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Sustainable Development Strategy for the Vietnamese Insurance Industry Under the Impact of Insurtech and Digital Transformation

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Abstract
In the context of rapid global digital transformation, InsurTech has emerged as a significant trend driving innovation in the insurance industry through the application of advanced technologies such as artificial intelligence, big data, and cloud computing. The development of InsurTech firms serves as a core driver of digital transformation in the insurance sector and has important implications for sustainable development in Vietnam. Based on a qualitative research approach that synthesizes and analyzes policy reports, market data, and relevant academic studies, the findings indicate that InsurTech not only enhances operational efficiency and optimizes costs but also fundamentally reshapes insurance business models toward greater digitalization, personalization, and inclusiveness. At the same time, the adoption of technologies such as AI and big data improves risk management capabilities in the context of increasing non-traditional risks. However, the development of InsurTech in Vietnam remains constrained by an incomplete regulatory framework, underdeveloped technological infrastructure, and a shortage of high-quality human resources. On this basis, the study proposes policy implications to promote the development of InsurTech in alignment with the sustainable growth of the insurance sector.

Keywords: InsurTech, Insurance, Sustainable Development, Vietnam

1. Introduction

Amidst the sweeping wave of global digital transformation, InsurTech has emerged as a pivotal paradigm driving innovation within the insurance sector. This is achieved through the integration of advanced technologies such as artificial intelligence (AI), Big Data, and cloud computing. Formally distinct from conventional digitization, InsurTech not only optimizes operational efficiency but also fundamentally restructures the entire insurance value chain—spanning from product design and distribution channels to risk management frameworks.

In Vietnam, the insurance market has exhibited commendable growth trajectories in recent years. According to the Ministry of Finance, the market's total premium revenue in 2024 was estimated at VND 227,398 billion, representing a marginal year-on-year decline of 0.3% compared to 2023. Nevertheless, the insurance sector's contribution to the national GDP remains relatively modest (Insurance Association of Vietnam, 2025). This discrepancy highlights a substantial untapped growth potential, while simultaneously exposing structural bottlenecks regarding market accessibility and allocative efficiency.

Against this backdrop, InsurTech is highly anticipated to become a cornerstone catalyst driving digital transformation across Vietnam's insurance landscape. The strategic deployment of technology enables insurers to augment their data analytics capabilities, streamline operational workflows, and enhance customer experience. Furthermore, InsurTech plays a critical role in fortifying risk governance capacities, particularly in mitigating the escalation of non-traditional risks such as climate change, pandemics, and cybersecurity threats.

However, empirical evidence suggests that the deployment of InsurTech in Vietnam is still constrained by multi-faceted challenges, including infrastructural deficiencies, regulatory voids, and a shortage of high-quality human capital. Concurrently, comprehensive academic literature integrating InsurTech, digital transformation, and sustainable development within the Vietnamese insurance context remains sparse.

The objective of this paper is to analyze the strategic role of InsurTech in accelerating digital transformation within the insurance sector, while elucidating its implications for sustainable development in Vietnam. Based on these insights, the study proposes actionable policy recommendations tailored for the subsequent development phase.

2. Theoretical Framework

2.1 InsurTech

InsurTech is a portmanteau derived from "Insurance" and "Technology," denoting the strategic integration of technological advancements to optimize operational efficiency across the insurance value chain—ranging from product design and distribution to backend operations. Key disruptive technologies underpinning InsurTech include Data Analytics, Artificial Intelligence (AI) such as chatbots, Big Data, Digitization, and Blockchain (specifically Smart Contracts). This technological paradigm shift has introduced novel development trajectories for the insurance industry, including the optimization of human resource allocation, the development of highly personalized insurance products, the digitization of data management systems, and the expansion as well as diversification of distribution channels. Consequently, InsurTech is widely conceptualized as an inevitable evolutionary trend and a core component within the broader Financial Technology (FinTech) ecosystem (Halima & Yassine, 2022) [5].

Recent empirical literature further underscores the critical role of InsurTech in driving the structural transformation of the insurance sector. Specifically, King *et al*. (2021) [7] argue that insurance firms are increasingly proactive in adopting digital technologies to capitalize on emerging market opportunities. Similarly, Njegomir and Bojanić (2021) [9] highlight InsurTech as a pivotal mechanism for applying information technology to risk management, sales, and distribution activities, with a particular emphasis on the leveraging of big data and predictive analytics. Furthermore, Volosovych *et al*. (2021) [16] assert that technology serves as a cornerstone determinant enabling insurers to enhance their competitive advantage and foster sustainable long-term growth.

2.2 Sustainable Development in the Insurance Sector

The paradigm of sustainable development was formally conceptualized and widely disseminated in 1987 with the publication of the Brundtland Report, titled Our Common Future. However, it is critical to emphasize that the foundational tenets and precursors of sustainability had emerged long before, evolving through various historical epochs.

The most definitive milestone occurred in 1987 when the United Nations World Commission on Environment and Development (WCED), chaired by Gro Harlem Brundtland (former Prime Minister of Norway), released the report Our Common Future. This document established the classical and most universally acknowledged definition of sustainable development: "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs."

Within the insurance sector, sustainable development extends beyond mere economic growth to encompass broader environmental and social objectives, aligning systematically with the Environmental, Social, and Governance (ESG) criteria. The strategic role of the insurance industry in sustainable development is primarily manifested through its core risk-pooling and risk-management functions. By providing diverse underwriting products, the sector mitigates the adverse impacts of systemic shocks—such as natural disasters, pandemics, and accidents—thereby fostering macroeconomic stability and enhancing societal resilience. Particularly in the contemporary context of accelerating climate change, specialized products like agricultural insurance and catastrophe insurance play a pivotal role in safeguarding vulnerable socioeconomic segments.

Furthermore, insurance firms act as major institutional investors holding substantial long-term capital, which positions them to strategically direct financial flows toward sustainable projects, including renewable energy and green infrastructure. According to the OECD (2022) [14], integrating ESG criteria into the investment and underwriting practices of insurers has become an imperative trajectory to guarantee long-term asset growth and minimize systemic risk exposure.

In the era of digital transformation, the convergence of InsurTech and sustainable development unlocks novel opportunities for the insurance industry. The deployment of digital technologies enhances risk governance efficacy, broadens financial inclusion, and facilitates the structuring of tailored insurance products that align with sustainability goals. Nevertheless, capitalising on these opportunities necessitates robust institutional coordination among insurers, regulatory authorities, and key stakeholders to establish comprehensive regulatory frameworks and develop resilient digital infrastructures.

3. Research Methodology

This study employs a systematic literature review (SLR) approach, wherein relevant academic publications were compiled through targeted keyword queries. Additionally, a snowballing technique was applied to the references of the selected literature to expand and supplement the repository of relevant scholarly sources.

Furthermore, a qualitative research methodology was adopted to analyze the strategic role of InsurTech in the digital transformation of the insurance sector and to elucidate policy implications for a sustainable insurance market in Vietnam. This exploratory and inductive approach is highly aligned with the study's objective to synthesize insights within a context where empirical investigations remain constrained. Data for this research were predominantly derived from highly credible secondary sources, including official reports from the Ministry of Finance of Vietnam, international organizations—such as the OECD, the World Bank, and the Swiss Re Institute—alongside peer-reviewed academic literature.

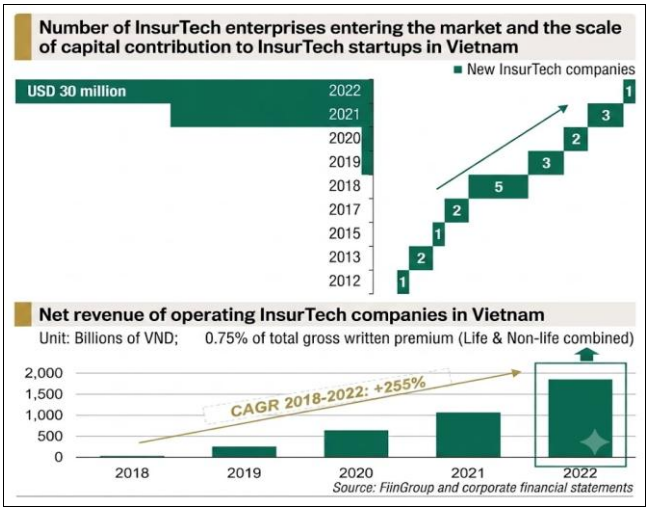
Utilizing the gathered data, the study implements methods of synthesis, comparative analysis, and logical deduction. This analytical framework serves to systematize the theoretical foundations, evaluate the contemporary state of the industry, and illuminate the structural interrelationships among InsurTech, digital transformation, and sustainable development.

4. Results and Discussion

4.1 Current Status of InsurTech Development in Vietnam

In Vietnam, both the scale of the insurance market and the maturity of technology adoption within the sector remain constrained relative to other emerging and developed economies in the region, such as Thailand, India, Indonesia, and Singapore. The domestic insurance penetration rate is notably low, fluctuating between 2.3% and 2.8%, which sits significantly below the 9.6% benchmark observed in more advanced regional markets. Consequently, the market share of InsurTech remains minor, accounting for approximately

0.75% of total premium revenues in 2022 (FiinGroup). This digital footprint is currently concentrated in the non-life insurance segment, whereas its application in life insurance remains nascent and primarily confined to investment-linked products. Conversely, with approximately 79.8 million internet users recorded at the beginning of 2025 (representing 78.8% of the total population), Vietnam possesses a highly favorable structural foundation and substantial latent potential for accelerated InsurTech proliferation.



Source: FiinGroup and corporate financial statements

Fig 1: The number of market-entering InsurTech enterprises and their respective revenues in Vietnam

Compared to the traditional insurance model, InsurTech distinguishes itself through its capability to streamline service accessibility, offer a wider array of personalized configurations, and enhance user experience. These attributes are highly compatible with Vietnam's younger demographic—a dynamic consumer segment that prioritizes time efficiency and exhibits a strong propensity toward mobile device usage, such as smartphones and tablets. Market experts argue that InsurTech is actively reshaping the Vietnamese insurance landscape by innovating distribution methodologies, customer relationship management, and product development, particularly within lifestyle-embedded non-life insurance segments. The market has witnessed the entry of numerous pioneering startups, such as Opes, Inso, Miin, Papaya, and SaveMoney. Driven by the impetus of the Fourth Industrial Revolution and the market maturation of Generation Z—a tech-savvy consumer cohort habituated to e-commerce—InsurTech is projected to maintain its expansionary trajectory.

From a regulatory perspective, the Law on Insurance Business 2022 (which entered into force on January 1, 2023) marked an initial step toward institutionalizing technological applications within insurance operations. Key legislative provisions include principles on information technology deployment (Articles 12 and 13), the provision of products and services across digital environments (Article 14), and the establishment of an industry-wide database (Article 11). These statutory components establish a critical institutional foundation for accelerating digital transformation within the insurance sector.

4.2 Business Model Innovation for InsurTechs in Vietnam

4.2.1 Enhancing Traditional Insurance Business Models

Traditional insurance companies are increasingly leveraging InsurTech and Artificial Intelligence (AI) to defend their market positions by optimizing existing business models.

Table 1: Overview of AI Systems for Traditional Insurers

AI Systems	Business Innovation
Automating simple and repetitive tasks through Robotic Process Automation (RPA).	Enhancing the efficiency of routine business processes associated with legacy systems.
Replacing call center operators by leveraging speech recognition, Natural Language Processing (NLP), and advanced insurance-semantic-based conversational frameworks Enhancing process efficiency and product innovation through accelerated customer service.	Enhancing process efficiency and product innovation through accelerated customer service.
Implementing online chat systems within e-commerce platforms using chatbots trained on massive datasets Maximizing process efficiency and optimizing customer experience.	Maximizing process efficiency and optimizing customer experience.
Deploying chatbot-powered e-services via web browsers and mobile applications.	Increasing process efficiency to minimize service costs while improving the availability and timeliness of digital services.
Enhancing risk analysis and underwriting capabilities for new insurance policies by utilizing machine learning to model large-scale datasets, correlating the characteristics of insured assets with the likelihood, frequency, and severity of potential claims.	Achieving improved risk assessment alongside rapid and dynamic pricing for customers.
Executing sophisticated market segmentation based on cluster analysis, utilizing machine learning techniques on diverse customer data—including online search behavior, demographics, policy history, claims history, social media footprints, and insurer-customer interactions recorded within CRM systems.	Advancing marketing process efficiency through more optimal resource allocation for sales and promotional campaigns.
Detecting fraudulent claims.	Minimizing losses through optimized claims management.
Automating regulatory compliance through both proactive intervention in disputable decisions and retrospective compliance history reporting.	Driving administrative efficiency through enhanced governance processes.
Launching behavior-based insurance.	Introducing behavior-based insurance products.

Source: Compiled by the author

New market entrants leveraging Artificial Intelligence (AI) and Big Data pose an existential threat to incumbent firms. However, traditional insurers have adopted proactive strategies, utilizing InsurTech as a defensive mechanism to both optimize existing systems and processes, and integrate new product features that exploit AI capabilities. These incumbents have forged strategic alliances with AI startups

seeking collaboration with established competitors—mirroring the approach of numerous fintech firms targeting the insurance, banking, and e-commerce sectors. Partnerships between incumbents and AI startups possess the potential to synergize the innovation and technological leadership of agile firms with the scale and distribution networks of large enterprises. This synergy facilitates the exploitation of rich data repositories and market expertise, which are critical for training emerging AI systems.

4.2.2 Business Models for New InsurTech Entrants

New market entrants focus on leveraging InsurTech to disrupt the insurance market through breakthrough innovations, thereby commanding a broader business scope. These enterprises deploy insurance technology to drive product innovation and deliver direct-to-consumer insurance services. Furthermore, they demonstrate the critical importance of high-quality, user-friendly e-services in enhancing customer retention. Well-designed user interfaces also serve to mitigate administrative expenditures, thereby enhancing the profitability of their business models.

Table 2: The Convergence of Artificial Intelligence Systems and Business Innovation

InsurTech and AI Strategies Business Innovation	Business Innovation
AI-powered chatbots for new customer acquisition.	Seamless access to information, products, and services for purchasing.
AI-powered chatbots for claims management.	Distribution channel disruption through streamlined claims settlement via automated insurance estimation and instant payouts.
AI-powered chatbots for claims management.	E-service process innovation that facilitates distribution channel disruption by supporting direct-to-consumer insurance marketing.
Risk assessment and behavioral-based pricing for driving.	Breakthrough product innovation driven by advanced data analytics.
Pay-per-use insurance, powered by AI to manage telematics and driver data.	Product innovation through flexible, short-term insurance coverage Product innovation through flexible, short-term insurance coverage.
Data platforms for diverse insurance lines.	Large-scale aggregation of customers and insurers in a unified locus, establishing an e-marketplace data platform.
E-services designed to enhance customer experience and mitigate service costs.	Process innovation resulting in minimized service costs.
AI-driven market segmentation.	Targeted marketing utilizing bespoke products tailored to specific market segments.

Source: Compiled by the author

4.3 Policy Implications for Sustainable Insurance Market Development in Vietnam

The Vietnam Insurance Market Development Strategy to 2030 outlines specific targets: an average annual revenue growth rate of 10% during the 2026–2030 period; market size reaching 3.3%–3.5% of GDP by 2030; life insurance penetration rates achieving 15% of the population by 2025 and 18% by 2030; and an average annual growth rate of approximately 10% in digital insurance revenues between 2023 and 2030.

To realize these targets, a synchronized implementation of solutions is imperative to foster a safe and sustainable insurance market, with a particular emphasis on nurturing the InsurTech ecosystem. Specifically:

From Regulatory Authorities

Enhanced coordination between regulatory bodies and insurers in communication campaigns is required to elevate public awareness regarding the critical role of insurance, thereby expanding market coverage. Simultaneously, establishing a regulatory sandbox for InsurTech in alignment with international best practices is essential to create an enabling environment for the development of digital insurance services.

Furthermore, accelerating digital transformation in market management and development via technology platforms is crucial to optimize operations and strengthen transparent, real-time online monitoring. Lastly, maximizing the efficacy of inspection and auditing processes—especially concerning digital insurance products and consumer data—is vital to ensure compliance and reinforce market confidence.

From InsurTech and Insurance Companies

Intensifying research and development to design insurance products aligned with emerging trends, consumer preferences, and financial capacities is necessary to capture untapped market segments. Simultaneously, prioritizing the attraction and cultivation of high-quality human resources—particularly in digital marketing, data science, and user experience (UX) design—is imperative to support the advancement of InsurTech business models.

Furthermore, increasing capital allocation for technology and digital infrastructure, alongside fostering collaborations with InsurTech firms, is key to enhancing corporate competitiveness. Safeguarding customer data privacy must also be prioritized through robust investments in advanced cybersecurity systems. Lastly, fortifying financial soundness via strategic partnerships or mergers and acquisitions (M&A) with international counterparts will allow firms to effectively leverage external resources and global expertise in corporate governance, product development, and security protocols.

5. Conclusion

This paper demonstrates that InsurTech is emerging as a critical driver of digital transformation within Vietnam's insurance industry by optimizing operational efficiency, elevating customer experience, and strengthening risk governance. Concurrently, InsurTech advances sustainability goals by broadening financial inclusion and fostering business model innovation.

The research has systematized the theoretical foundations, analyzed the contemporary developmental state of InsurTech in Vietnam, and elucidated the nexus between digital transformation and sustainable development in the insurance sector. On this basis, the study proposes policy implications, including finalizing the regulatory framework, implementing a regulatory sandbox, upgrading digital infrastructure, and developing high-quality human capital.

Nonetheless, this study primarily relies on qualitative methodologies and secondary data, thereby lacking a quantitative assessment of InsurTech's precise impact. Future research directions should employ quantitative approaches to empirically evaluate the profound impacts of

InsurTech on the operational performance and sustainable development of the Vietnamese insurance industry.

6. References

1. Anh NTV. Ung dung tri tue nhan tao trong nganh bao hiem tai Viet Nam trong boi canh toan cau hoa [Application of artificial intelligence in the insurance industry in Vietnam in the context of globalization]. Tap chi Nguon nhan luc va an sinh xa hoi [Journal of Human Resources and Social Security]. 2022; 12:20-29.
2. Anh TTT. InsurTech và xu hướng phát triển. Tạp Chí Khoa Học và Công Nghệ. 2019; 7:11-12.
3. Braun A, Jia R. InsurTech: Digital technologies in insurance. Geneva Risk and Insurance Review. 2025; 50:1-7. Doi: 10.1057/s41288-024-00344-x
4. Clark William, Harley Alicia. Sustainability Science: Toward a Synthesis. Annual Review of Environment and Resources. 2020; 45(1):331-386. Doi: 10.1146/annurev-environ-012420-043621
5. Halima E, Yassine T. Insurtech & Blockchain: Implementation of Technology Operations and its Environmental Impact. Proceeding of IOP Conference Series: Earth and Environmental Science, IOP Publishing, 2022. Doi: 10.28991/esj-2021-SPER-03
6. Hiep hoi Bao hiem Viet Nam [Insurance Association of Vietnam]. Mot so hoat dong noi bat cua thi truong bao hiem Viet Nam ca nam 2024 [Highlight activities of the Vietnam insurance market in 2024], 2024. https://iav.vn/tong-quan,-so-lieu-thi-truong-bao-hiem/254773-254773-mot-so-hoat-dong-noi-bat-cua-thi-truong-bao-hiem-viet-nam-ca-nam-2024
7. King M, Timms PD, Rubin TH. Use of big data in insurance. The Palgrave Handbook of Technological Finance, Rau, R, Wardrop, R. & Zingales, L. (Ed), Springer, 2021, 669-700.
8. Netzero2050. Khai niem phat trien ben vung? Lo trinh thuc hien phat trien ben vung tai Viet Nam [What is sustainable development? The roadmap for implementing sustainable development in Vietnam], 2025. https://netzero2050.vn/khai-niem-phat-trien-ben-vung-lo-trinh-tai-viet-nam/?p=78530
9. Njegomir V, Bojanić T. Disruptive technologies in the operation of insurance industry. Tehnicki Vjesnik. 2021; 28(5):1797-1805.
10. Nga TTT, Thao DTT. Cac yeu to tac dong den hieu qua su dung dich vu bao hiem so: Nghien cuu dien hinh mot so don vi bao hiem nhan tho tai thi truong Viet Nam [Factors affecting the efficiency of using digital insurance services: A case study of some life insurance units in the Vietnamese market]. Tap chi Kinh te & Phat trien [Journal of Economics & Development]. 2023; 308:120-130.
11. Ngoc NTA, Diem NT. Insurtech tai Viet Nam: Thach thuc tu mo hinh kinh doanh moi [Insurtech in Vietnam: Challenges from new business models]. Tap chi Phat trien va Hoi nhap [Journal of Development and Integration]. 2024; 75:38-43.
12. Tho LC. Phat trien cong nghe bao hiem o Viet Nam: Tiem nang, thach thuc va giai phap [Developing insurance technology in Vietnam: Potential, challenges, and solutions]. Tap chi Kinh te va Du bao [Journal of Economics and Forecasting], 2025. https://kinhtevadubao.vn/phat-trien-cong-nghe-bao-hiem-o-viet-nam-tiem-nang-thach-thuc-va-giai-phap-31911.html
13. Organisation for Economic Co-operation and Development. Sustainability and resilience in insurance: Global trends and policy responses. OECD Publishing, 2022.
14. OECD. Environmental, Social and Governance (ESG) Practices in the Insurance Sector. OECD Publishing, 2022.
15. VnEconomy. Insurtech tai dinh hinh buc tranh thi truong bao hiem [Insurtech reshapes the insurance market landscape], 2024. https://vneconomy.vn/insurtech-tai-dinh-hinh-buc-tranh-thi-truong-bao-hiem.htm
16. Volosovych S, Zelenitsa I, Kondratenko D, Szymla W, Mamchur R. Transformation of insurance technologies in the context of a pandemic. Insurance Markets and Companies. 2021; 12(1):1-13.