

Trends in Fintech Application in the Insurance Sector in Vietnam



Thi Van Anh Nguyen¹, Anh Trung Nguyen²

¹University of Labor and Social Affairs, Hanoi, Vietnam

²12B1 - Vinschool The Harmony

SUMMARY: In recent years, the development of information technology has had a strong impact on the operation of the global economy. The product of this revolution is Fintech, which combines technology and finance based on technological platforms. Therefore, the application of Fintech in the fields of finance-banking, financial investment, insurance, etc., is an inevitable trend that helps businesses make breakthroughs and enhance their competitiveness. Hence, insurance companies that do not change or are slow to change must accept relinquishing market share to other insurance companies that have adopted information technology. This article focuses on assessing the current situation of Fintech application trends in the insurance sector in Vietnam, thereby proposing solutions to enhance the sustainable application of Fintech in the insurance sector in Vietnam.

KEYWORDS: Fintech, insurance, Vietnam.

1. INTRODUCTION

Innovation through the application of new technologies is the main driving force for change in the financial sector in general and the insurance sector in particular. In the financial sector, this development has even greater influence and truly transforms businesses in finance-related activities such as banking transactions, payments, personal financial management, and insurance (Ajlouni & Al-Hakim, 2018). The integration of technology and finance in Fintech has disrupted traditional economic models and changed consumer behavior. Vietnam's unique socio-economic structure, coupled with the ongoing digitalization, makes Vietnam a typical case of Fintech's impact on comprehensive finance, economic growth, and legal challenges (Nguyen et al., 2020). In the insurance sector, the operations of insurance companies have rapidly changed under the pressure of Fintech enterprises - companies operating in technology-based fields. Insurance, in particular, or finance in general, is one of the earliest sectors to adopt information technology, undergo significant changes, and introduce a plethora of new financial products and services through the application of Industry 4.0 technologies. The fintech sector is booming, with many companies providing various financial services and operating on a global scale. Fintech offers many financial products and services such as electronic payments, mobile payments, personal finance, or corporate finance (Le Cam Tu, 2021). Currently, many fintech companies are thriving globally, offering financial products and business models based on Internet and digital platforms such as Big Data, Artificial Intelligence (AI), Blockchain, smartphones, etc. Financial services based on technology platforms bring many conveniences, ushering in a new era in financial activities worldwide: the digital age. Based on theoretical research on the application of fintech in the insurance sector, the authors have identified trends in fintech application in the insurance sector (both life and non-life) in Vietnam, thereby proposing some solutions to enhance the sustainable and progressive application of fintech in the insurance sector in Vietnam in the near future.

2. OVERVIEW OF FINTECH APPLICATION IN THE INSURANCE SECTOR

General Overview of Fintech

Concept of Fintech: The term "Fintech" is short for "Financial Technology," which is the field that combines information technology and finance to refer to the use of technology to improve and enhance traditional financial services (Chishti & Barberis, 2016). Nowadays, many people use this term to refer to all companies utilizing the internet, cloud computing technology, open-source software to enhance financial activities, including banking, investment, insurance, etc. There are various concepts of Fintech up to now.

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According to Wikipedia citing the Huffington Post, Fintech is defined as a new financial industry that applies technology to improve financial operations' efficiency. Fintech companies provide applications, processes, products, and new business models in the financial services industry, including one or more supplementary financial services on internet and digital platforms.

On the other hand, BIS (2018) mentions that Fintech is a financial technology innovation leading to new business models, applications, and technology processes. They significantly impact financial services, organizations, as well as financial service provision.

Another concept of Fintech by Nguyen & colleagues (2018) states that Fintech is an industry comprising non-bank organizations, including startup organizations using technology to support more efficient financial services. Fintech is a term used to describe new technologies aimed at improving and automating financial service provision and utilization (Dinh & Nguyen, 2021).

Therefore, despite various concepts of Fintech, in general, authors agree that Fintech is technology enterprises operating in the financial sector, providing efficient financial solutions, cost savings. Thus, the emergence of Fintech boosts both general businesses and insurance businesses to change from traditional business methods to competitive methods based on Fintech platforms.

Target Audience of Fintech: Previously, the financial market was highlighted with two main components: financial institutions and customers. However, currently, Fintech has added another equally important component, albeit new, which plays a core role in development, that is, financial technology companies. Accordingly, the target audience of Fintech includes three parties:

Customers: Customers are the primary users of both technology and financial services. They directly benefit from financial institutions and a range of best and newest conveniences from advanced technology. However, they also provide motivation for financial institutions to continually research new products and companies to innovate new technologies. All aim to satisfy customers' demands for the best - cheapest - most satisfactory products.

Financial Institutions: Financial institutions include banks, insurance companies, securities firms, financial companies, leasing companies, etc. These are essential components of the financial system. Not only do they guide the development of the financial market, but they also continuously innovate and create the best products to satisfy human life's needs. Currently, financial institutions understand the importance of applying technology in the financial sector. They invest in research, even collaborate or directly establish Fintech companies. All aim to actively grasp the latest technology and quickly dominate the market.

Fintech Companies: Fintech companies operate independently, initially specializing deeply in the field of information technology. However, these companies recognize the need to apply technology to finance. This drives the Fintech sector to open up and create opportunities for financial technology enterprises to develop vigorously. So far, this entity is significantly impacting both financial institutions and directly using customers.

The fields of operation of Fintech companies: Fintech companies operate in the information technology sector, providing products and services in the financial domain. Fintech originated in the 1990s, initiated by Citigroup, known as the "Financial Services Technology Consortium," with the purpose of facilitating technology collaborations. Financial services based on technology platforms bring numerous conveniences, opening up significant potential for enhancing financial accessibility. The quality of services also improves significantly due to the accuracy and responsiveness of intelligent software, which surpasses human capabilities. As of the present time, Fintech operates in various fields globally and specifically in Vietnam, including:



Figure 1. Fields of operation of Fintech companies in Vietnam

Source: Fintech News (2021)

These fields of operation are increasingly developing and diversifying in types, significantly impacting financial and banking activities, payment systems, personal finance management, insurance, and more.

- (1) Payments
- (2) Wealth Management
- (3) P2P Lending
- (4) Data/Credit Scoring/Management
- (5) Digital Banking
- (6) Insurtech
- (7) Blockchain/Crypto
- (8) Crowdfunding
- (9) Comparison

Fintech in the insurance sector: Fintech will drive innovation in various business sectors globally, including the insurance industry. Instead of traditional operating methods where customers have to directly visit insurance companies, agents, or meet insurance advisors in person, insurance companies have partnered with Fintech companies on platforms utilizing the internet, cloud computing technology, and open-source software. The purpose is to enhance the efficiency of business operations.

Application of Fintech in insurance includes various technologies and trends that will drive innovation in different business sectors globally. These include:

Firstly, Blockchain will become an integral part of Fintech strategy. Blockchain, the technology behind Bitcoin and other cryptocurrencies, has been considered to enhance Fintech services in various fields. While the impact of Blockchain on Fintech has mainly been limited to banking and other areas concerning transaction management and supply chain, this technology will create more opportunities in payment infrastructure, digital identity management, and money transfer infrastructure. Most financial companies will consider creating immutable records of important financial information and using them safely and securely (Fosso et al., 2020). In the insurance industry, Blockchain has helped and is helping insurance companies save time, improve transparency, prevent fraud, comply with regulations, and develop better products and markets. Blockchain in insurance can be conceptualized as a collection of related parties generalized into three layers, including (i) *Protocol layer*: Computer language and computational principles form the foundation that developers have previously researched academically; (ii) *Network layer*: Accessing protocols through insurance companies, brokers. Thus, those working in the insurance industry will leverage the

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Blockchain system to access customer products and services, which is the platform connecting providers and consumers; (iii) *Application layer*: Serving user requests such as individual customers, organizations, businesses (Freeman et al., 2010).

The application of Blockchain technology will help make the insurance market transparent in terms of information about buyers, sellers, brokers, and agents accurately, timely, and comprehensively. In reality, transactions by involved parties often intentionally conceal information, resulting in prices that may not reflect the market equilibrium but could be higher or lower than the market equilibrium price (Akelopz, 1970). This is a problem that needs to be thoroughly addressed in insurance transactions because Blockchain ensures the transparency and integrity of the product and the insurance company. For example, products are created in a legal manner (not violating financial principles, regulations for insurance product business). Additionally, the interaction of opportunistic behaviors and the limited capabilities of humans in uncertain environments and asymmetric information conditions create transaction costs that affect transaction efficiency and the internal operations of businesses. The application of Blockchain technology is expected to reduce transaction costs in insurance transactions for insurance companies. The benefits that Blockchain brings include:

Efficient insurance claim handling with Blockchain for insurance companies: Digital transformation with blockchain and automated processes help store immutable data in a decentralized ledger, improving traditional insurance systems by preventing fraud, errors, paper storage, and massive data.

Blockchain facilitates convenient and cost-saving data sharing for the insurance industry: For centuries, insurance enterprise data has been stored on paper. Data resides in disparate data silos, leading to limitations in real-time data sharing. Blockchain technology securely stores documents on a distributed ledger, facilitating easy access when needed and granting access only to authorized parties. For instance, blockchain ensures the security of individuals' health records, financial capabilities, contracts, and policy terms. Information is history-checked, financial capabilities are verified, and shared among doctors, hospitals, pharmacists, and health insurance companies.

Blockchain protects digital identities for insurance buyers: Ensuring customer information security is paramount. The immutable blockchain ledger enables users to store and control their personal data maximally. This aids insurance companies in securing customer information and prevents other companies from profiting off customer data without consent.

Reducing fraud and bias in insurance: Utilizing blockchain in insurance business systems stores user information securely and permanently on a blockchain data basis. Data can be used to analyze and predict user fraud behavior more efficiently and conveniently from their transaction history.

Time-saving in settlement processes: Insurance processes demand a lot of paperwork, which can be lost, resulting in severe consequences in claims processing. Through data records, contract terms, transactions, and other necessary information are automatically collected. When these conditions are met, insurance agreement terms are automatically executed through the use of distributed ledger technology in updating information and smart contracts.

Enhancing customer interaction and trust: Insurance companies can use this data to analyze customer behavior. Knowing the habits and health history of customers, businesses can easily come up with new ideas to provide better services and garner more participation and loyalty from their customers. For customers, being aware of what happens to their information and the necessary procedures gives them proactive control, creating transparency and increased trust with the insurance company.

Reducing unnecessary incurred costs: Without blockchain technology, insurance companies always bear the costs incurred from human positions when handling incidents such as complaints, compensations, security, etc. This significantly affects the overall profits of companies. With blockchain technology, the resolution process for such incidents is quicker, increasing customer trust indirectly, allowing insurance companies to sell more products, increase revenue, and expand their business scope.

Secondly, a new payment method (Payments) emerged. The development of mobile payment solutions has led to a significant decrease in direct transactions by customers at commercial banks, with a notable decrease of 36% in 2022. Meanwhile, mobile payments surged by 121%, with over 90% of customers expected to transition to e-wallets and contactless payment solutions. Additionally, there will be a greater shift towards the acceptance of Bitcoin and other cryptocurrencies due to their fast transaction nature and easy cross-border payments. This will ultimately lead to increased investment in Blockchain Wallets (Polasik & Piotrowski, 2016). Fintech will increasingly influence and transform the insurance industry by providing modern payment methods such as mobile payments and e-wallets.

Thirdly, InsurTech - the digital insurance sector. The trend of high internet usage has prompted businesses to adopt new and innovative technologies, changing the ways of operations for companies worldwide, including insurance companies, thus offering numerous opportunities for startups in the digital insurance field, InsurTech (Insurance + Technology). This term refers to the use of innovative technologies designed to enhance efficiency and savings from traditional insurance models. Activities in the insurance chain are carried out online through the Internet, from initial stages such as customer research, product design, marketing, to sales, contract conclusion, and post-sales operations such as customer care, appraisal, and claim settlement.

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Technology is also applied in online sales, insurance operations such as risk assessment, appraisal, pricing, reinsurance, etc. InsurTech companies can be original insurance companies, intermediary companies, acting as brokers or insurance agents, or solely providing technology solutions and insurance support services.

The impact of Fintech on the insurance industry: Fintech brings many positive benefits to the insurance sector but alongside, there are also negative issues affecting the specific business operations:

Positive impacts: Fintech has made breakthroughs in the insurance sector, bringing many positive impacts. New technologies in fintech have spurred improvements in efficiency, convenience, and transparency in financial services, from providing simple mobile apps for financial management to blockchain development. Therefore, fintech has many positive impacts on the insurance industry, some specific positive impacts of fintech on the insurance industry are:

(i) Fintech enhances customer experience. Fintech has created convenience and better user experiences in financial services. Mobile apps and online transactions allow customers to perform transactions quickly and easily, from money transfers, bill payments to asset management and investment.

(ii) Fintech helps customers save time and costs. Instead of having to go to traditional banks, insurance companies, or advisors to deposit money and wait for hours, customers can perform financial transactions with just a few simple steps on smartphones or mobile devices. This helps save time and transportation costs, while helping insurance companies reduce operating costs.

(iii) Fintech promotes the development of cryptocurrencies and mobile payments. The development of cryptocurrencies and mobile payments has created a financial environment that is not only easy to use but also secure. Customers can make payments without using cash or traditional credit cards, reducing the risk of fraud and counterfeiting.

(iv) Fintech facilitates convenient, quick, and easy financial connection and asset management. Fintech has helped create a seamless and continuous connection environment between various bank accounts, investments, and different financial sources. Customers can easily manage assets, track investments, and shape their personal financial goals through online apps and platforms.

With the development of the Fourth Industrial Revolution, more and more consumers are using products and services from Fintech. Through Fintech, the access to financial services - banking, insurance, etc., is enhanced, adding value to customers using the services. Also, due to the development advantages on the information technology platform without the need for a transactional network like banks, the products and services provided by Fintech companies have and are attracting a large number of customers; especially those who have difficulty accessing financial services. Overall, the world welcomes the Fintech wave as it makes financial transactions easier, more transparent, and cheaper.

Negative impacts: Although fintech has brought many positive impacts in the insurance sector, there are also some negative impacts that need to be considered. Here are some negative aspects of fintech for the insurance industry:

(i) Security risks and financial fraud. Alongside the development of Fintech, issues regarding security and financial fraud have arisen due to increasing technology and the use of personal data. This is the reason for cyber attacks and financial frauds. Because Fintech develops rapidly compared to the existing legal system. For example, products of Fintech are created by innovation and creativity, so current legal regulations cannot keep up.

(ii) Customers' understanding of how to use Fintech products is still limited; they have no basic knowledge of finance, or even do not know how to secure personal information, leading to security breaches. For example: setting up fake websites to make users disclose their accounts and passwords to seize assets.

(iii) In addition, the use of technology is reducing the number of direct employees in traditional ways. In the era of applying technology in general and Fintech products in particular, the branches, transaction offices of insurance companies, agents, advisors are increasingly narrowing in scale and number, and Fintech may make some jobs disappear and affect the workforce. Therefore, automation in the insurance industry combined with Fintech may lead to layoffs. Insurance companies may need to reduce staff to improve efficiency and reduce costs. This may have a negative impact on workers and require them to adapt to new job positions or learn new skills and expertise.

3. TRENDS OF FINTECH APPLICATION IN THE INSURANCE SECTOR IN VIETNAM

The insurance market in Vietnam was established in 1993 and has since experienced significant development with the emergence of numerous life and non-life insurance enterprises, insurance brokers, and a broader range of insurance products, particularly life and health insurance. According to statistics from the Ministry of Finance (2023), as of November 30, 2023, there were 82 insurance businesses operating in Vietnam, including 31 non-life insurance enterprises, 19 life insurance enterprises, 2 reinsurance enterprises, and 29 insurance brokerage enterprises, along with 1 branch of a foreign non-life insurance enterprise.

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The total assets of the insurance market were estimated to reach nearly 913.340 trillion VND, an 11% increase compared to the same period in 2022. The industry has reinvested in the economy with an estimated amount of 762.580 trillion VND, marking a 13% increase over the same period. Total owner's equity was estimated at 190.230 trillion VND, a 7% increase. The total insurance premium revenue for the entire industry was estimated at 227.600 trillion VND, with a 2% increase in the non-life insurance market and a decrease of approximately 12.5% in the life insurance market. The total value of insurance benefits paid out was estimated at around 86.470 trillion VND, a 31% increase compared to the same period in the previous year. In 2023, the Ministry of Finance submitted to the Government for issuance 03 Decrees detailing the Law on Insurance Business and chaired the issuance of 01 Circular detailing the Law on Insurance Business and related guiding decrees. Based on these, Law on Insurance Business No. 08/2022/QH15 and guiding documents have created a comprehensive legal framework to promote the safe, stable, and sustainable development of the insurance market in the future.

The achieved business results were attributed to the application of fintech by many enterprises in their business activities, typical examples being Bao Viet Insurance Company, Dai-ichi, Manulife, AIA, etc. This application has led to groundbreaking changes in the insurance industry, altering its centuries-old traditional methods, changing insurance purchasing behaviors, and transforming insurance company management and operations. Applications in the Fintech field such as Blockchain, payments, Insurtech, Comparison... etc., have revolutionized and improved every stage of the insurance value chain, from market research, marketing, product design, sales, customer service to complaint resolution. There have been changes and improvements in insurance products, the emergence of new intermediaries, changes and innovations in distribution channels, and the appearance of new insurance models. Specifically, fintech applications in insurance companies in Vietnam include:

Bao Viet Insurance Corporation (Bao Viet Insurance): As the non-life insurance arm of the Bao Viet Financial Group, Bao Viet Insurance stands as the core and oldest entity within the group's member companies. With nearly 60 years of operation, 3,000 employees, close to 30,000 agents, around 80 subsidiary companies, and nearly 700 insurance offices spread across provinces and cities nationwide, Bao Viet Insurance is a leading insurance enterprise in Vietnam. Bao Viet Insurance has always been at the forefront of providing insurance products and services to customers, including vehicle insurance, health insurance, and medical insurance, catering to diverse customer needs.

In 2020, Bao Viet Life Insurance applied Blockchain technology in its Loyalty program for loyal customers, allowing them to convert accumulated points into a variety of practical gifts such as vouchers for phone cards, supermarkets, dining services, etc. Bao Viet was the first to launch the Baoviet Direct application, applying advanced security technologies such as SSL/TLS, Tokenization, fingerprint authentication, supported by a 24/7 customer service center to address all customer inquiries. With this app, customers can easily purchase insurance, manage policy benefits, file and track claims, find nearby garages, hospitals/clinics, schedule medical appointments, vehicle repairs, bringing maximum convenience to customers.

Furthermore, Bao Viet has collaborated with fintech companies to innovate and apply new payment methods. Specifically, on February 1, 2018, Bao Viet Insurance signed a cooperation agreement with MoMo - a fintech company providing secure e-wallet solutions with superior payment features. This collaboration between MoMo and Bao Viet Insurance offers products such as auto insurance, motorcycle insurance, health insurance, cancer insurance, travel insurance, allowing customers to conveniently and quickly purchase Bao Viet products on the internet and mobile platforms. This collaboration reflects the essential trend in the digital age to bring products closer, more convenient, and smarter to customers, ensuring their interests are paramount and security is highest with internationally standard technology solutions. Moreover, this collaboration adds value to the digital payment ecosystem, enhancing the service experience for Vietnamese users and contributing to improving the quality of social life.

Also in 2018, Bao Viet officially launched the Baoviet Pay digital banking application based on the infrastructure, technology, and devices of Bao Viet Bank, compatible with all types of phones running on IOS, Android connected to the internet via 3G, 4G, 5G, or Wi-Fi with all mobile networks in Vietnam. With this application, users can access over 50 utilities such as bill payments, new purchases, insurance premium payments to Bao Viet, tuition fee payments, VETC toll payments, easy and fast fund transfers between Baoviet Bank accounts and over 30 domestic banks in Vietnam. Additionally, Baoviet Pay provides customers with group products such as selling life and non-life insurance products, depositing/withdrawing securities account funds, managing insurance contracts, filing insurance claims, scheduling insurance appointments, and vehicle repairs.

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Figure 2: Fintech application at Bao Viet Insurance Company
(Source: collected by group of authors)

Manulife Insurance Company: With a history of 24 years, Manulife is one of the first life insurance companies with foreign investment in Vietnam. Its insurance business activities include mixed insurance, term life insurance, health insurance, and supplementary personal accident insurance for life insurance, as well as retirement insurance. In terms of reinsurance business activities, the company accepts and cedes reinsurance for life insurance, health insurance, and personal accident insurance. By the end of 2023, the company had over 40,000 employees, 116,000 agents, and thousands of distribution partners, serving nearly 34 million customers. To maintain its leading position in the Vietnamese market, the company has always focused on business activities and applications, collaborating with Fintech companies to create products suitable for the era of Industry 4.0, bringing continuous business development. Specifically, Manulife Vietnam officially partnered with the super app MoMo to launch online health insurance products and payment solutions for customers. This collaboration marks a turning point for Manulife Vietnam in becoming the first life insurance company to provide health insurance solutions through the MoMo platform, allowing over 31 million MoMo users to access the comprehensive health insurance product Max - Live Healthy.



Figure 3. Fintech application at Manulife Insurance company
(Source: collected by group of authors)

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InsurTech Sector in Vietnam: According to the Southeast Asia (SEA) Digital Economy Report 2023 released by Google, Temasek, and Bain & Company on November 10, 2023, Vietnam has the highest rate of new internet users in the Southeast Asia region, reaching 41%, with approximately 70% of the population being current internet users. The deployment of new technologies and innovations is changing the business models of insurance companies globally, presenting many opportunities and challenges for Vietnamese startups in the InsurTech sector. Although InsurTech is a relatively new field in Vietnam, it has been developing rapidly. Most traditional insurance companies have built online applications or websites to serve their business activities. Alongside the entry of foreign InsurTech companies, we have witnessed the emergence of InsurTech startups in Vietnam such as INSO, SaveMoney, MIIN, Papaya, etc. These companies are mostly small-scale and primarily act as intermediaries (brokers or insurance agents) and provide technology services to traditional insurance companies.

Comparison Sector in Vietnam: The comparison sector is applied in financial technology - insurance, specifically with products like GoBear and eBaohiem. GoBear, a Fintech product, is the first and only tool in Asia operating in this field, and Vietnam is the sixth market in the region where it operates, including Singapore, Hong Kong, Thailand, Malaysia, and the Philippines. Currently, this tool has 4.5 million customers who use it to search according to their needs. GoBear Vietnam has officially launched a super data search tool, integrating objective and specialized data for insurance and banking products such as credit cards, personal loans, and related insurance products, helping users search and use a credit card service or personal loan from banks... just by visiting the website at <https://www.gobear.com/vn>, the requested search content will appear immediately. In May 2020, the company announced that it had more than 100 commercial partners, including banks and insurance providers. Furthermore, GoBear's services have been used by over 55 million users. GoBear saw a 52% increase in average order value in 2020. The platform also recorded a 50% annual revenue growth from lending products. Additionally, online insurance eBaohiem is applied - an insurance platform for customers owned and operated by Moncover Vietnam through O2 insurance platforms for customers and an insurance platform for consulting agents to build connections for insurance products such as health, auto, travel, life insurance, etc., and to provide insurance advice easily and conveniently based on ensuring the most competitive insurance programs and terms.



Figure 4. eBaohiem - insurance platform for customers owned and operated by Moncover Vietnam
(Source: Collection of authors)

In recent years, the Fintech application in the insurance sector in Vietnam has made significant strides. The rapid development of technology and widespread access to the internet and smartphones have created opportunities for increasing convenience and user-friendliness, specifically:

Firstly, regarding mobile applications and online payments. Vietnam has a large number of mobile users, and the demand for financial services on smartphones is increasing. Therefore, insurance customers can easily conduct insurance transactions anytime and anywhere.

Secondly, the explosion of Fintech in cashless payments. Vietnam's economy is still considered to have a high cash usage rate, which negatively impacts economic development. Therefore, there is still significant potential for promoting cashless payments in Vietnam. Currently, mobile payment services and cashless payments have developed strongly in Vietnam. Mobile wallet applications such as Momo, ZaloPay, AirPay, and QR code payment services are favored by many consumers due to their convenience and fast transaction speeds.

Thirdly, the insurance market in Vietnam will continue to grow strongly, and InsurTech will flourish in the coming years. The cashless trend is developing and will lead consumers to increase digital transactions. As digital insurance products are designed to enhance customer experience, expand networks of potential and loyal customers, etc., Vietnamese startups benefit from their

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lightweight structure, flexible operations, and low costs in partnering with domestic insurance companies to implement InsurTech, while foreign InsurTech companies are limited by high costs, language differences, and cultural disparities. Vietnam has many favorable conditions to become a regional information technology hub due to competitive labor costs and a stable political environment. This is an opportunity for InsurTech companies.

Despite the benefits of applying Fintech in the insurance sector, there are still limitations:

Firstly, security and trust issues. One of the biggest challenges in deploying Fintech in Vietnam is security and trust. Consumers are still concerned about providing personal and financial information on mobile and online applications.

Secondly, legal and regulatory issues. The rapid development of Fintech has created legal and regulatory challenges. The lack of clarity in regulations and guidelines can lead to inconsistency and lack of trust in Fintech services.

Thirdly, access and usability issues. Although Fintech usage is increasing, some segments of the population may have difficulty accessing and using Fintech services.

Fourthly, financial risks and uncertainty. The rapid development of Fintech may come with financial risks and uncertainty. Smart investment services may require investors to understand risks and implement smart investment diversification.

Lastly, alongside the advantages and opportunities, Vietnamese InsurTech startups must face significant challenges when competing with powerful foreign InsurTech companies, always grappling with the issues of human resources and capital. Large investments in technology and the development of high-quality human resources over a long period, fierce market competition, the risk of bankruptcy, and acquisition are significant challenges in the operation and development of businesses. Digitization is deeply ingrained in our daily lives, and InsurTech will be an inevitable trend in the future if we do not want to lag behind and be eliminated. Sustainable development of the insurance market in general and InsurTech in particular in Vietnam requires the concerted efforts of the state, businesses, and the people.

4. SOLUTIONS FOR DEVELOPING FINTECH APPLICATIONS IN THE INSURANCE SECTOR IN VIETNAM

The trend of international economic integration is expanding rapidly alongside competition in the financial sector, leading to changes in the application of scientific and technological achievements in financial products and services and changing customer expectations. The emergence of Fintech is essential and necessary in the new era. Therefore, in the insurance sector, the application of Fintech is an inevitable trend. To further develop this trend in the future, the author group proposes the following solutions:

Diversifying products to meet changing needs: Currently in Vietnam, companies in the market tend to operate mainly in large areas such as payments, peer-to-peer lending, financial investments, E-banking, etc. There are still some areas such as liquidity management or investment management that have not been actively engaged by companies. Fintech needs to expand into other potential areas such as financial management, lending, savings, online investment, consulting, information rating, etc., to meet diverse customer needs. The government needs to have policies to sponsor and support research and application of technology achievements in the financial sector and other fields. Only then can Vietnam's Fintech sector develop strongly alongside other countries in the region.

Enhancing cooperation among stakeholders in supplying Fintech products and services: With the advantages provided by Fintech, exploitation has proven to be effective in the financial sector. On one hand, Fintech companies, despite having technological advantages and innovative business models, lack experience in financial operations, management systems, control, and customer networks. On the other hand, financial companies, in general, and insurance companies, in particular, have advantages in risk management and operation of business systems, customer data. Collaboration between Fintech companies and financial companies will help them to tap into and reach a large customer base, expand their operational scale, and minimize costs. This cooperation will be extremely advantageous, thereby creating a comprehensive strength to enhance competitiveness and contribute to the development of the insurance sector.

Increasing investment in technology infrastructure and improving the quality of human resources as the foundation for applying Fintech in insurance companies: The trend of applying Fintech in insurance companies is bringing about increasingly high efficiency in business. To combine and apply various fields of Fintech and its products in insurance activities on internet platforms, Big Data technology, Artificial Intelligence (AI), mobile phones, etc., insurance companies must invest in this infrastructure to facilitate application.

Additionally, the success of any business relies on the quality of its human resources. For the insurance industry, customers participating in insurance need to be advised to understand their insurance contracts correctly (up to 78.6% of surveyed subjects by Vietnam Report, 2023 believed this had a significant impact). Currently, digital technology is prevailing in every sector,

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so the supply of human resources to meet technological demands is directly trained from educational institutions, which is still very limited. Therefore, when receiving new human resources, the industry has to spend a lot of time and costs on training, which is also a major barrier in the digital age workforce. This requires human resources to have expertise in information technology, application, and proficient handling of techniques.

Perfecting the legal framework regarding policy mechanisms for Fintech activities: Vietnam's Fintech development is very fast, with great potential, but there are still many limitations and risks for both businesses and investors due to unclear legal regulations. The government has issued Decree No. 101/2012/ND-CP, dated November 22, 2012, regarding non-cash payments. Followed by Circular No. 23/2019/TT-NHNN, dated November 22, 2019, providing detailed regulations on payment activities, conditions to be licensed for intermediary payment services, and regulations on activities providing ewallets. Recently, on June 22, 2023, the National Assembly passed the Law on ETransactions as the highest legal basis for the development of electronic transaction forms. However, a law defining Fintech companies' activities as a financial institution has not yet been enacted. Moreover, completing a comprehensive, synchronized legal framework, mechanism, and policy is the most important and urgent requirement for developing Fintech activities. The government needs to supplement specific regulations on Fintech in legal documents, decrees, and circulars to address issues such as security, cybersecurity, intellectual property ownership, consumer protection. At the same time, regulations on mandatory standards for products, services, business models, types of activities should be provided to ensure transparency for Fintech companies. Besides, Fintech is part of the financial industry. The Ministry of Finance and the State Bank of Vietnam must have specialized management and supervision departments for Fintech activities to ensure stability for the monetary financial system. Furthermore, policies to encourage Fintech startups to develop in the future, such as tax exemptions, reductions, and support policies, should be established.

5. CONCLUSION

Fintech is an essential product of the Fourth Industrial Revolution. Fintech products are a combination of technology and finance based on technology platforms. The development of fintech applications in the insurance sector in Vietnam requires cooperation and commitment from various stakeholders. By investing in technology, enhancing support, creating investment conditions, and fostering collaboration between insurance companies and fintech companies, as well as strengthening human resource training, legal frameworks, etc., the goal is to develop sustainably to bring high benefits to both users and insurance companies.

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