



25-28 June 2016 Hotel Danubius Health Spa Resort Margitsziget****, Budapest, Hungary

Creative Construction Conference 2016

A Framework for Affordable Housing Governance for the Nigerian Property Market

AbdulLateef Olanrewaju^{1*}, Paul Anavhe², Tey Kim Hai¹

¹ Universiti Tunku Abdul Rahman, Jalan Universiti, Bandar Barat, 31900, Kampar, Perak, DR., Malaysia

² CDP Partnership, No 3 Borno Road, Kaduna North, Kaduna, Nigeria

Abstract

Nigeria is perhaps facing the worst housing deficits in its existence with a homeownership of less than 20% and a housing shortage greater than 30 million. The deficits would lead to a crisis and consequently lead to poor standards of living, unaffordable house prices, high mortgage payments, abandonment, outbreak of diseases, dilapidation, and high maintenance costs. The main research from which this study forms part aims to develop housing governance. This current study aims to identify and the categorize factors accounting for the housing deficits. Based on a cross section survey questionnaire the findings lead to the conclusion that the problems in the housing industry can be explained by policies, regulations, legal issues, market, economic and the construction industry. The discussions and results have some significant implications to the governments. For now, the government has to play multiple roles of providing housing and that of a market enabler.

Keywords: Procurement, government, systems management, housing deficits, median income

1. Introduction

Housing is expensive to own and operate. For most households that own their homes, it is probably the single most expensive investments and for those that rent, it represents the single most significant monthly or annual expenditure. The relationship between adequate housing and national productivity is very strong and positive. A country with adequate housing also means that such country would spend less on the preventions and controls of diseases, has reduced in crime rate and enhancement in social integration. For the pensioners or retirees, housing is to them a security issue. Housing is a measure of quality of life. However, housing in most of the developing countries is inadequate. There are several indices to measure the affordability of housing in a country. But, two of these indices are mostly applicable. According to one of these, housing is affordable if a rental cost, or mortgage repayment does not exceed 30% of household income for households in the lowest 40% of the income distribution range [1]. For rental purposes, the 30% includes utility bills, including for electricity, water, gas, sewage and garbage collection. In cases of a mortgage, the amount includes the actual consideration, tax, insurance, utilities, and maintenance. This definition is referred to as the 30/40 rule. Affordable housing is also defined in terms of 'median multiplier' [2]. The Demographia compares the median house prices to the median household income to measure affordable housing based on annual international Housing Affordability Survey. However, based on either of these definitions, housing in all major cities in Nigeria is 'severely unaffordable'. For instance, cumulatively, annual expenditure for the rental in the cities is ₦77,762 or 30.7% of the household monthly income [3]. With utility bills, the figure goes up to more than 40% of household income. Due to lack of accuracy on the median income, the mean income is used as proxy here. The mean income is 41,000 for more than 90% of Nigerians or 11,000 for more than 75% of Nigerians [3]. To put this study in context, while literature contains sizeable evidence on apparent causes of housing shortage in Nigeria [i.e.3, 5, 6,], but due to methodological issues and

* Corresponding author. Tel.: +605 468 8888; fax: +605 466 7407
E-mail: abdullateef.olanrewaju@gmail.com

‘compartmentalisation effect’, systemic explanations cannot be made on how to reduce the shortage. With this background in mind, this paper reports part of a study that aimed to develop housing governance for the Nigerian housing sector to facilitate affordable housing delivery. This current paper addresses itself to identification of the causes of housing shortages in Nigeria.

2. Background

At 2014, the population was 178 million and estimated to increase to 205million in 2020 and will near 300 million in 2050 [7]. The per capita is US\$3 000 with 3.8% higher rate of urbanization [8]. In 2014, the GDP was ₦67, 977,459.22 of which, the real estate accounted for ₦5, 155,727.95 (or 8%). In the third quarter of 2015, the GDP posted ₦18, 208,475.09 and the real estate was valued at ₦1, 360,104.16 or 8.74 % [9]. At 2013, the real estate sector contributed 8.03% to the GDP. In 2014, the Nigeria property market was valued at US\$41 billion [8]. As part of the Gross Capital Formation (GCF), housing constituted 18.99%, 24.48% and 28.07% in 2010, 2011, and 2012 respectively [10]. The housing industry constitutes about 42% of the total value of the real estate. Though the growth rate of the real estate of 9.18% in the third quarter is lower compared to the period in 2014 and with the rate in the second quarter of 2015, the performance of the real estate industry is considered low with the rate of urbanisation. However, housing deficits in Nigeria have remained a tropical issue, despite government interventions through policies, regulations and controls. Prices of houses have increased more than for any other products or services. The price to rent ratio also shows rent is increasingly significantly across the country. While housing prices has increased globally over the past decade, the case in Nigeria is remarkable. Based on World Bank’s estimate cost of building a house in South Africa is USD36,000, USD26,000 in India, but it is USD50,000 in Nigeria [10]. From 2001 to 2011, house price has increased by 284%, 209% and 161%, in India, Russia and South Africa respectively [11]. In Nigeria, over the same period, house price has increased by up to 500%. The increase in house prices has outpaced income by a significant margin, leaving mostly in medium and lower-income groups without access to affordable homes. While the monthly rental price for 4 executive house is USD 8,500 in Nigeria (Abuja), in other major Africa cities like Cairo (Egypt), Accra (Ghana) Cape Town (South Africa) and Algiers (Algeria) is USD 3,500; USD 5,000; USD 5,000 and USD 5,000 respectively [12](Knight Frank, 2015). Statistical analysis based on data on existing housing stock, population, home production rate, population growth rate from World Bank data, National Bureau of Statistics Nigeria and the National Population Commission Nigeria, revealed that the housing deficit in Nigeria is more than 30 million [13]. The annual supply of housing in Nigeria is approximately a unit per 1000 of the population. This is far less than the recommended 8-10 units per 1000 in developing countries. Therefore, it was estimated that, it would take close to 300 years for the housing deficits to close based on existing home production rate. However, in order to close the gap in the next 30 years, the home production rate will have to be 21 times its current rate.

The academic literature suggests that primarily, the reasons for the Nigerian housing deficit include: lack of access to finance, poor capital and budgetary allocation, poor monitoring of mortgage institutions, an inefficient land market, a disproportionate number of speculators, poor infrastructure (i.e. roads, electricity, water, and telecommunication), and tedious and often conflicting legal requirements. Additionally, the performance of the Nigerian construction sector has a negative impact on the provision of housing. The construction sector is characterised by cost and time overruns, poor workmanship, and high cost of materials. The prices of major construction materials and component have increased by up to 10 times over the last 16 years. Despite the improvements in the financial and capital markets, less than 1% of Nigerians have mortgage to finance their homes and while the mortgage rate could be up to 30% [8]. The ratio of mortgage to the GDP is one of the lowest in Africa at 0.58%, whereas in South Africa, Namibia, and Morocco is 22.04%, 18.21% and 13.85% respectively [8]. This leaves most Nigerians to self-finance their homes. In fact than more than 90% of existing houses were constructed through unstructured self-help [14].

Governments have introduced various measures and incentives to increase the housing supply. But the government has not been proactive in the formulations her of policies. For example, between 2007 and 2011, the expenditure on the housing segment remains very low at around 2% of the total capital expenditure [15]. In 2014, out of the ₦18.5 billion allocated to the Ministry of Lands, Housing and Urban Development, only N13.5 billion is allocated for capital expenditure on housing and urban development [8]. Assuming this amount was wholly committed to providing more homes, at ₦7 million per homes, only less than 3000 of two-bedroom bungalows could be provided in urban centres. This excludes the cost of land and other government charges and legal fees. However, the household income of more than 62% of Nigerians in the cities or 75% of the average national income is less than ₦20,000 [15] but the average rental value is ₦77,760 annually. The interpretation of this statistic is that more than 80% of Nigerians are unable to own a home. Under the National Housing Programme of 1993, homebuyers were expected to deposit 40% of the total building cost. Yet, as of 1995, only 18,500 units of the promised 121,000 units were constructed while house prices had increased by 350% from ₦70,000 to ₦350,000

[16]. The Housing Programme was constrained by the poor conceptualisation and ineffective processes in the acquisition of land. The Federal Housing Authority (FHA) established in 1973 to provide affordable housing to Nigerians, however, but it supplied less than 1000 units annually since inception. The problems faced by the FHA are similar to those facing the other programmes. However, while some of the reasons are known or obvious to most, some are not known or been addressed leading to governments and other stakeholders' inability to address the housing shortage from narrow and fragmented perspectives. It is this fragmentation in proffering 'solution' that accounts for the widening gap in the housing shortage and increase in house price. Existing studies are generally descriptive and primary data are collected from a stakeholder or professional in the housing industry. The numbers of factors included are often limited. This study begins to fill this void by expanding and perfecting the determinants of housing supply and involving more stakeholders and theories.

3. Outline of research design

The primary data were based on survey questionnaire. The survey was based on convenience sampling method and administered through hand delivery. Convenience sampling is appropriate when respondents are not easily accessible and the population size is not available or accurate. Respondents were asked various questions, but with regards to issues pertaining to affordable housing delivery, respondents were asked based on their current experience of the housing market, to tick the factors that hinder the delivery of affordable housing. The factors were measured on a five continuum scale: 5 denotes extremely often, and 1 denotes not often at all. The ranking of these factors was determined by mode and Average Relative Index (ARI). The index is based on the cumulative weighting of the initial frequency score of each of the roles. The factors were selected or modified from various literatures: [3, 5, 6, 17, 18, 19, 20, 21, 22] and the authors' experiences.

4. Findings and Interpretations

4.1. Respondents' profiles

The academic backgrounds of the respondents are followed: estate management (42.3%), architecture (24.4%), quantity surveying (17.9%), engineering (11.5%), laws (2.5%) and 1.3% of the town planning. Also, 43.6%, 37.2%, 14.1%, 3.9% and 1.3% of the respondents are members of The Nigerian Institution of Estate Surveyors and Valuers; The Nigerian Institute of Architects; The Nigerian Society of Engineers; The Nigerian Bar Association and Nigeria Real Estate Developers Association of Nigeria respectively. In terms of working experience, respondents with less than five years working experience were 17%; 5 years to less than 10 years were 45%; 10 years to less than 15 years were 30%; 15 years to less than 20 years were 15% and those with 20 years and above are 4%. The interpretations of these statistics are that the surveyed respondents have the require knowledge, skill and expertise to provide valid explain to the nature, characteristics and issue pertaining to the Nigerian housing market.

4.2. Analysis of factors hindering affordable housing delivery

To measure the strength and validity of the factors, reliability and validity tests were conducted and the results are contained in Table 2. As shown, the data are both reliable and valid. Furthermore, to measure whether the factors are related to toward an aim or objective, both KMO and Bartlett's Test were computed (Table 1). The results return an excellent Bartlett's (0.000) signifying that the factors are highly related. However, as observed with the KMO results, there is evidence of correlation with some of the factors. In other words, some of the factors could be measuring the same causes. However, for an exploratory study, the results are acceptable. Summarily, these factors can be carefully coached towards developing a housing governance framework.

Table 1. KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.454
Bartlett's Test of Sphericity	Approx. Chi-Square	2842.867
	df	1596.000
	Sig.	0.000

a. Based on correlations

The lowest factor measured 75% and the highest factors measured 92% (Table 2). To interpret, all the factors contribute in one way or the other to the problems leading to the housing shortage. Factor analysis was performed

to cluster the factors for meaningful interpretations. The results of the principal component analysis (with Varimax with Kaiser Normalisation) using eigenvalue and factor loading of 1.0 and 04 shows that the total variance explained for the components account for 76%. The analysis produced 18 components as the main broad factors that determine the success or failure of any initiative towards affordable housing supply. More specifically, those factors underpin the components of the affordable housing governance. Based on careful examination the factors are further classified into: sectoral factors (factors related to the construction sector), regulatory and policies factors, legal factors, market factors, individual factors (demand side factors), nature factors (i.e. population) and economic factors.

Table 2. Distribution of determinants of housing supply.

Factor	V	R	1	2	3	4	5	Weightage	Rank
Lack of construction management skills	0.71	0.909	2	0	6	11	59	0.921	1
Harsh housing regulatory/legal framework	0.771	0.909	0	1	6	25	46	0.897	2
High interest rate on mortgage	0.823	0.907	0	2	7	21	48	0.895	3
Poorly configured vocational training for the construction professional	0.819	0.907	0	3	6	20	49	0.895	4
Lack of appropriate pricing mechanisms	0.779	0.908	0	2	7	21	48	0.895	5
Sub-standard materials	0.809	0.907	0	4	6	20	48	0.887	6
Nonconformance to design specifications	0.704	0.908	1	0	8	24	45	0.887	7
Lack of effective implementations of the housing policies	0.862	0.908	0	1	9	23	45	0.887	8
Lack of continuity in government policies	0.77	0.909	0	4	6	21	47	0.885	9
Poor consideration of sustainability in housing delivery	0.849	0.909	0	0	6	33	39	0.885	10
Substandard quality of housing units	0.796	0.909	0	2	8	24	44	0.882	11
Low household income	0.773	0.909	0	2	7	28	41	0.877	12
Unqualified workforce	0.789	0.909	0	3	6	27	42	0.877	13
Lack of access to long term funding for affordable housing	0.76	0.908	0	2	7	28	41	0.877	14
Failure or non-implementation of construction standards	0.797	0.907	0	3	5	30	40	0.874	15
Inadequate measure of the resettlement of those affected by right of way and similar requirements	0.802	0.908	2	1	8	24	43	0.869	16
Construction methods	0.863	0.908	0	4	4	31	39	0.869	17
Inappropriate use of materials and methods	0.679	0.907	0	2	1 1	24	41	0.867	18
Lack of database for the construction professionals	0.703	0.906	0	3	1 2	20	43	0.864	19
Too much attention high housing priced housing	0.794	0.908	2	1	7	28	40	0.864	20
High costs in title and property registration	0.797	0.907	0	3	7	30	38	0.864	21
“privitising” the provision of the housing subsector by the government	0.816	0.908	0	0	8	38	32	0.862	22
Land acquisition uncertainty	0.751	0.908	1	3	9	24	41	0.859	23
Procurement methods	0.783	0.907	1	2	9	27	39	0.859	24
Importers fixing prices of construction materials and components arbitrary	0.75	0.909	0	4	9	25	40	0.859	25

Table 2. Distribution of determinants of housing supply (Cont'd).

Factor	V	R	1	2	3	4	5	Weightage	Rank
Importers fixing prices of construction materials and components arbitrary	0.75	0.909	0	4	9	25	40	0.859	25
The appropriate size and mix of housing development for the community at large	0.745	0.907	0	2	8	33	35	0.859	26
Short mortgage tenure (usually less than 15 years)	0.835	0.908	1	2	9	27	39	0.859	27
Unsustainable home price appreciation	0.80	0.907	0	5	8	25	40	0.856	29
Lack of database for artisans	0.855	0.906	0	4	12	20	42	0.856	30
Too many unregulated agents in purchase of building materials	0.855	0.908	1	4	6	28	39	0.856	31
Low quality control	0.739	0.907	1	2	8	31	36	0.854	32
Excessive down payment	0.787	0.907	0	5	8	26	39	0.854	33
Late delivery	0.705	0.908	0	2	13	27	36	0.849	34
Fragmented housing policies	0.802	0.908	0	3	16	18	41	0.849	35
Lack opportunities for employment in the neighbourhoods	0.719	0.907	0	3	9	31	34	0.849	36
Increase in population	0.839	0.909	0	4	12	24	38	0.846	37
Lack of sufficient funding for developers	0.789	0.907	1	1	12	30	34	0.844	38
Poor maintenance culture	0.731	0.907	0	1	10	28	39	0.841	38
Low compliance to regulatory and environmental laws	0.83	0.908	0	6	7	30	35	0.841	40
Land ownership problems	0.805	0.907	0	5	14	21	38	0.836	41
High rate of urbanisations	0.827	0.908	2	2	15	20	39	0.836	42
The law on foreclosure	0.855	0.909	1	2	17	20	38	0.836	43
Cost of importing building materials	0.809	0.909	1	3	14	24	36	0.833	44
Poor social integration	0.774	0.906	0	10	9	19	40	0.828	45
Absence of issuance of certificate of completion and certification	0.837	0.907	0	9	9	25	35	0.821	46
Poor financing methods	0.816	0.909	2	6	6	33	31	0.818	47
Shortages of materials	0.907	0.907	2	7	12	19	38	0.815	48
Poor infrastructures- [road, water, electricity, telephone, etc.]	0.769	0.909	0	9	10	25	34	0.815	49
Lack of recreational facilities in the neighbourhoods	0.824	0.908	0	10	13	18	37	0.810	50
Restrictions on the amount paid in subsidy to low-income households to encourage incentives to work	0.822	0.906	1	5	20	18	34	0.803	51
Inappropriate standards	0.75	0.906	0	4	23	20	31	0.800	52
Non-payment of housing loans	0.80	0.909	3	7	8	29	31	0.800	53
Low awareness on alternative source of funding and procedure for obtaining foreign loans	0.782	0.909	0	7	18	21	32	0.800	54
Too many speculators	0.851	0.908	4	9	4	29	32	0.795	55
Cultural issues	0.796	0.906	1	11	12	20	34	0.792	56
Duplication of roles between state and federal regulatory bodies	0.878	0.907	0	11	19	17	31	0.774	57
Documentations	0.774	0.911	8	7	8	29	26	0.749	58

R= reliability; V= Validity

The interpretation of the results is complex. In particular, the construction sector related factors are dominants. Though this is contrary to our expectation, but it is not surprising. The plausible interpretation is related to the poor performance of the construction sector. An overview of the performance of the construction was demonstrated earlier in the manuscript.

5. Concluding comments

This paper has reported a study that identified and categorised the main causes leading to housing shortages. Each of the causes produces significant impacts in the housing shortage. The combination of all the causes created the housing crisis that is widening and if not address together urgently would lead to a more severe crisis. To

ensure the continued supply of affordable housing, there is a need for rethinking on the delivery strategy. A new strategy for providing affordable that involves the key stakeholders from the demand and supply is needed. 'Housing governance' can help matching together the various interest groups in the decision making. At the moment, the government will have to play multiple roles of providing an enabling environment for the housing market and effective and continues housing provision. The housing market is not mature yet, for the government to shift its roles totally to that of enabler only. In the developing countries, housing is often funded by the private individual, whereas in the developed countries, it is generally funded by the developers. The government also provides a substantial part of the housing, through partnerships with housing developers, and housing associations or providing loans to the private owners or housing associations that meet certain criteria. However, it should be noted, that the main concerns of the study that this study forms part of is to develop a housing governance, therefore, further studies are required to explore the other part of the research. These include the operations of the housing finance market and the requirements of the home owners.

References

- [1] U.S. Department of Housing and Urban Development. Housing impact analysis. Washington,DC: U.S. Government Printing Office (2006, January)..
- [2] Demographia 11th Annual International Housing Affordability Survey: 2015 Ratings for Metropolitan Market. (2015) Available at: www.demographia.com/dhi.pdf. [Accessed on 05 March 2015]
- [3] NBS (National Bureau Of Statistics, 2013) National Bureau Of Statistics in Collaboration With The World Bank Living Standard Measurement Study Group Present Select Tables From The General Household Panel Survey Wave 2 2012/13.
- [4] O. M. Oyewole, Housing development finance through cooperative societies, *International Journal of Housing Markets and Analysis*, 2010, Vol. 3 Iss 3 pp. 245 – 255.
- [5] C. C., Nwuba, U. I. Kalu, and A. J. Umeh, Determinants of homeownership affordability in Nigeria's urban housing markets, *International Journal of Housing Markets and Analysis*, (2015) Vol. 8 Iss. 2, pp. 189 – 206.
- [6] O. K. Kabir Low-cost technology and mass housing system in the Nigerian housing. *Journal of Applied Sciences Issues*, 200, Vol.4 pp565-567.
- [7] IMF (International Monetary Fund, 2015) World Economic and Financial Surveys: World Economic Outlook Database, <http://www.imf.org/external/pubs/ft/weo/2015/01/weodata/weorept.aspx?sy=2015&ey=2020&scsm=1&ssd=1&sort=country&ds=.&br=1&pr1.x=32&pr1.y=11&c=694&s=NGDPD%2CLP&grp=0&a=>
- [8] CAHF (The Centre for Affordable Housing Finance in Africa, 2014) Housing Finance in Africa: a review of some of Africa's housing finance markets. Parkview: The Centre for Affordable Housing Finance in Africa.
- [9] NBS (National Bureau of Statistics, 2015 a) Nigerian Gross Domestic Product Report: Quarter Three 2015. Issue 07
- [10] NBS, (National Bureau of Statistics, 2015 b) Accommodation and food services sector, 2010 – 2012.
- [11] The Lloyds TSB International Global Housing Market Review (2012) Emerging markets top global house price league over the past decade. Available at: http://www.lloydsbankinggroup.com/globalassets/documents/media/press-releases/lloyds-bank/2012/1703_global.pdf [accessed on 29 December 2015]
- [12] L.L.P Knight Frank (2015) Africa Prime Rent Ranking Africa Report 2015
- [13] A. Olanrewaju I., and A J. Paul, A Proposed Research Methodology towards Framing Housing Governance. In Proceedings of the 14th Management in Construction Researchers' Association (MiCRA) Annual Conference and General Meeting. International Islamic University Malaysia (IIUM) 12th – 13th November 2015.
- [14] G. Y. Kumo, Real Estate Development as a Platform for the Transformation of the Nigerian Economy. A paper presented at the REDAN/World Bank Workshop Series, 2014. [Accessed 10 December 2015].
- [15] NBS, (National Bureau of Statistics, 2012) Annual Abstract of Statistics, 2012. Federal Republic of Nigeria. Available at: <http://www.nigerianstat.gov.ng/nbslibrary/searchdoc> [accessed on August 2015]
- [16] UN (United Nation, 1998). Committee on economic, social and cultural rights eighteenth session summary record of the 8th meeting. E/C.12/1998/SR.8 p1 - 14
- [17] K. G. Babawale, and M. Omirin, An assessment of the relative impact of factors influencing inaccuracy in valuation, *International Journal of Housing Markets and Analysis*, 2012, Vol. 5 Iss. 2, pp. 145 – 160.
- [18] O. C. Odum Residents' satisfaction with integration of the natural environment in public housing design, *International Journal of Housing Markets and Analysis*, 2015, Vol. 8 Iss. 1, pp. 73 – 96.
- [19] J. Holt, A Summary of the Primary Causes of the Housing Bubble and the Resulting Credit Crisis: A Non-Technical Paper. *The Journal of Business Inquiry*, 8, 1, pp.120-129. [20] Warnock, C. V. and Warnock, E. F. Markets and housing finance, *Journal of Housing Economics*, 2008, 1 pp. 239–251.
- [21] K. Ihlanfeldt, and T. Mayock, Price discrimination in the housing market, *Journal of Urban Economics*, 2009, 66, pp. 125–140.
- [22] Agnello and L. Schuknecht, Booms and busts in housing markets: Determinants and implications. *Journal of Housing Economics*, (2011) 20 pp.171–190.