

Analysis Of Problems and Countermeasures in The Development of The French Insurance Industry

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Abstract. The insurance industry is a developing industry with technological change and diversification of the insurance industry. The opportunity to develop rapidly comes with risks and problems. The purpose of this paper is to elaborate on the issues that the insurance industry is facing and provide suggestions, taking the French insurance industry as a representative. This article generally analyzes three current difficulties facing the French insurance industry: 1) The risk that climate change may bring will tremendously influence the development of the insurance industry. 2) There are difficulties for insurance companies in France to make the digital transformation, coming with the risk of information leaking. 3) French insurance companies are subject to regulatory pressure on multiple dimensions. This study proposes three corresponding responses to the existing problems: 1) Improve climate risk prediction systems and plan in advance for climate-related insurance. 2) Gradually switch information systems with the help of technologies. Put main efforts to foster talents in AI. 3) Closely cooperate with review bodies and enhance assessment of third-party risks. It is anticipated that this paper could help the French insurance industry face challenges in the future.

Keywords: France; insurance industry; AI.

1. Introduction

Insurance plays a vital role in modern economics. From the micro perspective, insurance companies undertake part of the risk of individuals, families and enterprises through selling insurance. This offers financial protection for families, and a guarantee for entrepreneurs so as to activate economic growth. On the macro side, insurance injects capital into the market and supports the function of society.

As the sixth insurance market in the world, and third in Europe, Insurance industry in France is developing fast in recent decades [1].

From 2019 to 2023, the cotisations of all types of insurance are increasing [2] (See Table 1). Represented by Crédit Agricole Assurances and AXA Insurance, insurance companies in France are strengthening their international competitiveness while deeply cultivating domestic business.

Table 1. Cotisations Float 2019-2023 [2]

Of million euros	2019	2020	2021	2022	2023
Life insurance	1694	1418	1752	1732	1823
Life and capitalization	1446	1164	1486	1454	1524
Sickness and Bodily Injury	248	254	266	279	299
Property and Liability	587	602	631	665	705
Automobile	228	235	241	249	262
Personal Property Damage	113	117	121	126	132
Damage to professional and agricultural property	82	82	87	94	105
General Liability	39	38	44	47	50
Other insurance	126	131	139	149	156
Total insurance in France	2281	2020	2383	2397	2528

However, problems exist with development. This paper proposes to analyze the core existing issues and provide corresponding solutions. This will not only help enhance resource allocation and

risk management in the French insurance industry but also provide insights for insurance industries in other countries, thus promoting the sustainable development of the insurance sector over the globe.

2. Major Challenges

2.1. Climate Risks

Climate changes that are getting worse in recent years are undoubtedly one of the biggest issues faced by the insurance industry worldwide. Extensive research has emphasized the urgency of incorporating the physical aspect of climate threats into economic impact studies [3-5]. The impact is especially apparent in the insurance industry. Affected by extreme climate disasters, Indemnities in the insurance industry have risen sharply. Most of the indemnities here originate from acute physical risks caused by natural disasters. The unusually rapid climb in indemnities is putting huge pressure on Property and Casualty Insurance Companies, and if no timely solution strategy is provided, they may well choose to raise the amount of premiums in order to protect their financial condition or to drop some of the insured items related to climate change, with huge consequences for the safety of citizens' property. On top of that, many climate changes have not reached the level to affect insurance, but they will certainly be considered in the future. For example, property that is now along a river or coast, which will almost certainly be damaged by climate change, is at such a high level of risk that sensible insurers will choose to either extremely increase their coverage now or drop it because of its excessively high likelihood.

Although life insurers are generally less affected due to pre-disaster alerts and safety protocols, the broader health implications of climate change—such as rising temperatures potentially increasing disease incidence and contagious outbreaks—cannot be ignored. Long-term, indirect effects like population displacement and geopolitical instability could prove devastating within a 50-year horizon.

2.2. Digital Transformation and Information Leakage

The digital age poses fundamental challenges for legacy insurance systems and the insurance industry will not escape. The primary challenge of digital transformation lies in the management of legacy systems. Most French insurance firms continue to rely on aging information systems that are incapable of integrating modern digital technologies, leading to critical operational inefficiencies. For small and medium-sized enterprises (SMEs), the large costs of system replacement that they cannot afford create a self-reinforcing cycle of technological obsolescence, leaving them increasingly noncompetitive. The acute shortage of AI expertise across industries disproportionately affects insurance as a traditional sector. AI specialists are more inclined to pursue careers in technology firms than in insurance institutions, resulting in protracted delays in the industry's digital transformation progress.

Cybersecurity presents another critical barrier. In 2024, two major data breaches impacted 22 million individuals in France. Attackers targeted two French healthcare payment processing companies, Viamedis and Almerys [6]. Both organizations handle third-party payments for France's health insurance system. This is the most extensive information leakage incident in the nation's history. Given the insurance sector's obligations for data privacy compliance, this is another significant expense for SMEs, affecting their early growth.

2.3. Regulatory Pressure

As part of the European Union, the French insurance industry is facing regulatory challenges at multiple levels.

The low interest rate environment is unfavorable for both life and non-life insurance, and the Solvency II Directive constrains insurers from diversifying their strategies and limits their ability to self-compensate for declining profitability through other means [7-8]. At the heart of this framework are risk- and evidence-based capital requirements designed to ensure the financial stability of insurers.

As a result, French insurers need to reassess their capital structure and risk management strategies to comply with these standards.

Insurance Resolution and Recovery Directive (IRR) This new directive requires insurers to develop detailed resolution and recovery plans to ensure an orderly exit from the market if an insurer faces financial distress. This adds to the complexity of compliance as insurers need to invest resources in planning and testing, particularly in crisis management preparedness.

As climate change has attracted the attention of society as a whole, the insurance industry's regulatory policies in this area have not yet kept pace. The text of the review of SolvencyII's ambition regarding climate change remains limited, as it essentially translates into the requirement for insurers to conduct scenario analysis and evaluate the potential implications of climate change on their risk management strategies [9].

The cumulative effect of these regulatory requirements significantly increases the cost of compliance, encompassing labor costs, technology costs, and opportunity costs, to some degree for firms of all sizes.

3. Countermeasures

3.1. Forecasting Improvement and Advance Planning

In terms of risk prediction, French insurers can improve the accuracy of their predictions by various means, such as connecting satellites and modeling improvements, and can react faster to upcoming acute risk payouts. Through the integration of AI and its subsequent data, insurers can price more accurately and, at the same time, automatically payout by setting thresholds in advance (e.g., how many degrees exceeded), which can improve the efficiency of payouts while enhancing corporate reputation. Such parameterized insurance is a win-win initiative.

For potential future climate risks and insurance payouts, insurance companies should make layouts in advance. With uncertainty, especially the kind of uncertainty in the climate sphere, insurance is necessary [10]. Developing green sustainable insurance products, such as providing premiums for renewable energy projects is a promising project that meets regulatory needs while enhancing brand image and also reduces long-term risks on an economic level. Cooperation with reinsurers is also necessary to minimize risk. Munich Re is already working on a partnership with European insurers through a climate risk pool to support them in combating climate risk. At the same time, public-private partnerships are also a good solution strategy. By expanding the scope of risk-taking through cooperation with the state, it can be effective for insurers to diversify risks and improve stress resistance, especially for small and medium-sized enterprises.

3.2. Gradual Replacement & Focus on AI Talent

For older information systems, French insurers can achieve gradual integration through DXP platforms such as Magnolia, ensuring that data is not lost while transitioning to new information systems at the lowest possible cost.

For difficulties in digital transformation, the root cause is the lack of AI talent. Therefore, pursuing AI talent both internally and externally is a key solution for digital transformation. Through internal training, insurance companies can briefly alleviate the shortage of AI talent. Companies can train internal employees in AI literacy through internal training, reducing short-term labor costs and avoiding short-term scarcity that leads to attracting AI talent with excessive salaries. At the same time, cooperation with AI companies to outsource AI technology needs can also effectively alleviate the lack of talent. In the long run, cooperation with universities may be another important solution, such as providing paid internships for computer science and data science students to attract young talent and establish a long-term talent pipeline, which is the most effective solution in the long run. A combination of long-term and short-term strategies can effectively address the lack of AI talent.

3.3. Regulatory Agency Cooperation and Third-party Risk Assessment

Cooperation with regulators is necessary if you want to reduce the pressure on the regulatory side. At the level of regulatory cooperation, French insurance companies and the French Agency for Prudential Regulation and Resolution (ACPR) maintain regular communication through regular meetings, participation in industry forums, and regulatory consultation, so as to keep abreast of regulatory policy changes and trends and provide timely feedback to ensure that the regulatory rules are scientific and reasonable. In terms of third-party management, French enterprises need to establish a full life-cycle control mechanism: at the entry stage, strictly review the qualifications of the partner in accordance with relevant legal requirements, focusing on its historical compliance performance and financial soundness; during the cooperation process, use regular verification, establish a monitoring system through performance indicators, and combine with digital monitoring tools to realize real-time behavioral tracking and enhance the efficiency of risk identification; the contractual terms need to ensure that compliance obligation clauses such as anti-money laundering and other compliance obligations are included. The contract terms should ensure the inclusion of anti-money laundering and other compliance obligation clauses, specify disciplinary measures such as fines for non-compliance and termination of cooperation, and set up regular compliance reporting obligations, so as to strengthen the fulfillment of the third-party institution's responsibilities through legal constraints.

4. Conclusion

The French insurance industry, which epitomizes the challenges of the global insurance industry, is facing a triple threat posed by climate change, digital transformation, and the evolution of the regulatory environment. This study highlights that climate risks, characterized by intensifying natural hazards and changing risk patterns, call for urgent structural adjustments in the industry. At the same time, the industry's struggles with digital transformation have exposed shortcomings in digital infrastructure and talent cultivation. In addition, an increasingly stringent regulatory environment requires companies to adopt proactive compliance strategies to avoid operational risks. To address these challenges, insurers must adopt forward-looking strategies: Advanced climate risk prediction models can enhance resilience to environmental fluctuations; Establish a comprehensive data governance and talent cultivation system while gradually advancing technological upgrades, which can both safeguard the security of digital transformation and drive innovation by fostering AI professionals; Establish a dynamic collaborative mechanism by working with regulators and implementing rigorous third-party risk assessments to ensure compliance flexibility in a changing operating environment. By incorporating these recommendations into its decision-making, the French insurance industry can turn existential threats into sustainable opportunities and maintain industry stability.

Admittedly, there are still shortcomings in this paper, such as in climate risk avoidance, where government policies are fluid in their response to climate change, which leads to the possibility that solutions such as green insurance products may become unviable in the future as a result of policies. This requires the French insurance industry to be flexible and make decisions based on policy changes.

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