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Bridging the cyber protection gap: An investigation into the efficacy of the German cyber insurance market

Frank Cremer, Barry Sheehan, Michael Fortmann, Martin Mullins, Finbarr Murphy, Stefan Materne.

Synopsis

This research highlights the importance of an effective risk transfer system and a robust insurance market in enhancing cybersecurity resilience. The insurance industry faces significant challenges due to rapidly evolving cyber threats, limited data, and inadequate risk understanding. The study analyzes 41 cyber insurance policies, which cover approximately 80% of the German insurance market. Additionally, 23 interviews were conducted with cyber insurance experts to supplement the findings with practical insights. The results of this study reveal a lack of standardized wording in the policies, with coverage and exclusions being unclear. This ambiguity affects the market penetration of cyber insurance and makes it difficult to understand the scope of coverage. The findings aim to improve the understanding and management of cyber risks.

Introduction and Background

Cyber risks pose a significant threat to the European economy, and insurance could play a crucial role in enhancing supranational commercial resilience. Despite the potential benefits of cyber insurance in boosting enterprise resilience, many companies are hesitant to prioritize it (Hausken, 2020). This reluctance often stems from a lack of understanding of their financial exposure to cyber risks and the available insurance options. Even companies with cyber insurance face challenges related to comprehension and standardization. The absence of common terms, conditions, and definitions across policies creates a lack of transparency regarding coverage. This issue is compounded by overlapping insurance coverage and limited experience in managing cyber risks (Cremer et al., 2022; Wrede et al., 2020). As a result, the terms and conditions of cyber insurance policies are often unclear, with contractually agreed coverage inadequately described (Hare-Brown, 2019). The information provided about insured cyber losses is frequently vague, making it difficult for policyholders to understand which scenarios are covered and which are excluded (Woods & Simpson, 2017). The lack of standardization in exclusions further complicates this issue, leading to potential coverage gaps for insured companies (Wrede et al., 2020). This lack of clarity and consistency in cyber insurance undermines its effectiveness and limits its adoption.

Issues and Questions Considered

The study investigates key issues in the cyber insurance market, focusing on its effectiveness. It evaluates German cyber insurance policies by analyzing their coverage, exclusions, and claim triggers. To enhance the analysis, the study incorporates insights from interviews with industry experts.

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One of the primary issues identified is the lack of standardization and transparency in cyber insurance policies, leading to inconsistencies and gaps in coverage. Insurers often have varying exclusions, making it difficult for companies to understand their actual protection. The European Insurance and Occupational Pensions Authority (EIOPA) has criticized this lack of uniformity and called for improvements in transparency and comparability to strengthen the European cyber insurance market (EIOPA, 2019).

The study highlights that the absence of standardized definitions and the overlap of cyber insurance with other types of insurance contribute to confusion, ultimately reducing the effectiveness of coverage. It examines how these challenges impact policyholders, identifying specific gaps that could leave companies vulnerable. For example, it investigates the typical scope of cyber insurance, including exclusions, to help policyholders understand uncovered risks and take appropriate protective measures. It also reviews policy triggers to clarify the conditions necessary for filing a cyber insurance claim. Furthermore, the study explores the role of service providers that cyber insurers partner with in managing claims. There is limited clarity on which providers are involved and how these partnerships operate.

The expert interviews offer additional perspectives on how cyber insurance compares to other types of coverage, the degree of standardization in the market, and which exclusions are most significant. These insights provide a clearer picture of the current market landscape, highlighting potential areas for improvement and explaining the rationale behind specific exclusions and why certain risks remain uninsured.

Methodology

This study applies a mixed-methods approach, combining content analysis and semi-structured interviews to examine the German cyber insurance market. For the content analysis, data was collected from 41 cyber insurance policies and 34 service providers. The analysis focuses on identifying, categorizing, and evaluating the coverage, exclusions, and triggers in these policies. Additionally, the roles of service providers involved in managing cyber incidents were analyzed and categorized. The evaluation was guided by Mayring's model of qualitative content analysis, ensuring a systematic, rule-based process. The results were also compared with similar research focusing on the US cyber insurance market.

In addition to the content analysis, 23 semi-structured interviews were conducted with industry experts, including primary insurers, brokers, reinsurers, and reinsurance brokers. These interviews helped validate the findings from the content analysis and provided further insights into the dynamics of the cyber insurance market.

Outcomes and Findings

This research reveals that the German cyber insurance market is still in its early stages, leading to significant uncertainties. The study identified 29 different sub-categories of coverage, divided into two main components: first-party coverage and third-party liability. Additionally, 15 categories of exclusions were identified within these policies. A sample trigger was created to demonstrate the conditions required to make a valid claim in cyber insurance.

The study emphasizes how inconsistent insurance terms, unclear triggers for claims, and vague exclusions, particularly those related to war clauses, make it difficult for businesses to fully understand their coverage. This lack of clarity increases uncertainty and reduces the effectiveness of cyber insurance in mitigating risks. Interviewees confirmed these findings, stressing that the cyber insurance industry still has significant room for improvement.

The comparison between the US and German cyber insurance markets showed also interesting findings. The US market is regarded as more transparent, with comprehensive information easily accessible through platforms like SERFF. In contrast, German insurers typically disclose policy details only upon request, exacerbating the lack of transparency. Additionally, while ransomware attacks are often covered in the US, they are frequently excluded from German policies. However, the rapidly evolving nature of cyber threats may cause these differences to change over time.

For the research community, this paper offers valuable insights into the current state of the cyber insurance market in Germany. It analyzes the effectiveness of German cyber insurance products, particularly for companies aiming to strengthen their resilience against cyber threats. Businesses can use the findings to evaluate their existing cyber insurance policies. Furthermore, the study underlines the growing awareness of the link between unclear insurance cover, insurance exclusions and cyber risks, which require more proactive action from companies and cyber insurers.

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