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Contractors' All-Risk (CAR) Insurance: A Critical Tool for Risk Management in Construction Projects

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Abstract

Comprehensive protection during construction projects is the goal of Contractors' All-Risk (CAR) insurance, which is a specialized kind of insurance policy. The specific purpose is to protect against property damage and third-party liability, which can arise during construction operations. This study examined the conceptualisation and scope of CAR insurance, with a view to evaluating the factors considered in choosing insurance cover. It adopted a conceptual approach, reviewing the broader coverage provided by CAR insurance, the way it is designed and customized to meet the unique requirements of construction projects and contractors from secondary data, using policy statements, journals and brochures. The study reviews the provisions of CAR as cover against unintentional damage to materials, construction equipment, and both temporary and permanent works. CAR insurance also covers third-party liability to shields contractors from lawsuits resulting from injuries or property damage to third parties that may be caused by construction activities. The study concluded that CAR insurance is essential for reducing risks in big building projects where mishaps or unforeseen losses could put a substantial burden on finances. Depending on the requirements of the project, CAR insurance can be extended to cover more particular risks.

Keywords: Material damage; Insurance policy; Contractors all-risk insurance; Construction Liability; Risk Mitigation

1. Introduction

The construction industry has an inbuilt component of risk and demands an equal measure of risk management in its day-to-day activities for the successful execution of a project. Construction risks exist in the form of physical damage to the site, theft of materials, and accidents that may impact the workforce; such risks result in huge financial losses and project delays. Wassme (1998) says that the original CAR policies were written in the 1920s to offer supplementary third-party liability insurance as well as general coverage for unintentional physical loss and damage to the parties to the works contract. The goal of this supplemental coverage is to make the resolution of minor disputes easier. Additionally, general liability policies for small subcontractors may have relatively limited indemnity amounts or may not cover liabilities incurred while participating in a project consortium. Offering a coverage that will address the majority of insurance needs on a building site was and is the main goal. The CAR coverage provides protection against engineering and environmental risks beyond the purview of standard property insurance, notwithstanding a number of exclusions (Wassme, 1998).

Akintoye and MacLeod (1997) posit that risk management begins with awareness and assessment, which are necessary in the evaluation of contracts. In other words, contractors are expected to evaluate the likely risk of a project before embarking on them. However, they face uncertainties in the process of risks assessment which also affects their ability to manage them. These uncertainties are also forms of risks, and such uncertainties are not merely a matter of precaution but a necessity to every contractor. The contractor's All-Risk (CAR) Insurance provides extremely wide coverage against a large variety of risks, thereby rendering this policy highly essential for parties involved in the process

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of construction. This paper presents an overview of CAR insurance, its broad coverage features, and why it is indispensable to contractors, subcontractors, property owners, and financiers involved in construction projects.

Studies like Mills (2001) and Diallo and Thuillier (2004) assert that contractors' risk is contingent upon past experiences, which are always factored into the bidding and subsequently budgeting process. In other words, they insist that risk is expected, but the management process, which they opine can be by experience may not be accurate, because of different challenges that apply to different projects, and conditioned by current factors. Diallo and Thuillier (2004) imply this, saying that 'contingency' determines risk occurrence. But contingencies are unplanned risk, which are common in developing countries because of improper prediction or management of project risk. Three main areas of study for construction and project risk management are categorized by Edwards and Bowen (1998); these are: first, surveys of risk management practices in the construction industry; second, the investigation of heuristics and biases; and third, the establishment of subjective probabilities. Survey of project and construction risk can further be divided into natural and human categories. In the same manner, human risk factors can be influenced by nine factors, namely, social, political, economic, financial, legal, health, managerial, technological, and cultural.

The subject of insurance has attracted interest in different regions and countries. For instance, Using the Romanian Approach, Buzatu (2013) investigated how behavioral factors affected insurance decisions. He discovered that various customer service strategies employed by insurance companies, tailored client protection based on the clients' behavioral concerns, and industry-wide financial literacy all have a big impact on people's decision to purchase insurance. Park and Lemaire (2013) discovered that nations with a high proportion of Muslims have lower insurance policy purchase rates. Higher education has been found to be one of the factors influencing an individual's decision to get an insurance policy to cover their dependents (Hammond, Houston, and Melander, 2007; Truett and Truett, 2004; Burnett and Palmer, 2004). A variety of criteria have been highlighted by Yildirim and Cakar (2015) as influencing insurance firms' preferences for insurance agencies that operate in Turkey. Utilizing data from in-person interviews with 49 agencies, they found that the main factors influencing insurance companies' preference for insurance agencies are the financial opportunities offered to agents, the ability of insurance companies to pay policyholder claims, communication, and assistance. The amount of premiums received by insurance firms in Nigeria is impacted by claims settlement, according to a recent study by Ugwuanyim et al. (2021). The natural subcategories included weather and geological systems (Orumie, et al., 2021). This conceptual research explores the effect of these factors that the bases for CAR insurance and its implication for the constructors' risk management viability.

2. Literature Review: Situating the Purpose of CAR insurance

An insurance plan specifically designed for the construction industry is the contractor's all-risk insurance. It offers complete protection against all hazards connected with any construction activity. CAR insurance is quite comprehensive, covering property damage, third-party liabilities, and other potential damage events that may arise during the construction process, whereas a conventional insurance policy would only cover a certain amount of coverage. This broad breadth is necessary to guarantee project continuity as well as to control the financial risks that contractors face (Harris & McCaffer, 2013). CAR insurance is a precursor against risk, and an effective risk management approach. It is a process preempting risks and managing risk factors with respect to construction, development, pricing, underwriting, among other variables. In other words, CAR, just like any other insurance, is premised on the ability to predict risks and act on them to safeguard the project from failing or any other kinds of frustrations that may arise in the absence of insurance.

CAR insurance is an attempt to reduce if not avoid, completely, the negative financial effects of unintentional loss. Any department or organization, regardless of size, can employ risk management as a management tool. In its most basic form, risk management refers to a continuous, systematic effort to determine and limit the risk of losses to which an organization is exposed, as well as to finance those losses, in an economic manner, when they do occur. Hence, CAR insurance is a form of risk management that is a process for managing resources that uses established methods and instruments with a defined goal. Exposures to property, liability, personnel, and net income, which are indispensable in any construction project, inform the need for risk assessment. This makes it important to consider looking at the basis of risk.

Risk is the potential for both unpleasant or unwanted events to occur as well as the potential for material or financial loss. Risk and exposure can be used interchangeably in application to the financial system. According to Horcher (2005), exposure is the prospect of losing money, whereas risk is the likelihood of losing money. Exposure leads to the creation of risk. Risk comes in two flavors for insurance companies: financial risk and non-financial risk (Ai & Brockett, 2008). The significance of financial hazards has increased in recent years. As the corporate environment changes, new kinds of hazards arise. Growing globalization, for example, caused corporations to face foreign exchange risks. Capital and

financial market hazards are referred to as financial risks (Ai & Brockett, 2008). Interest rate, commodity, and foreign exchange risk make up the market risk, which is linked to changes in the value of traded assets (McNeil, Frey, & Embrechts, 2005). According to McNeil et al. (2005), the credit risk is the possibility that the borrower will not make the promised repayments on existing investments, or, to put it another way, default risk.

Hazard risk, operational risk, and strategic risk are three different categories of non-financial risks (Ai & Brockett, 2008). Liability claims, theft, fire, business interruptions, and other physical risks are examples of hazard risk. According to the Basel Committee on Banking Supervision (2004), operational risk is a wide term that refers to the risk of loss arising from either external events or insufficient or malfunctioning internal processes, people, and systems. Fraud on both the inside and the outside, goods and business practices, physical asset damage, system failures, business interruption, and execution, delivery, and process management are a few examples thereof. The overarching strategies of the company are intimately tied to strategic risk. Among the risks associated with strategy include reputation, competition, and regulatory. These factors are obvious in construction. Having considered the various risks foregrounding the need for insurance, it is necessary to review the scope of coverage.

3. Scope and Parties of CAR Insurance Coverage

CAR insurance covers material damage, which deals with actual loss or damage to building materials and equipment, whether they are temporarily removed from the site or still there, as well as temporary constructions. All risks are often covered, including those related to fire, theft, vandalism, natural catastrophes, and unintentional damage brought on by construction. For example, in the event that a storm damages scaffolding and building supplies, they would be restored under CAR insurance, sparing the contractor from having to pay for them, according to Wong et al., (2010). The majority of the risk is comprised of physical damage to project supplies that are damaged during transit, storage, or during contract work. Under the Contractors' All Risks policy, this exposure is covered. The insurer is assured indemnity provided they have put in place building or structure to include materials, a design, a system, or a standard of craftsmanship, which are pre-construction factors. Material coverage broadly covers machines, which are the most complex aspects of the construction endeavor. It is affected by errors in setting, programming or operation, regular breakdown of machine, failure to service or maintain the machine correctly, unforeseen loss of parts of the machine breakdown, among others.

CAR insurance covers third-party liability. This involves defense against legal responsibility for mishaps or harm done to unidentified third parties, like nearby properties or bystanders. For example, an insurance policy would cover legal fees, and compensation claims in the event that a construction crane unintentionally damaged a nearby structure or hurt a pedestrian crossing the street. Because of the increased exposure, it is especially valuable in highly populated urban regions where there is a significant likelihood of third-party claims. There are other additional areas of Coverage of CAR insurance, which are referred to as 'extended coverage' (Loosemore et al., 2012). They include project delays, existing structures on-site, and debris removal. According to Loosemore et al. (2012), these supplemental covers help identify particular risks in individual projects so that risk management can be improved and more individualized.

All entities involved in CAR insurance reinforce the areas or participants that the insurance covers. CAR insurance is required by general contractors: Their project oversees the entirety, and they manage subcontractors; hence, general contractors bear very high risks which may affect the completion of a project successfully. As Smith et al. (2014) commented, CAR insurance ensures protection bought against several issues that might arise. Zou et al. (2007) identifies subcontractors as possible benefactors of CAR insurance. These categories include electricians, plumbers, masons, among others who are engaged to handle particular aspects of a construction project. The exposure of the various workers in a construction undertaking puts them in unique risk positions on-site. CAR insurance safeguards their interests by covering damages and liabilities of this work (Zou et al., 2007). The scheme is necessary for property owners because it involves the direct involvement of an individual or an organization specifically embarking on a construction project. To the property owner, the insurance scheme helps the party to protect its investment. For instance, it is CAR insurance that provides the required financial security to ensure that the value of property is not compromised by any resultant risk (Ashworth et al., 2013). It is beneficial to lenders and financiers of construction projects. Before funding a building project, financiers typically need the contractor to hold CAR insurance. This kind of prerequisite creates the conditions necessary for a project to have financial protection against potential hazards. (Deloitte, 2020).

Construction-related third-party liabilities can occasionally be substantial, and determining who is responsible for a third party's damages can lead to a great deal of debate, if not outright lawsuit. Thus, the CAR policy offers an additional cover up to moderate amounts of indemnity. It does not serve as a substitute for the general liability insurance coverage held by the contractor. However, the CAR policy also excludes workmen's compensation insurance coverage because,

in the majority of nations, employers are required by law to insure with specially authorized insurance carriers or to participate in equivalent state insurance systems, which are other types of insurance coverage. Other primary exclusions from coverage are war and warlike situations, political interference in public affairs, nuclear accident-related losses and damages, intentional actions by the insurance management, and consequential losses like lost use, fines, and performance obligations of any sort (Hwang & Ng, 2013, Kwak, Pardo & Park, 2017).

4. Importance of Contractor's All-Risk Insurance

CAR insurance provides very wide coverage against several construction project risks. Inherent in the construction site are the risks of accidents, damage, and delays, which can occur at any time. The risks associated with these eventualities are therefore mitigated by CAR insurance, which covers a wide array of possible issues so that the contractor is not left exposed to huge financial losses. Indeed, it is documented that comprehensive insurance coverage is important in managing the complex risks of construction projects. It is important for construction companies to analyze the most common construction risk factors that are likely to unfold in the construction. These risk factors that have a major impact on the implementation of work may hinder the project from being executed. However, these construction risk factors must be verified following experienced construction companies' parameters (Dziadosz, Tomczyk and Kapliński, 2015).

Dziadosz and Rejment (2015) posit that the process of identification of risk is as important as the process of validation. The identification of factors that constitute construction risk itself poses a significant problem because these factors must be classified into different groups, following origin or impact size of the risk. Consistency in the assessment and grading of building projects is equated with persistent underwriting. Therefore, creating an assessment system that enables risk variables to be addressed in a consistent order may be beneficial. Swiss Re's suggested rating forms could be useful as they allow for an easy and quick evaluation. The major significant risk components for assessment and evaluation processes are covered in the ensuing sections, which are followed by several risk assessment, Risk control, inspection, and underwriting (Dziadosz and Rejment, 2015, Dziadosz, et al., 2015). Preparing an inventory of the property both on and off the work site, determines the extent and frequency of potential physical loss expected, and, eventually, the potential claims.

In most nations or industries, it is mandatory for contractors to possess Contractor's All-Risk Insurance, either by law or custom. Typically, a contractor cannot begin work on a job without presenting confirmation of CAR insurance to clients, site owners, or financing institutions. If you don't follow these guidelines, you risk legal repercussions, project delays, or losing out on valuable contracts. Several contractors demonstrate their professionalism and safety culture with CAR insurance, improving their reputation and gaining contract awards. In the construction industry, adhering to the law is essential as it prevents negative legal and financial consequences (Deloitte, 2020). For every construction project to be completed, financial stability is necessary. If there are no losses, the entire project or even the contractor's business may be at risk due to extreme financial strain. CAR insurance keeps one on track with essential financial stability, sustaining works on to completion and time-cost constraints, and gives the required financial backup to recover from losses without significant disruptions. It has been demonstrated that having adequate insurance coverage lessens the financial fallout from unanticipated events, which leads to successful projects (Samelson & Levitt, 1993). It is important for finance to be assured financial backup when embarking on a major construction project, because aside the eventual budget prepared, there may be contingencies arising from damages and other variations that could be covered in the CAR insurance policy.

A construction project has multiple stakeholders, such as investors, property owners, subcontractors, and contractors. Because CAR insurance shields a building project from a wide range of dangers, it instills confidence in all parties involved. Each stakeholder is able to pursue the achievement of project objectives in a peaceful and trustworthy work environment rather than continuously being concerned about possible liabilities. According to certain theories, insurance is crucial for reducing conflicts and encouraging collaboration among project participants—two factors that ultimately contribute to the success of the project. CAR insurance enables the company to Avoid repercussions in a project, by shifting the risk to a different party is a workable approach for recognizing and assessing risks. Insurance is the most popular and frequently the most cost-effective of the several methods or choices available to transfer the risk. For this reason, having insurance coverage is essential. Consort can help you with this by offering insurance options that are tailored to your needs as well as ensuring that the terms of the contract are followed.

5. Key Considerations When Choosing Contractor's All-Risk Insurance

There are numerous things to consider when choosing CAR insurance; four of these factors are covered in this research. They are, assessing coverage needs, understanding policy exclusions, premium cost and claims process and support. Before choosing the right Contractor's All-Risk Insurance policy, a contractor must assess the cover needs properly. The assessment of risk associated with the project, value of materials and equipment on site, and liabilities are some of the factors that need to be considered. Contractors should liaise with the insurance companies to design a policy that caters specifically to the needs of the project in order to offer them the best protection against potential risks. This is one of the best recognized practices of construction risk management: tailoring insurance coverage for the needs of the project. The contractor must nevertheless make note of any exceptions or limits as stated in the policy, even though CAR insurance offers broad coverage. Faulty designs, wear and tear, or deliberate neglect are examples of common exclusions. Therefore, if there is a gap in coverage, the contractor should carefully review the policy's specifics and consider obtaining extra coverage. By ensuring that all project-related risks are suitably covered, being aware of the policy's exclusions can assist prevent disagreements.

The cost of the CAR insurance premium varies depending on the project. The value of the covered property, the size and complexity of the project, and the contractor's claim history are a few of the variables that will affect the premium price. Although it may be tempting to choose the least expensive coverage with the lowest premium, contractors must always keep in mind that the benefits of comprehensive insurance outweigh those of premium costs. The savings on lower rates can be more than offset by severe losses caused by inadequate insurance. The necessity of purchasing robust insurance coverage, in fact, is highlighted by research (Flanagan & Norman, 2007). This will lessen the financial burden of significant and unforeseen losses. Many factors, like large deductibles on insurance plans purchased and contractors' demands for the lowest feasible premium, might contribute to low claim settlements. There is a negative correlation between insurance premiums and deductibles. In other words, a higher deductible increases the burden of proof on the insured for losses incurred, but low premiums shift the burden of proof from the insurer to the insured (Cheng et al., 2011). Thus, a concept that can be applied to the indifference curve between insurance costs and risk attitudes is required in order to build an efficient deductible. The claims procedure is a crucial step in helping the contractor recover from this kind of situation and go back to work. A contractor should select an insurance provider based on their ability to handle claims and provide superior customer service. Understanding the claim filing procedure and all required supporting documentation could speed up the process and reduce project interruption. One of the things that keeps a project going and prevents time waste is the quick processing of claims.

6. Conclusion

Constructors All-Risk Insurance is an extremely effective instrument for handling the various hazards associated with a building project. Thorough coverage for unanticipated events such as property damage and third-party liabilities aids contractors in managing their finances and upholding their contractual and legal obligations, enabling them to finish projects without significant setbacks. Ensuring the success of any project by all parties involved in the construction sector requires arranging for an adequate CAR insurance coverage, which is not just a prudent and economical investment. In addition to being a pressing issue, risk management is also crucial to the successful planning and execution of construction projects. The usefulness, readability, and ease of interpretation of the data should be taken into consideration when selecting an analysis method and final risk assessment. The writers have attempted to provide the results in this article in a clear and understandable manner. A precise description and explanation of the mechanisms involved in the organization of construction production, as well as an interdisciplinary, flexible approach that can capture the changing nature of risk factors (qualitative and quantitative), are necessary for effective risk management in the construction industry. Consequently, it is important to employ a hybrid approach when designing a risk assessment model for construction projects, with a focus on compiling readily available and established tools.

The most widely used techniques in project risk analysis are those that support decision-making during project evaluation and selection (the multi-attribute and statistic approach) and those that identify and assess risk preliminary (the matrix of risk or occasionally the Ishikawa's diagram). Although each tool has a varied range of applications and level of difficulty, this shouldn't deter its use provided it aligns with the recognized analytical goal. Few studies have made use of artificial neural networks. Maybe the complexity of the procedure and the requirement to employ the appropriate software are the main causes of this. The building project's insurance decision and the ideal deductible will be sufficiently consistent as a result, even though the risk transfer cost will be impacted by the little discrepancy between the anticipated and actual loss. Realizing the lowest possible risk transfer costs is therefore the insured's objective (Cheng et al., 2011). People who have a tendency to be risk averse are more likely to want insurance that offers them financial security against the risks they encounter. But the inclination to shun risk is a personal trait that differs

between people and situations. Numerous empirical research reviewed have demonstrated how sociodemographic characteristics, including age, gender, income level, and level of education, affect insurance demand and the propensity toward risk aversion. Numerous research found that the need for insurance generally grew as the fundamental metrics used to evaluate socioeconomic development indicators increased.

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