



ASSESSMENT OF CONTRACTORS' LEVEL OF COMPLIANCE WITH THE BUILDING INSURANCE POLICY IN JOS PLATEAU STATE

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ABSTRACT

Construction projects are complex, dynamic in nature and executed under varying degrees of risk. In view of the foregoing, the provision of building insurance services is generally considered important. However, there is a record of non-compliance with the building insurance policy. This study therefore, aims to assess the level compliance with the building insurance policy section 64 with the view of reducing the clients/financiers' risk. In pursuing this objective, a questionnaire survey was adopted and the data was analysed using descriptive statistics, relative importance index (RII) and weighted average. The findings for the study revealed the major external risk factors in construction to be financing conditions, economic policies and standards. For the internal risk factors the study revealed poor control, errors in construction and design errors/omission. Also, on the level of compliance with the building insurance policy, the study revealed a willingness by contractors to comply with the building insurance policy however, with particular types of projects such as complex and expensive projects. Further findings of the research show that, raising cost of premiums, high collateral demands by insurance companies, complex policy language and lack of knowledge on insurance are the main challenges hampering compliance with the building insurance policy. The study concludes that contractors are willing to comply with the building insurance policy however, with particular types of projects such as complex, expensive and unfamiliar projects. The study recommends that the insurance policy be review to cover for complex, expensive and unfamiliar projects, also to make building insurance policy a compulsory requirement for contract documents and education of key stakeholders.

INTRODUCTION

The construction industry is subject to more risk than many other industries. Construction projects are complex, dynamic in nature and executed under varying degrees of risk. The industry is vulnerable to various technical, socio-political and business risks. Risk is the chance or uncertainty of loss. Also, in construction perspective PMI (2013) asserts that risks are generally considered as incidences that influence the principal objectives of a particular project (time, cost, quality). To ensure that construction projects are

protected against risk is to adopt a better risk management technique. Risk management is a proactive approach rather than reactive. JuUnwai and Modebe (2011) defined risk management as the structured set of processes aimed at identifying, analysing and responding to project risks. Kikwasi (2016) asserts that the following methods can be used to manage risk in construction projects; avoidance, control, retention and transfer. In construction however, risks can be transfer either through contracting or by insurance which changes an uncertain exposure to certain loss. Transferring risk does not necessarily reduce the effect the risk would have or the likelihood of its occurrence but only passes the responsibility to another party. Building insurance is used as a collective term to describe various types of policies to protect construction works, erection and operation of machinery. It is a contract or device for transferring risk from a person, business, or organization to an insurance company that is willing in exchange for a premium, to pay for losses through an accumulation of premiums. Kikwasi (2016) opines that the provision of building insurance services is generally considered important and indeed in the event of a major loss, insurance may be the only viable means of repaying financiers or ensuring that the building is raise again.

Okolie (2012) researched on solving the Nigerian building collapse problem: the builder's perspective (builder's liability insurance). The study attributed the causes of building collapse apart from natural factors to include; the Nigerian factor which finds expression in corruption, ignorant and greedy clients, tendency to disobey laws in Nigeria, incompetent contractors and some poaching into lucrative specialist fields without adequate skills. Sola, Taiwo & Abiodun (2013) studied the adequacy of builders' risk insurance policy in Nigeria building industry. They found that contractors and professionals in the building industry are very aware of the builders' risk insurance policy (course of construction, construction all in risk and contractor all in risk insurance policy) but do not often put construction insurance on project requirement. Babo and Kanchana (2014) studied the role of insurance in construction and infrastructure projects. This study makes important discoveries; Out of all the insurance policies, contractor all-in risk (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. Kikwasi (2016) looked into Risk



handling options: is insurance a fair option to transfer construction risk in the Tanzanian construction industry? The study concludes that insurance as one form of risk transfer option has adequate covers for the construction industry but only a paucity of these covers is adequately acquired by stakeholders. Sola *et.al* (2013) and Kikwasi (2016) established that contractors are not complying with the building insurance policy. Most of the previous studies were carried out in other countries or in the western part of Nigeria. The need to get the opinion of contractors on building insurance in the northern part of Nigeria, increased economic and construction activities in Jos Plateau state informed the decision for the choice of Jos for this study.

LITERATURE REVIEW

Risk, generally, has been a subject of problem to any construction company. The need to have a risk management framework that can be deployed to mitigate risks in the construction companies of a developing economy like Nigeria has become an issue of urgent importance. Several studies like Oladokun *et al.*, (2010), Okenwa (2011), Okolie (2012). Fabi and Awolesi (2013) etc. have reported major risks experienced by Nigerian construction industry. These studies opined that the effects of the risks have resulted into loss of corporate reputation of construction companies due to poorly delivered projects which led to cost overrun, delays, poor quality as previously mentioned. Project risks can be categorized in a number of ways according to the level of detail or a selected viewpoint Osman (2012). Some risk categorizations are merely risk lists, while some categorizations are formed based on the source of risk, by impact type or by project phase. One of the most typical risk categorizations is presented by Teller and Kock (2013). According to them, risks are divided into pure risks (e.g. hazards and weather conditions), financial risks (e.g. cash flow or credit risk), business risks (almost anything that can happen in a project) and political risks, which refer to the certain political environment and risks that are caused mostly by extreme conditions, such as, among others, war. Hwang, Zhao and Toh (2014) suggested that risks can be divided either according to their impact or by where the control lies. Thus, these categories can be further divided into business risks, insurable risks, external risks and internal risk

Table 1 Risk Breakdown Structure for Construction Projects

1. External Sources of Risk in Projects				
1.1 Legal risk	1.2 Political risk	1.3 Economic risk	1.4 Social risk	1.5 Natural risk
Legal regulations	Change in politics	Economic politics	Education	Climate
Permits, approval	Elections	Prices, taxes	Seasonal work	Foundation
Change in law	War	Financing conditions	Strikes	Fires
Standards	Treaties	Currency value		Earthquakes
Floods				

2. Internal Sources of Risk in Projects				
2.1 Mgt. risk	2.2 Design documentation	2.3 Human factors	2.4 Delivery & logistics	2.5 Contractual risk
Unrealistic goals	Superficiality	Productivity	Shortages	Types of contract
Poor control	Inaccuracy	illness	Availability	Short time frames
Technology	Incompleteness	Motivation	Reliability of equip.	Unrealistic prices
Organization	Updated documents	Errors	Insufficient workers	Party relations

Table 1: Risk Breakdown Structure for Construction Projects. Zvonko & Mladen (2014)

Risk response planning process is defined by Project Management Body of Knowledge (PMBOK) Guide: the process of developing options and determining actions to enhance opportunities and reduce threats to the project objectives. Obviously, it is not possible, affordable or appropriate to develop responses to all identified risks. The risk team will focus only on the high priority areas. Berg (2010) points out that transferring the risk in whole or in part may be achievable through moving the responsibility to another party or sharing the risk through a contract, insurance, or partnership / joint venture. Phoya, Kikwasi, Sospeter, & Novatus (2018) conclude that all risk can be transferred. However, authors such as Akbiyikli *et al.*, (2011) and Perera, Rathnayake and Rameezdeen (2008) argue that only known, financial and insurable risks are transferred through insurance. Project Management Institute (2000), Artto, Kujala and Martinsuo (2005) and Oladakun *et.al* (2016) suggest that there are generally four response types to cope with risk: avoidance, mitigation, transference and acceptance. Often these mitigation strategies, particularly risk transference, are given effect contractually.

Insurance is basically a risk management measure whereby many contribute for the unfortunate few within a specific time period, and premiums are charged on the basis of risks exposures. Akindoyeni and Bamisile (2003) described insurance as a practice whereby people who are exposed to identical risk situation contribute into a common pool out of which those who are



unfortunate to suffer loss can receive compensation. Insurance is therefore a form of security against the risk of loss. Insurance is based on the idea of probability and the principle of large numbers that is, where the number of people making the contributions is large, a huge pool of funds is built from small individual contributions. Again, it is very unlikely that all contributors to the fund will suffer at the same time. The few who actually suffer loss are therefore easily compensated from the pool. Insurance therefore enhances business confidence. Several insurance covers are available for use in the construction industry as revealed in the works Chengwing (2008), Yong-shi and Yi-bin (2010), Akbıyıklı *et al.*, 2011, Babu and Kanchana (2014) and, Desai and Kashiyani (2015) and these are: Builders Risk Insurance, Commercial General Liability (CGL) Insurance, Workers Compensation, Pollution, Professional Liability, Controlled Insurance Plan (CIP) or “Wrap-Up”, Equipment Breakdown (Boiler and Machinery), Commercial Crime Coverage, Contractors Equipment Coverage, Construction All Risks (CAR)/Erection All Risks (EAR), Delay in start-up (DSU)/Advanced Loss of Profit (ALOP), Professional indemnity insurance, Public liability insurance, Force Majeure, Performance Failure/Design Risk, Political Risks and Political risk insurance.

Compulsory insurance is a form of statutory regulation by government to ensure that compensation is payable in particular circumstances and in every case the concern is the innocent victim and usually relates to certain liability insurances Okolie (2012). A good example is the Builders Liability insurance-Section 64 of the Insurance Act 2003. Against the backdrop of Nigerians dying helplessly from the collapse of buildings and negligence of contractors or construction professionals without adequate compensation, the national assembly made some insurance products compulsory for all builders and property owners/developers Okolie (2012). The insurance product now known as compulsory insurance and other similar legislation is contained in the National insurance Act 2003. This law places obligation on building contractor/developer as well as other construction and medical professionals to comply with the provisions. Section 64 of the National Insurance Act 2003 states:

- 1) No person shall cause to be constructed any building of more than two floors without insuring with a registered insurer his liability in respect of construction risks caused by his negligence or the negligence of his servants, agents or consultants which may result in bodily injury or

loss of life to or damage to property of any workman on the site or any member of the public.

- 2) The duty to insure under sub-section (1) of this section shall arise when a building is under construction.
- 3) A person who contravenes subsection (1) of this section commits an offence and upon conviction shall be liable to a fine of ₦250, 000 or imprisonment for three years or both.

METHODOLOGY

The research methodology selected for this study comprised of a comprehensive review of relevant literature in order to have a grasp of available information on the subject matter and to establish the research gap. Data collection was done through a questionnaire survey self-administered to small scale, medium scale and large scale contractors randomly selected in Jos Plateau state. A well-structured, close-ended questionnaire was designed for the research and directed to the selected targets. The questionnaire was divided into two sections. The first section deals with the general information and issues relating to the characteristics of respondents, while questions in the second section focused on the risk factors in construction, level of contractors awareness and compliance with the building insurance policy. The formula for determining the sample size for an unknown population as well as the formula for collecting response rate by Newman (2000) was used:

Sample size of an unknown population is given by

$$n = \frac{z^2 \sigma^2}{E^2} \text{-----(Eqn. 1)}$$

Where: n= Sample size, z= Confidence interval (95%), σ= Sample S.D (5%), E= Margin of error

$$\text{Total response rate} = \frac{\text{Total number of responses}}{\text{Total number of sample} - \text{Ineligible}} \times 100\% \text{-----(Eqn 2)}$$

Simple random technique derived from probability sampling techniques was used to administer the 127 questionnaires to the contractors. Five copies were invalid due to incomplete entries. Substituting the values into the formulas we the sample size for an unknown population to be 96.04 which the researcher approximated to 100 number of questionnaires and the response rate of 82% is considered high and adequate for data analysis for an



unknown sample size. The data for the study was analysed using descriptive statistics, relative importance index (RII) and weighted average.

The formula for relative importance index according to Osmon (2012) is:

$$= \frac{\Sigma W}{S \times N}$$

Where ΣW = the summation of the weighting given to each factor, S = maximum score = 5

N = total number of firms that responded in the sample

RESULTS AND DISCUSSION

Table 2: Showing the Years of Contractors experience in the Industry

Responses	Frequency	Percentage
2 years or less	10	10.0
From 2 to 5 years	15	15.0
6 to 9 years	33	33.0
10 years and above	42	42.0
Total	100	100.0

Source: field work

Table 2 shows the years of experience of the various contractors with 10%, 15%, 33% and 42% for 2 years or less, from 2 to 5 years' experience, above 6 to 9 years and 10 years and above respectively. The highest respondents being contractors with ten years and above which have 42% responses, followed by above 5 years with 33% responses. Contractors with less than 2 years' experience have 10% responses. This implies that 75% of the respondents have more than 5 years' experience in the construction industry and their responses can be useful to the study.

Table 3: External Sources of Risk in Construction

N O.	Risk factors in construction	Score					Weighting	RII	Rank
		1	2	3	4	5			
1.	Permits/approval	28	27	24	8	13	251	0.51	7
2.	Standards	31	14	15	13	27	322	0.64	3
3.	Change in politics	8	21	40	23	8	302	0.60	5
4.	Elections	24	33	21	10	12	253	0.50	8
5.	Economic policies	4	10	16	40	30	382	0.76	2
6.	Financing conditions	6	5	14	35	40	398	0.80	1
7.	Climate	41	24	17	10	8	220	0.44	10

8.	Foundation	29	22	13	11	25	281	0.56	6
9.	Floods	36	18	19	17	10	247	0.49	9
10.	Change in project scope	9	17	31	33	10	318	0.63	4

Source: field work

From the result in Table 3, financing conditions had 0.80 relative importance index and economic policies have 0.76 relative importance or significance index. This means that contractors are suffering from lack of adequate cash flow and financing conditions which results to delays in project delivery and sometimes abandonment. Also, adverse economic policies which result to escalation in the cost of building materials and ultimately increased in project cost. This result collaborates the findings of Osmon (2012), Tipili and Yakubu (2016).

Table 4: Internal Sources of Risk in Construction Projects

	Risk factors in construction	Score					Weighting	RII	Rank
		1	2	3	4	5			
1	Poor control	4	6	17	31	42	401	0.80	1
2	New technology	37	21	23	15	4	228	0.45	10
3	Design errors/omission	3	17	32	22	26	351	0.71	3
4	Productivity	18	29	28	18	7	267	0.53	8
5	Motivation	11	35	25	18	11	274	0.55	6
6	Errors in construction	2	11	18	31	38	392	0.78	2
7	Shortages of materials	12	38	20	16	14	282	0.56	5
8	Reliability of equipment	33	18	25	16	8	248	0.49	9
9	Insufficient workers	15	26	38	14	7	272	0.54	7
10	Short time frames	6	26	28	27	13	315	0.63	4

Source; Field work

Table 4 shows the responses of contractors on the internal sources of risk in construction. The result indicates poor control with a relative importance index of 0.80, errors in construction with 0.78 RII and design errors/omission with a RII of 0.71 as the most significant internal risk factors. This means that poor control of construction activities in terms of supervision and quality assurance can result to errors in construction. This can lead to incurring additional cost in the process of correcting the errors. Also, errors in



design/omission can lead to wrong estimate, construction method and construction programme which can affect the cardinal project objectives of time, quality and cost. This result corroborates the findings of Osmon (2012). However, he established inadequate contractors experience as the second most common sources of internal risk in construction.

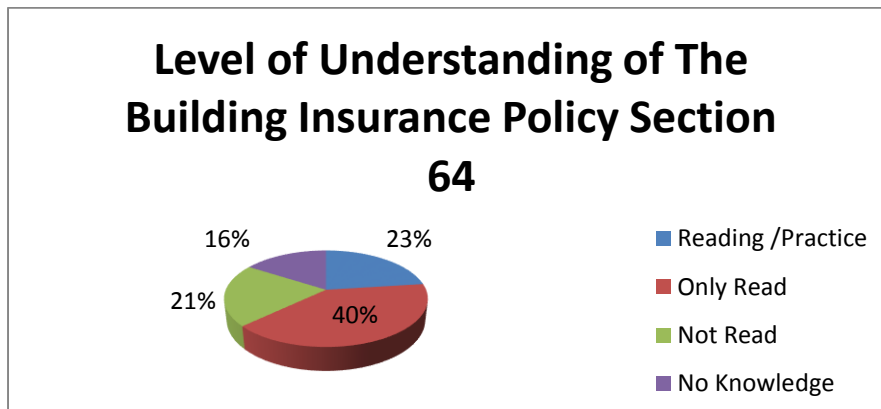


Figure 1 Level of Understanding of Building Insurance Policy

Figure 1 shows the level of contractors understanding of the building insurance policy (section 64). This question was put forward to respondents to identify their level of understanding/awareness of the building insurance policy section 64. 40% of the respondents only read about it, 23% understand through reading and practice, 21% have not read but understand from practice and 16% have no knowledge of building insurance policy section 64. This implies that a large number of the respondents 84% have knowledge of the building insurance policy. This corroborates the finding of Sola *et.al* (2013), where it established that contractors and professionals in the building industry are very aware of the building insurance policy.

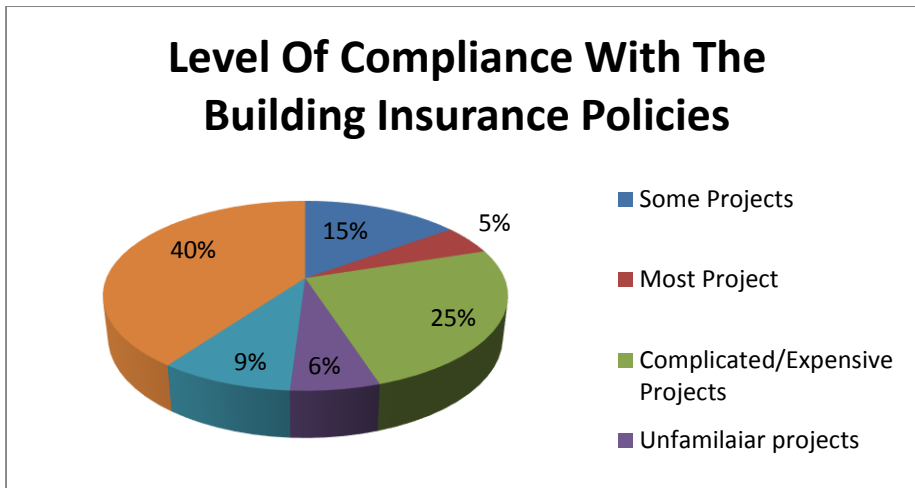


Figure 2 Level of Compliance with the Building Insurance Policy

Figure 2 shows the level of compliance with the building insurance policy. 40% of respondents indicated none compliance, 25% indicated complicated/expensive projects and 15% indicated some projects. Buildings with more than two floors had 9% respondents. This implies that there is willingness to implement the building insurance policy in the industry however, with particular types of projects such as complex, expensive and multiple floors buildings. The willingness to implement the building insurance policy agrees with the findings in figure 1 where 84% of the respondents indicated that they have knowledge of the building insurance policy.

CONCLUSION

This study aimed to assess the contractor's level of compliance with the building insurance policy as it relates to project risk management in Jos plateau state, focusing on the risk factors (sources) of risk in construction, level of awareness of the building insurance policy, level of compliance with the building insurance policy and the effects of compliance with the building insurance policy. The study revealed the major external risk factors in construction to be financing conditions, economic policies and standards. For the internal risk factors the study revealed poor control, errors in construction and design errors/omission to be the major internal sources of risk in construction. Additionally, on the level of contractor's awareness of the building insurance policy, the study revealed that contractors are aware of the building insurance policy and on the level of compliance with the building insurance policy; the study revealed that contractors are complying with the



building insurance policy at various levels. However, a considerable number of contractors are not complying with the building insurance policy hence, the need for a concerted effort by all stakeholders to ensure adequate compliance.

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