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CHALLENGES ASSOCIATED WITH THE IMPLEMENTATION OF INSURANCE IN BUILDING PROJECTS IN NIGERIA

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ABSTRACT

The nature, complexity of activities and multiple stakeholders involved in the delivery of construction projects have made the construction industry to be filled with risks and uncertainties. These uncertain events impact mostly on time, cost and quality performance of construction projects. The uptake of insurance is one of the key risk management tools for mitigating the impact of construction project risks. While, the implementation of insurance is important and widely used in developed countries, the same cannot be said about developing countries because of some challenges. The purpose of this study is to assess the challenges associated with the implementation of insurance in building projects in Nigeria. The well-structured questionnaire and convenient sampling technique were adopted in the collection of data from experienced clients, contractors, construction professionals and insurance experts on educational projects executed from 2012 to 2016 at the Federal University of Technology, Akure, Ondo State. With a response rate of 75.71% and a reliability index of 0.897, the gathered data were analysed using appropriate descriptive statistical tools and the Kruskal-Wallis test. The study that the major challenges with the implementation of insurance in a building project are; Lack of trust and confidence in insurance agents, No strict instruction from the government, Complex policy language, Failure to administer contractor's claim in time and Rising cost of the premium. Sensitization of the customer is also important as it is necessary to continue building trust and confidence in current and potential customers of insurance companies. Government should strengthen existing policies and institutions to ensure that implementation and compliances are strictly followed and monitored.

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I. INTRODUCTION

The construction industry is the economic prime mover and bedrock for the socio-economic development of nations. This is premised on the critical role it plays in employment creation, infrastructure provisions and wealth creation [1, 2]. However, constructions projects are complex and involve multiple stakeholders, laden with risks and uncertainties and suffer from a lot of poor performance issues that have financial implications in both developed and developing economies [3]. According to [4], the Construction sector is prone to more risks than many other sectors of the world. A persistent challenge in the delivery of projects in the construction industry is cost and time overrun, poor safety record, quality issues, wastage and loss of value for client monies [5]. A vital risk management tool for managing construction project risks especially that of poor time, cost and quality performance is insurance [6-7,4].

Effective implementation of building construction insurance helps to satisfy the interest of the client, the contractor will have peace of mind in the event of any loss, as he/she is required to achieve the required quality and standard and to provide for the safety of workers [8]. Insurance provides an effective risks mitigation measure whether at a country, market or project level [9]. In the industrial and construction sector, if investments in buildings are to be feasible, investors must take up insurance overs [10]. According to[11], construction insurance transfers risks from clients, contractors, subcontractors and other construction project parties to an insurer to offer contingent funding in times of difficulty. This is important as building projects does not experience 'smooth sail' as it progresses from one stage to another, but are fraught with numerous problems [12, 13]. The cost of risks is a concept that a lot of companies neglect even when it constitutes a major cost item [14]. [15] states that owing to the high number of uncertainties inherent in major construction projects, contractors have to cope with the uncertainties and the clients have to pay for them. This has made the effective and efficient analysis and management risks inherent in construction projects have remained a serious challenge to practitioners in the industry.

A construction project entails the production of a longlived capital product whose production process involves a complex interaction of design, construction, finance, law and insurance [16]. The wide range of interaction in building production also means that the risks involved are high and taking up construction insurance is a fundamental way of dealing with the risks in construction project delivery. [17] suggested the introduction of provisions in contracts clauses that will require contractors to maintain certain types and levels of insurance. This is important to ensure that the effect of the financial losses that accompany risks on construction projects are minimised. In the most standard form of contracts, adequate provisions for insurance were made [18]. Similarly, in advanced construction industries, [19] posit that the concept of insurance is statutorily established, thus, making it a crime for citizens that failed to take insurance policies. In a developing country like Nigeria, insurance implementation is made compulsory between clients and contractors under the insurance act 2003. This is to ensure that buildings are projected against unexpected developments [19].

In Nigeria, it was observed that despite the importance of insurance, insurance practices implementation has remained unclear among construction firms [20]. Construction practitioners lack a clear understanding of what risks are transferred/covered by insurance. This has made it impracticable to successfully claim for difficulties that impact the project delivery cost, time and quality [21]. Preventable expenses that result from unsafe behaviours lead to a high level of site accidents which most often leads to site closure, loss of productivity, loss of profits, labour turnover, reputation losses, among others [22, 23]; have been reported to be worsened by lack of insurance coverage and/or ineffective implementations. [24] state that the lack of interaction among various parties, absence of risks management continuity at different stages of projects, and lack of formalised risk management procedures, were responsible for the ineffective implementation of insurance.

Evidence exists that despite enormous benefits and the provisions in insurance acts and contract conditions, the level of patronage for insurance is inadequate in Nigeria [25]. Construction insurance is one of the research areas that have been overlooked by researchers, thus, making available studies in this area scarce. It is based on the foregoing, that this study assessed the challenges associated with the implementation of insurance in building projects in Nigeria. This study leverage the experiences of clients, contractors, and construction professionals, insurance companies in the execution of education building projects that span between 2012 and 2016 at the Federal University of Technology Akure, Ondo State (FUTA) to gather useful data. This study will be of great benefit to the contractors and their relationship with the clients and even the field operative who are mostly the causer and victims of safety failures and other unsafe

behaviours on construction sites. This study will also add to the few existing studies in insurance implementation in construction in developing nations and beyond.

II. REVIEW OF LITERATURE

II.1 INSURANCE IN THE CONSTRUCTION INDUSTRY

Insurance involves the complex social and economic scheme of life and property risks handling that have high destructive impacts when these entities experience it [26, 27]. Insurance is a conscious and deliberate transfer of risks from a company, party or an individual to another company in which the losses are equitably shared by all members [28]. In the case of unexpected losses, insurance is meant to protect the economic welfare of individuals, an entity or company [29]. Insurance helps in the distribution of pool of burdens by acting as a financial mechanism for reducing losses due to uncertainty [30]. Basically, insurance is a risk transfer mechanism which involves financial compensation or cover for losses that are beyond the control of the parties involves.

The discharge of insurance contract is guided by certain principles. These principles are fundamental to the success of any insurance agreements. [31] identified six basic principle of insurance law and practices and they are; "insurable interest", "utmost good faith", "indemnity", "Disclosure", "subrogation", and "proximate causes". [32] identified insurable interest, nondisclosure, fraud, misrepresentation, premium and subrogation; as the basic insurance principles identified. Similarly, the study of [33] identified insurable interest, utmost Good faith, subrogation and indemnity as the basic principles of insurance.

[4] defined risks as a likely threat, damage, liability, injury or other negative events triggered by internal or external factors, which however, can be avoided to proactive approach. Construction industry is commonly challenged by risks such as environmental risk, technical risk, financial risk, and construction risk. [4] highlighted 10 types of insurance available for construction projects, and they are; contractor's All Risk Policy (CAR); Workers Compensation Insurance; Employer's Liability Insurance; Contractor Plant and Machinery Policy; Public Liability; Product Liability; Professional Indemnity Policy; Standard Fire and Special Perils Insurance; Burglary Insurance; and Marine Insurance. [34] reported that the most important insurances in construction are four, and they are construction All Risk insurance, Business liability insurance, Professional liability insurance and Design and construct insurance. It was further stated that others are based on the nature and complexity of the project involved and they are; Insurance for hidden defects, Excess liability (for design) insurance, Soil remediation insurance, Machinery and equipment insurance, Assembly insurance, and Warranty insurance.

When effectively implemented, insurance help to improve project performance and relations of stakeholders. However, there certain challenges or barriers that construction insurance is faced with in the construction industry. While some are caused by the insurance companies, other comes from the contractors and general perceptions of stakeholder in the sector.

II.2 CHALLENGES ASSOCIATED WITH THE IMPLEMENTATION OF INSURANCE IN BUILDING PROJECTS

[29] reported that a key reason raised by contractors for the low interest in taking up insurance cover is the inefficiency of insurance companies in giving immediate attention and assistance in the invent of uncertainties. The insurance sector has performed believe expectation. [35] found that the absence of trust and confidence in the insurance companies due to lack of knowledge about the life insurance products. The long period taken to settle insurance-related problems between contractors and insurance companies were also reported as being part of the problems facing the implementation of insurance in the construction sector. Poorly developed distribution channels resulting from brokers interference, unwillingness to pay claims as at when due, poor perception by the public, lack of the capability to secure skied workforce, poor regulations of the sector, rigidity to follow trends and development in information and communication technology, low level of investment and capabilities to manage assets; were submitted in support of the argument for the persistent poor performance of the insurance sector [36]. Other factors are corporate governance issues, ignorance on the part of customers on the benefits of insurance products, lack of innovation in product development, poor assets quality, unethical practices, dearth of professionals, and non-enforcement of compulsory insurance, among others.

In China, [37] investigated the major issues and challenges in risk management and insurance and found that priority is not given to risk management and loss prevention and that the contractor is not motivated to transfer risks to insurers as losses are reimbursed by the government. This is because the government remains the largest client of the sector. Large and medium-sized construction projects are procured by the government. [38] pointed out that the poverty line and low per capita income; affect the level of penetration of insurance in any society. Attitude and perception of the insurance companies is another factor that is responsible for the low patronage of insurance cover. The large numbers of defaulting claims by insurers have given consumers the impression that all is not well and the public image and significance of insurance is being eroded in the construction industry. [39] pointed out that the clauses in insurance policy documents still carry distrust items and have been given diverse interpretations by customers.

Poor premium collection, ethical issues, low liquidity, solvency problems, poor management, lack of standards, lack of integrity, low information adoption level, lack of government support, attitudes and perception towards insurance, and motivation issues; are the problems affecting the implementation of insurance by construction firms [40]. [41] reported that the reasons for the very low uptake of insurance in Ghana and other developing countries are; lack of awareness of the existence of insurance. According to [42], credit constraints, trust issues, basic risks, household wealth, risk aversion, hyperbolic preferences and marketing methods, are the factors determining the uptake of insurance by household.

The demand for insurance in low-income countries is another factor influencing insurance uptake. Majorly, the lack of demand for insurance and low availability of information about insurance schemes were highlighted by [43] as the factors affecting insurance uptake. The lack of confidence and trust in insurance companies is a major factor inhibiting the implementation of insurances [8, 44]. The high cost of the premium, complex language policy, inadequate companies willing to insure were reported by [45, 6] as being the consequence of the inefficiency of insurance companies in managing risks in construction. Care must be exercised by insurance companies to void any element of distrust, as this will further reduce their market size. This is because trust is a key in insurance and the insurance sector is a volatile sector [8].

III. MATERIALS AND METHODS

This study assessed the perception of construction experts, clients and insurance agents on the challenges with the implementation of insurance in educational building construction projects. Twenty (20) ongoing and completed building projects in the federal university of technology, Akure, Ondo State, Nigeria. A total of Seventy (70) construction practitioners (15 contractors, 20 consultants, 20 client's representatives and 15 insurance brokers) who were directly involved in the construction projects, took part in the study. A well-structured questionnaire administered to these professionals served as the tool for data collection. The questionnaire provides a fast and economical means of a survey, it provides quantifiable data from which inferences can be drawn.

The questionnaire was designed using variables obtained from a detailed literature review. The questionnaire has two sections; the first section collected data on the respondents' profiles, and this information served as a quality check to data obtained in the second section. The second section garnered data on the challenges with the implementation of insurance on building construction projects. A 5-point Likert scale was adopted in the questionnaire; where 5 is the highest scale and 1 is the lowest scale. The respondents were required to rate the identified variables regarding the challenges with the implementation of insurance in building projects based on the level of significance. The convenient sampling technique was adopted in the survey to administer the data collection instrument. The use of convenient sampling was informed on the need to meet the research aim and ensure that only participants with the response of the requisite experience to the questionnaire [46]. Furthermore, the practical experience of the researcher on construction-related activities was also considered in selecting respondents in convenient sampling techniques [47].

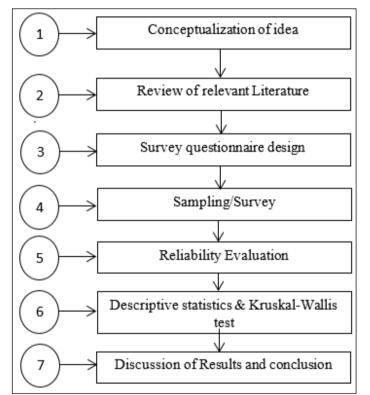
A total of 53 completed questionnaires were retrieved after a survey period of 12months, and this represents a response rate of 75.71% which is above the suggested response rate in construction management studies as submitted by [1]. A response rate of 20-30% was suggested to be adequate for questionnairebased studies [48]. The high response rate was attributed to the follow-up visits and calls to non-responding participants as suggested by [1].

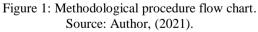
The gathered data were analysed using frequency, percentage, mean score and Kruskal-Wallis H-Test. Frequencies and percentages were used to analyse the data on the respondents' profiles. Mean score was adopted in determining the relative weight of the variables on challenges of implementation of insurance and in ranking the variables. The Kruskal-Wallis H-Test was adopted to ascertain if differences exist in the perception and rating pattern of the participants regarding the challenges of insurance implementation. Furthermore, it was used to determine the proportion of variables in which the views differs [5]. Since, these participants came from different organisation backgrounds, have different levels of experience and education; there is a tendency to have differing opinions. This further reinforced the use of the Kruskal-Wallis H-test. [5] state that the Kruskal-Wallis H-Test is appropriate when the target is to determine the existence of different opinions of more than three groups of respondents. However, these tests stated above were proceeded by a reliability evaluation using Cronbach's alpha. Cronbach's alpha (α) value is the widely used tool for determining the internal consistency and reliability of a study [49]. The aim was to ascertain the suitability and dependability of the research instrument and the internal consistency of participants' responses. A Cronbach's alpha coefficient of 0.897 was obtained (see Table 1), and this is above the 0.70 recommended for good reliability by [50, 51]. Based on this, the instrument has good reliability and the gathered data are of good quality. Figure 1 below shows the methodological flow of the study.

Tabla	1.	Poliability	v Evaluation.
Table	11	Renadinu	Evaluation.

Ca	se Processing	Reliability Statistics					
				Cronbach's	N of		
		Ν	%	Alpha	Items		
	Valid	53	100.0				
Cases	Excluded ^a	0	0.00	0.897	12		
	Total	53	100.0				
a. Listwise deletion based on all variables in the procedure.							

Source: Author, (2021).





IV. RESULTS AND DISCUSSIONS

IV.1 BACKGROUND INFORMATION OF THE RESPONDENTS

From Table 2, it can be seen that 20.75% of the respondents are clients' representatives, 37.74% are consultants, 18.87% are contractors, and 22.64% are insurance agents. This shows a fair representation of the parties involved in insurance in construction. In terms of years of experience, 5.66% have 1-5 years of experience, 30.19% of them have 6-10 years, 4.17% have 11-20 years of experience, and 16.98% have 20 years and above experience. This shows that they are experienced enough in construction-related businesses. The academic qualification of the

respondents shows that 18.87% have HND, 13.21% have PGD, 47.17% have B.SC/B.Tech, 20.75% have M.Sc/M.Tech and none of them have PhD. This implies that they have the requisite educational qualification to contribute to this study.

In terms of the positions of the respondents, 43.40% are top management staff, 22.64% are middle management staff, and 33.96% are experts in their field. This implies that the respondents' occupies decision making responsibility in their organisations. In terms of professional qualification, 83.02% are chartered members of their different professional bodies and 16.98% are probationer members. This show that the respondents are professionally qualified to aid in meeting the subject of this study.

Table 2: Profile of the Respondents Involved in the Study.

Category	Classification	Freqy	%	
Type of respondents	Client's Rep.	11	20.75	
^	Consultant	20	37.74	
	Contractor	10	18.87	
	Insurance agents	12	22.64	
	TOTAL	53	100.00	
Years of experience	1-5 years	3	5.66	
	6-10 years	16	30.19	
	11-20 years	25	47.17	
	above 20 years	9	16.98	
	TOTAL	53	100.00	
Academic qualification	HND	17	31.48	
	PGD	5	9.26	
	B.Sc/B.Tech	26	48.15	
	M.Sc/M.Tech	6	11.11	
	TOTAL	54	100.00	
Position of respondents	Top management	23	43.40	
	Middle management	12	22.64	
	Expert	18	33.96	
	TOTAL	53	100.00	
Professional Status	Corporate/Registered	44	83.02	
	Probationer	9	16.98	
	TOTAL			

Source: Author, (2021).

IV.2 CHALLENGES ASSOCIATED WITH THE IMPLEMENTATION OF INSURANCE IN BUILDING PROJECT

Table 3 shows the results of the analysis of the data collected on the challenges associated with the implementation of insurance in building projects. It can be seen that according to the contractors' group, the top 5 challenges to insurance implementation in building construction projects are; complex policy language (mean=4.91), Lack of trust and confidence in insurance agents (mean=4.82), No strict instruction from the government (mean=4.45), Rising cost of the premium (mean=4.45), and Inefficiency of insurance companies in handling construction risks (mean=4.09). For the clients' representative, the top challenges to insurance implementation are; Lack of trust and confidence in insurance agents (mean=4.90), No strict instruction from the government

(mean=4.90), Complex policy language (mean=4.80), Failure to administer contractor's claim in time (mean=4.66), Rising cost of the premium (mean=4.20), and Lack of proper knowledge and understanding of insurance (mean=4.20).

The Consultants rated No strict instruction from the government (mean=4.95), complex policy language (mean=4.65), lack of trust and confidence in insurance agents (mean=4.60), failure to administer contractor's claim in time (mean=4.40), and Rising cost of the premium (mean=4.30); as the top challenges to the implementation of insurance in building projects. While, for the Insurance Company, the top major challenges to the implementation of insurance in construction projects are; No strict instruction from the government (mean=4.92), lack of trust and confidence in insurance agents (mean=4.90), failure to administer contractor's claim in time (mean=4.75), complex policy language (mean=4.58), and the rising cost of the premium (mean=4.58).

Overall, the top 5 challenges with the implementation of insurance in building projects are; Lack of trust and confidence in insurance agents (mean=4.81), No strict instruction from government (mean=4.80). Complex policv language (mean=4.74), failure to administer contractor's claim in time (mean=4.43), and the rising cost of the premium (mean=4.38). The finding in this section is in support of the studies of [8, 35, 44-45]. Trust is a key driver for improved confidence and performance, especially in the construction sector. The lack of trust and confidence in the operation mode of insurance companies has negatively impacted the number of construction companies taking-up insurance. This was stressed by [8, 44, 35]. It was emphasized that lack of trust and inefficiencies in insurance companies in handling issues when uncertainties occur is a serious drawback to the implementation of insurance by construction organisations. There is usually an avoidable delay in settling claims by constructors, and this is identified by [8] as a barrier to the implementation of insurance.

[36] identified regulations of insurance companies and compliance monitoring. [45] identified the high cost of the premium, complex language policy, and inadequate companies willing to insure their properties as being the consequence of the inefficiency of insurance companies in managing risks in construction. The high cost of insurance premiums charged by the insurance companies is a major issue with the implementation of insurance by construction organisations.

To ascertain if a significant statistical difference exist in the ways the different professional groups rated the assessed variables, the Kruskal-Wallis test was performed. It was observed the perception of the respondents converged in 9 (75.0%) of the assessed variables. These variables have their p-value to be greater than 0.05 significant levels. This implies that there is no significant statistical difference in the perception of these variables by the survey participants. However, A significant statistical difference was observed in the rating of the 3 (25.0%) of the assessed variables by the survey participants. These variables are: failure to administer contractor's claim in time (mean=4.43; Sig. =0.000), Lack of proper knowledge and understanding of insurance (mean=3.94; Sig. =0.036), and Contractor opting for increased profit margin (mean=3.86; Sig. =0.016). it implies divergent views in the rating of these variables. These differences in views could be attributed to the varying level of implementation of insurance by the organisations sampled. The management of insurance cover by the different organisations is another factor that might have caused the divergence of opinion (see columns 12 and 13 of Table 3).

The overall Kruskal-Wallis Test showed a significant value of 0.751 (see Table 4). This implies that there is no statistically significant difference in the views of the target participants concerning the ways the assessed variables were rated. It is based on this that the hypothesis (H1) is not rejected.

	Contractors		Clients'Rep		Consultants		Ins. Comp		Overall		K-W	
Challenges with Implementation	Mean	Rk	Mean	Rk	Mean	Rk	Mean	Rk	Mean	Rk	Sig.	Decision
Lack of trust and confidence in insurance agents	4.82	2	4.90	1	4.60	3	4.90	2	4.81	1	0.053	Accept
No strict instruction from the government	4.45	3	4.90	1	4.95	1	4.92	1	4.80	2	0.648	Accept
Complex policy language	4.91	1	4.80	3	4.65	2	4.58	4	4.74	3	0.159	Accept
Failure to administer contractor's claim in time	3.91	6	4.66	4	4.40	4	4.75	3	4.43	4	0.000*	Reject
The rising cost of premium	4.45	3	4.20	5	4.30	5	4.58	4	4.38	5	0.300	Accept
Lack of proper knowledge and understanding of insurance.	3.64	12	4.20	5	4.25	6	3.67	12	3.94	6	0.036*	Reject
Too procedural	3.91	6	3.90	9	3.90	7	4.00	6	3.93	7	0.835	Accept
Contractor opting for increased profit margin	3.82	9	3.80	11	3.90	7	3.92	7	3.86	9	0.016*	Reject
The inefficiency of insurance companies in handling construction risks	4.09	5	4.00	7	3.60	11	3.92	7	3.90	8	0.116	Accept
No motivation for contractors to transfer risk	3.91	6	3.90	9	3.85	9	3.75	11	3.85	10	0.848	Accept
Not taking risk management and loss prevention as a priority	3.73	11	4.00	7	3.75	10	3.92	7	3.85	11	0.410	Accept
A tendency to underestimate risks	3.82	9	3.80	11	3.60	11	3.83	10	3.76	12	0.392	Accept
Ins. Comp. = Insurance Company; Clients'Rep= Client representative; *Sig. = p-value <0.05; df=3; Rk=Rank; K-W = Kruskal-Wallis Test												

Table 3: Challenges Associated with the Implementation of Insurance in Building Project.

Source: Author, (2021).

Table 4: Overall Comparison of participants perception of Challenges with Insurance Implementation in construction.

	Respondents	Mean Rank	Chi Sq.	P-value	Decision	
	Contractors	22.79				
Challen and with Iwale wanted in	Clients Representative	27.42	1 200	0.751	Accept	
Challenges with Implementation	Consultants	21.96	1.206			
	Insurance company	25.83				
df=3						

Source: Author (2021).

V. CONCLUSIONS

The aim of this study assessed the challenges associated with the implementation of insurance in building projects in Nigeria. The well-structured questionnaire and convenient sampling techniques were used to collect data from experienced clients, contractors, construction professionals and insurance experts on educational projects executed between 2012-2016 at the Federal University of Technology, Akure, Ondo State. The gathered data were analysed using descriptive statistical tools and the Kruskal-Wallis test, and interesting findings were made.

It was found that the major challenges with the implementation of insurance in building projects are; Lack of trust and confidence in insurance agents, No strict instruction from the government, Complex policy language, Failure to administer contractor's claim in time and Rising cost of the premium. Insurance cover is very important in the delivery of building construction projects as it offers a level of protection on the clients, contractors and even the site operatives in the event of any eventualities. It is recommended that continuous training of insurance agents on the latest techniques of handling uncertainties speedily and effectively should be embarked upon. Sensitization of the customer is also important as it is necessary to continue building trust and confidence in current and potential customers of insurance companies. Government should strengthen existing policies and institutions to ensure that implementation and compliances are strictly followed and monitored. Professionals should look at the strategy to address the issue of rates and take

Stringent steps to ensure that adequate rates are charged. Contractors should have a good negotiation skills, this is important enable them have improved conditions when negotiating terms and conditions with insurance companies. Also, there should negotiate to have best premium cost reduction. However, this can be achieved through proper control of losses and measures for managing risks by engaging knowledgeable and experienced experts especially for managing risks and insurance.

The study will benefit clients, contractors and even the workers on-site and other stakeholders that are impacted by the outcome of construction projects. This is because of the protections and assurance insurance cover provided. This study is very important because it adds to the scarce existing studies on insurance implementation in Nigerian and by extension other developing nations of the world. This study is a stepping stone and background for researchers who may want to carry out further research on the subject area. This study is limited by geographical boundaries and a small sample size. Thus, caution should be taken in an attempt to generalise its findings. A similar study is therefore recommended in other states or regions of Nigeria or other developing countries. An empirical study on the performance differential between contractors with insurance cover and those with insurance cover should be investigated.

VI. AUTHOR'S CONTRIBUTION

Conceptualization: Uchenna Afonne. Methodology: Uchenna Afonne. Investigation: Uchenna Afonne. Discussion of results: Uchenna Afonne. Writing – Original Draft: Uchenna Afonne. Writing – Review and Editing: Uchenna Afonne. Resources: Uchenna Afonne. Supervision: Uchenna Afonne. Approval of the final text: Uchenna Afonne.

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