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*The Proceeding of 16th Interdisciplinary Academic Conference, Hummingbird Publications and Research International on Integrated Strategies for African Development: Sustainable Development, Vol. 22 No. 1, 25th March, 2021 at University of Ibadan, UNIBADAN.*

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## EVALUATING THE FACTORS MITIGATING AGAINST THE USE OF INSURANCE POLICIES IN MANAGING BUILDING CONSTRUCTION RISKS IN ABUJA

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### ABSTRACT

*This study is evaluating the factors mitigating against the use of insurance policies in managing building construction risks in Abuja with a view to finding solutions towards improving the usage. The objective are to identify and rank the prevalent risk factors that construction firms in Abuja are exposed to and identify the challenges confronting the adoption of these insurance policies by construction firms in Abuja. This study is quantitatively conducted through questionnaire administered on 250 professionals from the selected building construction firms in Abuja. The study adopted descriptive method of analysis. The study identified 18 risk factors mitigating against the use of insurance policies in managing building construction risks in Abuja in the study area. Among the risk factor identified are weather and seasonal implication and uncertainty of resource and availability of goods was ranked 1<sup>st</sup> with a mean score of = 4.40 followed by pollution by construction work with a mean score of 4.30 and ranked 3<sup>rd</sup>. Also the major challenges confronting the Adoption of these insurance policies were ranked from 1<sup>st</sup> to 7<sup>th</sup> and the financial strength of the construction firm was ranked 1<sup>st</sup> (MS = 3.86). The study therefore recommends proper contracts reviewed by a knowledgeable attorney and read contracts for consistency should be carried out, ethical practices by all stakeholders should be encourage and construction companies should ensure to subscribe to one type of insurance in order to reduce risk. This will go a long way in reducing the influence of risks on construction project performance to the barest minimum and boost the economy of the country. Construction industry plays a vital role in the natural economy development of many countries.*

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*Keywords: Factors, Mitigating, Insurance, Building, Construction.*

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## **Introduction**

The construction industry plays an important role in the economy of nations round the globe, and the activities of the industry are also vital to the achievement of national socio-economic development goals of providing shelter, infrastructure and employment (Oladinri et al. 2012). It also held that Construction by itself is a large sector of the economy, responsible for millions of jobs and a significant proportion of GDP in most countries. It further held that the construction industry has always been closely related to the national economy, hence more construction work will raise the GDP through the multiplier, which in turn leads to a higher demand for construction orders. Building construction industry in Nigeria, is a very important sector which has contributed immensely to the gross domestic product (GDP) of the national economy. This is evident based on the researches that have been carried out by different participants in the building construction industry in Nigeria. According to the National Bureau of Statistics (2015), the summary report for the year 2010, 2011, and 2012 disclosed that the contributions made to the GDP by the construction industry N1.570 billion, N1.905 billion and N2.188 billion respectively. Construction contributed 6.17% to nominal GDP in the first quarter of 2019, higher than the 4.13% contribution a year earlier, and the 5.03% contributed in the fourth quarter of 2018 (National Bureau of Statistics 2019). According to Isa et al. (2013), it is obvious that construction's role in economic growth is a significant one in both developing and developed countries.

Even though the industry has recorded such tremendous success, inherent in it are several risk factors that have confronted the industry and have really been a major stumbling block in the growth of the industry. Some of the risk experienced in the building construction industry include: Fire, Lighting, Explosion, Impact by air craft or vehicles, Riot, Vandalism, Windstorm, hail and rain, Burglary and theft, Collapse of the structures, political instability. These risks could be transferred to a third party which are by the law the insurance companies so as to cut the losses that could arise in the case of any eventuality. Insurance according to Wikipedia (2019.) is a form of risk management primarily used to hedge against the risk of a contingent or

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uncertain loss. It further states that an entity which provides insurance is known as insurer, insurance company, insurance carrier or underwriter. Furthermore, it describes the person or entity who buys the insurance as an insured or a policy holder. The National Insurance Commission (NAICOM) said that in the pursuance of the provision of the Nigeria Insurance Act (2003), and in a renewed attempt to negotiate insurance use, practice and regulations, fixed the end of March 2011 as the cut-off date from when all compulsory insurance policies under various Nigeria statutes will be fully enforced and penalties applied to this legal alert.

Building collapse, material theft, accidents on site, fire incidence, conflicts have really caused so much loss in revenues generated from the construction industry. Some of these cases can be manage to reduce its occurrence but might not be completely eliminated since construction involves complex activities. It is based on this background that this research focused on the shortfall of the services being provided by insurance companies that has discouraged construction firms from utilizing them. The aim of this study is to evaluate the factors mitigating against the use of insurance policies in managing building construction risks in Abuja with a view to finding solutions towards improving the usage. And the objective are to identify and rank the prevalent risk factors that construction firms in Abuja are exposed to and identify the challenges confronting the adoption of these insurance policies by construction firms in Abuja.

## **Research Problem**

Risk in construction has been the object of attention because of time and cost over-runs associated with construction projects. Although, Ashly et al (2016), have expressed risk as an exposure to economic loss or gain arising from involvement in the construction process. Piotr and Marcin(2012), have regarded risk as exposure to loss only. Risk in relation to construction is a variable in the process of a construction project whose variation results in uncertainty as to the final cost, duration and quality of the project (Bufaied,2013). The building construction industry is faced with prevalent risk challenges recently which includes Financial risk, Technical risk, Environmental Risk and Construction risk (Martina and Kumar, 2018). The complexity and risk of building projects is increasing by the day as more

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ideas are emerging (Adeleke et al., 2016). Based on Omenihu et al., (2016), the number of building failure which eventually led to collapse rose by 23.43% between 2011 and 2016 and this involved about 41 buildings with a loss of lives put at 244. Odeyemi et al., (2019) also recorded building collapse cases from 2009 to 2019 to stand at 56 and this would have amounted to a great loss of investment by the investors. Accidents on construction sites have also not reduced, this was according to Agbonkhese et al. (2019) which held that 69.6% of construction workers have been involved in various degrees of accidents while carrying out construction activities. According to Okechukwu (2016) majority of the buildings that were burnt by fire disaster in Nigeria do not have genuine insurance policies. Gibb , (2010) noted that there was a low level of patronage in the Nigerian Insurance Industry. Although NAICOM (2003) act mandated that every building in excess of two floors must be insured, the level of compliance with this law is yet to be ascertained. With the high level of risks in the construction industry, if the issue of poor insurance usage is not addressed, a lot of investors will be forced out of business and a lot of construction workers who have been involved in one construction accident or the other will be left without proper care and compensation. In the recent times few research has been carried out to really examine why constructions firms are nonchalant about the use of insurance policies in managing construction risks hence the need to embark on this research.

## **Literature Review**

### **Risk in Construction Projects**

According to Hamza et al., (2015), Construction projects are very complex and can pose various internal and external risks. Construction risk is defined as any exposure to possible loss (Surety, 2014). A strict set of codes, laws, and regulations must be followed during the construction process to best avoid these risks. Unfortunately, there is no way to completely avoid risks as there are bound to be unknown factors that arise over the course of a project. One of the best ways to manage risks is to know the various types and how you can manage them. If you can identify and categorize risks before you start a project, you can optimize your risk management and avoid any possible losses. Renuka (2014), in their study pointed some type of risks

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in the construction projects which include technical risks, environmental risks, financial risks, logistical risks, socio-political risks and management related risks.

- i. **Technical Risks:** Technical risks include anything that restricts you from creating the product that your client wants. This can include uncertainty of resources and availability of materials, inadequate site investigation, or incomplete design. These risks can commonly occur when there are changes in project scope and requirements, and if there are design errors or omissions.
- ii. **Environmental Risks:** Environmental risks include natural disasters, weather, and seasonal implications (Rausand, 2011). These risks are commonly overlooked when people are unfamiliar with local conditions. If you are going to be working on a project in a new city, you need to become familiar with that region's weather patterns. If you prepare for possible weather risks, you are much more likely to avoid potential delays and losses.
- iii. **Financial Risks:** Inflation, local taxes, and availability and fluctuation in foreign exchange are a few of the possible financial risks you might incur during a construction project. If you are working on a project internationally, it is important that you understand how the foreign currency will be exchanged. Different countries have drastically different taxes as well, so you need to take this into account before starting a project. Your finances are going to look a lot different if you are working in a tax-free city versus a high-tax city.
- iv. **Logistical Risks:** According to Rausand (2011), there are various logistical risks that need to be addressed before starting a project. These risks include the availability of transportation facilities and availability of equipment such as spare parts, fuel, and labour. Without addressing these logistical issues, you risk huge project delays and losses.
- v. **Socio- Political Risks:** Customs and import restrictions and difficulties disposing of equipment are a few of the socio-political risks you may face during a construction project (Rasand , 2011). Depending on where your project is, there are going to be different

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regulations and codes that you must abide by. If you assume that each project is going to have the same codes and regulations, you will be in for a rude awakening.

- vi. **Management Related Risks:** The most common management related risk is uncertain productivity of resources. Before you begin a project you need to be sure that you have sufficient skilled staff and that you have adequately defined their roles and responsibilities. Failing to do this can lead to disastrous losses.

According to (Hair et al., 2013) As per Abrahamson principles owner of the project is known as principal party. In this context, some critical risks bore by principal party of the construction contract can be elaborated as below:

- i. **Land Acquisition Risk:** This is the prime risk for the principal of the project. The owner of the project needs to have proper and legal acquisition of the land for his construction project, in the absence of proper acquisition of land, the entire project can be hindered due to different legal obligations.
- ii. **Insufficient resources:** Insufficiency of some crucial resources like land, finance, human power can also be proved critical risk for a construction project. As construction project are commenced for a longer period of time, sufficient amount of resources for contingent situation is quite necessary for the owner.
- iii. **Delay in the project completion:** The completion of project on time is one of the major factors of the success of a construction project. Delay in the overall completion of the project due to natural or manmade reasons, can cost quite heavily for owner of the project as he has to invest a significant amount of money and time in such types of projects.
- iv. **Increased cost of the project:** As generally construction projects are carried out for longer period of time, fluctuations in the overall cost and prices of raw material and labor over such a long period of time are quite natural phenomena. These fluctuations may lead to increase the projected cost of the entire project. Although principals generally undertake contingency reserves for such type of fluctuations, yet still

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- these increments in cost of the project can be probed quite critical risk for the project owner.
- v. **Deficiencies in infrastructure or services:** There are a number of different other infrastructural services that can affect the successful completion of the project. For insurance, for a residential or commercial construction project, there is need of better electricity and water facilities and better access of road. Deficiencies in infrastructure or services can lead to make the project unsuccessful.
  - vi. **Design and construction defects:** Defects in designing and constructing of the project can lead to efficiency of the internal operations and quality of the output of the project. In this direction, the project owner needs to have proper monitoring and effective evaluation of outcome of the project.
  - vii. **Political risk:** Different types of political risks such as rules and regulation of government regarding construction activities, frequent changes in the government and its priorities, and incentives can hamper the success of construction projects in the most aversive manner
  - viii. **Market risk :** In addition to other risks, risk related with market characteristics as well as trends can also be considered some of the critical risks availed by the owner of the project. Different types of market risks such as advertising of the project, Switching of potential customers of the project towards other alternative projects and competitive rivalry within the construction industry are some of the prominent market risk which decrease the profitability of the construction project for its owner.

According to (Akinbola), a contractor is required to face some critical risks throughout the entire stage of a construction project i.e negotiation over contract terms and conditions deigning and construction of the building and proper and careful maintenance and follow up the contract in the most effective manner. Some of these risks can be listed as below:

- i. **Condition of Site:** The existing working conditions of the construction site leads to present risks in front of the contractors to finish the entire

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- project on time. Different natural or manmade problems can lead to delay the project delivery, which is quite problematic aspect for a contractor.
- ii. **Social conditions:** Lack of acceptance of the construction project by the society is the factor that can lead to put question mark over successful accomplishment of the project and viability of project deliverable. There can be some unexpected incidents like labour strike, religious and social belief of local people, and so on which are to be handled by the contractor only.
  - iii. **Defects in the construction and engineering:** There can be some of critical defect in the project which can only be identified in the finished project. The detection of such types of defect becomes quite difficult for the contract during the construction process. These defects can be proved quite critical risk for the contractor of a construction project as these defects decreases the quality of the project.
  - iv. **Increase in the cost:** In existing business environment, rise in different types of related cost such as labour wages, cost of raw materials for construction and construction equipment are some of critical risks bore by the contractor of the project.

These different types of risk are quite essential for the business organizations to be handled and allocated as in the performance of a construction contract, these risk present different hurdles and problem.

## **Building construction insurance**

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 (Babu and Kanchana, 2014). 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. Insurance industry is the backbone of a country's risk management system, since it ensures financial security, serves as an important component in the financial intermediation chain, and offers a ready source of long term capital



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for infrastructural projects (Ujunwa, 2011). The contribution of the insurance industry to Nigeria's Gross Domestic Product (GDP) rose by 40% between 2010 to 2012; going up from 0.5% in 2010 to 0.7% in 2012. The number of insurance policies also grew from 0.5million in 2010 to 1.5million by 2011 (Fintell, 2016). In spite of this growth, when compared with other advanced economies in the world, there is still room for growth in the Nigerian insurance market considering Nigeria population size. According to Elundu, (2013), the importance of insurance in any nation's economy cannot be undermined as no country can experience any meaningful development without the presence of formidable insurance industry. In the Nigeria, it is believed that the rate of patronage of the available insurance policies is very low, this was asserted by Ebitu, et al, (2012) that insurance has remained one of the least purchased items in the Nigeria financial market and records revealed that only about 10% of Nigerian population have insurance of any sort this was also buttressed by chukwudeh (2018) that the level of insurance patronage is still low in Nigerian state.

## **Methodology**

This section describes the methodology used in this study. It describes the different methods, and methods chosen for this study. Moreover, this part explains the process of research, design, methods of data collection, sample selection, and ways of analyzing the data. Research is an intensive activity that is based on the work of others and generating new ideas to pursue new questions and answers. This paper uses a questionnaire as a quantitative method. For the purpose of this study, out of the six hundred and sixty one (661) building construction companies identified in Abuja according to Federation of Construction Industry (FOCI), two hundred fifty (250) professionals were randomly selected from 661 building construction firms in the study area. The main purpose of this paper is to evaluate the factors mitigating against the use of insurance policies in managing building construction risks in Abuja. The paper used both types of data, primary and secondary. The primary data was collected through a structured questionnaire. Whereas, secondary data was collected from books, textbooks, online articles, journals, etc. This study used structured questions

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in order to collect data from respondents. Data analysis was done through various statistical tools, through SPSS and Excel.

## Discussion of Findings

### Risks Factors Common in the Building Construction Industry

Table 1 shows the mean score for the risks factors common in the building construction industry selected in Abuja. Weather and seasonal implication and uncertainty of resource and availability of goods was ranked 1<sup>st</sup> with a mean score of = 4.40, followed by pollution by construction work with a mean score of 4.30 and ranked 3<sup>rd</sup>. Theft of construction materials, government pronouncement/policies and natural disaster were ranked 4<sup>th</sup> with a mean score of = 4.20, while inadequate site investigation, changing sequence in construction activities and building collapse were ranked 7<sup>th</sup> with a mean score of = 4.10. The least ranked risks factors common in the building construction industry selected in Abuja are damage to persons, damage to properties, disputes between labour and political agitation/unrest with a mean score of = 3.80 and 3.70 ranked 15<sup>th</sup> and 18<sup>th</sup> respectively. All of the Mean Scores obtained for associated identified risk lay between 3.70 - 4.40, which was the lower end of being in agreement with associated risk. The Overall level of associated risk was however still within the moderate risk range, based on the average MS value of 3.82.

**Table 1: Risks factors common in the building construction industry**

SN	Risks factors	MIS	Rank
1	Weather and seasonal implication	4.40	1
2	Uncertainty of resource and availability of goods	4.40	1
3	Pollution by construction work	4.30	3
4	Theft of construction materials	4.20	4
5	Government pronouncement/policies	4.20	4
6	Natural disaster	4.20	4
7	Inadequate site investigation	4.10	7
8	Changing sequence in construction activities	4.10	7
9	Building collapse	4.10	7

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10	Accident involving workers on site	4.00	10
11	Fire outbreak	4.00	10
12	Incomplete design	4.00	10
13	Accident outside the site as a result of construction activities on site	3.90	13
14	Change in quantities of works	3.90	13
15	Damage to persons	3.80	15
16	Damage to properties	3.80	15
17	Disputes between labour	3.80	15
18	Political agitation/unrest	3.70	18
<b>Overall associated risk</b>			<b>3.8</b>

Source: Author's field work (2020)

## Identify the Challenges Confronting the Adoption of these Insurance Policies by Construction Firms in Abuja

This section of the paper reports the results of analysis carried out in pursuance of objective two, which was identification of challenges confronting the adoption of these insurance policies by construction firms in Abuja. It was also gauged through the use of Mean Score analysis. Relative Importance Index (R.I.I.) was also performed to provide further evidence of the awareness of challenges. Challenges confronting the Adoption of these insurance policies ranked from 1<sup>st</sup> to 7<sup>th</sup> as presented in Table 2; Financial strength of the construction firm was ranked 1<sup>st</sup> (MS = 3.86), while Financial strength of the construction firm was ranked 2<sup>nd</sup> (MS = 3.83). Governments non implementation of existing insurance act and believe in quality and safety measures put in place by firms was considered to be the least important management-related barrier (ranked 7<sup>th</sup>, MS = 3.65). The overall level of challenges confronting the adoption of these insurance policies was 3.73, which corresponded to "moderate" influence of challenges.

Table 2: Management related barriers to adoption of LC methods

Management-related barriers	Mean Score	RII	Rank
Financial strength of the construction firm	3,86	0.76	1

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Lack of awareness	3.83	0.77	2
Excessive premium charged by insurance companies	3.81	0.76	3
Lack of trust for the insurance companies	3.72	0.72	4
Difficulty in getting the insurance companies to compensate in the case of any eventuality	3.69	0.74	5
Bureaucratic processes involved in purchasing these policies	3.67	0.72	6
Governments non implementation of existing insurance act	3.65	0.73	7
Believe in quality and safety measures put in place by firms	3.65	0.72	7
<b>Overall level of challenges</b>	<b>3.74</b>		

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## CONCLUSION

The study has evaluated the use of insurance in minimizing construction risk in Nigeria construction industry. Eight pronged challenges confronting the adoption of these insurance policies by construction firms in Abuja were identified among which financial strength of the construction firm was ranked 1<sup>st</sup>. The study therefore recommends proper contracts reviewed by a knowledgeable attorney and read contracts for consistency should be carried out, ethical practices by all stakeholders should be encourage and construction companies should ensure to subscribe to one type of insurance in order to reduce risk. This will go a long way in reducing the influence of risks on construction project performance to the barest minimum and boost the economy of the country. Construction industry plays a vital role in the natural economy development of many countries.

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