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Developing Smart Banking Services to Disadvantaged Groups in Hanoi: A Case Study of Joint Stock Commercial Bank for Investment and Development of Vietnam

¹Dang Thi Thuy Giang, ²Le Cao Dai

^{1,2}University of Labour and Social Affairs, Hanoi, Vietnam

Corresponding Author: **Dang Thi Thuy Giang**

Abstract

Smart Banking is a banking service on smart mobile phones, allowing individual customers to perform main financial and non-financial transactions and advanced utilities provided by the bank. However, Smart Banking services are difficult to reach disadvantaged groups. These are migrants, disabled people, the elderly, the poor, children. The purpose of this essay is to analyze the actual use of digital banking services by disadvantaged groups in at Joint Stock Commercial Bank

for Investment and Development of Vietnam. Through studying the current situation of using secondary data in 2022, the author identifies the benefits and difficulties when offering Smart Banking services to reach vulnerable subjects at Joint Stock Commercial Bank for Investment and Development of Vietnam. From there, the article proposes solutions to try to increase the attraction of using Smart Banking services among disadvantaged groups.

Keywords: Disadvantaged Groups, At Joint Stock Commercial Bank for Investment and Development of Vietnam, Smart Banking

1. Introduction

Today, the use of information technology in modern banking operations is regarded as an unavoidable trend that commercial banks prioritize. Technical and technological solutions have aided in the advancement of banking information technology, which is a component that aids banks in increasing competitiveness by diversifying products and services and gaining market share using automated transaction devices, increasing the capacity and efficiency of commercial banks' business operations. The demands of consumers are increasing in tandem with the expansion of the market economy, owing to increased competitive pressure among financial institutions, and notably due to the rapid development of financial institutions. Information technology and digital banking services have emerged and are continually evolving and improving. However, disadvantaged people have difficulty accessing technology. Many of them have limited access to information and difficulty meeting the conditions to open and use bank payment accounts. In addition, there are difficulties in traveling distance from residence to cash withdrawal points; inadequate account usage costs and smartphone user operating skills; for those who have access to digital banking services, usage often stops at the simplest services such as money transfer and payment.

Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV) was a pioneer in establishing digital banking services such as Internet Banking, Home Banking, Phone Banking, Mobile Banking, and, most recently, Smart Banking. BIDV has several advantages in applying new technology in automating processing and establishing digital banking services since it has a modern banking technical infrastructure. This service has attracted a big number of consumers due to the utility it provides. However, it is not often used by susceptible clients. As a result, banks must constantly enhance service quality and adapt how they use smart financial services to better serve customers in general and disadvantaged groups.

2. Overview of the Reviews and Theoretical Framework

Overview of the Reviews

Simon Starcek and colleagues (2013) ^[8] found that people with disabilities often face many obstacles in accessing financial services. This situation is due to lack of financial literacy and inaccessibility to financial service providers both in terms of infrastructure and the rules of the financial system. The research uses group discussion and survey methods. The results show that the level of financial knowledge of people with disabilities is reflected in their financial planning ability.

Ha Nam Khanh Giao and Ha Minh Dat (2014) ^[3] conducted research to identify characteristics that older clients care about

when choosing a bank and to investigate disparities in attention to factors across other customer categories together.

Ngo Thi Thu Hang (2017) ^[6] conducted research on access to banking services for persons with disabilities in Vietnam, which revealed the current status in access to banking services for people with disabilities in Vietnam. At the same time, the study makes recommendations and offers solutions to improve access to banking services for disabled people in Vietnam.

Tran Thi Thanh Nga (2022) ^[10] used technology acceptance model (TAM) and theory of planned behavior (TPB) to explain and predict correlations between elements connected to the elderly's intention to utilize banking services. 350 customer samples were analyzed and hypothesis tested using the Covariance-Based Structural Equation Modeling (CB-SEM). According to the findings, the elderly's inclination to utilize digital banking services is mostly driven by their usefulness and attitude. This research can assist banking managers design better tactics to enhance the elderly's continued intention to utilize digital banking.

Theoretical Framework

Smart banking

Nowadays, practically everyone has heard of electronic banking services. However, the number of consumers attempting to use Smart Banking services is small. Customers must still pay their electricity bills, water bills, insurance payments, airline tickets, and so on each month, either at home or at a bank counter by bank transfer. Customers must also travel directly to the bank's transaction counter to perform operations such as transfer transactions, account balance inquiries, registering for a credit card, or applying for a loan, mortgage, etc.

Smart Banking service is the use of the internet via mobile devices as a distribution channel for remote banking services. These services include both traditional services such as opening a deposit account or transferring money between different accounts and new products and services such as electronic bill payment, opening an LC or registering a loan. Loans with banks, etc. Depending on different classification criteria, banks choose to provide corresponding services, from which the bank can develop risk prevention measures and other customer policies together. Smartbanking service is a unified service platform between Mobile Banking and Internet Banking. As a result, Smartbanking provides a completely new and consistent experience in terms of interface, login information, restrictions, service costs, features, and utilities, allowing clients to undertake financial and banking transactions easily.

Developing Smart Banking services has the impact of speeding up the money circulation process, capitalizing on the vast potential of capital for economic development, and improving people's lives by restricting cash payments and donations. Saving money and time for both banks and clients, improving the consumer experience, and establishing a payment civilisation are all goals of this project.

Disadvantaged groups

According to Vu Dung (2012), disadvantaged groups are distinct social groupings comprised of persons who

encounter numerous challenges in their everyday lives and social activities.

According to Nguyen Trong Diep and Nguyen Tien Dat (2019) ^[7], the term "disadvantaged groups" refers to a group of people who face greater poverty, social exclusion, discrimination, and violence than other regular inhabitants. "disadvantaged groups" include migrants, persons with impairments, those separated from society, and children.

Thus, disadvantaged groups are people who, under comparable circumstances, are always at a disadvantage compared to other people in the community while participating in a social relationship, work relationship, or legal relationship. The same thing happened. In other words, these topics must behave in a fundamentally undesirable manner in that interaction. Certain categories of people and subjects can be classified as vulnerable based on the research goals, concerns, and interactions in which they participate. People with impairments, the impoverished, those in exceptionally tough situations, people of various gender categories (homosexual, bisexual, transgender...), the elderly, etc.

Barriers to Accessing Digital Banking Services for Disadvantage Groups such as the Poor, Individuals with Impairments, and the Elderly:

- For the poor: The use of cash for payment and transactions remains widespread. The poor continue to have a low degree of financial understanding in general, as well as digital banking services.

The costs of maintaining an account have become a significant impediment. The expense of possessing a smartphone with an internet connection is the first consideration; for many poor people, the cost of keeping an account and the fees imposed for each transaction make utilizing an account too expensive. Many research have found that the more these expenses are, the less people have an account (Demirgüç-Kunt and Klapper, 2012) ^[2]. Some consumers, particularly those with low incomes, will not adopt digital banking services because they are prohibitively expensive. As a result, even if these services are available, they are difficult to obtain.

Financial universalization is also challenging for the poor because a portion of the population does not value financial knowledge and does not frequently utilize formal financial services (and hence does not actively seek information on these contents). One of the challenges for impoverished people to improve their livelihoods in an increasingly reliant on financial services and rapid digitization is a lack of knowledge and abilities to access and successfully use financial services, particularly through the internet.

People have challenges because of the distance to the bank, a lack of necessary documentation to meet the bank's requirements from the time they create an account and register to use the service, and a lack of faith in the bank. Access to digital financial services is limited.

Many poor people's attitudes and behaviors about banking products and services have not altered. The reason for this is that the modes of communication employed for these services are still fairly simple, not particularly broad and rich, and lack contact with the general population.

- For people with disability: There is no path for wheelchair users in the ATM system; ATM keyboards do not currently have braille and do not offer audio

navigation or screen reading for the visually impaired to operate.

The structure of ATM machines differs, as does the location of the card and the arrangement of the function keys, causing difficulty for blind individuals and making them susceptible to improper operations, affecting service utilization. Banking services for the visually impaired.

In addition, the inaccessibility and unfriendliness of mobile banking applications and bank websites is a barrier that prohibits persons with disabilities from obtaining banking services because screen reading software can only read text and cannot read graphic stuff. As a result, the requirement for authentication with a captcha code on bank websites leads to persons with disabilities using financial services passively and relying on third parties to assist them in transactions.

Not to mention that identifying or creating an account at the counter for people with disability still necessitates the presence of a guardian. This makes people more reliant on others rather than being proactive in their financial management.

Many banks think that blind persons, in particular, and disabled people in general, require the services of a guardian in order to avoid excessive risks. However, having a guardian does not guarantee total safety when people with disabilities use banking services; it also makes them more reliant on the guardian while reducing the cardholder's rights are unable to work.

In addition, the distance to a digital banking service access point is an obstacle for people with disabilities, first of all, going to bank branches to open accounts to make transactions or going to digital autobanks to do so digital services such as loans.

- For the elderly: There are still several difficulties for the elderly in accessing digital banking services, such as: many elderly persons are fearful or confused while accessing and utilizing smart mobile phones to access the Internet. Slowness owing to old age, weak eyesight, hands that are no longer supple, hearing that is not clear, grasping ability, and memory that are diminished; Many young people quickly lose patience or do not have the time to provide their parents detailed step-by-step instructions for using technology. When many older individuals have low money and are unable to afford smart technology gadgets, economic conditions are uneven.

3. Current Situation of Disadvantaged Groups using Smart Banking Services-A Case at Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV)

Introducing BIDV Smart Banking Service

The Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV), originally known as the Vietnam Bank for Construction (under the Ministry of Finance), was created in 1957 by Prime Minister's Decision 177/TTg dated April 26, 1957.

On March 20, 2021, the Joint Stock Commercial Bank for Investment and Development of Vietnam (BIDV) officially introduced SmartBanking, a fully new digital banking service based on unifying internet transaction platforms and replacing traditional banking services. Previously available options included Internet Banking and Mobile Banking. This is a significant step forward in BIDV's entire digital

transformation plan, confirming its position as the market's leading retail bank.

Among the new experiences offered by the BIDV SmartBanking digital banking service are:

- Uniform login name and password: Customers can use their BIDV SmartBanking account on the website, mobile application, smart watch, or workstation with just one login name and password. Furthermore, using Mobile Banking (BIDV SmartBanking old version), clients can log in to the new generation SmartBanking utilizing the Fingerprint/Face ID/password installed on the old version without changing or updating.
- Personal financial management: BIDV SmartBanking has a simple, user-friendly interface that allows consumers to keep track of their accounts and personal expenses.
- Open an account online with eKYC: Customers can use the eKYC electronic identification capability to open an account at any time and from any location.
- Personalize the experience and customize the interface in real time: Customers can change avatars, background images and arrange application functions according to interest and usage level.
- Transaction limits and diverse and flexible service packages.
- SmartBanking inherits security measures such as login security, transaction security, and Smart OTP - a high-value transaction authentication mechanism that completely complies with the State Bank's security standards.
- Withdraw money and transfer money using QR code: SmartBanking supports users to withdraw money right at BIDV ATMs without the need for a traditional physical card. Just log in to BIDV SmartBanking and select "Withdraw money using QR code", you can withdraw money extremely simply and quickly.
- Perform financial activities, payments, and purchases with ease: SmartBanking offers users various modern and handy services such as 24/7 quick money transfer, online savings, utility bill payments - telecoms - insurance, QR Pay payment, online shopping, and so on.
- Perform financial transactions on Apple Watch and Smart-KeyBoard: BIDV was among the first banks to release the BIDV SmartBanking application version on smart watches and Smart Keyboard. Customers can use Smart Keyboard to do financial transactions while chatting without having to move between programs. With SmartBanking on Smart Watch, you may transfer money and do inquiries on the same device.

Since the beginning of 2022, BIDV has waived all online money transfer fees and many other service fees on the SmartBanking app (SmartBanking service maintenance fee, OTT message receiving fee, non-cash card issuance fee and annual fee). Physical on SMB, management fee for 01 default payment account. Although free service for customers reduces BIDV's revenue, it has a positive meaning in digital transformation, breaking down barriers to basic service fees for end users to bring customers up to speed. digital channels; Maximum support for customers' need for quick and convenient transactions, especially during the period affected by the Covid-19 epidemic.

In 2022, BIDV will continue to enhance and develop numerous new features, improving the ecosystem on the

SmartBanking channel by introducing account opening services, among other things. Choose your own name, International money transfer, Smart Kids, while also offering extra services such as booking air tickets, ordering flowers, delivery, taxi... BIDV, in particular, is the market's first bank to launch Smart Kids, the first digital bank for children. This feature was created to target modern families who require early personal financial education for children through empowerment so that youngsters can proactively manage their spending with monitoring and supervision from parents.

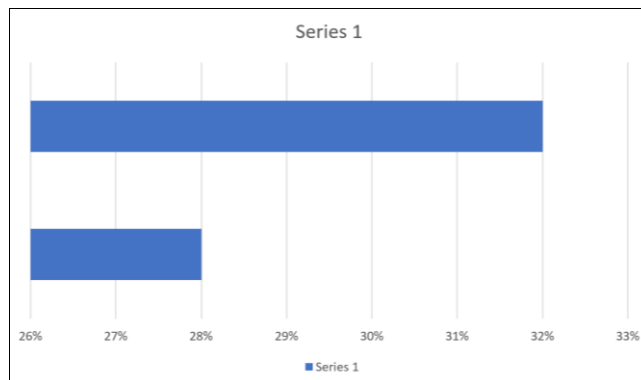
The Current Situation of Disadvantaged Groups in Hanoi using BIDV Smart Banking Services

Electronic banking initially became known and established in Vietnam in the mid-2000s. However, it was not until the early 2010s, as a result of the development and influence of the 4.0 revolution, that the new e-banking path actually took off.

The new generation digital bank BIDV SmartBanking is the merger of the bank's two Internet Banking (BIDV Online) and Mobile Banking services to bring a unified, seamless experience on all devices from mobile, website, smart clock and keyboard (Smart Keyboard). After more than 10 years of implementing e-banking services and more than 2 years of launching the new generation Smart Banking service, the number of customers registering to use Smart Banking services has increased rapidly. By the beginning of 2022, the number of individual customers using BIDV SmartBanking reached more than 7 million, the number of corporate customers using BIDV iBank reached more than 82,000 customers, an increase of 55% and 44% respectively compared to 2020. The proportion of transactions through BIDV's digital channels as of December 31, 2021 reached 67% of the total number of transactions. With this scale, BIDV is one of the banks with the largest number of users on digital channels.

In accordance with State Bank figures, in 2021, there will only be about 278,000 people getting pensions via personal accounts-ATM cards, with a high rate of 17% of people utilizing BIDV Smart banking accounts. About 28% of the elderly will receive pensions. In terms of the number of persons getting pensions and social benefits in 2022, Hanoi has 575,000, with 32% receiving money through personal accounts at BIDV. According to the data presented above, the number of senior persons receiving pensions, social insurance benefits, and personal consumption is increasing. This also proves that the elderly and policy beneficiaries in Hanoi are increasingly accessing digital banking services in general and BIDV Smart banking services.

The proportion of elderly people in Hanoi who can access BIDV Smart banking services can be summarized through the following chart:



Source: State Bank (2023)

Fig 1: The percentage of Hanoi's elderly and policy recipients who use BIDV Smart banking services

BIDV Smart banking service is not only increasingly widely used by disadvantaged groups (elderly, disabled, etc.) but also highly appreciated for its service quality. This article studies the level of satisfaction with BIDV Smart banking service for disadvantaged groups in Hanoi by conducting a survey. The survey sample was conducted on poor people, people with disabilities and the elderly living in Hanoi city; which focuses on people with disabilities who have jobs and income, and elderly people from 55 - 65 years old and still have a source of income. Author Hair and colleagues (2006) believe that if the study uses the Maximum Likelihood (ML) estimation method, the sample size is determined based on one of the following two ways: (i) minimum level and (ii) number of variables included in the analysis in the model.

1. Minimum level $Min = 50$.
2. The ratio of sample to an analysis variable k is $5/1$ or $10/1$.

These authors distributed 200 survey questionnaires, and 182 of them were valid. In terms of satisfaction, the following results were obtained:

Table 1: Descriptive Statistics

	N	Mean	Std. Deviation
MD.H1. Low operating expenses	182	3.9825	.63295
MD.H2. Smart banking services are delivered swiftly.	182	4.1262	.65936
MD.H3. The smart banking service facilitates financial transactions.	182	3.8613	.62725
MD.H4. Smart banking is simple to understand and utilize.	182	2.8172	.58521
MD.H5. The level of safety assurance of smart banking services	182	2.9702	.60142
MD.H6. User requirements are met by services.	182	3.1752	.61943
Valid N (listwise)	182		

According to the survey results, disadvantaged groups are relatively satisfied with Smart banking services; yet, convenience of use is still not highly valued. This is also because poor populations have restricted access to technology.

According to the survey results, disadvantaged groups are relatively satisfied with Smart banking services; yet, convenience of use is still not highly valued. This is also because poor populations have restricted access to technology.

4. Discussion and Conclusions

The number of impoverished individuals, those with disabilities, and the elderly in the area who have access to and use digital banking services has grown in recent years. The number of older people and policy beneficiaries in Hanoi getting salary through bank accounts in general, and BIDV in particular, will progressively increase between 2021 and 2022.

Authorities in Hanoi, as well as commercial banks in the area in general, and BIDV bank in particular, have prioritized the development and expansion of Smart banking services for vulnerable groups. This is a smart banking service for these topics. The Hanoi People's Committee has directed the banking system to focus on supporting disadvantaged groups in accessing banking services in general and Smart banking services in particular; The State Bank of Vietnam has issued a document directing commercial banks in the area to create favorable conditions for people with disabilities to open bank accounts to access Smart banking services; Commercial banks offer products and policies to support interest rates and banking facilities for the elderly and the poor. However, the proportion of elderly and poor people in Hanoi city accessing Smart banking services is still quite low (not yet reaching 40%) in the period 2021-2022.

The Research Team Proposes a Variety of Methods to Improve the Use of Smart Banking Services for Disadvantaged Groups in Hanoi:

1. Utility diversification and the development of Smart Banking services: Customers' ability to choose items grows as a result of the effect of information technology. As a result, establishing a customer care policy tailored to each customer category is a critical aspect in retaining customers that use the bank's services.

+ The first, focus on enhancing and improving existing Smart Banking services through the use of information technology to boost application features, accuracy, safety, speed, and optimum client convenience.

+ The second, evaluating the effectiveness of Smart Banking services must be done on a regular and periodic basis in order to evaluate the profitability of Smart Banking services, customer feedback on the service in terms of usage fees and utilities, compare BIDV's services with those of competitors... to improve and add utilities to products in order to meet the increasing needs of customers. The Smart Banking service also aids in the reduction of hazards associated with electronic payment methods.

+ The third, improve service quality by utilizing technology software that provides the greatest value to customers.

+ The fourth, developing customer policies and preferred policies for VIP customers or loyal consumers is essential for customer retention, therefore BIDV should push

customer point accumulation programs with each customer transaction to develop long-term partnerships and cooperation with the bank.

2. Improve the Quality of Smart Banking Services

+ The first, improvements to make transaction procedures simpler, faster transaction times, reasonable transaction fees, high safety and accuracy, polite and enthusiastic attitude and service. Publicly list service fees, print and provide customers with instructions on how to use BIDV Smart Banking services, continue to research and perfect BIDV Smart Banking products and services, and instructional documents to ensure proper use of BIDV Smart Banking services. Use the most convenient, safe and economical BIDV Smart Banking service.

+ The second, receive and promptly reply to consumer comments or complaints about the quality of BIDV Smart Banking services supplied via the branch's mailbox or email, as well as questions answered by the support staff as well as user concerns when using the service.

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