

# Assessment of Professional Builder's Involvement in Managing Building Construction for Project Sites in Enugu Metropolis

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**Abstract**— Building is a complex product that is crucial for national development in terms of both economy and welfare. The study assesses the professional builder's involvement in building construction management for project sites in Enugu metropolis, Nigeria. The study used a survey research approach. The methodology used included a review of the relevant literature and questionnaire were randomly administered to selected construction professionals (Architects, Builders, Quantity Surveyors and Engineers) in Enugu State, Nigeria. Accordingly, a total of 160 questionnaires were administered, but 156 were completed and returned. This corresponds to a response rate of 97.5%. The data were analyzed using SPSS, MIS and ranked appropriately.

The study found that that the level of involvement of builders in building project management in project sites in Enugu metropolis at the pre-construction, construction and post construction stages are low. The study also, revealed that corruption, unprofessional practices, lack of awareness/ knowledge and lack of serious concern shown by some states over the building code are the leading factors inhibiting builder's involvement in building production management for project sites in Enugu metropolis.

The study concluded by recommending ways to enhance the level of professional builder's involvements as proper awareness on the role of building profession, making mandatory usage of builder's documents by development authorities for optimum utilization during planning and control stages of production, prioritization and harmonization of the factors affecting each production document during their preparation and use, enlightenment of construction professionals on the influence of production document on performance in building projects, enactment of the Bill and adoption of the building codes into law by the Nigerian Legislative authority.

**Keywords**— Building Production Management; Builders; Builder's Document; Construction Industry; Enugu State.

## I. INTRODUCTION

Building is a complex product that is crucial for national development in terms of both economy and welfare (Antunes and Gonzalez, 2015). In other words, A building is an attractively and appealingly produced space that offers home for humans and other living things for their comfort to avoid the adverse result of the natural and artificial ecological condition survival (Omenihu, Onundi, & Alkali, 2016).

However, the state of housing development in developing countries is very poor compared to the developed countries; In developing countries, private housing owners and Government pay less attention on the requirements of core professionals concerned in achieving successful housing development; one professional that is core to housing development is the builder

(Inuwa, 2019). A builder is someone with suitable academic training in the science, skill and supervision process of producing and maintaining buildings as well as adequate hands-on experience, and statutorily registered by the Council of Registered Builders of Nigeria (CORBON) (NIOB, 2014). Therefore, builder's involvement in building construction management cannot be over emphasized.

Ayeni and Adedeji (2015) and Babalola (2015) noted that every aspect of the building development process from the designs through the electrical, structural, mechanical Engineering, construction and maintenance requires appropriate management and quality involvement of professionals in the building industry. The Professional builder has relevant roles to play at each phase of the building construction project, ranging from the planning stage through the execution stage to the final stage of hand over; he is specialized in building construction, project management, building maintenance, building surveying, facility management, reactivation of abandoned projects, feasibility and viability studies, litigation and Arbitration, Variation and fluctuation, Resident supervision, Prime consultancy, etc. (NIOB, 2014).

Unfortunately, these roles are being performed unprofessionally by other professionals to the building construction project. In some developing countries, these professionals are not fully involved in the production processes of housing development with Nigeria not being an exception. Anyanwu, (2013) stated that notable failures result from poor skills and knowledge as well as the inadequate understanding among project team members of duties and tasks attributed to construction professionals in handling building projects. This negligence causes; budget overruns, project delays and economically unfeasible design and solutions, rework, inadequate representation of specifications and poor workmanship (Kanyago, Shukla and Kibachia, 2017).

Study on the builders' involvement in building construction projects was conducted by Inuwa (2019) and the findings highlighted that builders' contribute to the success of housing development through their involvement as project managers and resource persons. Further still, study by Okoye and Ngwu (2015) revealed that there was a low level of awareness and very low use of the documents which are prepared by builders, hence signifying their poor involvement in building construction management.

Hypothetically, the poor level of the Professional Builder involvement in building construction management is a contributing factor. In practice, builders' documents have yet to be enacted into the state physical planning act which has given room for building drawings approval without the builder's documents consequently resulting in building failure, cost overrun, time lapse, accident on site etc.

Therefore, assessing the professional builder's involvement in building construction management in Enugu metropolis and suggesting ways of enhancing builders' participation in building construction management in Enugu metropolis, is the main thrust of this study.

## II. LITERATURE REVIEW

### *2.1 Builders' Involvement in Building Production Management*

According to Seppanen (2009), project plans and schedules are critical to the success of a project. Idoro (2012b) viewed project planning as the method of describing project objectives, defining the structure, approaches, strategies, targets and goals to achieve the objectives and connecting them to project stakeholders. However, introduction of the project controls plans of the builders' documents help the project stakeholders to reduce project delivery risk, hence any consideration not to implement the project controls plans in whole or parts leads to the risk of the project (Stephenson 2011).

Noteworthy, the consequences of poor plan implementation led to a requirement to make up lost time by an unplanned compression of the schedule, which happens in the majority of projects, while the unplanned compression of schedules typically leads to loss of productivity and wasted time and poor quality (Chang et al., 2007; and Seppanen 2009). In their study, Okoye and Ngwu (2015) posits that building production documents are not usually employed in the construction of buildings thus depriving builders of the right to carry out their major function.

Notably, Nigerian Institute of Building (NIOB) Handbook (2002) describes building production management as the core professional service by builders to clients on building projects in all sectors of the national economy. The range of services in managing building production at the pre design stage include studying production information (i.e., drawings, schedules, specifications, etc.). At the Construction planning stage, preparing and studying the building construction management documents; and managing site construction process are done. Building production management documents according to Section 2.32c of the National Building Code are (Construction Programme, Construction methods Project Quality Management Plan, Project Health and Safety Plan) which must be prepared by a registered builder as parts of the contract documents for building projects in Nigeria (National Building Code, 2006). These production management documents (builders' documents) must be in place for any building project to be successfully executed on site.

Furthermore, Bamisile (2004) stresses that the preparation and implementation of each of the builders' documents plays a major role in successful completion of building projects. Moreover, Odesola and Umoh (2007) has opined that the issue of quality and standards are the subject of emphasis in the

Nigerian construction industry in recent times following the incessant collapse of building structures around the nation thus the relevance of the builder becomes pertinent.

Moreover, the builder's document also helps to plan for quality in a building project as its program quality management plan (PQMP) spells out the specified quality practices, resources, procedures and sequence of activities that are relevant to a particular product, service, contract or product (Okoye, 2007). According to him, this document also includes reference to purchase, materials or service specification, quality system procedure, process control and sampling and inspection procedure. However, CORBON/NIOB (2014) explains that PQMP refers to the quality management system for all stages of a particular project.

Significantly, the builder's document also contains a project health and safety plan (PHSP) which seek to secure and protect against risk to the health, welfare and safety of person(s) working or visiting the site throughout the project period; and control the use on site of substances that might be hazardous to health (Okoye and Ngwu, 2015). However, with the PHSP delays from site accidents and risks are reduced.

### *2.2 Factors Inhibiting Builders' Involvement in Building Production Management*

Despite the importance of the builder in the building production, some factors still inhibit the involvement of builders in building production management. For instance, Okoye and Ngwu (2015) noted that the implementation of builders' documents have not been widely spread across the country. They explained that only few States in Nigeria have given serious thought to the provisions of building code, including the use of builders' documents and its implementation.

According to studies on the challenges facing the implementation, compliance and enforcement of the National Building Code, 2006 by Balogun, *et. al* (2008), some factors were established viz: lack of knowledge and awareness, complexity and technicality, non-availability of law backing the enforcement, lack of political will and government commitment, corruption and unprofessional practices.

Furthermore, study by Ujene (2014) shows that professionals perceive that complexity of project, size of project, project specification, competence/abilities of personnel and availability of equipment and operators are the most significant factors affecting the preparation and implementation of construction methodology. He also pointed to management policy, management commitment, resources allocation, management structure as factors inhibiting the use of health and safety management plans.

### *2.3 Ways to Enhance Builders' Involvement in Building Production Management in Enugu State*

Nigerian institute of building (Enugu State chapter) executives presented the building code (2006) during the building professionals/stakeholders meeting at Enugu state house of Assembly (2019) and recommended that Building projects must have Builders' documents (Construction Programme, Construction Methodology, Project Quality Management Plan, Project Health and Safety Plan) prepared

and sign by a registered builder for high rising buildings (buildings above three storeys) which has not been approved by the Enugu State government, but when approved, it can be seen as good start up approach towards the involvement of Builder’s in building production management. Also, building professionals and stakeholders should be the first to obey the code before enforcement by the regulatory body.

The failure of a project starts with poor preparation (Odeyemi, 2019). He further stated that involving the right personnel at the right time would aid adequate planning and ensure thriving project sustainability. It is equally important to know who designs, builds and supervises a building project during construction, so as to minimize building collapse.

Windapo and Owolabi (2008) opined that implementation of the National Building Code involves a deep understanding of the code and probable factors that would militate against its effective implementation; which suggests that proper awareness should be organized for the public to have a clearer knowledge of the usefulness of the Builder’s documents.

Ujene (2014) also suggested that all the Builder’s documents should be made compulsory by development authority for optimum utilization during planning and control of production, and also suggested adequate retraining of personnel on the preparation and use of the documents. He also opined Prioritization and harmonization of the factors affecting each production document during their preparation and use. He finally advocated that professional should endeavor to prepare and effectively utilize them during project planning and execution as all the production documents have influence on the performance indicators in building projects.

III. METHODOLOGY

3.1 This study was done using a survey method. The respondents are registered professionals particularly Architects, Builders, Engineers and Quantity Surveyor, residing and practicing in the study area. The population of these professionals as obtained from the various secretariats in the state is 290 (see Table 1). While the sample size is 156 as obtained through application of Kish Leslie formula for sample size (Kish, 1965), which is given as;

$$n = \frac{n'}{1+n'/N} \tag{1}$$

TABLE 3: Level of Builders involvement in building production management for project sites in Enugu metropolis at pre-construction stage

	Builders			Architects			Q.S			Engineers			Combined		
	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk
Buildability and Maintainability analysis	25	1.25	2	59	1.34	1	47	1.34	1	79	1.39	1	210	1.35	1
Feasibility and viability study	28	1.40	1	59	1.34	1	46	1.31	2	73	1.28	2	206	1.32	2
<b>Group mean</b>	<b>26.5</b>	<b>1.325</b>		<b>59</b>	<b>1.34</b>		<b>46.5</b>	<b>1.325</b>		<b>76</b>	<b>1.335</b>		<b>208</b>	<b>1.335</b>	

Source: Research, 2021

Table 3 shows the MIS of the construction professionals rating on the level of involvement of professional builders in carryout buildability and maintainability analysis as well as feasibility and viability study in their construction building construction projects. From the Table 3 the group mean of the Builders, Architects, Q.S, Engineers is 1.25, 1.34, 1.34, 1.39 and 1.35 respectively.

Where n = sample size;

n'= sample size from infinite population, obtained from the formula ( n ' =S2/V2)

S<sup>2</sup> = standard error variance of population element which is S2= P (1 - P); Maximum at P = 0.05. V<sup>2</sup>= standard error of sample population equal 0.05 for the confidence level of 95 percent. n'=S2/V2 = (0.5)2 / (0.05)2 =100

N = total population.

However, the population and sample size for this study is as shown in Table 1.

TABLE 1: Population size and sample size of the construction stakeholders

Construction Professionals	Population size	Sample size
Builders	25	20
Architects	80	44
Q. S	55	35
Engineers	130	57
<b>Total</b>	<b>290</b>	<b>156</b>

Source: Reseacher’s field survey (2021)

Data were collected through structured questionnaire administered to the selected respondents and were computed using Statistical Package for Social Science (SPSS) software, and analyzed to obtain the Mean and Mean rank and the results were presented and ranked accordingly in tables.

IV. RESULTS AND DISCUSSION

TABLE 2: Builders’ involvements in building production management

Responds	Frequency	Percent
Agree	25	16.0
Disagree	131	84.0
<b>Total</b>	<b>156</b>	<b>100.0</b>

Source: Researchers field data (2021).

Part of the questionnaire sought respondent’s perception on whether professional builders are being involved in building production management in their project site. From Table 2, it can be deduced that the respondents clearly agreed (84%) that builders are not involved in their project site compared to 16% agreeing that builders are being involved in their site.

This simply agrees to the necessity of this study as the poor involvement of Builders may be traced to series of incessant building collapse, poor quality work, time and cost overrun etc.

However, the group mean for all the professional’s opinion and the combined group mean falls within the decision rule of “very low (Mean 1-1.44 = very low)”. Therefore, this result indicates that the level of involvement of builders in carrying out buildability and maintainability analysis and, feasibility and viability study in project sites in Enugu metropolis is very low. Furthermore, Table 3 shows that Builders rates “feasibility and

viability study” first ahead of buildability and maintainability analysis with MIS of 1.40, 1.25 respectively. On the other hand, the Architects ranked the two equal with MIS of 1.34 each.

However, the QS ranked “buildability and maintainability analysis” 1st ahead of “feasibility and viability study t with a MIS of 1.34 and 1.31 respectively. More so, the Engineers ranked “buildability and maintainability analysis” 1st ahead of “feasibility and viability study t with a MIS of 1.39 and 1.28

respectively. Therefore, the combined opinion of the construction stakeholders on the level of involvement of professional builders in carryout buildability and maintainability analysis as well as feasibility and viability study in their construction building construction projects ranked “buildability and maintainability analysis first and then feasibility and viability study second with MIS of 1.35, 1.32 respectively.

TABLE 4: Level of Builders involvement in building production management for project sites in Enugu metropolis at construction stage

	Builders			Architects			Q.S			Engineer			Combine		
	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk
Consultant	40	2.00	1	79	1.80	2	80	2.29	1	79	1.39	3	278	1.78	3
Contractor	36	1.80	2	82	1.86	1	70	2.00	2	98	1.72	2	286	1.83	2
Manager	36	1.80	2	71	1.61	3	70	2.00	2	116	2.04	1	293	1.88	1
<b>Group mean</b>	<b>37.33</b>	<b>1.87</b>		<b>77.33</b>	<b>1.76</b>		<b>73.33</b>	<b>2.10</b>		<b>97.67</b>	<b>1.72</b>		<b>285.66</b>	<b>1.83</b>	

Source: Research, 2021

TABLE 5: Level of Builders involvement in building production management for project sites in Enugu metropolis at post-construction stage

	Builders			Architects			Q.S			Engineers			Combined		
	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk
Management	36	1.80	2	79	1.80	2	56	1.60	2	108	1.89	1	279	1.79	2
Maintenance	37	1.85	1	85	1.93	1	66	1.89	1	107	1.88	2	295	1.89	1
<b>Group Mean</b>	<b>36.5</b>	<b>1.83</b>		<b>82</b>	<b>1.87</b>		<b>61</b>	<b>1.75</b>		<b>107.5</b>	<b>1.89</b>		<b>287</b>	<b>1.84</b>	

Source: Research, 2021

Table 4 shows the MIS of the construction professionals rating on the level of involvement of professional builders at the construction stage.

From Table 4, the group mean of the Builders, Architects, Q.S, Engineers is 1.87, 1.76, 2.10, and 1.72 respectively. Furthermore, combined group mean of the construction professionals is 1.83. Noteworthy, the group mean for all the professional’s opinion and the combined group mean falls within the decision rule of “low (Mean 1.45-2.44 = low)”. Therefore, this result indicates that the level of involvement of builders in building project management in project sites in Enugu metropolis is low.

Furthermore, the Table 4 shows that Builders rates “consultant” the first most involved builder’s services at the construction stage and rated contractor and manager equal; with MIS of 2.00, 1.80, and 1.80 respectively. Similarly, the Architects ranked “contractor” first, followed by “consultant” and then “manage”, with MIS of 1.86, 1.80 and 1.61 respectively. In the same vein, the QS ranked same as that of the builder with MIS of 2.29, 2.00 and 2.00. More so, the Engineers ranked “manager” as the 1st among others with a MIS of 2.04. Followed by “contractor” with a MIS of 1.72, followed by “consultant” with MIS of 1.39.

The combined opinion or perception of the construction professionals on the level of involvement of builders in building project management ranked “manager” as the 1st among others with a MIS of 1.88. Followed by “contractor” with a MIS of 1.83, followed by “consultant” with MIS of 1.78.

Table 5 shows the MIS of the construction professionals rating on the level of involvement of professional builders at the post-construction stage. From Table 5 the group mean of the Builders, Architects, Q.S, Engineers is 1.83, 1.87, 1.75, and 1.89 respectively.

Furthermore, combined group mean of the construction professionals is 1.84.

However, the group mean for all the professional’s opinion and the combined group mean falls within the decision rule of “low (Mean 1.44 - 2.44 = low)”. Therefore, this result indicates that the level of involvement of builders in carrying out buildability and maintainability analysis and, feasibility and viability study in project sites in Enugu metropolis is low. Table 5 shows that Builders rates “maintenance” before management with MIS of 1.85, 1.80 respectively. On the other hand, the Architects and QS ranked same as builders with MIS of 1.93, 1.80 and 1.89, 1.60 fore Architects and QS respectively.

More so, the Engineers ranked “management” 1st ahead of “maintenance” with MIS of 1.89 and 1.88 respectively. The combined opinion of the construction stakeholders on the level of involvement of professional builders in during post-construction in their building construction projects ranked “maintenance” first and then management second with MIS of 1.89, 1.79 respectively.

Table 6 shows that the groups mean of the builders, Architects, QS and Engineers are 3.78, 3.82, 3.84 and 3.79 respectively. Furthermore, the Table 6 shows that the group mean of the combined view of the construction professional if 3.81. However, these group means are greater than 3.00 which is the accepted average for accepting any of the variables as an inhibitor to builders’ involvement in building project management in project sites in Enugu metropolis. Conversely, the Builders’ ranked “lack of serious concern shown by some states over the building code” as the 1st inhibitor to builders involvement in building project management, with a MIS of 3.90, followed by “lack of awareness/ knowledge” and “unprofessional practices” which ranked 2nd with MIS of 3.85, followed by “complexity and technicality of project”, “project specification”, “size of project” and “management policy” which ranked 3rd with MIS of 3.80, followed by “political will and government level of commitment”, “corruption” and “management commitment” which ranked 4th with MIS of

3.75, and “competence” which ranked 5th with MIS of 3.70, and “Resource allocated to the project” which ranked 6th with MIS of 3.65. Furthermore, the Architects ranked “management commitment” as the 1st inhibitor among others with MIS of 4.00, followed by “corruption”, with ranked 2nd with MIS of 3.91, followed by “resource allocated to the project” which ranked 3rd with MIS of 3.89, followed by “size of project” which ranked 5th with MIS of 3.84, followed by “lack of

serious concern shown by some states over the building code”, “unprofessional practices” and “project specification” which ranked 6th with MIS of 3.82, followed by “management policy” which ranked 7th with MIS of 3.80, followed by “complexity and technicality of project”, which ranked 8th with MIS of 3.75, followed by “political will and government commitment” which ranked 9th with MIS of 3.73 and “lack of awareness/ knowledge” which ranked 10th with MIS of 3.59.

TABLE 6: Factors inhibiting builder’s involvement in building production management for project sites in Enugu metropolis

Factors inhibiting builders involvement	Builders N = 20			Architects N = 44			Q.S N = 35			Engineer N = 57			Combined N = 156		
	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk
Lack of awareness/ Knowledge	77	3.85	2	158	3.59	10	135	3.86	5	216	3.79	6	586	3.76	8
Lack of serious concern shown by some states over the building code	78	3.90	1	168	3.82	6	132	3.77	8	217	3.81	5	590	3.78	6
Complexity and technicality of project	76	3.80	3	165	3.75	8	132	3.77	8	214	3.75	7	587	3.76	8
Political will and government commitment	75	3.75	4	164	3.73	9	138	3.94	2	221	3.88	2	598	3.83	4
Corruption	75	3.75	4	172	3.91	2	139	3.97	1	212	3.72	8	598	3.83	4
Unprofessional practices	77	3.85	2	168	3.82	6	133	3.80	7	210	3.68	9	588	3.77	7
Project specification	76	3.80	3	168	3.82	6	134	3.83	6	219	3.84	3	597	3.83	4
Size of project	76	3.80	3	170	3.86	4	137	3.91	3	217	3.81	5	600	3.85	2
Incompetence	74	3.70	5	169	3.84	5	135	3.86	5	217	3.81	5	595	3.81	5
Management commitment	75	3.75	4	176	4.00	1	130	3.71	9	218	3.82	4	599	3.84	3
Management Policy	76	3.80	3	167	3.80	7	136	3.89	4	210	3.68	9	589	3.78	6
Resource allocated to the project	73	3.65	6	171	3.89	3	133	3.80	7	222	3.89	1	604	3.87	1
<b>Group Mean</b>		<b>3.78</b>			<b>3.82</b>			<b>3.84</b>			<b>3.79</b>			<b>3.81</b>	

Source: Researchers Field Data (2021).

Further still, the Table 6 shows that the QS ranked “corruption” as the 1st among other inhibitors with MIS of 3.97, followed by “political will and government commitment” which ranked 2nd with MIS of 3.94, followed by “size of project” which ranked 3rd with MIS of 3.91, followed by “management policy” which ranked 4th with MIS of 3.89, followed by “lack of awareness/ knowledge” and “incompetence” which ranked 5th with MIS of 3.86, followed by “project specification” which ranked 6th with MIS of 3.83, followed by “Resource allocated to the project” which ranked 7th with MIS of 3.80, followed by “lack of serious concern shown by some states over the building code” and “complexity and technicality of project” which ranked 8th with MIS of 3.77 and “management commitment” which ranked 9th with MIS of 3.71.

More so, the Engineers ranked “resource allocated to the project” as the 1st among other with MIS of 3.89, followed by “political will and government commitment” which ranked 2nd with MIS of 3.88, followed by “project specification” which ranked 3rd with MIS of 3.84, followed by “Management commitment” which ranked 4th with MIS of 3.82, followed by “lack of serious concern shown by some states over the building code”, “size of project”, “incompetence” which ranked 5th with MIS of 3.81, followed by “lack of awareness/ knowledge”, followed by “complexity and technicality of project” which ranked 7th with MIS 3.88, followed by “corruption” which ranked 8th with MIS of 3.72, followed by “unprofessional practices” and “management policy” which ranked 9th with MIS of 3.68. Finally, the combined MIS ranked “resource allocated to the project” as the 1st among the other variables

with MIS of 3.87, followed by “size of project” which ranked 2nd with MIS of 3.85, followed by “management commitment” which ranked 3rd with MIS of 3.84, followed by “political will and commitment”, “corruption”, and “project specification” which ranked 3.83, followed “incompetence” which ranked 5th with MIS of 3.81, followed by “lack of serious concern shown by some states over the building code” and “management policy” which ranked 6th with MIS of 3.78, followed by “unprofessional practices” which ranked 7th with MIS of 3.77, followed by “lack of awareness/ knowledge” and “complexity and technicality of project” which ranked 8th with MIS of 3.76. Table 7 shows that the group mean of the Builders, Architects, QS, Engineers and combined view is 3.73, 3.73, 3.79, 3.72 and 3.74 respectively, which reveals that the construction professionals accepted all the variables as enhancers to builder’s involvement in management of building production since their group means exceeds 3.00 (MIS > 3.00).

However, the Table 7 shows that the builders ranked “by passage of Bill on adoption of the building code into law by Nigeria legislative authority” as the 1st and foremost way to enhance builders involvement in building production management with MIS of 3.80, followed by “builders document must be enforced by development authorities for optimum utilization during planning and control stages of building production” and “construction professionals should be enlightened on the influence of production document during their preparation and use” which ranked 2nd with MIS of 3.75, followed by “proper awareness on the role of building professionals” which ranked 3rd with MIS of 3.70, followed by “ through prioritization and harmonization of the factors

affecting each production document during their preparation and use” which ranked 4th with MIS of 3.65.

TABLE 7: Establishing ways to enhance builder’s involvement in management of building project sites in Enugu metropolis

Ways to enhance builder’s involvement in building production management	Builders N=20			Architects N = 44			Q.S N = 35			Engineer N= 57			Combined N= 156		
	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk	Sum	Mean	Rnk
Proper awareness on the role of building profession	74	3.70	3	163	3.70	4	133	3.80	2	212	3.72	2	582	3.73	4
Builder’s document must be compulsory by development authorities for optimum utilization during planning and control stages of production	75	3.75	2	166	3.77	3	136	3.89	1	213	3.74	1	590	3.78	1
Through prioritization and harmonization of the factors affecting each production document during their preparation and use	73	3.65	4	167	3.80	2	131	3.74	4	212	3.72	2	583	3.74	3
Construction professionals should be enlightened on the influence of production document on performance in building projects	75	3.75	2	168	3.82	1	132	3.77	3	212	3.72	2	587	3.76	2
By passage of Bill on adoption of the building code into law by the Nigeria legislative authority	76	3.80	1	157	3.57	5	131	3.74	4	212	3.72	2	576	3.69	5
<b>Group Mean</b>		<b>3.73</b>			<b>3.73</b>			<b>3.79</b>			<b>3.72</b>			<b>3.74</b>	

Source: Researcher’s field data (2021)

Conversely, the Table 7 shows that the Architects ranked “construction professionals should be enlightened on the influence of production document on performance in building projects” as the 1st among other enhancers with MIS of 3.82, followed by “through prioritization and harmonization of the factors affecting each production document during their preparation and use”, followed by “building document must be made compulsory by development authorities for optimum utilization during planning and control stages of building production” which ranked 3rd with MIS of 3.77, followed by “proper awareness on the role of building profession” which ranked 4th with MIS of 3.70, followed by “passing of Bill on adoption of the building code into law by the Nigeria legislative authority” which ranked 5th with MIS of 3.57.

Furthermore, the Table 7 shows that the QS ranked “building document should be made compulsory by development authorities for optimum utilization during planning and control stages of production” as the 1st among other enhancers with a MIS of 3.89, followed by “proper awareness on the role of building profession” which ranked 2nd with MIS of 3.80, followed by “construction professionals should be enlightened on the influence of production document on performance in building projects” which ranked 3rd with MIS of 3.77, followed by “through prioritization and harmonization of the factors affecting each production document during their preparation and use” and “by passing of bill on adoption of the building code into law by the Nigeria legislative authority” which ranked 4th with MIS of 3.74.

Further still, the engineers ranked “Builders’ document should be made compulsory by development authority for optimum utilization during planning and control stages of production” as the 1st among other identified ways to enhance builders involvement in building production management, with a MIS of 3.74, followed by “Proper awareness on the role of building professional”, “through prioritization and harmonization of the factors affecting each production

document during their preparation and use”, “construction professionals should be enlightened on the influence of the building production document on performance in building projects” and “by passing of Bill on adoption of the building code into law by the Nigeria legislative authority”.

Finally, the combined view of the construction ranked “builder’s document should be made mandatory by development authorities for optimum utilization during planning and control stages of production” as 1st, with MIS of 3.78, followed by “construction professionals should be enlightened on the influence of production document on performance in building projects” which ranked 2nd with MIS of 3.76, followed by “through prioritization and harmonization of the factors affecting each production document during their preparation and use” which ranked 3rd with MIS of 3.74, followed by “proper awareness on the role of building professionals”, followed by “by passing of bill on adoption of the building code into Nigeria law by legislative authority” which ranked 5th with MIS of 3.69. 5.

## V. CONCLUSION

Professional builders are involved in building production management for project sites in Enugu Metropolis. However, based on the findings of this study, the level of their involvement is minimal/low because of the following factors: lack of awareness, lack of serious concern shown by some states over the building codes, complexity and technicality of projects, political will and government interference, corruption, unprofessional practice, project specification, size of project among others.

This study also concludes that ways to enhance the level of professional builder’s involvements include proper awareness on the role of building profession, builder’s documents should be made mandatory by development authorities for optimum utilization during planning and control stages of production, prioritization and harmonization of the factors affecting each

production document during their preparation and use, construction professionals should be enlightened on the influence of production document on performance in building projects and quick passage of the Bill and adoption of the building codes into law by the Nigerian Legislative authority.

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