ROLE OF INSURANCE IN CONSTRUCTION AND INFRASTRUCTURE PROJECTS

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ABSTRACT

Construction industry is subject to more risk and uncertainty than many other industries. The development of a construction project from inception to completion takes a long time and involves many phases. It brings workers with different skills and interests together and involves the use of large and diverse set of equipments. All of these complex requirements have to be handled with proper co-ordination to provide a smooth flow of activities. It is necessary to identify and analyse the risks that may appear during project risks means the control of the project itself. Insurance is, of course, only one means of managing risks associated with such projects. It needs to be put into context and understood that not every risk can be insured against adequately or insured for a price that is acceptable. This paper aims in conducting an investigation on how insurance is used as a risk transfer tool in the construction industry and examine the interaction between construction players and insurance companies with respect to risk management.

Keywords: Construction Industry, Insurance, Policies, Risk, Risk Management.

1. INTRODUCTION

Construction works are hazardous by nature and accidents are frequent and often severe. The annual toll of deaths, bodily injuries and property damage in construction world is very high. Not only this but construction works involve large amount of investment especially in public projects. All of this increases the risk of construction business and makes handling of financial matters more critical. Insurance and Surety are some of the methods utilized by the contractors and client as risk controlling mechanisms. There is a growing body of interests in construction insurance, supporting interactions between the construction industry and the insurance industry.

The main aim of the research was to conduct an investigation into how insurance is used as a risk transfer tool in the construction industry. The existing literature on construction insurance is reviewed in the light of this analysis to identify key gaps in knowledge and help to focus further the research priorities. The research methodology comprised a questionnaire survey supplemented with interviews among Clients, Consultants, Insurance Companies and Contractors. To provide a convincing explanation on this interaction, one need to improve the theoretical and analytic frameworks in four key areas: the nature of construction risks, risk transfer and insurance mechanism, insurable risks, and perspectives on risks from concerned parties. The research revealed that Insurance companies only provide insurance covers to projects but do not normally visit project site or educate other participants especially contractors as to the control or minimizing the occurrence of risk. It was recommended that right from the briefing stage till handover to users, the client should involve the various contract groups in discussing risk management process as well as drafting of insurance policies before and during construction.
No construction project is risk free. Every construction project, large or small, involves risks with varying impact. The construction industry is subject to more risk and uncertainty than many other industries. The process of taking a project from initial investment appraisal to completion, and into use, is complex. It requires a multitude of people with different skills and interests and the co-ordination of a wide range of disparate, yet interrelated activities. Such complexity moreover, is compounded by many external, uncontrollable factors. Risk may hinder the successful completion of a project by causing time and budget over-run, and/or quality default. Construction insurance is used as a collective term to describe various types of policies to protect construction works, erection and operation of machinery.

2. JUSTIFICATION OF THE STUDY

Construction insurance is a practice of exchanging a contingent claim for a fixed payment to protect the interests of parties involved in a construction project. Construction insurance is a major method of managing risks in the construction industry. Its primary function is to transfer certain risks from clients, contractors, subcontractors and other parties involved in the construction project to insurers to provide contingent funding in time of difficulty. Construction insurance plays an increasingly important role in guaranteeing the success of projects, with insurers.

3. METHODOLOGY

The study can be carried out using a three phase approach.

The first one is to review the relevant literature on the subject of risk management and insurance, in particular looking at insurance as means of risks transfer from literature of previous researchers.

In the second phase, a pilot study which takes the form of structured questionnaire is conducted with selected insurance companies, contractors, client and selected experts (professionals) in the construction industry. Structured interviews and questionnaires survey are adopted as a method for data collection. The questionnaires are in three main parts as follows:

(a) Background information – collecting the personal data of respondents, their experience in the construction industry.
(b) Questionnaire survey - This part of the questionnaire explores the respondents level of knowledge of risk response especially risks transfer through insurance.

The final phase of the research is used to analyse the data collected and group them under specific heads for future reference.

4. BENEFITS OF INSURANCE

4.1. Business Risk

The success of any business is based on mitigation and controlling risk it encounters. For example, airlines carry an enormous amount of risk when they fly planes full of passengers each day. The plane itself is very expensive, the passengers can face injury and death in case of a crash, and the baggage could get lost or damaged in the normal course of operations. Airlines carry all these types of risks and they buy insurance policies to manage all this risk. Insurance allows businesses to take necessary risks without fear of huge financial loss.

4.2. Safety by Awareness

Insurance is not just about paying losses that occur but also preventing losses in the first place from occurring. Insurers are better educated and aware of the causes of various losses and they can offer professional assistance for avoiding the most common causes of losses. Insurance companies generally require assessments as part of the process for getting coverage. This helps to bring awareness of the risks you have and help you plan ahead to mitigate those risks. Insurance companies organize information for policy holders and prospective clients. This information keeps the public informed about their risks and raises awareness of issues.

4.3. Economic Stimulation

The premium is received regularly in instalments. Large funds are collected by way of premium. It helps in collecting saving from a large number of persons. The funds can be gainfully employed in industrial development of a country. Generally, insurers are required by state governments to maintain a cash reserve equal to or greater than a certain percentage of their liabilities. While they possess this money, they tend to invest it in a wide range of endeavours, from government securities to short-term and long term bonds to stock markets. They reinvest it in various community projects. The monies provided by the insurance companies fund many things, from new construction to scholarships.
Local, state, federal and international economies are all bolstered by insurance companies when they use their pooled capital to fund other projects until it is needed to cover a loss.

### 4.4. Providing Security

Insurance helps in decreasing the likelihood of financial hardship in case of a disaster or loss. Life as well as businesses today faces lot of uncertainties. There is always a fear of sudden loss. There may be a fire in factory, storm in the sea or loss of life. In all these cases it becomes difficult to bear the loss. Insurance provides a cover against any sudden loss. Life Insurance ensures that your loved ones continue to enjoy a good quality of life against any unforeseen event. If you do not have insurance and disaster strikes, you can face thousands or even millions of dollars in court, medical and asset replacement / repair costs. Insurance, therefore, protects you from financial loss and creates stability in difficult times. This stability translates to the ability to continue to invest in the economy, which stabilizes the financial situation of the entire country and greatly influences foreign trade relationships.

### 4.5. Planning and Peace of Mind

Insurance encourages the behaviour to plan in advance for life stage needs. Not having insurance sometimes means you have to dip into investments or assets to meet expenses, such as legal bills, medical costs, fire loss, burglary loss etc. In some cases, a lack of insurance you’re your dependents at risk -- for example, with no medical insurance, a spouse or child may not get the treatment they need. This creates worry and stress. With insurance, you know that you have a cushion on which you can rely, giving you peace of mind. It helps you and give you an instrument to plan your life goals and ambitions such as buying a new house, getting married, securing your child’s future etc. When you take out an insurance policy, you assume responsibility for the financial issues and do not expect other members of society to foot your bills. This personal sense of accountability keeps you independent and reduces the burden you put on others bringing you peace of mind.

### 4.6. Investment

Lenders do not provide funds and support for individuals and businesses unless they have some evidence that their investment is safe because they do not want to risk financial loss. Insurance shows lenders that they have some guarantee of getting money back in the event of a disaster. This makes it more likely that the lender will invest because they see you as less of a liability. Insurance in such scenarios help you get personal loans or house loans as lenders have an assurance that they will be paid back by the insurance company in case of any misfortune. It also encourages safe & profitable long term Investment as traditional insurance policies are viewed both by the distributors as well as the customers as a long term commitment; these policies help the policyholders meet the dual need of protection and long term wealth creation efficiently.

### 4.7. Spreading Risk

The basic principal of insurance is to spread risk among a large number of peoples. A large number of persons get the insurance policies and pay premium to the insurer whenever a loss occurs, it is compensated out of fund to the insurer. This helps in spreading risk from one individual to society at large.

### 4.8. Health and Wellness

Given the increasing incidence of lifestyle diseases and escalating medical costs, Insurance provides the benefits of protection against critical diseases and hospitalization expenses. From a business standpoint, providing health insurance to employees is a valuable tool to attract and retain the best employees. It also makes your company more attractive if your coverage is more comprehensive than that of your competitors. It's not unusual for employees to stick with a particular job or employer, because the health care coverage is comprehensive and affordable.

### 4.9. Encourages Savings

As, some amount of premium needs to be periodically paid against an insurance policy, it leads to compulsive saving behaviour. It inculcates the habit of saving among people while planning for a better future. Hence, insurance does not only protect the risks but it provides the investment channel too. Life insurance provides a mode of investment. In case of fixed time policies, the insured gets lump sum amount after the maturity of the policies.

### 4.10. Tax Benefits

Pre-tax benefits are added advantages to the policyholders. These benefits help them to save a large portion of their tax payment. When the tax-payment gets reduced, their disposable income increases. Insurance policies also helps plan your retirement. Retirement insurance ensures that you or your family members receive a regular pension amount post a retirement date. You have the flexibility to choose the retirement date and the manner in which you receive the pension.
5. TYPES OF CONSTRUCTION INSURANCE

5.1 Contractor's All Risk Policy (CAR)
This policy is specially designed to give financial protection to the Civil Engineering Contractors in the event of an accident to the civil engineering works under construction. In case the policy period exceeds 12 months, the premium can be paid in quarterly instalments with the first instalment being more by 5% and the last instalment being paid 6 months before expiry of the policy.

5.2 Professional Indemnity Policy
This policy is meant for professionals to cover liability falling on them as a result of errors and omissions committed by them whilst rendering professional service.
The policy offers a benefit of Retroactive period on continuous renewal of policy whereby claims reported in subsequent renewal but pertaining to earlier period after first inception of the policy, also become payable. Group policies can also be issued covering members of one profession. Group discount in premium is available depending upon the number of members covered.

5.3 Contractor Plant and Machinery Policy
The sum insured of each item of machinery should represent the current purchase cost of a similar new machine including all incidental expenses like freight, duty, taxes, cost of erection etc.

5.4 Public and Product Liability
It is also known as combined liability or general liability. Public liability is a legal ability to pay compensation to third parties arising in connection with the business activities of the insured. Product liability is the legal ability to pay compensation to third parties arising in connection with the insured’s products.

5.5 Worker’s Compensation policy
This insurance effectively covers all liabilities whether arising under statute or at common law, in relation to death or injury of employees or persons demand to be employees.

5.6 Compulsory third party motor vehicle insurance policy
Principals often require the inclusion as required by the statute in the relevant jurisdiction for vehicles used in connection with work under the contractor.

6. RISK MANAGEMENT
The construction industry inherent momentous amount of risks; as it is portrayed with a unique characteristic in which most of its products are exceptional in respect of form, size and purpose. In addition, the products of construction differ widely in terms of location, materials, production techniques, and the standards of the finished product with respect to space, quality and durability. Moreover, the construction processes witness the involvement of diverse parties throughout projects lifecycle; each of which carry different perspective and cultural background. On the other hand, the severe competition endured by the construction organizations and the low margin of profit has always acted as motivators to seek better opportunities not only for organization growth but also its bare survival within the industry. Nevertheless, the tendency towards construction industry is never affected by the individuality of its practices; but it is encouraged by the continuous demand for new facilities that can not be achieved without the existence of gut practitioners prepared to handle the unexpected involved within practicing such line of business.

7. CONCLUSIONS
This study makes important discoveries.
Out of all the insurance policies, CAR policy has become a mandatory insurance requirement. CAR policy covers most of the risks specified in projects. Client’s requirements and the Conditions of Contract are the most significant factors influencing the contractor to obtain a CAR insurance policy. Insurance companies and contractors should maintain a cordial relationship by means of active communication especially with underwriters, loss adjusters, etc. Contractors should implement maximum safety measures as a priority especially if it can be foreseen as a potential risk of damage. Properly assessed and deployed, the insurance policy as social instrument factor provides a valuable additional tool for determining insurance policy meaning and resolving coverage questions.
REFERENCES