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Construction Professionals' Compliance to The Builder's Risk Insurance in Akwa Ibom State, Nigeria.

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Abstract

Whereas, building construction involves several professionals, tradesmen, unskilled labour and use of various equipment and materials, in unpredictable climates, risk management remains an integral part of any successful construction project. To mitigate the occurrence of risks on construction sites, builder's risk insurance policies are statutorily provided for construction processes. The study, therefore, aimed at assessing construction professionals' compliance to the compulsory builder's risk insurance in Akwa Ibom State, Nigeria. Data were primarily collected using a questionnaire. Respondents were selected based on their direct involvement in the delivery of construction projects in Akwa Ibom State, Nigeria. The study adopted a random/probability sampling technique and involved two hundred and fifty-two (252) respondents that consisted of 69 Architects, 38 Builders, 47 Quantity Surveyors and 98 Engineers. From the results obtained, it was concluded that construction professionals are highly aware of the builder's risk insurance, but their levels of compliance to the builder's risk insurance is moderate. The implication of these findings is that the building construction industry might continue to experience losses accruing from not maximizing the builder's risk insurance. Thus, ensuring a high level of compliance to the builder's risk insurance policy in building construction projects will help mitigate potential losses and disputes on construction sites, and avoid time and cost overruns.

Keywords: *Builder's risk insurance, Awareness, Compliance, Construction professionals.*

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1. Introduction

The Construction industry in Nigeria significantly contributes to the national economy, reduction in unemployment rate, provision of shelter and provision of amenities like buildings, railways, airports, roads and bridges, for ease of movement and circulation. The planning, construction and use of any building is imbued with varied risks and uncertainties for the parties involved. These uncertainties may be positive or negative, and rationally, need to be insured.

Risk exists when a process is capable of producing a range of outcomes and when known probabilities can be attached to the outcomes (Smith *et al.,* 2006). According to Adeleke *et al.* (2013), the builder's risk insurance is a policy created to cover buildings under construction, including materials intended for the job (even when in transit), till completion and handing over to the client. As noted by Odeyinka (2000), these policies are written to cover the whole structure, in the case of new construction, or the cost of renovating an existing project, such as addition of a new room, or remodelling of a kitchen or conversion of a garage. Unfortunately, insurance in the construction sector, scarcely receives the implementation it deserves, either because the professional bodies and the professionals do not see the need for its implementation, or Government has not directed relevant authority(ies) to implement the compulsory insurance provisions.

Based on extant literature, there are limited information on builder's risk insurance in Akwa Ibom State and the few research on risk management in Akwa Ibom State, failed to address the compulsory builder's risk insurance, more so, from construction professional's perspective. It is on this premise that this study intends to establish the levels of awareness and compliance to the builder's risk insurance, in order to promote and increase implementation, by establishing strategies of aiding compliance to the builder's risk insurance.

2. Review of Past Literature

The insurance industry developed over centuries as people realized that there was need to reduce risk (Jimoh *et*

al., 2019). According to Jimoh *et al.* (2019), it was realized that if a group of people contributed money that is held by an establishment of trust, then the money could be used to cover any eventual loss. According to Winch (2006), the construction industry is characterized by fragmentations, each stakeholder having his or her own goal(s) in the value chain. These fragmentations result in risks and uncertainties at various stages of the construction process (Patel, Jayeshkumar & Bhavsar, 2013).

It is noteworthy that construction projects are peculiar in terms of risk, as they are exposed to diverse hazards such as fire, lightning, explosion, impact by aircraft or vehicles, riot, vandalism, malicious acts, windstorm, hail and rain, burglary and theft, collapse, subsidence, etc. (Boswall & Clark, 2005). These risks, according to Boswall and Clark (2005), constitute examples of typical risks covered by the builder's risk insurance policy. Project conditions are hard to predict in the early stages of the project life cycle and conditions can change during the project lifecycle. These uncertainties herald insurance covers for potential risks associated with buildings under construction or being renovated. Construction project risks require that preventive measures should always be put in place to militate against the possible negative impacts of the risks on the construction projects (Akintoye & Macleaod, 1997). Construction project risks refer to uncertain occurrences that have progressive or damaging outcome on the prospects of realizing the project objectives (Ijaola, 2012).

Builder's risk insurance policy, also known as "course of construction", "construction all risk" and "contractors all risk insurance", is a specialized form of insurance designed to insure buildings or projects against repair or replacement costs, during or after construction (Boswall and Clark, 2005). According to Boswall and Clark (2005), this insurance policy will usually cover building materials, fixtures and appliances, all of which are intended to become an important part of the building under construction.

Insurance is one of the key means through which parties to major projects treat risks. But ignorance, negligence, poor governmental enforcement, among other factors, contribute to the inadequate attention given to the builder's risk insurance in Nigeria. Challenges related to the compulsory insurance of buildings under construction, revolve around lack of awareness, poor or no compliance to the statutory risk insurance policies and unproductive application approaches adopted by the insurance regulators (Jimoh *et al.*, 2021). Awareness of the builder's risk insurance policy is driven by the social and economic developments, and the eminent benefits associated with its implementation (Oyeleke *et al.*, 2021; Organisation for Economic Co-operation and Development, OECD, 2017). A study by Adeleke *et al.* (2013) showed that building stakeholders are aware of the builder's risk insurance policy, but barely implemented it. Further, Jimoh *et al.* (2019) opined that poor compliance to the builder's risk insurance has been due to little or no enforcement of the penalty for non-compliance.

Given that the builder's risk insurance policy does not cover all possible risks on site, there is then the need to purchase additional insurance to cover other issues beyond the purview of the builder's risk insurance (Adeleke *et al.*, 2013). There are all-risk policies that cover all risks, unless they fall outside of the meaning of "occurrence" in the insuring agreements or are otherwise removed from the coverage by exclusions (Adeleke *et al.*, 2013). Clark and Boswall (2005), highlighted that the builder's risk insurance usually excluded faulty design, material or workmanship, latent defect, inherent vice, breakdown or derangement, and wear and tear, as these should be covered under the "all risk" policies.

Builders risk policy, which covers the standard policy, can usually be obtained by the owner, contractor, architect, engineer or project manager. Predominantly, the industry expectation is that the general contractor or owner will obtain the policy. However, the owner may be required to provide or maintain the policy if the contractor fails to do so (Adeleke *et al.*, 2013).

2.1 Aim and Objectives of The Study

This study aimed at investigating construction professionals' compliance to the compulsory builder's risks insurance in Akwa Ibom State, Nigeria. The objectives of the research are:

1. To assess the levels of awareness of builder's risk insurance by construction professionals in Akwa Ibom State, Nigeria.
2. To examine the levels of compliance to the builder's risk insurance by construction shareholders' in Akwa Ibom State, Nigeria.

2.2 Research Hypotheses

H_{o1}: There is no significant variation in the perception of construction professionals in Akwa Ibom on the levels of awareness on builder's risk insurance.

Ho_2: There is no significant variation in the perception of construction professionals in Akwa Ibom on the levels of compliance to the builder's risk insurance.

3. Methodology

This study adopted a quantitative research approach. Data were primarily collected using a questionnaire. Respondents were selected based on their direct involvement in the delivery of construction projects in Akwa Ibom State, Nigeria.

3.1 Research Population

The population of this study consisted of construction professionals in Akwa Ibom State, Nigeria. Akwa Ibom State is selected because of the massive infrastructural development of the State. The population of this study consists of Architects, Builders, Engineers and Quantity Surveyors. Details of these professionals were obtained from the records available at various secretariats of the professional associations in the state. These professionals were selected based on their direct involvement in the delivery of construction projects and their importance within the construction industry. The Population of the study is 311 as revealed in Table 1.0.

3.2 Sampling and Sampling Techniques

The study adopted a random/probability sampling technique. The sample size for the study comprised of two hundred and fifty-two (252) respondents that consist of 69 Architects, 38 builders, 47 Quantity Surveyors and 98 Engineers. To determine the sample size, the formula developed by Yamane (1967) was used, which is n = N / (1 + N (e)^2); where n = sample size, N = Population size, e = level of significance = 0.05 at 95% confidence level.

$n = N/[1+N(e)^2]$

Sample size, n = 311 / [1+311(0.05)^2] = 252

Table 1.0: Total and Sample Population of the Study

Registered Profession	Population (N)	Sample size (n)
Architects	83	69
Builders	42	38
Quantity Surveyors	53	47
Engineers	130	98
Total	**311**	**252**

3.3 Data Analysis

Data collected were analyzed using the Statistical Package for Social Science (SPSS) Software. The decision on the levels of awareness of the construction professionals on builder's risk insurance and levels of compliance to the builder's risk insurance was achieved as follows: Mean ranging from 1-1.44 = Very low; Mean ranging from 1.45-2.44 = Low; Mean ranging from 2.45-3.44 = Moderate; Mean ranging from 3.45-4.44 = High; Mean ranging from 4.45-5.00 = Very high level of awareness or compliance.

Finally, Kruskal Wallis H-Test was used at 5% significance level, to test the study hypotheses. The decision rule was that, if *p*-value is less than or equal to 0.05 ($p \leq 0.05$), the null hypothesis will be rejected, giving preference to the alternative; but if the *p*-value is greater than or equal to 0.05 ($p \geq 0.05$) the null hypothesis will be accepted, while the alternative hypothesis will be rejected.

4.0 Results and Discussion

4.1 Questionnaire administered

Whereas, the number of questionnaire copies administered to the construction professionals were 252 and 155 copies were successfully filled and returned. Table 2.0 shows how the questionnaire copies were administered to the respondents and their percentage returns.

Table 2.0: Questionnaire distribution in the study area

Professionals	No. distributed	No. Returned	Percentage returned (%)
Architects	69	48	69.57
Builders	38	23	60.53
Q. S..	47	28	59.57
Engineers	98	56	57.14
Total	**252**	**155**	**61.51**

From Table 2.0, percentages of questionnaire copies returned by construction professionals in Akwa Ibom State were 69.57%, 60.53%, 59.57%, and 57.14%, representing the Architects, Builders, Quantity Surveyors and Engineers respectively. The total percentage of the returned questionnaire is 61.51% which is above average.

4.2 Background Information of Respondents

In order to understand the background of respondents that participated in the questionnaire administration exercise, the frequency and percentage representation of the respondents' ages, genders, highest educational qualifications, professional affiliations and years of construction experience, were computed using SPSS and the results are shown in Table 3.0.

Table 3.0: Background Information of Respondents

Respondents' characteristics	Sub-features	Frequency	percentage
Age	30 - 40 years	41	26.5
	41 – 50 years	43	27.7
	51 – 60 years	49	31.6
	above 60	22	14.2
	Total	**155**	**100.00**
Gender	Male	125	80.6
	Female	30	19.4
	Total	**155**	**100.00**
Highest educational qualification	HND	4	2.6
	B.Sc.	30	19.4
	M.Sc.	89	57.4
	PhD	32	20.6
	Total	**155**	**100.00**
Professional Affiliation	NIA	48	31.0
	NIOB	23	14.8
	NIQS	28	18.1
	NSE	56	36.1
	Total	**155**	**100.00**
Years of building Construction experience	1-5 years	9	5.8
	6-10 years	26	16.8
	10- 15 years	77	49.7

	16 – 20 years	29	18.7
	21 above	14	9.0
	Total	**155**	**100.00**

From Table 3.0, percentages of respondents according to their age are 26.5%, 27.7%, 31.6% and 14.2%, for the ages of 30 - 40 years, 41 – 50 years, 51 – 60 years and above 60 respectively. The table shows that respondents between the ages of 51 – 60 years participated more in this study.

Furthermore, this study also shows that both male and females construction professionals were part of the data provision process and all respondents are graduates with either HND, B.Sc., M.Sc. or PhD degrees. However, the table revealed that respondents with M.Sc. participated the most with 57.4%, against HND, B.Sc. and PhD holders whose percentage participation are 2.6%, 19.4% and 20.6% respectively. The table also revealed that all the participants are registered members of their professional bodies, and have at least 1-5 years construction working experience. Thus, this study participants are people whose views in this study may be considered as the general view of construction professionals.

4.2 Levels of Awareness of Builder's risk insurance by Construction Professionals in Akwa Ibom State, Nigeria.

In order to assess the levels of awareness of builder's risk insurance by construction professionals in Akwa Ibom State, the builder's risk insurance policy was structured into a questionnaire and administered to the selected construction professionals. Results obtained from the analyses are presented in Table 4.0.

Table 4.0: Construction Professional's Levels of Awareness of Builder's risk insurance

Builder's risk insurance policies	Architect N= 48		Builders N= 23		Q. S. N= 28		Engineer N= 56		Combined		
	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Mean rank
Insurance to cover hazards of collapse	174	3.62	95	4.13	98	3.5	220	3.93	147	3.8	5
Insurance to cover losses resulting from any incident of fire in the property	173	3.6	80	3.48	110	3.93	202	3.61	141	3.66	11
Insurance to cover wind-related damages to the building	189	3.94	88	3.83	119	4.25	207	3.7	151	3.93	2
Insurance to cover any explosion in or around the property	183	3.81	89	3.87	102	3.64	198	3.54	143	3.72	9
Insurance to cover any form of damage caused by storm and flood	170	3.54	82	3.57	103	3.68	236	4.21	148	3.75	8
Insurance to cover losses due to riot and vandalism	179	3.73	82	3.57	106	3.79	203	3.63	143	3.68	10

Insurance to cover damages or losses resulting from lightning	177	3.69	88	3.83	120	4.29	199	3.55	146	3.48	12
Insurance to cover mechanical breakdowns	174	3.63	91	3.96	109	3.89	202	3.61	144	3.77	6
Insurance to cover excavation and catastrophic incidents	177	3.69	88	3.83	100	3.57	213	3.8	145	3.72	9
Insurance to cover accidents related to transportation to and from the construction site	171	3.56	101	4.39	109	3.89	208	3.71	147	3.89	3
Insurance to cover the construction of a building with over two floors	179	3.73	86	3.74	110	3.93	201	3.59	144	3.75	8
Insurance to cover scaffolding and temporary structures built to assist the construction	171	3.56	96	4.17	109	3.89	216	3.86	148	3.87	4
Insurance to cover Employee Injuries	182	3.79	99	4.3	106	3.79	216	3.86	151	3.94	1
Insurance to cover damages resulting from earthquake	187	3.9	91	3.96	102	3.64	207	3.7	147	3.8	5
Insurance to transfer liability to the insurer on 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 of any member of t	182	3.79	82	3.57	115	4.11	200	3.57	145	3.76	7
Group mean		**3.67**		**3.88**		**3.85**		**3.67**		**3.77**	

Table 4.0 shows the mean scores and group means of the responses of selected construction professionals and their combined means and combined group means. The table shows that the group mean of the responses of Architects, Builders, Quantity Surveyors and Engineers on the itemized builder's risk insurance policies are: 3.6,

3.88, 3.85 and 3.67 respectively. Also, the table reveals that the combined group mean is 3.77. This result shows that the group mean of the construction professionals' levels of awareness, falls within the mean range of 3.45-4.44, which indicates "high" level of awareness.

Further, Table 4.0 shows that builders are more conversant with the Builder's risk insurance policy, with a group mean of 3.88, compared to other selected construction professionals, Quantity Surveyors with group mean of 3.85 and Architects and Engineers with a group mean of 3.67.

The mean rank of the combined column shows that the construction professionals are very much aware of the Insurance to cover Employee Injuries, as this policy ranked number one among other policies, with a combined mean of 3.94. This was followed by Insurance to cover wind-related damages to the building, Insurance to cover accidents related to transportation to and from the construction site, Insurance to cover scaffolding and temporary structures built to assist the construction, ranking second, third and fourth, respectively, among other policies.

4.3 Kruskal Wallis H-Test to Determine if Significant Variations Exist in the Levels of Awareness between the Selected Construction Professionals.

In order to determine if significant variations exist in the levels of awareness of the selected construction professionals, Kruskal Wallis H-Test was employed to further analyze the means of the responses by the selected construction professionals. Results obtained from the test are shown in Table 5.0.

Table 5.0: Kruskal Wallis H-Test for significant variations in the Levels of awareness of the builder's risk insurance among construction professionals

States	N	Mean rank	Chi-square	*P*-value	Df	Rules	Decision
Architects	48	24.47				If *P*-value ≤ 0.05, Reject H_0 hypothesis If *P*-value > 0.05, Accept H_0 hypothesis	Accepted
Builders	23	36.53	6.283	0.099	3		
Q. S.	28	35.73					
Engineer	56	25.27					
Total	155						

Table 5.0 shows that the *p* - value of the Kruskal Wallis H-Test is 0.099 which is greater than 0.05. Following the decision rule that when *p* - value is less than or equal to 0.05 ($p \leq 0.05$), we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1) and vice versa. We therefore accept the H_0 which states that there are no significant variations in the levels of awareness of the selected construction professionals in Akwa Ibom State.

4.4 Levels of compliance to the Builder's Risk Insurance by Construction Professional in Akwa Ibom State, Nigeria.

Results of the assessment of levels of compliance to the builder's risk insurance by construction professionals in Akwa Ibom State, are revealed in Table 6.0.

Table 6.0: Construction professional's levels of compliance to the builder's risk insurance

Builder's risk insurance policies	Architect N= 48		Builders N= 23		Q. S. N= 28		Engineer N= 56		Combined		
	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Sum	Mean	Mean rank
Insurance was taken to cover hazards of collapse	120	2.5	74	3.22	78	2.79	127	2.27	100	2.70	3

Insurance was taken to cover losses resulting from any incident of fire in the property	113	2.35	68	2.96	72	2.57	142	2.54	99	2.61	7
Insurance was taken to cover wind-related damages to the building	112	2.33	66	2.87	68	2.43	183	3.27	107	2.71	2
Insurance was taken to cover any explosion in or around the property	113	2.35	65	2.83	70	2.5	159	2.84	101.75	2.63	6
Insurance was taken to cover any form of damage caused by storm and flood	114	2.37	57	2.48	73	2.61	141	2.52	96	2.50	11
Insurance was taken to cover losses due to riot and vandalism	123	2.56	64	2.78	68	2.43	157	2.8	103	2.64	5
Insurance was taken to cover damages or losses resulting from lightning	119	2.48	62	2.7	64	2.29	154	2.75	100	2.56	9
Insurance was taken to cover mechanical breakdowns	117	2.44	54	2.35	65	2.32	137	2.45	93	2.39	13
Insurance was taken to cover excavation and catastrophic incidents	125	2.6	53	2.3	71	2.54	139	2.48	97	2.48	12
Insurance was taken to cover accidents related to transportation to and from the construction site	131	2.73	58	2.52	74	2.64	149	2.66	103	2.64	5
Insurance was taken to cover the construction of a building with over two floors	128	2.67	66	2.87	72	2.57	150	2.68	104	2.70	3
Insurance was taken to cover scaffolding and temporary structures built to assist the construction	112	2.33	60	2.61	76	2.71	143	2.55	98	2.55	10

Insurance was taken to cover Employee Injuries	123	2.56	69	3	86	3.07	142	2.54	105	2.80	1
Insurance was taken to cover damages resulting from earthquake	124	2.58	62	2.7	82	2.93	133	2.38	100	2.65	4
Insurance was taken to transfer liability to the insurer on 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 of any member of t	122	2.54	56	2.43	78	2.79	147	2.62	101	2.60	8
Group mean		**2.49**		**2.71**		**2.61**		**2.62**		**2.61**	

Table 6.0 shows the score means, group means, combined means and combined mean ranks obtained from the responses of the selected construction professionals in this study. The table shows that the group mean for the Architects, Builders, Quantity Surveyors and Engineers on their levels of compliance to the builder's risk insurance are 2.49, 2.71, 2.61 and 2.62 respectively. Also, the combined group mean is 2.61, falls within 2.45-3.44 implying a "Moderate" level of compliance.

Also, Table 6.0 shows that builders exhibited the most moderate level of compliance, with group mean of 2.71, followed by the Engineers, Quantity surveyors and Architects, with group means of 2.62, 2.61, 2.49 respectively.

Furthermore, Table 6.0 shows that the insurance policy taken to cover Employee Injuries, which ranked 1st, was the most complied with, followed by the insurance taken to cover wind-related damages to buildings, after that, insurance to cover the construction of buildings with over two floors, then to cover damages resulting from earthquake, ranking 2nd, 3rd and 4th respectively.

4.5 Kruskal Wallis H-Test to determine if significant variations exist in the levels of compliance of construction professionals to the builder's risk insurance.

To determine if significant variations exist in the levels of compliance to the builder's risk insurance, among the selected construction professionals, Kruskal Wallis H-Test was used to further analyze the means of the responses by the selected construction professionals. The result obtained from the test is shown in Table 7.0.

Table 7.0: Kruskal Wallis H-Test for Significant Variations in the Levels of Compliance to Builder's risk insurance among Construction Professionals.

States	N	Mean rank	Chi-square	*P*-value	df	Rules	Decision
Architects	48	21.80				If *P*-value ≤ 0.05, Reject H_0 hypothesis If *P*-value > 0.05, Accept H_0 hypothesis	Accepted
Builders	23	37.47	6.190	0.103	3		
Q. S.	28	31.23					
Engineer	56	31.50					
Total	155						

Table 7.0 shows that the *p* - value of the Kruskal Wallis H-Test is 0.103 which is greater than 0.05. Following the decision rule that when the *p* - value is less than or equal to 0.05 ($p \leq 0.05$), we reject the null hypothesis (H_0) and accept the alternative hypothesis (H_1) and vice versa. We therefore accept the H_0 which implies that there are no significant variations in the levels of compliance of the selected construction professionals in Akwa Ibom State.

5. Conclusion and Recommendations

From the results obtained in this study, it was concluded that construction professionals in Akwa Ibom State are highly aware of builder's risk insurance, but their levels of compliance are moderate. Further, all the null hypothesis in this study were accepted in preference for the alternative hypothesis, due to their *p* - values been greater than 0.05.

The implication of the findings of this study is that the building industry in Nigeria might continue to experience losses accruing from their not maximizing the builder's risk insurance. Thus, ensuring a high level of compliance to the builder's risk insurance policy in building construction projects will help mitigate potential losses and disputes on construction sites, and avoid time and cost overruns.

It is recommended that Governments at all levels enforce the provisions of compulsory builder's risk insurance policy on every construction project. Just as the Motor Third Party Insurance is required before any automobile is driven on Nigerian roads, every building to be constructed should have the builder's risk insurance cover before construction commences. Finally, professionals should encourage clients to take up the builder's risk insurance cover for their intending property, or necessarily purchase one for any project they are involved in.

6. References

Akintoye, A.S. and MacLeod, M.J., 1997. Risk analysis and management in construction. *International journal of project management*, ***15***(1), pp.31-38.

Boswall, R.G. and Clark, W., 2005. Builder's Risk Insurance. [online] Available: https://www.chaseagency.com/docs/brinsurance.pdf. Accessed 18 May 2022

Ijaola, I., 2012. An analysis of contractors' approaches to risk management practices in Lagos State, Nigeria. In *West Africa built environment research (WABER) conference 24-26 July 2012 Abuja, Nigeria* (Vol. 1, p. 687).

Jimoh, R.A., Ibrahim, K., Oyewobi, L.O. and Ayantoye, M.A., 2019. Stakeholders compliance level on Insurance of buildings under construction in Abuja-Nigeria.

Odeyinka, H.A., 2000. An evaluation of the use of insurance in managing construction risks. *Construction Management and Economics*, ***18***(5), pp. 519-524.

Organisation for Economic Co-operation and Development, OECD., 2017. Awareness and Education on Risk and Insurance. Revised Analytical and Comparative Report. [online]. Available: www.oecd.org. Accessed 9

February, 2021.

Oyeleke, F. M. Muhammad, S. and Kado, D., 2012. Assessment of Builder's risk insurance Implementation in the Nigerian Construction Industry. *Journal of Faculty of Environmental Studies*. ***16***(1): 84-92.

Patel, A. M., Jayeshkumar, R. P. and Bhavsar J. J., 2013. A Study of Risk Management Techniques for Construction Projects in Developing Countries. *International Journal of Innovative Technology and Exploring Engineering*. ***3***(5): 139-142.

Smith, A, Mortledge, R., and Kashiwagi, D. T., 2006. *Building procurement*. Oxford, U.K: Wiley Blackwell.

Sola, A.J., Arowojolu-Alagwe, T., Taiwo, E.M. and Abiodun, B.T., 2013. Adequacy of builders risk insurance policy in Nigeria building industry. *PM World Journal*, ***2***(XI), pp.1-12.

Winch, G. M., 2006. Towards a Theory of Construction as Production by Projects. Building *Research and Information* ***34***(2): 154-16.

Yamane, T., 1967. Statistics: An introductory analysis, 2nd edition, New York: Harper and Row.