

Development Policy for the Non-Life Insurance Market in Vietnam in the Context of Industry 4.0

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Abstract: The development of the non-life insurance market is vital for supporting capital market growth and investment, as well as for enhancing economic stability and development. This study assesses the current state of policies for developing the non-life insurance market in Vietnam in the context of Industry 4.0. The research specifically focuses on evaluating these policies across several dimensions: entry policies for the non-life insurance sector, policies for the provision of non-life insurance products, financial policies for non-life insurance companies, policies for supervising non-life insurance business activities, and policies for protecting non-life insurance participants. By identifying the strengths and weaknesses of these development policies within the industry 4.0 context, the study proposes several solutions to enhance policy effectiveness and promote the development of the non-life insurance market in Vietnam.

Keywords: non-life insurance market, development policy, industry 4.0

1. Introduction

The development policy for the non-life insurance market is essential for ensuring sustainable growth and meeting the increasing demands of both the public and businesses. Various studies have explored different aspects of this policy, offering insights and recommendations for improvement (Upreti and Adams (2015; Cavalcante et al., 2018; Ilyas and Rajasekaran, 2019; Baranauskas, 2021; Upreti et al., 2022). Pham Khac Dung (2007) emphasized that changes in financial management policies significantly impact the insurance market's development, including both life and non-life sectors. He recommended market restructuring, ownership diversification, long-term human resource training, strengthening market management through fair competition regulations, enhancing risk management, and empowering insurance managers. Similarly, Venkataramani et al. (2015) examined the effects of insurance participants, agents, and foreign direct investment (FDI) on the Indian insurance market. They found that increased FDI improved insurance services, offering a broader product portfolio, with private insurance services garnering higher satisfaction than state-run ones, supporting a competitive market. Čepeláková (2015) analyzed the influence of macroeconomic factors -economic, institutional, and demographic - on insurance premium growth in 29 European countries from 2005 to 2013, concluding that GDP growth was the most significant driver of insurance market expansion. Institutional factors such as unemployment rates and policy enforcement quality also played a role, while demographic factors had no substantial impact. The study found that factors driving insurance growth varied between more and less developed European countries. Macfubara et al. (2018) focused on the effect of monetary policy on the performance of insurance companies in Nigeria from 1990 to 2017, revealing that most monetary policy variables positively influenced return on equity, although the treasury bill interest rate had a negative impact. The study emphasized the need for the Nigerian government to closely monitor monetary policy when managing the non-life insurance market.

Dominique-Ferreira (2017) investigated the impact of attribute presentation order on consumer preferences in the non-life insurance market, revealing that price is the most significant factor, holding an importance of 77.901%. Bundling discounts, intermediary recommendations, and the insurance brand followed in importance with

8.496%, 7.523%, and 6.081%, respectively. The study found that consumers prioritize initial information, particularly price, which significantly influences their purchasing decisions, suggesting that strategic presentation order can enhance consumer engagement in insurance offerings. Similarly, Camino-Mogro et al. (2019) analyzed the level of competition in the Ecuadorian insurance industry from 2001 to 2016, finding that both life and non-life insurance markets operate under conditions of perfect competition, with input price fluctuations not correlating with revenue, indicating long-term market equilibrium. Their findings suggest that public policy should focus on maintaining high levels of competition and reducing market entry barriers, while considering the role of bank-associated insurance companies, which might create market power. Reyna et al. (2022) examined the relationship between interest rates and the business performance of insurance companies over 22 years, finding an inverse relationship between efficiency and interest rates. Non-life insurance companies were more efficient under lower interest rates, whereas life insurance companies performed less efficiently. These findings offer insights for government policy in managing the non-life insurance market. Hodula et al. (2023) explored the macrofinancial factors affecting life and non-life insurance premiums in 24 European countries over two decades, finding that insurance premiums increase with the business cycle and are predicted by high savings rates and a developed financial system. Market concentration impacts life insurance premiums, while price effects are significant for non-life insurance premiums. Economic crises reduce premiums in both sectors, and inflation positively affects non-life insurance premiums but negatively impacts life insurance premiums. These results have implications for improving macroprudential stress tests in the insurance industry.

Although there have been several studies examining various aspects of non-life insurance market development policies, it appears that no research has specifically focused on the development policies of the non-life insurance market in Vietnam, particularly in the context of the Fourth Industrial Revolution.

2. Current situation of non-life insurance market development policies in Vietnam

2.1. Policies for entering the non-life insurance industry

During the period from 2018 to 2022, policies for entering the non-life insurance industry in Vietnam underwent changes when the Insurance Business Law No. 24/2000/QH10, initially enacted in 2000, was amended and supplemented in 2010 through the Law on Amendments and Supplements to Certain Articles of the Insurance Business Law No. 61/2010/QH12. Additionally, the Insurance Business Law of 2010 was further amended and supplemented in 2019 under the Law on Amendments and Supplements to Certain Articles of the Insurance Business Law, Intellectual Property Law No. 42/2019/QH14. Most recently, in 2022, the National Assembly enacted a new Insurance Business Law, No. 08/2022/QH15.

According to these regulations, non-life insurance companies can be established and operate if they meet the legal requirements and obtain approval from the Ministry of Finance. The legal conditions focus on three main areas: appropriate statutory capital requirements, managerial and executive personnel must meet specific standards, and necessary physical facilities and equipment must be in place to ensure operations can commence immediately after licensing. Additionally, the Insurance Business Law and its guiding documents have detailed regulations concerning the conditions for founding entities, notably stipulating conditions and limits on capital contributions for organizations and individuals. There is also a requirement that founders use their own capital for contributions, prohibiting the use of loans or capital entrusted by other entities.

For foreign non-life insurance companies investing in Vietnam, decrees such as Decree No. 45/2007/ND-CP through Decree No. 46/2023/ND-CP still impose specific requirements, notably regarding financial capacity, operational experience, and a stipulation that only insurance operations currently conducted abroad, where the company's headquarters are located, can be carried out in Vietnam.

Regarding permitted insurance operations, Vietnamese law, consistently across the Insurance Business Laws of 2000, 2019, and 2022, does not allow insurance companies to simultaneously offer both life and non-life insurance for primary insurance operations. An exception is made for life insurance companies that offer health insurance and personal accident insurance as supplements to life insurance. This means that non-life insurance companies are not allowed to offer life insurance products, and life insurance companies cannot independently offer non-life

insurance products, except as supplementary products to enhance the insurance aspects of the life insurance products they provide.

The results show that policy regulations regarding entry into the non-life insurance industry, applied from 2012 through 2022, did not change. The Insurance Business Law only stipulates regulations regarding insurance business organizations and the conditions required to obtain establishment and operational licenses, without specifying the organizational structure, management, and operational apparatus for non-life insurance companies. However, the decrees guiding these laws provide clearer regulations on this issue.

In practice, over the past 10 years, Vietnam's non-life insurance market has shown great potential, attracting numerous foreign-invested companies to participate. These companies typically have strong financial capacities and good management and operational capabilities, meeting the entry requirements of Vietnam's non-life insurance market. However, before 2023, due to the lack of clear policy regulations on organizational structure, management, and operational apparatus for non-life insurance companies, some companies were not operating efficiently. This led to low-quality products and services, which negatively impacted Vietnam's non-life insurance market.

2.2. Non-life insurance product provision policy

In practice, the number of non-life insurance products offered by companies has been increasing recently. The variety of non-life insurance products available on the market is becoming more diverse, providing customers with more options. The increase in the number of non-life insurance products can be attributed to several factors: (i) increasing demand for insurance: as people's incomes and living standards improve, they tend to seek financial protection solutions for themselves and their families; (ii) technological advancements: the development of technology has made it easier for non-life insurance companies to access and develop new products. Companies can utilize technology to collect customer data, analyze market trends, and create products that cater to customer needs; (iii) growing competition: the intensifying competition among non-life insurance companies compels them to continuously innovate their products to attract customers.

The increase in the number of non-life insurance products brings several benefits to the non-life insurance market, including: enhancing competition, which provides customers with more choices; meeting the increasingly diverse insurance needs of the population; promoting the overall development of the non-life insurance market.

However, the growing number of non-life insurance products also presents some challenges for non-life insurance companies, such as: increased product development costs; challenges in maintaining product quality control; higher risk of unhealthy competition. To overcome these challenges, non-life insurance companies should: intensify research and development of new products that meet customer needs; strengthen product quality control measures; foster collaboration among non-life insurance companies to develop joint products.

Table 1 shows that the number of companies violating non-life insurance product provision policies has remained relatively high in recent years. Most violations are related to product design and the organization of product distribution channels. The violation rate is fairly high on average, indicating the need for corrective measures in the future.

Table 1. Compliance with product provision policies of non-life insurance companies in Vietnam

Company name	2018	2019	2020	2021	2022
I. Number of Companies Violating Policies	12	10	15	18	17
1. Domestic Companies	8	6	12	13	12
2. Foreign-invested Companies	4	4	3	5	5
II. Number of Violations	33	28	51	56	46
1. Violations Related to Non-life Insurance Product Design	25	22	37	32	30
2. Violations Related to the Organization of Non-life Insurance Distribution Channels	5	6	10	24	16

Company name	2018	2019	2020	2021	2022
3. Violations Related to Conditions for Insurance Branches, Agents, and Brokers	3	0	4	0	2
III. Severity of Violations					
1. Number of Minor Violations	23	21	38	45	44
2. Number of Moderate Violations	9	7	11	9	2
3. Number of Major Violations	1	0	2	2	0

2.3. Financial policy of non-life insurance companies

2.3.1. Capital regulations

In Vietnam, capital policies for non-life insurance companies are currently designed to ensure operational stability and risk mitigation by maintaining the required statutory capital and complying with financial management regulations. From 2018 to 2022, the Department of Insurance Management and Supervision closely monitored non-life insurance companies, requiring them to maintain the mandated capital levels, with any changes in capital needing approval from the Ministry of Finance.

Statutory capital and charter capital are two crucial indicators reflecting the scale and financial strength of non-life insurance companies. During the 2018-2022 period, there was significant growth in both statutory capital and charter capital among non-life insurance companies in Vietnam, demonstrating the stable development of the non-life insurance market. One reason for this growth is the recent amendments and supplements to non-life insurance regulations, which have increased the requirements for statutory and charter capital. This has prompted non-life insurance companies to raise capital to meet legal requirements. The growth in statutory and charter capital has strengthened the financial capacity of these companies, laying a solid foundation for the sustainable development of the non-life insurance sector in Vietnam.

However, despite these positive developments, the rapid increase in statutory and charter capital also presents some risks: (i) financial burden: The requirement to increase statutory and charter capital can impose a financial burden on non-life insurance companies, especially on small and medium-sized enterprises; (ii) investment risk: Non-life insurance companies may use the additional capital to invest in less efficient projects, leading to potential financial risks.

To mitigate these risks, non-life insurance companies should carefully assess the need for additional capital and have a clear investment plan to use the capital effectively. At the same time, regulatory authorities should implement strict monitoring measures to oversee capital increases in non-life insurance companies to ensure the financial stability of Vietnam's non-life insurance market.

2.3.2. Solvency regulations

In recent years, the non-life insurance market in Vietnam has remained relatively stable, demonstrating the ability to meet solvency requirements even during significant loss events. Generally, the solvency margins of non-life insurance companies in Vietnam are relatively high compared to other countries in the region. According to the Vietnam Insurance Association, the average solvency margin of non-life insurance companies in Asia was 100% in 2022. However, because the non-life insurance market is influenced by economic and social conditions, there is a continuous need to improve the solvency margins of non-life insurance companies in Vietnam to ensure the financial stability of the domestic non-life insurance system. To enhance their solvency margins, companies should focus on several key strategies: strengthening financial capacity by increasing capital, boosting revenue and profitability; rigorously managing financial risks, especially investment risks; and enhancing business efficiency while minimizing costs.

2.3.3. Reserve provision regulations

The government requires non-life insurance companies to establish adequate technical reserves to ensure they can meet claim payment requirements whenever insurance risks arise. Additionally, the government strictly monitors

the establishment of these reserves by non-life insurance companies. An analysis of the technical reserve situation of non-life insurance companies in Vietnam from 2018 to 2022 reveals the following:

Over the past 11 years, non-life insurance companies in Vietnam have been diligent in setting up technical reserves, ensuring both financial security for the companies and the protection of the rights of insurance participants. Several key factors have contributed to the increase in technical reserves: the growth of the non-life insurance market has driven the need for larger reserves; changes in legal regulations have become stricter, requiring non-life insurance companies to establish adequate and reasonable reserves; and non-life insurance companies have made efforts to enhance management capabilities, including improving the quality of their reserve provisions.

However, during the 2018-2022 period, issues have emerged regarding the establishment of technical reserves by non-life insurance companies, such as insufficient reserve provisions, misuse of reserve funds, and inconsistent reserve-setting methods among different companies. These problems have been largely identified through on-site inspections. Some non-life insurance companies have not fully committed to establishing adequate reserves, with some taking a superficial approach. There are instances where companies adjust reserve levels to manipulate financial outcomes, switching from profit to loss and vice versa. Remote monitoring lacks sufficient basis to verify the accuracy of reserve data due to the absence of detailed documentation for calculating claim reserves. Data accuracy is largely dependent on the honesty of each non-life insurance company, with accurate assessments relying on data from independent audits or on-site inspections. However, on-site inspections often involve sampling, making it difficult to comprehensively evaluate the adequacy of reserve provisions.

2.3.4. Regulations on investment management

The regulations governing the investment activities of non-life insurance companies are outlined in Article 98 of the Insurance Business Law No. 24/2000/QH10, Articles 59 to 62 of Decree No. 73/2016/ND-CP, and Article 98 of the Insurance Business Law of 2019.

According to these regulations, non-life insurance companies in Vietnam are permitted to invest their idle capital in the following areas: purchasing government bonds; buying corporate stocks and bonds; engaging in real estate business; contributing capital to other companies; providing loans as regulated by the Law on Credit Institutions; and making deposits at credit institutions. Decree No. 73/2016/ND-CP further specifies that non-life insurance companies may only use their own capital to invest abroad by establishing or contributing capital to the formation of non-life insurance companies overseas, setting up branches of non-life insurance companies abroad, and making other foreign investments as allowed by law.

Table 2 shows that the investment portfolios of non-life insurance companies in recent years have primarily concentrated on purchasing government bonds, buying corporate stocks and bonds, engaging in real estate business, and making deposits at credit institutions. This indicates that the investment portfolios of non-life insurance companies are relatively safe and have high liquidity. Investment income has constituted a significant portion of the revenue for non-life insurance companies in recent years. Additionally, these companies have generally adopted a cautious and short-term investment approach, focusing mainly on fixed-income instruments. However, there have been some violations, such as unclear accounting between funds invested from technical reserves and owner's equity, as well as funds from technical reserves being invested in non-compliant ways. Specifically, the proportion of idle capital invested in categories such as non-guaranteed corporate stocks and bonds, capital contributions, and real estate business has exceeded regulatory limits.

Table 2. Investment activities of non-life insurance companies in Vietnam from 2018-2022

<i>Indicators</i>	2018	2019	2020	2021	2022
I. Investment Value (billion VND)	34.107	34.911	36.716	31.424	34.403
1. Purchase of Government Bonds	8.490	6.880	9.270	7.440	5.510
2. Purchase of Corporate Stocks and Bonds	5.600	6.222	5.286	4.360	5.446
3. Real Estate Investments	7.426	8.232	8.931	9.745	7.152
4. Capital Contributions to Other Companies	1.094	1.346	1.138	1.072	2.828

<i>Indicators</i>	2018	2019	2020	2021	2022
5. Loans Provided According to the Law on Credit Institutions	2.265	2.490	2.864	3.263	2.070
6. Deposits at Credit Institutions	9.232	9.741	9.227	5.544	11.397
II. Investment Proportion (%)	100	100	100	100	100
1. <i>Purchase of Government Bonds</i>	24,89	19,71	25,25	23,68	16,02
2. Purchase of Corporate Stocks and Bonds	16,42	17,82	14,40	13,87	15,83
3. Real Estate Investments	21,77	23,58	24,32	31,01	20,79
4. Capital Contributions to Other Companies	3,21	3,86	3,10	3,41	8,22
5. Loans Provided According to the Law on Credit Institutions	6,64	7,13	7,80	10,38	6,02
6. Deposits at Credit Institutions	27,07	27,90	25,13	17,64	33,13
III. Investment Proportion of Total Company Assets (%)	44,3	43,7	45,1	41,0	42,6

2.3.5. Regulations on revenue and expense management

According to Decree 73/2016/ND-CP and Circular 50/2017/TT-BTC, the government inspects and supervises every revenue and expense item in the business activities of non-life insurance companies to ensure proper accounting and reflection of actual results. Based on this, the financial capacity and obligations to pay into the state budget of non-life insurance companies are determined. Currently, the government grants autonomy to non-life insurance companies, so the accounting of revenues and expenses falls under their responsibility and authority. Regulatory bodies have established principles for determining revenue from insurance business activities, financial revenue, business operating expenses, financial expenses, other income, and other costs. Additionally, the Ministry of Finance has set regulations for separating owners' equity from insurance premiums.

In recent years, to comply with state regulations on revenue and expense management, non-life insurance companies have implemented effective revenue and expense management measures such as: strengthening sales activity control to prevent fraud and deception against customers; increasing the use of information technology in management to improve operational efficiency and reduce costs; investing in human resource development to enhance the professional skills of staff; and optimizing the use of financial resources.

However, in practice, non-life insurance companies have not fully adhered to revenue recognition regulations: there are instances where obligations have arisen but revenues have not been recorded, or where contracts that have not yet taken effect have already been recorded as revenue; and some insurance contracts have expired, but revenues continue to be recognized. Additionally, certain branch employees keep revenues off the books, withholding revenue from low-risk contracts rather than recording it in the company's revenue; if a contract is deemed risky, it is recorded as revenue, thus transferring the potential loss to the company.

Regarding expenses, there are some violations in accounting for compensation costs and operational expenses. Many compensation expenses for primary insurance are accounted for even when the insurance liability has not yet arisen. Particularly, commission payments still have many irregularities, such as paying commissions to unauthorized recipients (payments made to non-life insurance company employees), commissions included in almost all insurance contracts, promotional expenses for insured persons, and unauthorized support payments to agents.

2.4. Supervisory policies for non-life insurance business activities

In Vietnam, during the period 2018-2022, the Insurance Management and Supervision Department, a unit within the state management apparatus of the Ministry of Finance, functions to assist the Minister of Finance in directly managing and supervising insurance business activities and related services, including non-life insurance (as stipulated in Decision No. 1313/QD-BTC dated June 11, 2014, on the functions, tasks, powers, and organizational structure of the Insurance Management and Supervision Department).

The Insurance Management and Supervision Department conducts financial oversight (based on financial analysis and performance indicators of non-life insurance companies) and operational oversight (covering corporate governance, business processes, risk management, etc.) according to legal regulations and the compliance of non-life insurance companies with these laws. The department uses company reports to compare against legal requirements, detect errors, provide recommendations, and implement corrective measures if there are discrepancies between business performance indicators and supervisory criteria.

The Insurance Management and Supervision Department primarily conducts compliance-based oversight, which often involves processing historical data. Consequently, the effectiveness of remedial measures can be limited as risks may have already materialized. In many cases, significant changes may have occurred by the time risks are identified. When actions by non-life insurance companies are detected that could negatively impact their financial status or the market, the department may be unable to intervene effectively if current laws do not address these issues. The ability to forecast and issue early warnings for the market is still limited, and the level of forecasting and warning remains low.

2.5. Policies for the Protection of Non-Life Insurance Participants

Under the provisions of the Insurance Business Law of 2000, the National Assembly required non-life insurance companies to establish a Mandatory Reserve Fund to supplement charter capital and ensure solvency. However, the Insurance Business Law of 2010 marked a significant advancement by establishing the Insurance Protection Fund, aimed at safeguarding the rights of insured parties in cases where non-life insurance companies go bankrupt or become insolvent. This fund is financed by a percentage of insurance premiums applicable to all insurance contracts.

Currently, the Insurance Protection Fund is specifically regulated under Decree 123/2011/ND-CP and is guided by Circular 101/2013/TT-BTC dated July 30, 2013, issued by the Ministry of Finance. The Insurance Protection Fund is centrally managed by the Vietnam Insurance Association and is accounted for, managed, and monitored separately for different types of life insurance and non-life insurance. The contribution rate to the Fund by non-life insurance companies is announced annually by the Ministry of Finance but cannot exceed 0.3% of the total retained insurance premiums from primary insurance contracts. Contributions continue until the Fund's size reaches 3% of the total assets of non-life insurance companies. Thus, contributions to the Fund are made in advance and are regulated by Vietnamese law.

The reality during the 2018-2022 period shows that the Insurance Protection Fund has played a very effective role in safeguarding the rights of policyholders, ensuring that they do not suffer financial losses when non-life insurance companies become insolvent. This has contributed to stabilizing the non-life insurance market in Vietnam. Table 3 indicates the following: The Fund's payout rate has been relatively stable in recent times, demonstrating that the Insurance Protection Fund is being utilized effectively and meeting the needs for payouts to policyholders. However, the current contribution rate to the Fund is low compared to other countries in the region, such as Indonesia (2.5%) and Thailand (2.0%). A low contribution rate results in a small-scale Fund, which may struggle to meet payout demands if multiple insurance companies go bankrupt or become insolvent simultaneously.

Table 3. Status of the insurance protection fund (specifically for non-life insurance) in Vietnam

Indicators	2018	2019	2020	2021	2022
1. Contribution amount to the Insurance Protection Fund by non-life insurance companies (billion VND)	1.204	1.355	1.529	1.673	1.976
2. Average contribution rate to the Fund (%)	1,89	1,88	1,92	1,84	1,93
3. Payout amount from the Fund (billion VND)	983	1.096	1.211	1.298	1.606
4. Payout rate from the Fund (%)	81,64	80,89	79,20	77,59	81,28

3. General assessment of non-life insurance market development policies in Vietnam in the context of the fourth industrial revolution

3.1. Strengths of non-life insurance market development policies in Vietnam in the context of the fourth industrial revolution

During the 2018-2022 study period, there was a significant breakthrough in policy development for the non-life insurance market in Vietnam. The policy framework has gradually been made more transparent and publicly accessible, with clear orientations and objectives that align with the country's economic integration and international practices. This aims to create a fair competitive environment among non-life insurance companies. Legal documents have been reviewed, amended, supplemented, and newly issued. These new regulations are appropriate for the conditions and practical operations of the industry and have promptly addressed the issues faced by non-life insurance companies, creating a comprehensive, transparent, fair, and synchronized legal corridor. They have also simplified business conditions and administrative procedures, facilitating the mobilization of capital in the non-life insurance business sector, thus fostering the development of the non-life insurance market. Moreover, these policies help non-life insurance companies formulate development strategies and plans, such as enhancing financial capacity, business operations, and competitiveness, in preparation for future integration.

The development policies for the non-life insurance market in Vietnam not only align with other domestic laws (such as the Civil Code, Penal Code, Law on Fees and Charges, Law on Amendments and Supplements to Laws on Taxation, Investment Law, Procurement Law, Law on Promulgation of Legal Documents) but also, given the country's deepening international integration and the ongoing impact of the Fourth Industrial Revolution, are considered to be in line with international standards. The regulatory authorities have timely issued regulations regarding the cross-border sale of non-life insurance products, the establishment of branches of foreign non-life insurance companies in Vietnam, and standards for certain personnel positions.

The policies for entering the non-life insurance industry have become increasingly clear and refined, providing a fair legal environment for all participants in the non-life insurance market. Regulations governing the entry of non-life insurance companies into the market have become stricter and more reasonable, suitable for the conditions of the non-life insurance business in Vietnam.

The policies related to the provision of non-life insurance products are relatively open for non-life insurance companies. Accordingly, non-life insurance companies can distribute their products through direct sales channels, agency or brokerage channels, bidding processes, and other forms consistent with legal regulations. Essentially, the regulations on non-life insurance product distribution channels under Vietnamese law are also consistent with common practices in the legal systems of many countries worldwide.

The policies for supervising non-life insurance business activities have also been increasingly stringent. Supervisory activities are carried out following clear supervision procedures, avoiding duplication and overlap, which could waste human resources. The content of supervision, especially inspection and examination activities, is conducted with a focus on key issues and handled timely and closely.

The effectiveness of these policies has been quite positive. Specifically: Supervision is based on objective financial and economic indicators, emphasizing the solvency of non-life insurance companies and making timely adjustments when companies face difficulties. Through market supervision, supervisory authorities have detected and recommended that non-life insurance companies rectify activities such as investments, provisioning, asset management, and debt compliance with regulations, contributing to the financial health of non-life insurance companies and helping them achieve stable development; Supervisory activities have also demanded timely and adequate adjustments to the compensation processes according to product rules and terms. The resolution of compensation and payment of insurance money has helped organizations and individuals participating in insurance overcome financial risks, thus stabilizing their business operations and livelihoods.

In addition, these activities have involved reviewing and recommending amendments to policy mechanisms to address inadequacies and enhance management capabilities. The policies to protect non-life insurance participants have achieved significant results, contributing to the enhanced role of non-life insurance in the economy and society. This is evident through the relatively stable payout ratio of the Insurance Protection Fund over the past period. The Fund is being used effectively, meeting the payout needs of policyholders.

3.2. Weaknesses of non-life insurance market development policies in Vietnam in the context of the fourth industrial revolution

Policies for Entry into the Non-Life Insurance Sector still have certain shortcomings, such as: (1) Regulations state that the primary management body of a non-life insurance company should be a one-tier Board of Directors (or Members' Council) but do not specify the inclusion of independent members, whereas the guidelines of the International Association of Insurance Supervisors (IAIS) and the laws of many countries have detailed provisions for independent members; (2) There is a lack of balance in the control of the management and operational structure of non-life insurance companies, as there are no regulations separating the roles of the Chairman of the Board of Directors (or Members' Council) and the CEO (or General Director). Moreover, there is no adequate oversight mechanism for cases where the Chairman of the Board of Directors also serves as the CEO, as currently allowed.

Policies on Non-Life Insurance Product Provision also show some inadequacies, such as: (1) The current regulations regarding the approval procedures for non-life insurance products are unclear and lack transparency, making it difficult to ensure the rights and responsibilities of all parties involved. Overall, these regulations remain relatively rudimentary and have not been revised during the study period; (2) There are still several issues with regulations related to non-life insurance product distribution channels, such as those governing insurance agents and the distribution of non-life insurance products through banks.

Policies on Non-Life Insurance Companies' Financial Management still have certain shortcomings, such as: (i) the regulations on minimum capital requirements are low and uniform, preventing non-life insurance companies from fully exploiting the market's potential. Consequently, the reinsurance rate in Vietnam's non-life insurance market remains high; (ii) the solvency regulations contain some provisions that are not entirely appropriate for the economic realities or the risks impacting the business activities of non-life insurance companies; (iii) the regulations on reserve provisioning have certain limitations, such as: there is no specified method for statutory reserve provisioning. While companies are allowed to choose among various methods, Vietnam's non-life insurance market lacks a professional team for risk management and assessment. The shortage of trained and experienced personnel in this field remains a challenge for non-life insurance companies; (iv) the regulations on investment management also have certain inadequacies, such as: The regulation that allows for a maximum of 35% of idle capital from insurance reserves to be invested in purchasing stocks, corporate bonds, mutual fund certificates, or contributing capital to other companies may not be reasonable. Non-life insurance companies could face significant risks in their business operations if there are negative fluctuations in the stock market, potentially impacting customer interests and leading to the risk of bankruptcy; the limitations on investment ratios currently apply only to idle capital from insurance reserves, with no regulations governing other investment capital sources of non-life insurance companies. Investment capital for non-life insurance companies is stipulated in Decree 73/2016/ND-CP. Although insurance reserves are liabilities of the non-life insurance company to its customers, the financial capacity and solvency of the company are not only reflected in the insurance reserves but also based on the company's equity; the regulations on revenue and expense management are not stringent enough, leading to numerous violations by non-life insurance companies. Notable examples include the failure of non-life insurance companies to comply with revenue recognition regulations: contracts that have incurred liability but have not been recognized as revenue or contracts that have not yet incurred liability but have already been recognized as revenue; insurance contracts that have expired but are still being recognized as revenue. In terms of expenses, there are violations in accounting for claims and operating costs. Many primary insurance claim payments are recorded without liability arising, and commission payments to employees, promotions for insurance participants, and support for agents are not in compliance with regulations.

Policies on Supervising Non-Life Insurance Business Activities still have certain shortcomings, such as: (1) Supervision activities have not kept pace with the scale and complexity of the market. On-site supervision is primarily conducted at headquarters, with limited oversight at branches. The frequency of on-site supervision is low, with inspections conducted every 5-6 years per company and audits every 10 years per company. These inspections and audits mainly focus on detection and punishment rather than prevention; (2) Due to the lack of information exchange between supervisory authorities and non-life insurance companies and between supervisory authorities and other related agencies, along with the absence of sanctions against fraudulent activities, public awareness is still limited, resulting in a continued increase in fraudulent activities; (3) Although legal documents

have been adjusted to limit unfair competition among specialized non-life insurance companies, monopolistic practices still exist within the industry, leading to market segmentation and closed operations. Companies use their monopoly advantages to expand their market share outside the industry by continuously increasing exploration costs to secure services. Supervisory activities have not promptly addressed these behaviors.

Policies for Protecting Non-Life Insurance Participants still have certain inadequacies, such as: (1) The current reserve rate of the Insurance Protection Fund is lower than that of other countries in the region; (2) The functions of the Insurance Protection Fund are limited due to legal provisions; (3) The legal status of the Insurance Protection Fund is unclear, and the regulation that the Vietnam Insurance Association should manage the Fund is inappropriate; (4) The law's classification of contributions to the Insurance Protection Fund as business expenses is unreasonable.

3.3. Causes of weaknesses in non-life insurance market development policies in Vietnam in the context of the fourth industrial revolution

3.3.1. Causes related to policy formulators and implementers

State Leadership and Direction: The leadership and direction provided by the state in the policy formulation and implementation process are not comprehensive enough, lacking scientific rigor. Some legal documents even seem like “temporary solutions” rather than well-thought-out policies. Effectiveness and efficiency of regulatory management: The effectiveness and efficiency of state management in the non-life insurance sector are still lacking. The Vietnamese insurance market is expanding from major cities and urban areas into remote provinces and regions across the country; Capacity of policy implementation personnel: The capacity of personnel responsible for policy implementation is limited. Many staff members are newly graduated students with no practical experience in insurance business. Additionally, the regulatory body lacks experts for comprehensive reviews of technical issues related to insurance calculation bases, insurance premiums, reserve provisioning, and the financial stability of insurance companies. The shortage of highly skilled and experienced personnel poses significant challenges for the Insurance Supervisory Authority in stabilizing its organization and improving market supervision efficiency; Information technology application: The Insurance Supervisory Authority faces many limitations in applying information technology, particularly in the context of Industry 4.0. For statistics, analysis, forecasting, and formulating general market policies, the Authority currently lacks software for quantitative analysis and historical data storage and updates.

3.3.2. Causes related to policy impacted parties

Compliance awareness of non-life insurance companies: Compliance with legal regulations by non-life insurance companies is still low. Companies often engage in risky competition by lowering insurance premiums and increasing operational costs for agents and even customers to secure insurance contracts. This creates an unhealthy business environment that directly impacts customer trust in insurance products. Additionally, non-life insurance companies have not developed effective incentive mechanisms or created an ideal work culture to attract and retain committed and loyal employees. Inadequate compensation leads to staff shortages or collusion with insured parties for personal gain, harming the companies themselves. Inaccurate claim assessments and non-compliance with procedural regulations are also prevalent issues.

Management and operational capacity of non-life insurance companies: The organizational and managerial capacity of non-life insurance companies, as well as their staff, is still weak, with low professionalism, especially in risk management, investment expertise, and insurance premium setting. This leads to various issues during insurance contract execution and claim assessments, affecting company operations and investment effectiveness. Some companies hire staff with poor qualifications or even no knowledge of insurance (while insurance agents are required to have certification, there are no professional requirements for general insurance staff).

Technology adoption: The ability of non-life insurance companies to understand, research, and apply modern technology in their operations is limited. Despite the strong development of Industry 4.0 in recent years, many insurance companies, especially domestic ones, have not established software systems for calculating insurance premiums and provisioning reserves. This limitation results in inefficient business management and increased

operational costs, making it challenging to compete with well-established global insurance companies with strong resources and experience.

Competitiveness and networking of non-life insurance companies: For many years, domestic non-life insurance companies have lacked effective business and marketing strategies, which has hindered their integration into the global market. Although recent years have seen a focus on developing business and marketing strategies, few companies have successfully implemented these strategies effectively. Most companies still focus on traditional, immediately profitable services targeting urban populations. Developing new insurance products involves significant time, investment, and market research, leading to lower immediate returns. Additionally, the quality of products remains low, claim assessments are problematic, and value-added services are nearly nonexistent due to high costs incurred during operations. These factors contribute to a lack of product diversity and quality in the non-life insurance market.

3.3.3. Causes related to the policy environment

Economic and social development: The challenges in the economic and social situation of the country from 2018 to 2022, particularly during the two years of the Covid-19 pandemic (2020, 2021), are significant factors contributing to the slow development of the non-life insurance sector in Vietnam. For instance, in 2014, the government's tightening of public expenditure, increase in interest rates, and efforts to control inflation led to a decrease in demand for non-life insurance.

Current status of the non-life insurance industry: The development of the non-life insurance market remains slow, with widespread unhealthy competition. For example, non-life insurance companies, pressured to increase revenue, engage in unhealthy competition by offering non-technical insurance premiums and excessively high sales costs, leading to low business efficiency. Although the Ministry of Finance in Vietnam has set regulations on insurance commission caps to curb unhealthy competition, these regulations have not been fully effective. In practice, most insurance agents and brokers strive to achieve the highest possible sales costs (including commissions), sometimes even demanding higher levels from insurance companies due to increasing competition. This regulatory breach by many insurance companies also hinders foreign non-life insurance companies.

Development of modern technology in non-life insurance: The development and application of modern technology in non-life insurance, particularly among domestic companies, still face many limitations and do not keep pace with the market's growth.

Public awareness of non-life insurance: In Vietnam, purchasing insurance is not yet a common practice or habit among the public. Vietnamese insurance consumers often lack the habit of buying insurance through brokers and may believe that purchasing insurance directly from an insurance company is safer. There is a prevalent misconception that using insurance brokers incurs additional costs. Similarly, many people are not confident or comfortable buying insurance through agents, which hampers the growth and effectiveness of insurance intermediary services. Some organizations, businesses, and individuals consider insurance unnecessary and do not understand its role or benefits to their business or the broader economy, even avoiding mandatory insurance. This lack of understanding is a significant barrier to the development of Vietnam's non-life insurance market.

International economic integration: Economic integration presents opportunities for domestic non-life insurance companies to access international markets but also introduces challenges as they face competition from foreign insurance companies within their home market. This is particularly true from countries with more developed insurance industries like Singapore, Thailand, Malaysia, Indonesia, and the Philippines, which establish companies or branches in Vietnam. Economic integration promotes cross-border insurance sales, intermediary services, reinsurance, and participation in niche markets where Vietnamese companies are still weak, such as cyber risk and specialized risks. This complex environment poses significant challenges for regulatory agencies to ensure a healthy, transparent, and well-directed market, especially given the market's relative immaturity and existing issues.

Industry 4.0: The Fourth Industrial Revolution creates numerous opportunities and challenges for state management, policy formulation, and implementation in Vietnam's non-life insurance market.

E-Insurance transactions: Vietnamese insurance laws permit selling insurance products through electronic transactions. However, the Electronic Transactions Law of 2005 and related regulations do not provide detailed guidance for electronic transactions related to insurance contracts. Furthermore, the recognition of electronic signatures for individuals and organizations in Vietnam is limited, making it difficult to fully implement online insurance sales. Companies still need to meet customers in person to obtain signatures on insurance applications and issue printed insurance contracts.

Cybersecurity risks: Industry 4.0 increases cybersecurity risks for insurance companies, with customer data and insurance transaction information being stored and processed on digital platforms. This requires regulatory agencies to implement effective cybersecurity measures.

Increased competition: Industry 4.0 enables insurance companies to access new technologies, increasing market competition. This necessitates supportive policies for insurance companies to enhance their competitive capabilities.

Changing consumer behavior: Industry 4.0 changes consumer behavior, leading to a growing preference for online insurance products and services. Regulatory agencies need to develop policies that encourage insurance companies to innovate and offer online insurance products and services.

4. Conclusions

This study has evaluated the current state of policies for developing the non-life insurance market in Vietnam in the context of the Fourth Industrial Revolution. The analysis results show that during the 2018-2022 period, significant breakthroughs have been made in formulating policies for the development of the non-life insurance market in Vietnam. The policy framework for the non-life insurance market in Vietnam has gradually become more transparent, with clear orientations and objectives aligned with international standards to create a healthy competitive environment among non-life insurance companies. New regulations have promptly addressed the challenges faced by non-life insurance enterprises, facilitating the development of the non-life insurance market. At the same time, these policies have helped non-life insurance companies in shaping their development strategies and plans, such as enhancing financial capacity, business performance, and competitiveness to prepare for future integration.

Despite these achievements, there are still some limitations in the development policies for the non-life insurance market in Vietnam. These include the following: There are still many shortcomings in regulations regarding the distribution channels of non-life insurance products, such as regulations on insurance agents and the distribution of non-life insurance products through banks. The regulations on statutory capital are low and uniform, which prevents non-life insurance companies from fully exploiting the market's potential. Regulations on revenue and expense management are not stringent enough, leading to numerous violations by non-life insurance companies. The current supervision activities do not meet the market's scale and complexity; on-site supervision mainly focuses on the head offices and has not been thoroughly conducted at branch levels. The current allocation rate for the Insurance Protection Fund is low compared to other countries in the region.

To improve the policies for entry into the non-life insurance industry, several solutions should be implemented as follows: increasing the effectiveness of internal control regulations for non-life insurance companies, enhancing regulations on product distribution channels of non-life insurance companies, refining regulations on capital and solvency requirements for non-life insurance companies based on a risk-based management approach, improving regulations on investment activities of non-life insurance companies, enhancing supervision policies for non-life insurance business activities, strengthening the management and supervision capacity of the Insurance Protection Fund, and increasing international cooperation in activities to protect insurance participants.

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