THEORETICAL FRAMEWORK OF THE INTERACTION BETWEEN FINTECH AND THE BANKING SYSTEM

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Abstract: *The interactive relationship between banks and Fintech companies is one of intersecting interests, with a mixture of competition and cooperation. Whether the relationship is competitive or cooperative will depend on the stage of development as well as the strengths of each party. This paper summarizes the forms of interaction between Fintech companies and banks in the financial services market and suggest some policy implications for creating conditions to promote the development and cooperation of the two owners.*

Keywords: *Fintech, banking, interaction.*

KHUNG LÝ THUYẾT VỀ TƯƠNG TÁC GIỮA CÔNG NGHỆ TÀI CHÍNH VÀ HỆ THỐNG NGÂN HÀNG

Tóm tắt: *Mối quan hệ tương tác giữa các ngân hàng và các công ty công nghệ tài chính là một trong những mối quan tâm đan xen giữa cạnh tranh và hợp tác. Mối quan hệ mang tính cạnh tranh hay hợp tác sẽ phụ thuộc vào giai đoạn phát triển cũng như thế mạnh của mỗi bên. Bài viết này sẽ tổng hợp các hình thức tương tác giữa các công ty công nghệ tài chính và các ngân hàng trên thị trường dịch vụ tài chính và đề xuất một chính sách nhằm tạo điều kiện thúc đẩy sự phát triển và hợp tác của hai chủ sở hữu.*

Từ khóa: *Công nghệ tài chính, ngân hàng, tương tác.*

1. Overview of Fintech

In the early stages of development, Fintech is a term compounded from two separate terms: "financial" and "technology", often used to describe the process of applying new technologies to automate the supply and use of financial services. Meanwhile, the Financial Stability Board (FSB) defines Fintech as "technology-enabled financial innovation aimed at creating new business models, processes, applications, or products that can have a significant impact on financial markets and institutions, as well as the provision of financial services" (Thakor, 2019). In a broader sense, Fintech is considered a new market that integrates finance and technology (Arner et al., 2015) and replaces traditional financial structures with new

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technology-based processes (Hochstein, 2015). However, up to now, there is still no unified legal definition for this term. Through a review of more than 200 current concepts about Fintech, the most comprehensive and universal concept can be drawn as follows: Fintech is the application of innovative, creative, and modern technologies to the field of finance to provide customers with transparent, effective, and convenient financial solutions and services at lower costs than traditional financial services (Mackenzie, 2015; Schueffel, 2016). Fintech fields include: (i) credit, deposit, and capital mobilization services; (ii) payment, clearing, and settlement services, including digital currencies; (iii) investment management services (including commercial); and (iv) insurance (Navaretti et al., 2017). At that time, financial institutions applied information technology and created specialized software to improve the efficiency of financial transactions. With the explosion of new technology under the impact of the 4.0 revolution, the meaning of the term Fintech has expanded towards reaching more customers. Specifically, this is the application of new technological inventions to increase the number of customers who can access financial services such as online capital calling, peer-to-peer lending, automatic payments and money transfers, personal financial management, investment management, insurance, risk management...

In recent years, especially during the COVID-19 pandemic, Fintech has developed strongly, especially in Southeast Asian countries. United Overseas Bank's 2022 ASEAN Fintech Report shows that the prolonged COVID-19 pandemic in 2021 led to record Fintech investment volumes in ASEAN, along with increased adoption of Fintech solutions such as e-wallets, e-money, and online investment platforms. Accordingly, in 2022, ASEAN's global Fintech investment value increased by 7%, while capital mobilized in 2022 reached 4.3 billion USD. Although the number of investment deals was lower (163 vs. 194 over the same period in 2021), the average investment value and size increased from 23 million USD to 26.5 million USD. Investment activities in the Fintech sector by the end of 2022 accounted for 54% of the total investment deals, up from 43%, as investors returned to mature startups with larger customer databases (HyperLead, 2022). According to FSB (2017), the strong development of the Fintech sector in recent times can bring benefits, risks, and challenges to the banking system. Fintech is currently influencing most traditional core banking services (such as capital mobilization, lending, and payments) with a series of breakthrough and modern technologies. Therefore, Fintechs are also potential competitors of banks, affecting the customer market share of the banking system. In addition, Fintech poses a big challenge for financial institutions in changing to adapt and develop sustainably in the new context. At the same time, management agencies must also put themselves before the requirements of building and promulgating appropriate management mechanisms and policies that do not hinder innovation but still protect consumers and stabilize finances.

The development trend of Fintech has become a threat to the existence of organizations providing retail financial services in the world, specifically banks. Banks themselves are also aware that there needs to be a comprehensive change in the way they operate and provide products and services if they do not want to become an empty link in the financial system.

And that change must start with building a digital strategy for your operating model. Because only digital technology can meet customers' integration needs in the fastest, most convenient, and safest way, that is the difference compared to activities in the traditional business model. In addition our banks also realize that cooperation between banks and Fintech is a global trend, turning Fintech into a tool and a powerful arm for banks. Banks need to change the way they look at Fintech; Fintech is not a competitor and is a very beneficial partner (SBV, 2018). According to PwC's 2017 global Fintech report, an average of 45% of banks surveyed globally have cooperated with Fintech companies in developing and providing banking products and services.

Thus, from the above analysis, we can see that the interactive relationship between banks and Fintech companies is a relationship of intersecting interests with a mixture of competition and cooperation. Whether the relationship is competitive or cooperative will depend on the stage of development as well as the strengths of each party.

2. Basis and form of interaction between Fintech and the banking system

2.1. The basis of interaction between Fintech and the banking system

Interaction between Fintech companies and the banking system is carried out in two aspects: cooperation and competition.

Cooperation between banks and Fintech

Banks need to cooperate with financial technology businesses because that is a new trend in the world. Technology is the premise for an industry to grow stronger and spread faster. Therefore, every industry is always taking advantage of and following new advances in technology. If the bank does not update this trend, it will become a laggard, affecting the long-term development of the bank. Therefore, developing with Fintech is seen as an anticipation and a promising advantage for the bank. Furthermore, technology always brings significant value to each industry, cutting many costs from simple labor, helping to increase work efficiency, and bringing high profit values. Financial technology will help banks operate with faster progress, faster transactions, safer transactions, higher security of necessary information, and especially lower costs, minimizing costs. Having more intermediary costs makes the operations of banks more efficient because profits are much higher (Bansal et al., 2018).

Cooperation will help banks better meet customer service requirements. Any industry, whether business or manufacturing, has the biggest concern: customers, because only customers can consume products and have the ultimate goal of businesses are revenue and profit. Because customers' tastes are very diverse and different through each stage, they always require good product or service quality and economical costs, and it is important to always choose new options and trends. Banks, like businesses, also need customers the most because customers always need the most attention. To serve customers well and be able to meet high customer requirements, banks must always change, develop services, update trends, and offer choices that suit customers' preferences. And the immediate trend in the banking and finance sector that banks need to update is the strength of Fintech companies.

Competition between banks and Fintech

Products from Fintech and commercial banks that are substitutes will be considered one of the important points in evaluating this relationship as competition and direct competitors. Alternative products to banks are services from Fintech companies. Anagnostopoulos (2018) believes that operations between Fintech companies are closely tied to the end customers using the products, so these financial institutions will treat other institutions as competitors rather than consider them as partners. The study also suggests that Fintech ecosystems are no longer too small to ignore, and the growth of Fintech institutions has caused banks and policymakers to pay attention to scale. There is a clear difference in preference between banks and Fintech companies in capital mobilization. Competition in the traditional capital mobilization deposit market has shrunk in the banking sector. In addition, the importance of operational value orientation has also declined along with service quality such as personalization, usability, and ease of access. In contrast, Fintech companies focus on attracting customers to modern technology platforms that are easy to see, have beautiful designs, and can be maximally personalized for users. These are the innovations and updates in capital mobilization and payments that make Fintech gradually capture customers that were formerly banks.

Research by Bunea et al. (2016) with data from 14 commercial banks in the US also showed that the growth of Fintech companies is a threat to the operations of banks and companies. Fintech often tends to compete with banks with the same scale of operations. Research by Romínova and Kudinska (2016) mentioned experts in the financial industry in Europe and recognized the threat from potential new market entrants (Fintech companies) in the banking sector, accounts that banks have previously dominated (95% of respondents seem to be quite certain in this situation), with simple savings products (78% of respondents), current accounts (64% of respondents), and consumer credit (54% of respondents agreed).

2.2. Forms of interaction between Fintech and the banking system

Vives (2017) believes that depending on industry characteristics, each bank can make decisions to support or prevent the entry of financial technology companies.

a. The bank did not take any action against the financial technology company's intrusion.

Transforming the operating model according to the trend of financial technology companies requires banks to make significant financial investments. The decision to switch can lead to a mix of customers, making it difficult to group customers and potentially negatively impacting the interests of old customer groups. Banks with this perspective choose a "non-reactive" solution and focus on maintaining and protecting their existing customers. In this case, financial technology companies will easily penetrate the financial market.

b. The bank prevents the entry of financial technology companies.

Banks can prevent the entry of financial technology companies with their existing infrastructure advantages. Banks reduce connections with Fintech companies through reduced infrastructure support, similar to large banks limiting compatibility with other banks in their ATM networks as described above. happened in the past.

c. The bank develops its own financial technology services.

Banks can build and develop their own financial technology product packages. However, this work requires a lot of costs and the expertise of staff. With an existing customer network, these internally developed products will bring significant revenue to the bank. Banks in this group apply the motto that attack is the best defense method.

d. The bank partners with financial technology companies.

In the context of the rapid and strong development of financial technology companies, the incomplete legal system for the activities of this subject will be an opportunity for the emergence of new business forms, creating conditions for cooperation between financial technology companies and banks. Common forms of cooperation are: (i) support; (ii) links; (iii) strategic partners; (iv) investment; (v) outsourcing; etc. (Kalmykova & Ryabova, 2015; Vives, 2017).

Studies by major banks and consulting companies in the world, such as BNY Mellon (2015) and Deutsche Bank Research (2016), have shown that through cooperation with financial technology companies, banks can keep up with the world's innovation trends.

e. Banks merge and acquire financial technology companies.

Banks pursuing this strategy believe that acquiring or investing in startups will be easier and better than developing them themselves. The most active banks in implementing the acquisition strategy of financial technology startups are BBVA (Spain), BPCE, BNP Paribas (France), and Goldman Sachs.

f. The bank uses cross-selling and bundling strategies to increase competitiveness.

Theoretically, this situation occurs when a bank operates in a market adjacent to segments A and B in which the bank has market power in segment A (for example, mortgage loans or bank accounts payments) and facing competition in segment B (for example, payments via e-wallets and small and retail personal loans). The bank can either integrate those activities or try to leverage its market power in segment A by cross-selling product B with product A (tying). For example, innovation in payment systems is mainly created by non-banking organizations such as Paypal, Google, and Apple. Banks welcome this new format because they actually receive transaction fees from the operators and because the reduction in a bank's per-transaction revenues can be more than offset by an increase in total transaction volume.

g. Establishment of a new digital bank

In addition to the methods mentioned above, banks can form business models as digital banks (Vives, 2017). Banks following this model will develop tools to open accounts, provide automatic credit, manage smart money, and implement robot consulting features. Users can provide documents required by the bank by uploading them to the software system without having to go directly to bank branches. This helps customers access banking products more conveniently and easily, while empowering users more. In addition to analyzing customers' personal information and transaction history data, digital banks' robot consulting programs can provide appropriate advice for savings and investment goals. helps increase customers' income. In addition, digital banking also provides tools to analyze and classify customer account movements and forecasting tools to measure customers' income and upcoming spending (Deloitte, 2017).

The M&A trend seems to be gradually dominating when the legal framework for the financial technology industry in most countries is still not strict. This trend will also happen in Vietnam, especially when the penetration of foreign financial technology companies into the Vietnamese market takes place. This is the driving force for domestic banks and financial technology companies to merge together to enhance the competitiveness of "banks and financial technology companies".

3. Solutions to promote cooperation between Fintech companies and commercial banks

One of the bank's weaknesses is its lack of flexibility in applying modern technology, leading to often high transaction costs and not promptly meeting growing customer needs. Meanwhile, Fintech has the advantage of innovation and the ability to apply technology flexibly and effectively, helping to reduce transaction costs and improve the customer experience. However, one of the big challenges Fintech companies must solve is building customer trust in security and safety, or the customer network. From there, if we promote the trend of bank-Fintech cooperation, it will bring benefits to both sides, helping both parties take advantage of their partners' strengths while overcoming their weaknesses. Some proposed solutions to promote effective cooperation between the two sides include:

3.1. Develop eKYC

Vietnam can refer to Thailand in allowing banks to use the same eKYC database, from there, banks can use each other's customer data to reduce costs and not waste human resources. Vietnam also needs to promote international cooperation in the field of eKYC to help Vietnamese banks better comply with international regulations on preventing money laundering and preventing financial financing of terrorist activities, especially This is in the context of Vietnam's joining the Asia-Pacific Comprehensive Economic Partnership Agreement (RCEP).

In addition, a complete national population database provided by the state will build trust, thereby helping to accelerate the digital transformation process in general and the implementation of eKYC in particular in the financial industry. Experience deploying eKYC in India shows that having a complete national population database has helped eKYC develop dramatically, entering all industries. There are about 175 countries in the world that have national population databases in one form or another, of which 161 have been digitized, 83 have biometric data, and 22 have allowed third parties to access the national population database system to carry out the eKYC process (Gelb & Metz, 2018).

Vietnamese banks need to carefully choose their partners to deploy eKYC, paying special attention to the partners' security capabilities. In fact, some countries have had to temporarily suspend eKYC implementation due to customer information leaks. In addition, partners must have the experience and ability to integrate eKYC into the bank's existing systems and processes to save the most human resources and time.

3.2. Setting up an experimental regulatory sandbox (Regulatory Sandbox)

The emergence and rapid development of Fintech have caused financial management agencies in countries to face challenges and difficulties in management and supervision, such as the risk of money laundering and terrorist financing, risks related to security, safety, information security, illegal use of personal information, etc. The task facing financial management agencies around the world is to simultaneously ensure the promotion of innovation in the financial sector while still maintaining the stability and safety of this market. In particular, the controlled testing mechanism (Sandbox) is one of the most popular policy tools and approaches applied by countries around the world to promote innovation in the Fintech field by allowing testing of Fintech products and services within a specifically defined space and time.

If regulatory agencies do not proactively manage and supervise Fintech organizations through the Sandbox, it will lead to excessive and free development of Fintech organizations, causing consequences and instability for the financial system. main bank. The Sandbox framework will help regulatory agencies shape the nature, processes, and potential risks of various types of Fintech services, from which an official legal or management framework can be issued (if it is necessary to promulgate new, amend, or supplement current regulations) that are most suitable to market reality.

For Fintech companies and banks, the Sandbox mechanism will help enhance the brand value of Fintech companies, test the feasibility and "vitality" of new products, and help banks reduce the cost of "changing banks" while remaining innovative, motivated to innovate, and ready for potential regulatory changes. The Sandbox mechanism will also facilitate a clear understanding of the technology being deployed, giving a positive signal to the market and helping to orient and have an appropriate approach to Fintech.

3.3. Prioritize the development of information infrastructure

According to McKinsey (2015), revenue and profits will be redistributed towards banks that are successful in applying digital technology to automate processes, create new products, improve regulatory compliance, upgrade customer experiences, and create new value chains. McKinsey (2015) estimates that banks that lag behind in digital technology and are slow to transform can lose up to 35% of profits, while banks that are successful in digital transformation can increase profits by 40% or above. From the lessons of banks around the world, it can be seen that building digital capacity is the main focus of banks in digital transformation to keep up with new trends and not be eliminated. Digital capabilities are demonstrated in the following six aspects: (i) data-based governance; (ii) personalization of the customer experience; (iii) digital marketing; (iv) streamlining and digitizing banking processes; (v) applying new generations of technology; (vi) restructuring the organization and changing decision-making mechanisms to support the digital environment.

To exploit the strengths of the banking system and Fintech companies and promote the effectiveness of Fintech banking while still ensuring national financial security, a common data center is needed. The National Credit Information Center (CIC) has compiled and shared the credit history information of customers who have made transactions at commercial banks. However, banks operate with multiple financial services, not simply granting credit. Especially when the bank changes its business model from the traditional banking model to the digital banking model and the open banking model by associating with a third party to provide financial services to each individual and organization in the economy.

Therefore, there is a need for a common database center between banks and Fintech companies in the financial sector to effectively exploit information sources, on the one hand, and to make data sources transparent to avoid risks. Risk due to information asymmetry for banks and Fintech when choosing partners as well as coordinating financial and monetary business In order for the common data center to have a reliable and rich data source, when developing a project to establish a common data center (in addition to the current CIC customer credit data), it is also necessary to promulgate open data standards. Information from the open data center will create a level playing field for banks in accessing digital technology 4.0 through developing their own digital systems or combining with Fintech companies while still ensuring financial security. national government.

4. Conclusion

The strong development of Fintech in recent times shows that this is a field that will continue to attract investors and have a breakthrough growth rate in the near future. Mutually beneficial cooperation between Fintech companies and the banking system is an inevitable trend not only in Vietnam but also globally. Banks themselves currently need to upgrade their technology infrastructure and modernize their operating processes to have the best platform when combining with Fintech companies. With certain advantages, along with the combination with Fintech companies, it is promised that the Vietnamese banking system will grow stronger, serve customers better, and deserve to be a leading field in the banking system. Vietnam's financial system.

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