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A STUDY ON INTERPERSONAL SKILLS OF NIGERIAN BUILT ENVIRONMENT PROFESSIONALS FOR THE SUCCESSFUL DELIVERY OF MASS HOUSING PROGRAMMES

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The Nigerian Economic Sustainability Plan (NESP) 2021 is the most current national plan in Nigeria. It aims to alleviate the economic emergency caused by the COVID-19 pandemic, as well as bridge the housing deficit in the country. The Mass Housing Programme of the NESP is predicted to provide 300,000 houses in 12 months. Also, the project is expected to produce 1.8 million jobs and help Nigeria reach Goal 11 of the Sustainable Development Goals (SDG). However, the capacity of relevant built environment specialists has affected the successful delivery of previous mass housing programmes in Nigeria, which poses a possible hurdle to the successful delivery of the planned Mass Housing Programme in the NESP. This research aims to study the interpersonal skill of the built environment professionals towards successful delivery of mass housing projects. The data was acquired using an online survey with the aid of a structured questionnaire. A total of 137 professionals participated in the survey. Data were analyzed descriptively and inferentially. Study discovered that none of the factors studied is deemed to be of essential priority. Likewise, the following interpersonal skills are opined to be of higher priority: decision making; leadership; communication; team building; motivation; trust-building; influencing, and conflict management. However, more attention must be given to the interpersonal factors coaching, negotiation, and political and cultural awareness. The implication of this study may imply that, to successfully deliver mass housing projects like the Mass Housing Programme proposed in the NESP, academic institutions, construction firms, and professional bodies must invest more in education and training programs supporting and facilitating coaching, negotiation, and, most importantly, political and cultural awareness.

Keywords: built environment professionals, interpersonal skills, mass housing programme, Nigerian economic sustainability plan

INTRODUCTION

Housing is essential for people worldwide. According to (Intel, 2020), housing has helped to revitalize a country or economy during the initial stages of global

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downturn. In both developed and developing countries, the housing sector is highly relevant. Historically, housing has been a dominant business cycle in the United States of America (USA), exceeding all other investments (Ahadzie, 2014). Also, there are claims that mainstream home building helped propel Japan's current economic success. Infact, during the 1970s and 1990s, macroeconomic stability of the housing sector in Japan significantly increased demand and kept jobs even during recessions (Ahadzie, 2014). During similar periods, other countries such as Thailand and Singapore equally employed housing investments as economic revitalisation methods. As such, housing in general, but especially mass housing serves both short-term and long-term goals of development plans of countries.

The Japanese government has taken concerted steps to enhance the nation's housing supply, with an average yearly commitment of 7% to 9% of GDP (Zairul, 2011). Another primary housing-policy objective is economic growth and investment, and savings. Similar policies exist in Singapore, Hong Kong, Taiwan, and South Korea (Noorzai, 2020). These governments do not only see housing as an economic base but consider housing projects as an assured way to grow the economy which is invariably a fiscal stabilization project (Zairul, 2011). As reported by Intel (2020), a new house provides 1.5 direct and eight secondary jobs in India. Similarly, there are 5.62% direct jobs created in South Africa and 2.5% indirect jobs anytime a new house is constructed. Hence, the construction of houses is a booster of socio-economic development.

The World Bank indicates that urban population in Nigeria increase at 4.23% annually and that urban population accounts for 50% of its total population (NBS, 2019). This rapid urbanization rate, primarily due to migration, has increased housing demand. Construction in Nigeria has a significant impact on the country's economic growth. The impact of housing on the overall economy is extensive. Nigeria's construction sector accounts for 4% of the country's GDP (NBS, 2019; Ajayi, 2020). The building industry creates numerous jobs for skilled, semi-skilled and unskilled workers every time a new construction job is initiated. According to Intel (2020), increased housing construction as a result of mass housing projects such as the Federal Mortgage Bank of Nigeria (FMBN) housing projects would help spur economic recovery and encourage economic inclusion by generating substantial number of jobs both in the formal and informal sector.

Nigeria has had several housing policies and programs. According to (Ikediashi et al., 2012), in the early 1980s, for example, the Shagari mass housing project was implemented across the country. Bilau et al., (2015) also reports on the mass housing programme initiated in Kogi State. Likewise, the Family Homes Fund (FHF) was established to support the developing of 2 million new homes and shelter 500,000 households by 2020 (Ajayi, 2020). Essentially, both federal and state governments have made massive housing initiatives in Nigeria. More recently, the FMBN Housing Stock Development Initiatives captured in the Nigerian Economic Sustainability Plan (NESP) is intended to have a nationwide impact especially due to the crippling effect of COVID-19 in the national economy (Ajayi, 2020). These efforts demonstrate Nigeria's desire for large-scale housing invariably affecting economic development.

The Mass Housing Programme in the NESP supposedly plans to deliver 300,000 housing units to all 774 local governments in 12 months. However, educational and training capability are required for successful delivery of such large-scale undertakings(Sunindijo & Zou, 2011) (Project Management Institute, 2013). In Nigeria, there exist researches on education and training specific to mass housing. For instance, the work of Suleman and Sagada (2012) covered mass housing specific to design considerations as well as use of materials in public housing schemes of Barnawa and Malali low-cost housing estates in Kaduna, Nigeria. Similarly, the research of (Bilau et al., 2015) focused on education and skill acquisition relative to reconstruction activities of mass housing affected by disasters. Although these researches somewhat covered technical skills, they both report that there is a deficit in capacity of the built environment professionals towards successfully delivering mass housing projects. Considering the scale of the proposed Mass Housing Programme in the NESP, this capacity deficit poses potential challenge to the successful delivery. As such, this research intends to initially review Mass Housing Programme in the NESP, and then ascertain the interpersonal skills of the built environment professionals towards successful delivery of the such initiatives. Interpersonal skills will be covered in this study based on how essential such skills are in successful delivery of large-scale construction projects. The findings from this study will have implications for improved implementation of large-scale construction projects in Nigeria.

MASS HOUSING IN NIGERIA

Mass housing means houses produced in large numbers on a wide scale for public purchase, either as the owner-occupier or as a rental (Ibem, 2010). The aim of providing affordable housing to low-income families is to provide high-quality homes at lower prices. There are policies and programs regarding Nigeria's mass housing. A pioneer having national coverage is the Shagari housing mass program which was implemented nationally throughout the early 1980s (Ikediashi et al., 2012). Others include the mass housing programs in Kogi State Bilau et al., (2015). These are some amongst others present in different states of the federation.

The difficulties that the Nigerian government and its private sector partners face in providing sufficient housing are aggravated by a lack of understanding of the nature and complexity of the country's housing issues and a limited understanding of the housing need (NBS, 2015). Despite the government's ambitious housing policies since the 1960s, several studies have shown that outcomes have been largely unimpressive, with housing provision falling well short of policy estimates (Ayedun, 2011).

The housing deficit in Nigeria was projected to be between 12 million and 14 million units in 2007 (Akeju, 2007), but by 2008, it had risen to 18 million units (Onwuemenyi, 2008). Urbanization is rapidly increasing, while the housing deficit is predicted to grow at a 3.2% annual rate. For Nigeria, this scarcity of housing represents an opportunity for both increased quantity and improved quality. For most Nigerians however, government-assisted public housing (mass housing) is still the sole cheap housing option (Ayedun, 2011).

THE NIGERIAN ECONOMIC SUSTAINABILITY PLAN AND ITS MASS HOUSING PROGRAMME

The Economic Sustainability Committee (ESC), founded by President Muhammadu Buhari on March 30, 2020, established the NESP, which was accepted by the Federal Executive Council (FEC) on June 24, 2020 (Okoh, 2021). The Cabinet Ministers, Heads of Federal Agencies, The Presidential Economic Advisory Council (PEAC), State Governors, and the National Assembly were involved in the NESP. The Ministerial Committee is to oversee that all parties, especially the public and private sectors, cooperate. The Committee will also oversee the implementation of individual programs and coordinate the entire sectorial value chain and remove any obstructions to performance. The ESC which is in charge of implementation supervision, will provide regular reports to the President (Kolawole, 2020).

To guide Nigeria through the trying times posed by COVID-19, a concerted whole-of-government and whole-of-society campaign is needed. The guiding document to drive the process of overcoming the challenges posed by the COVID-19 is the Nigerian Economic Sustainability Plan (NESP). The NESP aims to promote projects designed to turn adversity into a strategic advantage. Among other opportunities, the NESP will create job opportunities for at least 30 million Nigerians (Kolawole, 2020). Invariably, the NESP is an expression of the determination of the Nigerian government not only to survive but also succeed as a result of the COVID-19 crisis (Okoh, 2021). The goal of the NESP is to minimize the usage of non-local inputs as a conscious decision (Ukpe, 2020). It is designed to protect the disadvantaged population while also presenting opportunities to diverse and entrepreneurial citizens (Kolawole, 2020).

The NESP captures that the Mass Housing Programme is among its key projects. This initiative aims to provide Nigerians with sufficient affordable housing while also generating direct and indirect job opportunities in various sectors (Intel, 2020). The mass housing initiative has a 12-month timetable and a budget of $317,292,377,973.48, with 1.8 million jobs to be generated. According to (Ukpe, 2020), the NESP equally proposes to build 5 million homes by the private sector. Mass housing projects in the NESP will majorly rely on the use of local products and local labour. Such deliberate effort will indeed make the NESP sustainable.

The initiative's beneficiaries will be entitled to purchase homes with long-term installment options lasting up to 15 years. According to Isaac (2020), the plan will take a two-track approach: reducing bottlenecks in the delivery of social housing while also implementing direct government investments in house development. The Federal Housing Authority (FHA), the FMBN, and the Public Building and Housing Development Programme will collaborate towards delivering this proposed program (Isaac, 2020). The Federal Ministry of Works and Housing, Ministry of Finance, the Central Bank of Nigeria (CBN) and the Family Homes Fund (FHF) are among the project's essential stakeholders. Under this initiative, houses are purchased through cooperatives and warehoused. They are used to secure a mortgage or be rented on a rent-to-own basis, allowing continuous house development across the country (Ajayi, 2020).

Programs within the NESP are designed to enhance and insulate vulnerable individuals and communities (Kolawole, 2020). These vulnerable communities are the majority of people in Nigeria's bottom of the pyramid who are daily-paid and self-employed workers such as bricklayers, vulcanizers, general petty traders, electricians, bus drivers, and barrow pushers among others. In short, The NESP policy has been designed to meet the needs of the most vulnerable Nigerians affected by the COVID-19 pandemic.

INTERPERSONAL SKILLS FOR CONSTRUCTION PROJECTS

A characteristic of construction project is its bringing together different parties who are all required to work together towards successful delivery of the construction project. Parties involved in a construction project come from diverse backgrounds, underwent different trainings and have and varied experiences. As such, the skills they possess are variable. Successful delivery of construction projects requires Project Managers to have certain skills. Specific to interpersonal skills, (Sunindijo & Zou, 2011) reported eight interpersonal skills for the effective management of construction projects which are:

a. Leadership: The ability to get things done through others;

b. Team building: The process of helping a group of individuals, bound by a common purpose, to work with each other;

c. Motivation: Creating an environment to meet project objectives while providing maximum satisfaction related to what people value most;

d. Communication: Adopting communication styles and techniques that facilitate mutual understanding;

e. Influencing: Getting others to cooperate towards common goals skillfully and cautiously;

f. Decision making: Taking decisions that optimally consider time, trust, quality, and acceptance

g. Political and cultural awareness: Catering for stakeholder's diversity in norms, backgrounds, and expectations;

h. Negotiation: Conferring with parties of shared or opposed interests with a view towards compromise or reaching an agreement.

In addition to these eight, the (Project Management Institute, 2013) as well as (A Guide to the Project Management Body of Knowledge 6th Edition, 2017) added three which are: which are:

a. Trust building: Establish positive relationships necessary between the various stakeholders engaged in the project;

b. Conflict management: Identify the causes for conflict and then actively manage the competition, thus minimizing potential negative impacts; and

c. Coaching: Developing the project team to higher levels of competency and performance or Help people recognize their potential through empowerment and development.

Although these skills vary across project teams and individuals, (Gamil & Abdul Rahman, 2017) strongly believes that that they play a vital role in the success of a construction project. In other words, they are essential to successful construction project delivery.

METHODOLOGY

This research intends to obtain objective opinions on interpersonal skills required by built environment professionals towards successful delivery of mass housing projects. According to Pathirage et al. (2008), a survey research strategy is appropriate for obtaining objective opinions. As such this research is designed to collect primary data by means of a survey technique. The data collection instrument suitable for a survey is a questionnaire (Fellows & Liu, 1999; Kasim, 2008). The questionnaire used in this study consists to two sections whereby the first is meant to collect demographic data, the second is designed to collect opinions on a 5-point Likert-type response item which is sequenced as: Not a priority (1); Low priority (2); Medium priority (3); High priority (4); Essential priority (5). Such a priority scale is adopted from (Piper, 2017).

Judgmental sampling is used in selecting the respondents. The claim informs the choice of such a non-probability sample of Fellows & Liu (2008). They recommend its use when a researcher intends to use some informed judgment to determine the population and selection. Similarly, Saunders, Lewis, & Thornhill (2009) recommend judgmental sampling when a researcher wishes to select respondents that are particularly informative in fulfilling the research objectives. Based on such justification, the respondents for this study have undergone education and training in construction courses across several social media professional platforms. Google forms were used as the technique for data collection.

To determine the frequencies, the data will be analyzed descriptively and inferentially using IBM SPSS Statistics 23. Furthermore, MS Excel would be used to compute the Mean Score. This measure has been used in construction management researches whereby John & Itodo (2013), Samuel & Eziyi (2014), Chan & Hou (2015), and also Ejohwomu et al. (2017) express it as:

$$\bar{X} = \frac{\sum Xi}{n}$$

where: $\bar{X}$ denotes the Mean Score

$\sum Xi$ is the sum of the number of responses and score awarded a variable (Vi; for $5 \geq Vi \geq 1$)

n represents the total number of responses

The Mean Score obtained will be used as a basis to ascertain where each factor studied leans towards in the 5 point scale used (supported by Holt, 2014; Samuel & Eziyi, 2014; and also John & Itodo, 2013). Additionally, MS Excel will be used to compute the Relative Index (RI), which will serve as a basis to rank the level of priority accorded to the interpersonal factors studied. The suitability in using RI is obtained from the works of Aigbavboa & Thwala (2010) and also Olusola (2012), where they express RSI as:

$$RI = \frac{1n1 + 2n2 + \ldots AnA}{AN} \qquad (0 \leq RSI \leq 1)$$

where:

n1, n2, ... , nA = number of respondents scoring response stem integers 1 to Amax (5), respectively.

A = largest integer on the response item (5 for this research)

N= total number of respondents

Furthermore, the respondent proportion scoring above or below the median value will be calculated. Such analysis helps draw inferences from the scoring profiles for each factor studied (refer to Holt, 2014; Joshi, Kale, Chandel, & Pal, 2015; Bishop & Herron, 2015; Carifio & Perla, 2007; and Harpe, 2015).

PRESENTATION AND DISCUSSION OF RESULTS

A total of 137 questionnaires were retrieved from the Google forms survey conducted. The subsequent sub sections present and discuss the results of the data analysed.

Results on respondents' demography

The results on the demography of the respondents are presented in Table 1.

The respondents that constitute the largest group in the survey conducted are Builders constituting 41.60 percent (57). Architects followed these with a proportion of 19.70 percent (27) and then Engineers (Structural/Services) consisting of 14.60 percent (20). Next to Engineers are Quantity Surveyors constituting 10.20 percent (14). These are followed by Urban and Regional Planners making up 8 percent (11). The minimum number of participants in the survey conducted are Land Surveyors, consisting of 5.80 percent (8). These results depict a fair representation of the professionals that are party to the delivery process of mass housing projects.

Relative to the educational qualification of the respondents, the respondents that constitute the largest group in the survey conducted are those with BSc/HND, with a proportion of 44.50 percent (61). Those with an MSc have a ratio of 40.10 percent (55), while those with a PhD have 12 percent (16). The minimum number of participants in the survey conducted are those with Diploma, which constitute 3.60

percent (5). From these results, over 88 percent of the respondents have the opportunity to further their education at BSc/HND, Masters, and PhD levels.

Relative to the years of working experience the respondents that constitute the largest group in the survey conducted are those with ten years and less experience with a proportion of 38 percent (52). These are followed by individuals with 11-20 years of experience, who account for 34.30 percent (47) of the total, and then those with 21-30 years, who account for 22.60 percent (31). The respondents with more than 30 years of experience, who make up 5.10 percent (7) of the total, are the least that participated in this study. From these results, over 72% of the respondents have working experience of 20 years and below which implies they still have decades of professional service.

Table 1: Results on the demography of respondents

Profession of respondents	Number of respondents	Proportion/Percentage (%)
Architect	27	19.70
Builder	57	41.60
Land Surveyor	8	5.8
Quantity Surveyor	14	10.20
Urban and Regional Planner	11	8.10
Engineer (Structural/Services)	20	14.60
Total	137	100
Educational qualification of respondents		
PhD	16	12
MSc	55	40.10
BSc/HND	61	44.50
Diploma	5	3.6
Total	137	100
Years of experience of respondents		
10 years and less	52	38
11-20 years	47	34.30
21-30 years	31	22.60
Over 30 years	7	5.10
Total	137	100
Stage of participation in the delivery process of mass housing projects		
Design Only	18	13
Construction Only	47	34
Design and Construction	48	35
None of the Above	24	18
Total	137	100

Relative to the stage of participation in the delivery process of mass housing projects, the respondents that constitute the largest group in the survey are those that have participated in both design and construction with a proportion of 35 percent (48). These are followed by those who have participated in construction only with a ratio of 34 percent (47) and those who have never participated in any stage in the delivery process of mass housing projects with a proportion of 18

percent (24). The minimum number of participants in the survey conducted are those that have participated in design only with a ratio of 13 percent (18). From these results, 82 percent of the respondents have participated in some stage of the delivery process of mass housing construction.

Results on interpersonal skills

Table 2 depicts the results of the 11 interpersonal skills studied. While 'decision making 'ranked 1st (with a Mean Value of 3.69; RI of 0.74), both 'leadership 'and 'communication 'ranked 2nd (with a Mean Value of 3.66; RI of 0.73). Also, while 'team building 'ranked 3rd (with a Mean Value of 3.58; RI of 0.72), both 'motivation ' and 'trust building 'ranked 4th (with a Mean Value of 3.55; RI of 0.71). Furthermore, both 'influencing 'and 'conflict management 'ranked 5th (with a Mean Value of 3.51; RSI of 0.70). Likewise, while 'coaching 'ranked 6th (with a Mean Value of 3.42; RI of 0.68), 'negotiation 'ranked 7th (with a Mean Value of 3.16; RI of 0.63). Among all the factors, 'political and cultural awareness 'ranked 8th (with a Mean Value of 3.06; RI of 0.61).

Table 2: Results of interpersonal skills

Interpersonal Skill	Frequency of responses					Total	Scores below median	Scores above median	Mean Score	Relative Index	Rank
	1	2	3	4	5						
	NP	LP	MP	HP	EP						
Decision making	1	8	24	62	42	137	9	104	3.69	0.74	1
Leadership	2	7	27	50	51	137	9	101	3.66	0.73	2
Communication	1	10	25	60	41	137	11	101	3.66	0.73	2
Team building	1	14	27	59	36	137	15	95	3.58	0.72	3
Motivation	5	7	32	54	39	137	12	93	3.55	0.71	4
Trust building	2	13	30	51	41	137	15	92	3.55	0.71	4
Influencing	1	15	34	54	33	137	16	87	3.51	0.70	5
Conflict management	4	14	29	55	35	137	18	90	3.51	0.70	5
Coaching	2	20	34	59	22	137	22	81	3.42	0.68	6
Negotiation	8	22	47	47	13	137	30	60	3.16	0.63	7
Political and cultural awareness	9	24	54	32	18	137	33	50	3.06	0.61	8

Legend: Not a priority (1), Low priority (2), Medium priority (3), High priority (4), Essential priority (5)

From the results of the scores below the median and the scores above the median, although 'leadership 'and 'communication 'recorded the same rank (2nd), the respondents that place more priority on 'leadership' are marginally more in number compared to those that place significant emphasis on 'communication.' Likewise. although 'motivation' and 'trust building' both ranked 4th, responders that place greater importance on 'motivation' are slightly more in number to those on 'trust building'. Although 'influencing' and 'conflict management' got the same rank (5th), respondents who emphasize 'influencing' are marginally more

significant in number. Results also show that not up to half of the respondents set priorities on 'negotiation 'as well as 'political and cultural awareness'.

CONCLUSION AND RECOMMENDATIONS

The built environment professionals surveyed allude that none of the factors studied is of essential priority. Similarly, their response reveals the following interpersonal skills being of higher priority: decision making; leadership; communication; team building; motivation; trust-building; influencing, and conflict management. Overall, more attention must be given to the interpersonal factors coaching, negotiation, and political and cultural awareness. For successful delivery of mass housing projects, this is essential, particularly considering the fact that most respondents have the opportunity to further their education at BSc/HND, Masters, and PhD. Similarly, the respondents covered in this study still have about two decades of professional service. Because of the low priority given to political and cultural awareness in this study, (Sunindijo & Zou, 2011) assert that, while political skill is often overlooked, successful Project Managers must understand the importance of maintaining solid political ties to achieve project success. In other words, politics can significantly positively impact the success of construction projects in general but mass housing projects in particular. The implication of this study may imply that, to successfully deliver mass housing projects like the Mass Housing Programme proposed in the NESP, academic institutions, construction firms, and professional bodies must invest more in education and training programs supporting and facilitating coaching, negotiation, and, most importantly, political and cultural awareness. The interpersonal factors covered in this study are not all encompassing. Future studies may cover emotional human-related factors essential to the successful delivery of large-scale construction projects. Similarly, other techniques of data collection if used to study interpersonal factors may present results that may differ from those obtained in this study. Likewise, other respondents with varied opinions may reveal findings contrary to this study.

REFERENCES

Ahadzie, D. K. D. G. Proverbs, & P. O. Olomolaiye, (2008). "Critical success criteria for mass house building projects in developing countries," International Journal of Project Management, vol. 26, no. 6, pp. 675–687.

Ahadzie, D. K. D. G. Proverbs, & I. Sarkodie-Poku, (2014) "Competencies required of project managers at the design phase of mass house building projects," International Journal of Project Management, vol. 32, no. 6, pp. 958–969.

Ajayi, O. (2020). FG moves to construct 300,000 housing units for low-income earners. Retrieved March 24, 2021, from nairametrics: https://nairametrics.com/2020/12/15/fg-moves-to-construct-300000-housing-units-for-low-income-earners/

Akeju, A. A., "Challenges of providing affordable housing in Nigeria" a paper presented at the 2nd Emerging Urban Africa International Conference on Housing Finance in Nigeria held at Shehu Yar'adua centre Abuja October 17-19, 2007.

Anyanwu, C. I. (2013). The role of building construction project team members in building projects delivery. IOSR Journal of Business and Management, 14(1), 30- 34

Ayedun, C. A., & Oluwatobi, A. O., (2011), Issues and challenges militating against the sustainability of affordable housing provision in Nigeria, Business Management Dynamics, 1, 1-8.

Bates T. (2016). Teaching in a Digital Age. Retrieved from http://opentextbc.ca/teachinginadigitalage/wpcontent/uploads/sites/29/2015/04/Scenario-A.mp3, accessed: 29/03/2021

Bolaji, F. (2020, May 17). List of universities in Nigeria as approved by NUC-2019: Latest release. Campusbiz Journal. Retrieved from https//campusbiz.com.ng (accessed on 26 March 2021)

Dulaimi, M. F. (2005). The influence of academic education and formal training on the project manager's behavior. Journal of Construction Research, 6(1): 179–193.

Folaranmi, A. O., (2012) Mass Housing in Nigeria, Customize the Brief: Provide a Desired House, Journal of Civil and Environmental Research ISSN 2222-1719 Vol 2, No.4.

Hussin, A. A., & Omran, A. (2009, November). Roles of professionals in the construction industry. Paper presented at the International Conference on Economics and Administration, Bucharest

Ibem, E. O., & Amole, O. O., (2010), Evaluation of public housing programmes in Nigeria: A theoretical and conceptual approach, The Built Environment Review, 3, 88-116.

Intel, E. (2020). Delivering Mass Housing As a Path To Nigeria's Economic Recovery. Retrieved March 24, 2021, from nairametrics: https://nairametrics.com/2020/07/14/delivering-mass-housing-as-a-path-to-nigerias-economic-recovery//

Isaac, T. (2020). Assessing FMBN's Post Covid-19 Housing Delivery Plan. Retrieved March 24, 2021, from thisdaylive: https://www.thisdaylive.com/index.php/2020/09/10/assessing-fmbns-post-covid-19-housing-delivery-plan/

Jacobs, E. (2015). The status quo of green-building education in South Africa. Acta Structilia: Journal for the Physical and Development Sciences 22(2): 110-133.

Jin, R., Yang, T., Piroozfar, P., Kang, B. G., Wanatowski, D., Hancock, C. M., & Tang, L. (2018). Project-based pedagogy in interdisciplinary building design adopting BIM. Engineering, Construction and Architectural Management.

Joint Admission & Matriculation Board [JAMB] (2021). Retrieved from https://www.jamb.gov.ng.

Jiboye, A. D., (2009), Evaluating tenants satisfaction with public housing in Lagos, Nigeria, Town Planning and Architecture, 33(4), 239-247.

Kolawole Y. (2020). FG has started implementing Economic Sustainability Plan — Osinbajo March, 29 2021. Retrieved from https://www.vanguardngr.com/2020/08/fg-has-started-implementing-economic-sustainability-plan-osinbajo/

Zairul, M. M. N., & Rahinah, I. (2011) "Identifying concurrent engineering (CE) elements or mass housing industry," Journal of Advanced manufacturing technology, vol. 5, no. 1, pp. 61–78,.

National Bureau of Statistics [NBS] (2015). Nigerian construction sector: Summary report; 2010-2012. Retrieved from https://nigerianstat.gov.ng.

National Bureau of Statistics [NBS] (2019). Nigerian construction sector: Summary report; March 29, 2021. Retrieved from https://nigerianstat.gov.ng

Nghai E. S., & Musa L. l. S. (2012). The Implications of User Redesigns of Public Housing on the Architectural Design Process West Africa Built Environment Research (WABER) Conference pp 1329-1340

Noorzai, E., & Golabchi, M. (2020). Selecting a proper construction system in small and medium mass housing projects, considering success criteria and construction volume and height. Journal of Engineering, Design and Technology.

NPC, 2006, National Population Census of Nigeria, Federal Republic of Nigeria.

Odusami, K. T. (2002). Perception of construction professionals concerning important skills of effective project leaders. Journal of Management in Engineering, 18(2): 61–67.

Okoh, A. S. (2021). Aligning the New NDC with NESP. In Oil Mortality in Post-Fossil Fuel Era Nigeria (pp. 205-225). Springer, Cham.

Onwuemenyi, O., (2008)" Nigerian Housing sector", Punch, 29th January, Punch Newspapers Nigeria.

Owolabi, O. S. B., & Olatunji, A. S. (2014). The roles of construction professionals in the Nigeria's construction industry. IOSR Journal of Humanities and Social Science, 19(11), 5-10.

Russell, J. S., & Stouffer, B. (2003). Leadership: Is it time for an educational change? Leadership Management in Engineering, 3(1): 2–3.

Ukpe, W. (2020). FEC approves NESP's N2.3 trillion stimulus plan. Retrieved March 29, 2021, from nairametrics: https://nairametrics.com/2020/06/25/fec-approves-nesps-n2-3-trillion-stimulus-plan/

Waldigit C. (2013). The roles of professionals in the construction industry. Retrieved fromhttp//www.nairaland.com/therolesofprofessionalsintheconstructionindustry/ waldigit.

Zairul, M. M. M., & Rahinah, I. (2011). Identifying concurrent engineering (CE) elements for mass housing industry. Journal of Advanced Manufacturing Technology, 5(1), 61-78.