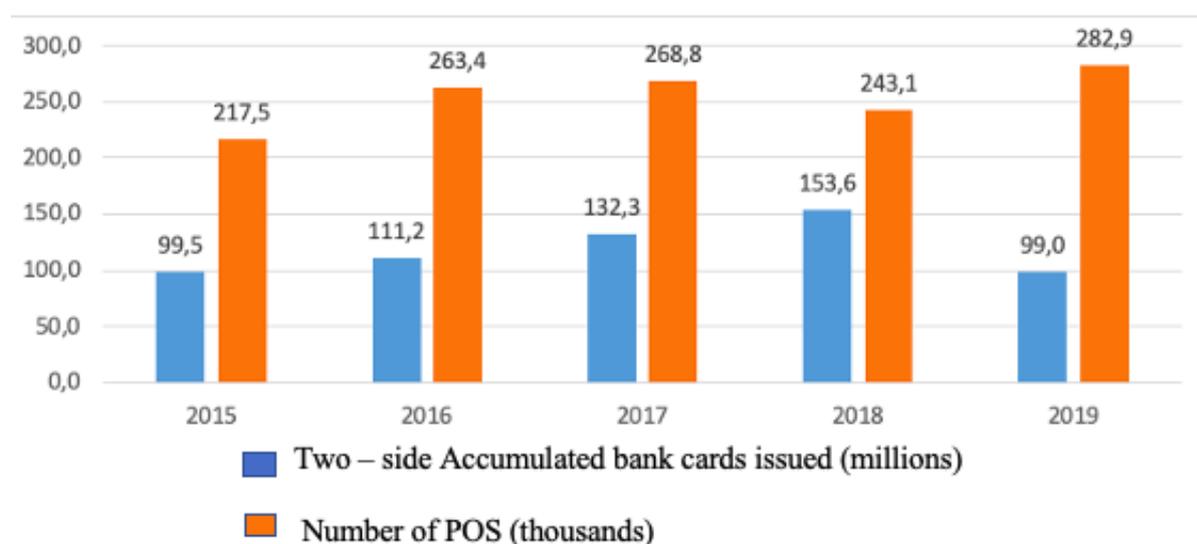


Figure 2: Number of ATM cards and POS Machines in the Period 2015-2019

*The decrease in the number of bank cards in 2019 is due to the change of the State Bank in announcing the total number of cards in circulation instead of the cumulative total number of issued cards.

Source: Compiled from data of the State Bank of Vietnam

Companies that Provide E-Wallets are Two-Way Intermediaries - Two-Way Business Entities

As of August 2020, the whole country has 37 non-bank organizations licensed by the State Bank to provide intermediary payment services (SBV, 2020), of which the majority are organizations providing wallet services. electronic devices such as Momo, Payoo, Moca, Airpay, Samsung Pay, ZaloPay, ViettelPay.... As a two-sided intermediary, e-wallet, connects shoppers with payment acceptance points. These wallets focus on the features of phone top-up, payment via QR code, payment of mobile phone service bills, electricity and water bills, internet, financial loans, installment loans, consumer loans. In particular, Momo, Moca and ZaloPay are considered the 3 most commonly used e-wallets in Hanoi and Ho Chi Minh City, accounting

for 90% of the wallet user market share (Cimigo, 2019). Considering Momo alone, the number of users of this e-wallet increased from 10 million at the beginning of 2019 to more than 15 million by the end of 2019 with more than 100,000 payment acceptance points and more than 22,000 partners who are leading domestic and international names of all areas from online to offline.

Through this, it can be affirmed that the two-sided market has been developing in Vietnam in many fields. Although this concept is really well known today, the emergence of more and more e-commerce platforms, applications providing technology solutions, social networking channels, connection websites, etc. employment, marriage, etc. have proven the existence and development of the market and business model in Vietnam.

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