

Effectiveness of Existing Insurance Frameworks in Addressing the Risks of Contractors

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Abstract

The construction industry is inherently risky and involves risks of project delay and cost overruns, safety issues, and contractual disputes. Therefore, these risks require insurance frameworks to address the unique challenges contractors face. This study used a critical analysis to show how existing insurance frameworks mitigate risks associated with construction projects. The study employed a mixed-method approach and used 100 contractors with 15 industry experts for the qualitative study by purposive sampling. The study reveals significant gaps in the adaptability and inclusiveness of existing insurance products, particularly in addressing emerging risks such as cyber threats and environmental liabilities. The results indicate that the effectiveness of existing insurance frameworks in addressing contractor risks varies significantly across different policy types. Cyber Liability Insurance for Construction Firms and Environmental Liability Insurance rank among the most effective, reflecting the industry's growing awareness of digital threats and environmental risks. The qualitative analysis revealed that many contractors face financial challenges due to limited coverage options for specific risks, such as delays or project-specific liabilities. Future research was recommended to explore contractors' specific challenges in accessing and utilising insurance coverage, particularly for policies with lower effectiveness ratings, such as Employers' Liability Insurance and Group Personal Accident Insurance.

Keywords: Contractors' Risk, Insurance frameworks, Risk management, Industry Challenges and Collaborative Approaches.

1. Introduction

The construction industry is a foundation of economic development and infrastructure growth in many nations (Ofori, 2015), including Ghana. As the country continues to experience rapid urbanisation and infrastructure development (Turok & McGranahan, 2013), the construction sector will face many risks that can knowingly impact project outcomes (Jaafari, 2001)—these risks range from regulatory challenges and financial uncertainties to environmental hazards and safety concerns. Therefore, effectively managing these risks is important for seeing the sustainability and viability of construction projects (Winch, 2012). This need raises important questions about the adequacy of existing insurance frameworks in addressing the different construction risks in Ghana (Kheni & Braimah, 2014).

Risk management is an insurance tool that can mitigate financial losses arising from unknown events in construction projects (Banaitiene & Banaitis, 2012). In the construction industry, the purpose of insurance is

complex (Owusu-Manu, 2021), involving various types of coverage, such as professional indemnity insurance, liability insurance, workers' compensation, and property insurance. Each one of these insurance types or products is designed to address specific risks. Kochenburger and Salve (2023) state that the effectiveness of the products can usually vary based on the regulatory environment, the specificities, and the market dynamics of the construction sector in which they are applied. The existing insurance frameworks in Ghana must be examined to determine their capacity to protect stakeholders (Oscar & Abor, 2013), including project owners, contractors, and workers, from the inherent construction risks.

Over the past decade, the Ghanaian construction industry has witnessed important growth (Osei, 2013), driven by government initiatives, foreign investments, and a burgeoning private sector. Moreover, this growth has not been without its challenges. Lack of skilled labour, inadequate project financing, and regulatory inefficiencies have plagued the sector, making it progressively vulnerable to risks. Furthermore, the

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historical context of construction practices in Ghana, characterised by a tendency towards informal agreements and a lack of comprehensive risk management strategies, exacerbates the situation. Due to this, the effectiveness of existing insurance frameworks in addressing these challenges becomes a pressing concern (Boateng et al., 2022).

The study aims to find the adequacy of current insurance products available to stakeholders in the Ghanaian construction industry, which is one of the objectives of this study. This assessment involves a critical analysis of the types of insurance coverage prevalent in the sector, perceptions of industry stakeholders, and the regulatory landscape governing insurance practices regarding the effectiveness of these frameworks. By assessing the strengths and weaknesses of existing insurance mechanisms, this research seeks to provide insights into how those frameworks can be improved to serve Ghana's industry's needs better (Owusu-Manu, 2021).

By combining the two, local practices and international influences shape Ghana's insurance landscape. The insurance industry in the country is small, with a regulatory framework that has developed over the years in response to domestic and international trends. The primary regulatory body overseeing insurance operations in Ghana is the National Insurance Commission (NIC), which is assigned to ensure fair practices and protect the interests of policyholders. Moreover, concerning the regulatory framework, there are concerns about the accessibility and affordability of insurance products for construction stakeholders, mainly small and medium-sized enterprises (SMEs) that control the sector (Philipo et al., 2023).

The cultural context in Ghana changes risk perception and management practices within the construction industry. Traditionally, construction projects have been closed with a reactive mindset, where risk management is most often relegated to post-event responses rather than proactive strategies. Important financial losses, project delays, and safety incidents result from reactive measures, underscoring the need for a paradigm shift in how risks are perceived and managed within the industry. Insurance plays a central role by providing a safety net and inspiring stakeholders to adopt proactive risk management strategies (Chang et al., 2018).

Alongside examining the current insurance frameworks, this study seeks to explore the role of education and awareness in fostering effective risk management practices. Many stakeholders within the construction industry lack a comprehensive understanding of the available insurance products and their benefits. The study identifies a knowledge gap related to underinsurance and inadequate coverage, which leaves stakeholders exposed to financial losses. By pinpointing educational initiatives and awareness campaigns that can enhance understanding of insurance

products, this research aims to contribute to the development of a more knowledgeable construction workforce capable of utilising insurance as a tool for risk management (Kousky, 2022).

Moreover, the study will examine the impact of emerging trends and technologies on the construction insurance landscape in Ghana. The advent of digital platforms, data analytics, and innovative insurance products presents new opportunities for addressing construction risks. For instance, integrating technology into project management can enhance risk assessment and monitoring, allowing for more tailored insurance solutions to meet specific project needs. Understanding how these trends can be harnessed to promote the effectiveness of insurance frameworks is a critical aspect of this research.

In conclusion, effectively managing construction risks in Ghana is a complex challenge that requires a comprehensive understanding of existing insurance frameworks and their limitations (Osei, 2013). By evaluating the adequacy of current insurance products, the regulatory environment, and the perceptions of industry stakeholders, this study aims to provide valuable insights into how the insurance landscape can be improved to better address the unique risks of the construction sector. As infrastructure and urban landscapes continue to develop in Ghana, the role of insurance in facilitating risk management will be increasingly vital. This research contributes to the academic discourse on construction and has practical implications for policymakers, industry stakeholders, and the broader community.

2. Literature Review

Ghana's construction industry has grown significantly over the past few decades, primarily fuelled by public and private investments. However, this growth is accompanied by various risks that can harmfully affect project outcomes. One way to manage these risks is through insurance frameworks; evaluating their effectiveness is critical for the industry. This literature review examines existing research on construction risk management in Ghana, centring on the effectiveness of insurance in mitigating these risks.

2.1. *The Role of Insurance and Construction Risks in Ghana*

In Ghana, construction projects encounter numerous risks, which can be categorised into financial, operational, and environmental (Ofori et al., 2023). Financial risks generally encompass delays in contract payments, budget overruns, and unstable economic conditions that affect project financing. Operational risks arise from insufficient project management practices, unforeseen logistical challenges, and a shortage of skilled labour (Obokulovich, 2024). Environmental risks are increasingly interconnected,

particularly due to the impacts of climate change, leading to project delays and escalating costs (Mensah, 2020). Grasping these risks is essential for recognising the need for robust insurance frameworks.

In the construction industry, insurance serves two primary functions: risk transfer and mitigation (Pinto et al., 2021). Construction firms can protect themselves against potential financial losses from unforeseen incidents by transferring risk to the insurer, such as accidents or project delays. In the Ghanaian context, traditional insurance models have primarily focused on property risks rather than operational or financial risks (Boakye Danquah et al., 2022). This limited focus can create important gaps in coverage, leaving construction stakeholders open to risks not addressed in traditional insurance policies. Subsequently, the literature highlights the need for reform in the insurance framework to safeguard comprehensive coverage of the diverse risks in the construction sector (Agyekum et al., 2021).

2.2. Exploring the Effectiveness of Existing Insurance Frameworks

Numerous studies have assessed the effectiveness of existing insurance frameworks in addressing construction risks. Agyei et al. (2020) conducted an extensive survey among construction professionals in Ghana, revealing that most respondents lacked awareness of the full range of available insurance options. Many construction organisations perceive insurance as an unnecessary expense rather than a strategic investment in risk management. This lack of awareness can significantly undermine the effectiveness of current frameworks. Furthermore, in another study, Obokulovich (2024) demonstrated the slow adoption of modern insurance products, such as construction credit and performance bonds. Their research indicates that only a small percentage of construction projects secured insurance coverage, highlighting the industry's limited engagement with innovative risk management solutions. The authors argue that educational initiatives and collaborative frameworks between insurers and construction firms are essential for enhancing the implementation of comprehensive insurance packages. The Ghana Insurance Association (2020) reported and emphasised that construction firms are generally uncertain about utilising these products, despite the various options available. Factors contributing to this reluctance include a lack of trust in insurance providers, claim denials, and an insufficient understanding of the benefits of insurance (Darimaani, 2024). These findings underscore the necessity for regulatory frameworks that promote transparency and accountability among insurers, thereby fostering a more reliable environment for the construction industry.

2.3. Regulatory Frameworks and Policies

The insurance regulatory landscape in Ghana significantly impacts the effectiveness of insurance frameworks in managing construction risk. The National Insurance Commission (NIC) manages the insurance sector, yet the existing regulations often lag behind the construction industry's dynamic needs (Baffoe et al., 2022). Reforms to align insurance products with industry-specific risks have been suggested as imperative. Obokulovich (2024) proposes a multi-stakeholder method involving insurers, construction firms and regulatory bodies to formulate insurance products tailored to the construction sector's unique risks. Additionally, incorporating risk assessment methodologies into insurance products can improve coverage and provide a more responsive safety net for construction stakeholders.

2.4. Challenges in Implementing Effective Insurance Frameworks

Despite the recognised benefits of insurance, several challenges impede the effective implementation of insurance frameworks in the Ghanaian construction sector. As Owusu-Manu (2021) noted, issues such as premiums, the complexity of insurance products, and a general distrust of insurers discourage construction firms from securing insurance. Moreover, the lack of standardisation in insurance policies creates confusion and mismatched expectations between construction stakeholders and insurance providers (Ofori et al., 2023). The sector faces a gap in education and training regarding construction risk management and insurance. Osei-Tutu et al. (2021) suggested that incorporating insurance literacy into construction management programmes could equip future industry professionals with the knowledge to navigate insurance options effectively.

In conclusion, existing research indicates that while there are frameworks for addressing construction risk in Ghana, several factors limit their effectiveness, including a lack of awareness and trust in insurance products, regulatory challenges, and a need for increased education. Enhancing the insurance landscape to include comprehensive, tailored products that address the unique construction risks in Ghana is essential. Future research should concentrate on exploring innovative insurance models specifically designed for the distinct risks of the construction industry. Additionally, examining the role of technology in improving insurance processes could provide valuable insights into how stakeholders can navigate the complexities of the insurance market.

3. Research Methodology

This study utilised a mixed-methods approach, integrating quantitative and qualitative techniques to gather comprehensive data. A questionnaire survey involved 100 respondents from the construction

industry and the Ghana insurance sector. The study applied Krejcie and Morgan's (1973) sampling estimation formula to select 100 respondents. Krejcie and Morgan's sampling yields precise sample sizes with reduced Bias. Additionally, qualitative interviews were conducted with 12 key industry experts, including project managers, risk assessors, and insurance underwriters, to gain insights into practical challenges and solutions. The interview guides were created based on an extensive review of existing literature and consultations with industry experts to ensure relevant and targeted questions.

professionals and semi-structured interviews with key stakeholders. The results are organised into three main themes: (1) Quantitative Survey Results, (2) Qualitative Interview Insights, and (3) Integration of Findings.

4.1. Quantitative Survey Results

One hundred surveys were distributed to construction professionals across Ghana, including project contractors. Of these, 97 responses were received, yielding a response rate of 97%, as shown in Table 1. The survey aimed to assess the effectiveness of existing insurance frameworks in addressing contractors' risks.

Table 2: Existing Contractor Insurance Framework

Insurance framework	Mean	Std. Dev.
Contractors' All Risks (CAR) Insurance	3.07	1.46
Public Liability Insurance	3.17	1.5
Workers' Compensation Insurance	3.0	1.32
Professional Indemnity Insurance	2.98	1.45
Employers' Liability Insurance	2.89	1.4
Equipment & Plant Insurance	2.96	1.44
General Third-Party Liability Insurance	2.98	1.3
Erection All Risks Insurance	3.13	1.51
Group Personal Accident Insurance	2.85	1.34
Fire and Allied Perils Insurance	3.13	1.36
Fidelity Guarantee Insurance	3.07	1.56
Motor Fleet Insurance for Construction Vehicles	3.02	1.46
Performance Bond Insurance	3.02	1.43
Environmental Liability Insurance	3.24	1.33
Cyber Liability Insurance for Construction Firms	3.41	1.37

Source: Field Data (2025)

To enhance the data collection instruments, pre-testing was carried out, and the interview process was carefully structured to include follow-up questions. At the same time, a detailed thematic analysis was performed on the collected data. Data were gathered between 2nd and 28 January 2025 using a structured questionnaire designed to capture demographic details and specific information related to contractor insurance. The questionnaire addressed various aspects of the effectiveness of existing insurance frameworks in managing contractors' risks. Furthermore, the survey was augmented by in-depth interviews with 15 key informants from the insurance industry, construction firms, and regulatory bodies. Quantitative data were analysed using SPSS, employing descriptive statistics such as frequency distributions and means to evaluate key factors.

4. Findings and Discussion

This section presents the findings from the mixed-methods study conducted to explore the effectiveness of existing insurance frameworks in addressing construction risk in Ghana. The study utilised quantitative and qualitative data collection methods, including surveys of construction industry

Awareness of Insurance Frameworks

The survey revealed mixed results regarding awareness of insurance frameworks in the construction industry. Although many respondents were aware of available insurance policies, the complexity and variability of these products contributed to challenges in fully utilising them. Contractors tended to be more aware of traditional insurance products, but emerging risks such as cyber and environmental liabilities were less widely recognised despite showing higher mean effectiveness.

Utilisation of Insurance Products

Survey results highlighted that insurance products are underutilised in the construction industry due to various barriers. The high cost of premiums, the complexity of policies, and limited coverage for project-specific risks were cited as primary reasons for low adoption. Emerging insurance products like Cyber Liability Insurance (Mean = 3.41) and Environmental Liability Insurance (Mean = 3.24) were noted to be underutilised despite their high perceived effectiveness. Conversely, traditional policies such as Public Liability Insurance and Erection All Risks Insurance maintained steady use, indicating their continued importance.

Perceived Effectiveness of Insurance Frameworks

The perceived effectiveness of insurance frameworks varied considerably across different types of coverage. Cyber Liability Insurance demonstrated the highest effectiveness (Mean = 3.41), while traditional policies, such as Employers' Liability Insurance, received lower ratings (Mean = 2.89). Several contractors indicated that traditional policies were insufficient to meet modern risk management requirements. Claims processing inefficiencies were often cited as key factors affecting the effectiveness of insurance frameworks. A significant proportion of respondents (40%) highlighted the complexity of policies as a barrier, while 35% noted high premiums as a concern for smaller businesses.

4.2. Qualitative Interview Insights

In addition to the quantitative survey, 12 key stakeholders, including project managers, risk assessors, and insurance underwriters, were interviewed semi-structured to gain deeper insights into the effectiveness of existing insurance frameworks in addressing contractors' risks. The profiles of the respondents are shown in Table 2.

emphasised, "Many contractors encounter financial difficulties due to restricted coverage options for specific risks such as delays or project-related liabilities. Existing policies often fail to account for unforeseen risks like market fluctuations or environmental influences, leaving contractors vulnerable under certain circumstances (C4, 2025)."

Claims processing delays were also highlighted, with several interviewees expressing frustration over lengthy claims settlement periods. This issue often caused financial instability and project delays; a broker explained, "There have been occasions where contractors struggled to receive full compensation after claims, especially regarding project delays or damages caused by third parties (C2, 2025)."

Opportunities for Improvement

Despite these challenges, interviews also uncovered opportunities for improvement within the construction insurance framework. A major opportunity identified was increased education and training for contractors on risk management and insurance. Many respondents suggested that workshops and seminars could help improve understanding and awareness of available

Table 2: Profile of Respondents

	Location	Participant Job title	Code-named
1	Kumasi	Broker	C1
2	Kumasi	Broker	C2
3	Kumasi	Broker	C3
4	Kumasi	Project Manager	C4
5	Kumasi	Broker	C5
6	Kumasi	Broker	C6
7	Kumasi	Project Manager	C7
8	Bekwai	Managing Director	C8
9	Bekwai	Project Manager	C9
10	Bekwai	Broker	C10
11	Bekwai	Broker	C11
12	Bekwai	Project Manager	C12

Source: Authors Construct, 2025

Challenges in the Insurance Market

Interviews with industry stakeholders revealed multiple systemic challenges within the construction insurance sector. Regulatory Constraints Were cited as a primary concern, with respondents indicating that outdated frameworks failed to account for emerging risks, such as those linked to climate change. One executive mentioned, "The current insurance frameworks are somewhat effective, but there are significant gaps (C7, 2025)."

Another critical challenge discussed was the limited availability of insurance products tailored to the construction industry's unique needs. Many participants noted that generic insurance options did not adequately address the distinct risks associated with construction projects, particularly concerning local environmental and political factors. A construction manager

insurance products.

Additionally, there was a call for greater collaboration between insurers, construction firms, and regulatory bodies to develop more tailored insurance products that better meet the industry's needs. One insurance provider noted, "The claims process can often be slow and cumbersome, with a lack of transparency in how decisions are made (C8, 2025)."

Several participants also highlighted the potential of technology to streamline insurance processes. Leveraging digital platforms for policy management and claims processing could enhance efficiency and transparency. One executive said, "Leveraging technology can assist us in navigating the complexities of insurance and make the process smoother for all parties involved" (C11, 2025).

Alignment of Awareness and Utilisation

The findings reveal a gap between awareness of insurance products and actual use. Although contractors are aware of various insurance products, cost, complexity, and limited coverage are significant barriers to adoption. This highlights the importance of a more holistic approach to insurance education that addresses knowledge gaps and practical constraints.

Addressing systemic Challenges

The systemic challenges identified, particularly those related to outdated regulatory frameworks and inefficient claims processing, require urgent attention. *Modernising regulations and streamlining claims processes would significantly enhance insurance products' ability to address the evolving risk landscape in the construction industry (C12, 2025).*

5. Conclusion and Further Research

In conclusion, the effectiveness of existing insurance frameworks in addressing contractor risks varies significantly, with emerging risks such as cyber threats and environmental liabilities receiving higher effectiveness ratings compared to some traditional policies. While essential coverage, such as public liability insurance and erosion risk insurance, remains fundamental to risk management, gaps in policies like employers' liability insurance and group personal accident insurance indicate the need for policy enhancements to protect contractors and workers better. The findings emphasise the importance of continuously evaluating and adapting insurance frameworks to meet evolving industry challenges. By improving coverage accessibility, streamlining claims processes, and ensuring comprehensive protection, insurers and policymakers can create a more resilient insurance landscape that effectively mitigates financial and operational risks within the construction sector.

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- Future research should concentrate on exploring innovative insurance models tailored to the specific risks of the construction industry. Additionally, examining the role of technology in enhancing insurance processes could provide valuable insights into how stakeholders can navigate the complexities of the insurance market. The study emphasises the necessity for policymakers and industry stakeholders to revise and modernise existing insurance frameworks. The effectiveness of Cyber Liability Insurance and Environmental Liability Insurance indicates that regulatory bodies should contemplate promoting these types of coverage, possibly mandating them for construction firms. Furthermore, the moderate effectiveness of traditional policies underscores the requirement for improvements in claims processing, coverage scope, and contractor education. Insurers should also consider revising underwriting requirements and streamlining claims management to enhance the accessibility and reliability of policies such as Performance Bond Insurance and Fidelity Guarantee Insurance.
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