International Research Journal of Engineering and Technology (IRJET)

Volume: 05 Issue: 04 | Apr-2018 www.irjet.

e-ISSN: 2395-0056 p-ISSN: 2395-0072

A STUDY ON INSURANCE IN CONSTRUCTION INDUSTRY

Queen Martina M¹, Satheesh Kumar S²

¹Student, Dept. of Civil Engineering, Builders Engineering college, Tamil Nadu, India ²Professor, Dept. of Civil Engineering, Builders Engineering college, Tamil Nadu, India

Abstract - Construction industry is subject to more risk and complexity than many other industries. It is necessary to identify the risk involved in the construction industry through which the risk can be managed. Insurance is a wise move for managing the risk in the construction industry. This project aims to examine insurance covers available in construction industry by conducting an investigation between construction and insurance companies. The data for the study was collected through questionnaire survey to the construction contractors and insurers to determine the contractor's knowledge and attitude towards risk transfer by insurance. The study also includes in identification of the criteria for selection of insurance policies for the projects by which risk on the construction industries can be transfer.

Key Words: Construction industry, Risk, Insurance, Policies, Contractors Knowledge.

1. INTRODUCTION

The Construction industry is the one that is prone to accident due to the risk nature of the job. For a variety of reasons, construction contractors face many uncertainties as they start projects. Construction operations do not always take place according to plans-mistakes occur, workers suffer injuries, property is damaged, and acts of God or other mishaps can impede or halt progress on a construction project. Most of these incidents require money to rectify.

Construction insurance is very important as it covers the financial loss, product liability, public liability and legal expenses. Construction contractors are responsible to manage the risk involved in throughout the project. Contractors transfer the risk to the insurance companies and in some cases to the sub-contractors. But it is essential for the contractor to be aware of various insurance policies available for the construction industry and have knowledge to select good insurance policies for their projects. The project tends to provide better understanding about various insurance covers available for the contractors and knowledge to tackle the risk by means of insurance.

1.1 Construction Insurance

Construction insurance is a primary method of managing risks in the construction industry. 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. In time of difficulty, insurance tends to transfer certain risks from clients, contractors, subcontractors and other parties involved in the construction project to insurers to provide contingent

funding. Construction insurance plays an vital role in guaranteeing the success of projects, with insurers sharing losses resulting from natural disasters and other contingencies. Practitioners do not have a clear understanding of risk allocation and the strategy of risk management through insurance and in such cases insurance doesn't receive the attention it deserves.

Construction insurance encompasses all contracts of indemnity within the activities of the construction industry where insurance is chosen as the medium through which liabilities are shifted. It involves not only many branches of insurance but also many disciplines and professions.

2. RISK IN CONSTRUCTION INDUSTRY

Risk is a probability or threat of damage, injury, liability, loss or any other negative occurrence that is caused by external or internal vulnerability and that may be avoided through preemptive actions.

2.1 Types Of Risk Involved In Construction Industry

- 1) Environmental risk
- Natural disaster
- Weather and seasonal implications
- Pollution by construction work
- 2) Technical risk
- Uncertainty of resource and availability of materials
- Inadequate site investigation
- Incomplete design
- 3) Financial risk
- Delay from clients
- Increment for staff benefits
- Unprecedented price in raw materials
- Fluctuations in Estimated finance than expected
- 4) Construction risk
- Disputes between labors
- Damage to persons and property
- Changing sequences in construction activity
- Non availability of resources
- Change in quantities of work
- · Safety of workers



International Research Journal of Engineering and Technology (IRJET)

Volume: 05 Issue: 04 | Apr-2018 www.irjet.i

2.2 Insurable risk

Risk such as damage to persons and property such as fire, storm, water, collapse, subsidence, vibration, etc. Contract conditions often make it a contractual obligation to take out insurance cover against these risks.

2.3 Non insurable risk

External factors such as damage due to war, nuclear pollution and supersonic bangs, government policy on taxes, labor, safety or other laws, malicious damage and industrial disputes. Such incidents are all the subject of statutory liability and no insurance cover is normally available or needed.

3. METHODOLOGY

The study is carried out using a two phase approach in order to achieve the aims and objectives. The methodology is set in order to gather the data in order to achieve the outlined of objectives The data collection and subsequent processing would be done in the following phases.

- A. The first was to undertake a literature search on previous publications on insurance as a major risk transfer tool in the construction industry. The Literature review was carried out throughout the whole project, this was to compile and discuss information on insurance as a major risk transfer tool in construction in order to have an in-depth study, and to establish current theory on the use of insurance in construction.
- B. By interaction with insurance companies various insurance policies available for the construction industry can be identified. Questionnaire survey is adopted for the data collection from the contractors in the construction industry. Questionnaire explores the knowledge and attitude of the construction contractors towards the risk transfer and insurance in the construction industry.

4. TYPES OF INSURANCE FOR CONSTRUCTION

4.1 Contractor's All Risk Policy (CAR)

Contractor's All Risks Insurance (CAR) provides coverage for the property damage and third party injuries. Property damage may occur due to the improper construction of the structures, damages during renovation and erections. Third party includes the sub-contractors working on the construction site may also become injured. CAR Policy provides cover for both the risk without using separate policies. Risks often covered under a CAR policy include flood, wind, earthquakes, water damage and mold, construction faults and negligence

4.2 Workers Compensation Insurance

All of the states have enacted worker's compensation laws to give statutory protection to employees injured on the job. Worker's Compensation insurance provides medical care and other benefits for the contractor's employees in the event that they are injured on the job.

e-ISSN: 2395-0056

p-ISSN: 2395-0072

4.3 Employer's Liability Insurance

Employer's Liability insurance is written in conjunction with worker's compensation insurance and provides the contractor with broad coverage for personal injury or death of an employee. This can be utilized by the employee when the injury is not covered by the worker's compensation policy. Such instances may occur when the employer did not use proper safety equipment required by law, and the employee elects to sue for damages under common law. Another instance may be when an employee is injured in another state where the contractor does not have worker's compensation insurance in effect.

4.4 Contractor Plant and Machinery Policy

Contractor Plant and Machinery Policy broadly covers loss or damage to the contractor's construction mobile equipment such as bulldozers, cranes, excavators, compressors, etc., due to an accident arising out of external perils.

4.5 Public Liability

Public liability is a legal ability to pay compensation to third parties arising in connection with the business activities of the insured.

4.6 Product Liability

Product liability is the legal ability to pay compensation to third parties arising in connection with the insured's products.

4.7 Professional Indemnity Policy

Professional Indemnity policy covers the design claims in case the construction manager acted negligently .These type of insurance coverage are adopted by the construction companies for financial protection.

4.8 Standard Fire and Special Perils Insurance

Fire and special perils policy is an insurance contract that safeguards movable and immovable properties against unforeseen perils ,caused by accidental fire, lightning, explosion/implosion, destruction or damage caused by aerial devices, manmade perils in the form of riots, strike etc., natural calamities like storm, cyclone, flood etc., damage caused by impact by a rail or a road vehicle, damage caused by landslide or subsidence, peril caused by pollution and contamination, bursting and/or overflowing of water tanks, apparatus and pipes, missile testing operations, leakage from automatic sprinkler installations and bush fire.

4.9 Burglary Insurance

Burglary insurance is the policy against loss or damage to the property and financial losses resulting from unlawful

International Research Journal of Engineering and Technology (IRJET)

Volume: 05 Issue: 04 | Apr-2018 www.irjet.net

ww.irjet.net p-ISSN: 2395-0072

breaking and entering designated premises, caused by the burglars.

4.10 Marine Insurance

Marine cargo insurance covers the loss or damages to goods in transit by rail, sea, road, air or post. Marine insurance compensate the owners for losses

5. CONCLUSION

The study determines the various types of insurances policies available for construction industry through interaction with the insurance companies. Several Construction firms were approached and through interaction with them, various insurance policies obtained by them were analyzed. From the study came to know that the insurance policies are to selected according to the nature of the project and as specified in the construction contract. Contractor is the major responsibility for risk management. In this respect, contractors should implement maximum safety measures as a priority and should have the ability to negotiate with the insurers improved conditions of insurance, through implementing proper loss control and risk management measures.

ACKNOWLEDGEMENT

I should express my sincere thanks to my institution for providing facilities for successful completion of the project. I should thank my department staff and my guide for their constant guidance and valuable suggestions towards the completion of this project. I would like to express my thanks to the firm and working staff for providing the necessary detail for my project and practitioners who have kindly responded to the survey questionnaires.

REFERENCES

- [1] Akintola Akintoye "Risk Analysis And Management In Construction" Article In International Journal Of Project Management • University of Central Lancashire February 1997
- [2] Aniket Desai1, Bhavin Kashiyani "Role of Insurance as a Risk Management Tool in Construction Projects" International journal of advanced research in engineering, science and management
- [3] Ashly Babu, S. Kanchana Role Of Insurance In "Construction And Infrastructure Projects" 1ms. International Journal Of Civil Engineering And Technology Volume 5, Issue 12, December (2014), Pp. 206-210
- [4] B.A.K.S. Perera, R.M.C.K. Rathnayake, R Rameezdeen. "Use of insurance in managing construction risks: Evaluation of Contractors' All Risks(CAR) insurance policy" Built-Environment Sri Lanka Vol. 08, Issue 02:2008

[5] Geraldine Kikwasi "Risk Handling Options: Is Insurance A Fair Option To Transfer Construction Risks In Tanzanian Construction Industry". Construction Management, Ardhi University, Tanzania.

e-ISSN: 2395-0056

- [6] Lezaasi Lenee Torbira, Tamunonimim A. Ngerebo-A, "The Impact Of Insurance Risk Management On Fixed Capital Formation In Nigeria" International Journal of Development and Economic Sustainability Vol.1, No.4, pp.1-13, December 2012
- [7] Odeyinka, H.A. (2000) "An evaluation of the use of insurance in managing construction risk", Construction Management and Economics, vol. 18, no. 5, pp. 519-524.
- [8] Piotr Tworek 1, Marcin Tomecki "Risk and insurance in construction: insurance contracts used in investment process in Poland legal and economic aspects", survey research International Scientific Conference Managing and Modelling of Financial Risks. September 2012
- [9] Suwisai Musundire, And Clinton Aigbavboa "Management Of Construction Risk Through Contractor's All Risk Insurance Policy". Department of Construction Management & Quantity Surveying, University of Johannesburg, Johannesburg, South Africa.
- [10] Cheng Siew Goh and Hamzah Abdul-Rahman "The Identification and Management of Major Risks in the Malaysian Construction Industry" Journal of Construction in Developing Countries, 18(1), 19–32, 2013.
- [11] Hamzah Abdul-Rahman, Chen Wang, and Farhanim Sheik Mohamad Hindawi "Implementation of Risk Management in Malaysian Construction Industry: Case Studies" Publishing Corporation Journal of Construction Engineering Volume 2015.
- [12] S. M. Renuka, C. Umarani, S. Kamal "A Review on Critical Risk Factors in the Life Cycle of Construction Projects" Journal of Civil Engineering Research 2014, 4(2A): 31-36
- [13] Shankar Neeraj, Balasubramanian. M "Assessment Of Risk In Construction Industry" International Research Journal of Engineering and Technology (IRJET) Volume: 02 Issue: 01 | Mar-2015
- [14] Abebe Dinku " Insurance Requirements And Practices Of Ethiopia's Construction Sector" Journal of EAEA, Volume: 17,2000