

# Expert Solutions to Affordable Housing Finance Challenges in Developing Economies

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**Abstract**—Housing the urban poor has remained a challenge for many years across the world, especially in developing economies, despite the apparent research attention and policy interventions. It is apt to investigate the prevalent affordable housing (AH) provision challenges using unconventional approaches. It is pragmatic to thoroughly examine housing experts to provide supply-side solutions to AH challenges and investigate informal settlers to deduce solutions from AH demand viewpoints. This study, being the supply-side investigation of an ongoing research, interrogated housing experts to determine significant expert solutions. Focus group discussions and in-depth interviews were conducted with housing experts in Nigeria. Through descriptive, content, and systematic thematic analyses of data, major findings are that deliberate finance models designed for the urban poor are the most significant housing finance solution in developing economies. Other findings are that adequately implemented rent control policies, deliberate Public-Private Partnership (PPP) approaches like inclusionary housing and land-value capture, and urban renewal programs to enlighten and tutor the urban poor on how to earn more, spend wisely, and invest in their own better housing will effectively solve AH finance challenges. Study findings are informative for the best approaches to achieve effective, AH finance for the urban poor in Nigeria, which is indispensable for the achievement of sustainable development goals. This research's originality lies in the exploration of experts' opinions in relation to AH finance to produce an equation model of critical solutions to AH finance challenges. Study data are useful resources for future pro-poor housing studies. This study makes housing policy-oriented recommendations toward effective, AH for the urban poor in developing countries.

**Keywords**—Affordable housing, effective affordable housing, housing policy, housing research, sustainable development, urban poor.

## I. INTRODUCTION

RAPID urbanization across the world has been accompanied by continued slumization (slum formation), especially in the third world countries. This makes it challenging to achieve sustainable development goals (SDGs) and as a result, urban slums in developing countries have become a topical discussion in housing literature [1]. This predicament is a call for more research attention and innovative research approaches to AH provision in developing countries [2]-[4].

AH provision for the urban poor is a trending scholarly discussion for many years [2], [3], [5]-[17]. Though these housing studies made insightful contributions to knowledge, none has qualitatively investigated housing experts especially in relation to AH finance for AH provision in developing economies, which may be contributory to the continued

challenge in effectively house the urban poor. A lack of study exists in the area of experts' standpoints regarding solutions to AH finance challenges for the urban poor. This study seeks to examine expert solutions to AH provision challenges, focusing on housing finance as a key component of housing supply value chain (HSVC) in accordance with [4] who avowed the importance of disintegrating the HSVC into its three main levels of housing finance, housing construction and land acquisition. Experts' opinions on AH finance are evaluated in this study in relation to AH provision for the urban poor. The research query for this study is "what are the significant solutions to affordable housing finance challenges in Nigeria?"

Research data were obtained from a focus group discussion (FGD) of housing experts and qualitative semi-structured interviews with housing experts in Nigeria. These housing experts are practitioners with wealth of experience in housing finance and housing issues in general. All participants were purposively sampled and criteria for inclusion were years of experience and willingness to participate in full capacity. These FGD and interviews strictly focused on approaches to effective AH provision for the urban poor in Nigeria; towards achieving SDG 11 in developing economies.

## II. METHODOLOGY

### A. Data Collection

The methods deployed in gathering data for this study are broken down and discussed in detail below.

#### 1. Focus Group Discussion

FGD was considered appropriate for investigating experts in this study and thus was employed for robust qualitative data collection [18]-[22]. Experts were purposively recruited from four broad categories of professionals which included AH private and public developers, AH finance institutions, practitioners in the ministry of housing and lands' bureau, and lastly university professors in the fields of housing, lands, and urban planning. The session lasted for 150 minutes – giving room for gathering robust and quality data within a reasonable time to avoid saturation and lack of concentration. The FGD held online on the 2<sup>nd</sup> of August 2022 for easy attendance, easy documentation, and control of the event. The session was co-moderated by the researcher who prepared the FGD guide questions to ensure consistency with research objectives [23].

The details of the discussants are presented in Table III (as

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appendix) to strengthen reliability and transferability of study findings [24], [25]. In alignment with [22] and [26], contributions from all focus group discussants and semi-structured interview respondents are tagged with unique codes (Discussants 1 – 7 and Respondents 1 – 5) to enable clarity and traceability of data. These codes are: D1, D2, D3, D4, D5, D6, D7, R1, R2, R3, R4 and R5 displayed in Table III. To enhance the traceability of research analysis and to further eliminate researcher’s bias, the raw transcripts, documents, audio, and video recordings from the FGD and interviews are available on request [26], [27].

## 2. Semi-Structured Interview

The second phase of this study was to enhance data reliability and eradicate researcher biases from data collection. In-depth interviews were conducted with housing experts to triangulate and support the FGD methodology [28]-[30]. The University professors present at the FGD spoke less to avoid introducing bias, censoring and conformity of opinion during the session [27], [31]-[33]. These professors were interviewed to capture their expert opinions in detail. There were 5 in-depth interview sessions with each duration ranging from 50 to 90 minutes to capture rich qualitative data [17]. The interview sessions held between August and September 2022. To enhance reliability of study findings, details of all respondents are presented in Table III [24], [25].

### B. Data Analysis

NVivo, a Computer Aided Analysis Software (CAQDAS), was employed as the analytical tool for the robust data gathered during the FGD and interviews. NVivo is recognized for its easy usage in interview transcription, descriptive analyses, and content analyses [34]-[37]. The NVivo software is popular for enhancing credibility and dependability of qualitative data [34], [37], [38]. Data analyses from the NVivo software were broken down into three major subgroups to align with the conceptual framework for this study. These subgroups are housing construction, housing finance and land acquisition. The evaluation of the housing finance theme is the focus of this article. The data were subjected to a thorough thematic analysis procedure to establish common themes within the responses of the experts, these themes include deliberate government policies, incentivizing private developers among others. Identified themes were carefully explored through a content analysis process and all audio recordings were investigated thoroughly all over again. This is to ensure that all qualitative data are adequately captured, analyzed, and not decontextualized [39], [40], this also ensures that the creativity necessary for a qualitative study is retained [41]. Research findings were presented in descriptive statistics.

Excel software was employed to code and meticulously carry out a systematic thematic analysis of the common themes across all expert responses. To ascertain the housing solution opined by our resource persons to be significant to AH challenges, all similar responses were painstakingly grouped into themes of housing solutions. This process required listening to the audio recordings over and over as well as going over the transcriptions

multiple times to ensure that all similar expert solutions are captured within the same theme. Whilst carefully clustering similar responses into thematic groups, the frequency of each theme of housing solution was calculated using excel; thereby introducing the strengths of quantitative analysis to this qualitative study [42]-[44], and presented in descriptive statistics. Table II presents the descriptive statistics in following sections of this article, showing frequencies and resultant percentages (%) of expert solutions which were carefully allocated to the appropriate theme on horizontal axis (rows), and appropriate sources either from a discussant (D) or a respondent (R) on the vertical axis (columns). The frequency of each theme is presented based on the number of its occurrence during the interactive discussions and interview sessions. The level of significance of each theme of housing solution is determined by the level of recurrence of the theme within the interactive FGD and the interview sessions. The percentages (%) of these themes of housing solutions were used to formulate a model showing the critical paths of expert solutions to housing finance challenges towards achieving effective AH provision. The formular deployed in this systematic thematic analysis is presented as:

$$[y = \left\{ \frac{d+r}{\Sigma f} \right\} * 100]$$

where “y” represents percentage of occurrence of the theme of expert solutions; “d” represents the frequency of the theme of expert solutions from a discussant (FGD); “r” represents the frequency of the theme of expert solutions from a respondent (semi-structured interviews), and “Σf” represents the summation of frequencies from a total of (d + r)

TABLE I  
 SUMMARY OF RESEARCH METHODOLOGY

Data collection	
1. Focus Group Discussion	
Number of active discussants	7
Duration of FGD	150 minutes
2. Semi-structured interviews	
Number of respondents	5
Duration of interviews	50 - 90 minutes each
Data analyses	
NVivo	Thematic analysis Content analysis
Excel	Systematic thematic analysis Descriptive analysis

## III. DATA ANALYSIS AND INTERPRETATION

This section interprets the analyzed data for this study. Following a thorough thematic analysis of the study findings, the data interpretation is categorized as solutions to AH finance challenges of the urban poor. All identified subthemes common across expert responses are discussed in detail within this broad category. In harmony with [22] and [26] contributions from all focus group discussants and interview respondents are tagged with unique codes (Discussants 1 – 7 and Respondents 1 – 5) to enable clarity and traceability of data. These codes are: D1, D2,

D3, D4, D5, D6, D7, R1, R2, R3, R4 and R5, as displayed in Table III.

#### A. Housing Finance

Experts were enquired about solutions to housing finance challenges and survey findings exhibit that housing experts opine that deliberate government policies considerate of the urban poor's peculiarities will be the most important solution to AH finance difficulties in Lagos, making up 25.4% of total expert responses as displayed in Table II. When enquired on how to improve the urban poor's access to housing finance, one of the experts while responding to another expert opinion disclosed thus;

- The mortgage banks like some of what the discussant D3 mentioned can be further conceptualized for the urban poor so that their limited contributions can become equity contributions useful for participation in 'rent to own'.

Study findings also reveal that experts opine that properly implemented rental policies that accommodate the challenges of the urban poor will influence better AH finance. It accounted for 15.3% of total expert responses, while deliberate PPP strategies ranked next with 11.9% of total expert responses, 10.2% each of total expert responses are that empowering the urban poor to earn higher income and mainstreaming informal agencies and their housing finance strategies will enhance better AH finance. These are demonstrated in some of the expert responses;

- Rent is a good option but not yearly rent and the likes. There's a law to support that but it is not poorly implemented.
- The PPP concept is great but must be designed properly and contextualized for the target audience. Market solution cannot work to solve the problem of the urban poor who almost have no income at all (Responding to D6).
- The urban poor needs to be financially literate. The urban poor must be encouraged to spend wisely, save from their incomes and invest in housing.
- Most informal workers belong to one association or another. These associations double as cooperative societies and these are the best ways through which the urban poor can climb out of poverty. The cooperative system should be strengthened in informal sector.

Additionally, study findings show that experts opine that enhancing the general economy and improving infrastructural facilities in the country will improve AH finance, 6.78% of total expert responses share this opinion. Experts believe that coalition of all housing stakeholders, improving existing informal housing to increase housing stock and formalizing the assets of the urban poor will enhance the urban poor's access to housing finance. These variables account for 5.08% each of total expert opinions, as showcased on Table II and some of their responses;

- Enhancing the economy in general will enhance the earning capacity of the urban poor and this will in turn enhance their ability to afford better housing.
- One way to assist the urban poor is to make sure that they do not bear unnecessary burdens of poor road networks,

poor electricity and all stringent regulatory demands (building codes and other minimum standards) that limit affordability.

- Platform banking: This is a model to collate all building stakeholders like developers, architects, building material sellers etc. in a basket of mutual relationship. This creates an avenue to mitigate some of the AH provision challenges in Nigeria.

Experts also opine that giving adequate incentives to entice private institutions to consider investing in the lower-end market will improve AH finance, representing 3.39% of total expert opinions and demonstrated in some of their responses;

- Instead of housing subsidies for consumers, incentives should rather be provided to attract and encourage suppliers of finance.

TABLE II  
 SOLUTIONS TO AH FINANCE CHALLENGES IN LAGOS

Themes	d	r	Total (d+r)	y(%)
DFM Deliberate finance models and policies inclusive of the urban poor	8	7	15	25.4
RCP Rent control policies accompanied with proper implementation	3	6	9	15.3
DPP Deliberate Public-private partnership approaches	5	2	7	11.9
EUP Empowerment of the urban poor to earn more and spend wisely	2	4	6	10.2
MIA Mainstreaming informal agencies and strategies		6	6	10.2
EGE Enhancing the general economy and improving infrastructure		4	4	6.78
CHS Coalition of all housing stakeholders	3		3	5.08
RAP Recognizing the assets of the urban poor and titling same		3	3	5.08
IPD Incentivizing private developers adequately	2		2	3.39
Adapting transfer subsidies to the Nigerian reality	1		1	1.69
Mass housing production and delivery	1		1	1.69
Ascertaining the actual housing need		1	1	1.69
Employers to provide housing and not only housing allowances		1	1	1.69
Grand total			(Σf)59	100

Similar to the most significant solution to AH construction problems, survey revealed that experts advanced that the most significant AH finance solution in Nigeria will be finance models and policies that are intentional about overcoming the income limitations of the urban poor. Experts proposed similarly with literature [45], [46] that finance models can be designed and backed by policies in favor of the urban poor. Another essential solution to housing finance challenges by experts' opinion is initiating rental policies which are more favorable for the urban poor than homeownership [47]. In experts' standpoint, rental policies must be accompanied by proper implementation in agreement with [48] and [49] who advocated that housing policies are unproductive when there are no accompanying political will and implementation of policies. Rental policies should be formulated and implemented at local government levels, so that rental policies are consistent with the housing need of the urban poor and for adequate implementation. Experts also advocated for deliberate PPP

strategies to engage the private sector in a manner that favors the urban poor without shortchanging the private institutions. Successful AH finance as a result of government's partnership with private institutions in different parts of the world is popular in scholarly discussions [11], [45], [49]-[55]

Experts are of the opinion that sustainable solutions to the housing finance challenges of the urban poor require empowering the urban poor to earn more income and save more in agreement with [56]-[58] who argued for community based mutual savings towards housing provision. This will require active urban renewal programs and sensitization of the urban poor. Experts advanced other means of enhancing the earning capacity of the urban poor which included general enhancement of the economy in agreement with [59], improving infrastructure in the country, radical approaches to recognize the assets in the informal sector and titling these assets. Some of the urban poor have assets that can be a source of capital for the urban poor when titled. Efforts to reduce the cost of housing finance must be accompanied by efforts to increase the earnings of the urban poor for a sustainable housing finance solution. Another expert solution in this direction is that informal agencies and housing finance strategies of the urban poor should be mainstreamed and formalized. This is in harmony with scholastic standpoint that activities within informal settlements can inform appropriate ways to address their problems and render slum formation redundant [11], [50], [56], [60]. The relevance of informal finance strategies in AH is a popular scholarly opinion [49]-[51], [61]-[64]. Informal strategies will require deliberate policies to control activities of the informal agencies to prevent management challenges [50].

Experts proposed that a coalition of all housing stakeholders for the purpose AH development will be a step in the right direction in alignment with [45] and [65]. This will enable multidisciplinary approaches to housing solution in consonance with literature [4], [48], [62], [64], [66]. In experts' opinion, the private institutions are essential in solving housing finance difficulties in alignment with past housing studies [11], [50], [51], [53], but must be adequately incentivized [67]-[69], transfer subsidies are useful lessons from developed countries but must be adapted to the Nigerian housing realities to be effective [62], [70].

In experts' opinion, other solutions to housing finance challenges of the urban poor include mass housing production which will diminish housing finance burdens and ascertaining the actual housing need of the urban poor to eliminate the incessant mismatch between housing supply and housing demand in conformity with [11], [71]-[74]. Mass housing delivery will crash construction cost and enhance housing affordability but depends on adequate infrastructural framework. Lastly, experts advanced that employers of the urban poor should provide housing instead of the common practice of providing housing allowance, this will require government support in policies and incentives. Similar staff-housing arrangement already exists in many governmental organizations such as public universities, public airports and others that have allocated land for housing development but in the face of typical land scarcity of the urban centers, there may

be innovative ways to explore this expert solution where commercial properties for example, are built in convertible manners to serve as commercial spaces during the day and provide hostel accommodation for the urban poor workers at night. Study establishes that expert opinion propose shelter to be more suitable for the urban poor than homeownership, thus, creative hostels can be fabricated into commercial properties for housing the urban poor. A form of PPP arrangement with adequate policies and legal framework can make this achievable where government provides land for interested private institution to develop properties that generate market rent at day but provide housing for the urban poor at night.

Fig. 1 is an equation model formulated from research findings on expert solutions to AH finance constraints in relation to other key elements of HSVC. It summarizes study findings and agglomerates all critical solutions to AH finance, clearly showing critical path based on expert opinion. The weight of the arrows signifying the critical paths of these solutions evidence the priority our resource persons place on each theme of solutions and their level of significance in impacting success in AH finance. Success of this element and in all other interdependent elements of HSVC should enable efficient AH provision from supply-side point of view.

#### IV. CONCLUSION

This study aimed to examine experts' opinion on solutions to AH finance challenges in Nigeria, being a major element of HSVC. This study fundamentally extends housing literature as it ascertains and aggregates expert solutions for AH finance constraints through thorough analyses. It provides a comprehensive supply-oriented examination of AH finance challenges in developing economies. This is an aspect of an ongoing research that is intended to explore AH provision challenges from both demand and supply perspectives, towards formulating a pragmatic framework for effective affordable housing (EAH) provision in developing countries with the hope of eradicating the discrepancy between AH supply and demand [4].

The study demonstrably answers the research query by rigorously examining experts' standpoints on AH finance approaches and found that deliberate finance models designed to target the urban poor is the most critical success factor to AH finance in Nigeria. To address AH finance challenges from supply viewpoint, experts propounded that it is crucial to encourage rental housing but stimulate this with adequately implemented rent control policies, deliberate PPP approaches like inclusionary housing and land-value capture, urban renewal programs to enlighten and tutor the urban poor on how to earn more, spend wisely and invest in their own better housing. Mainstreaming informal finance agencies and their housing finance strategies was equally considered essential by experts. Experts further avowed that enhancing the general economy and state of infrastructure, coalition of all housing stakeholders in a form of 'platform banking', titling the assets of the urban poor and adequately incentivizing private finance institutions will be important ways to solve AH finance constraints in Nigeria.

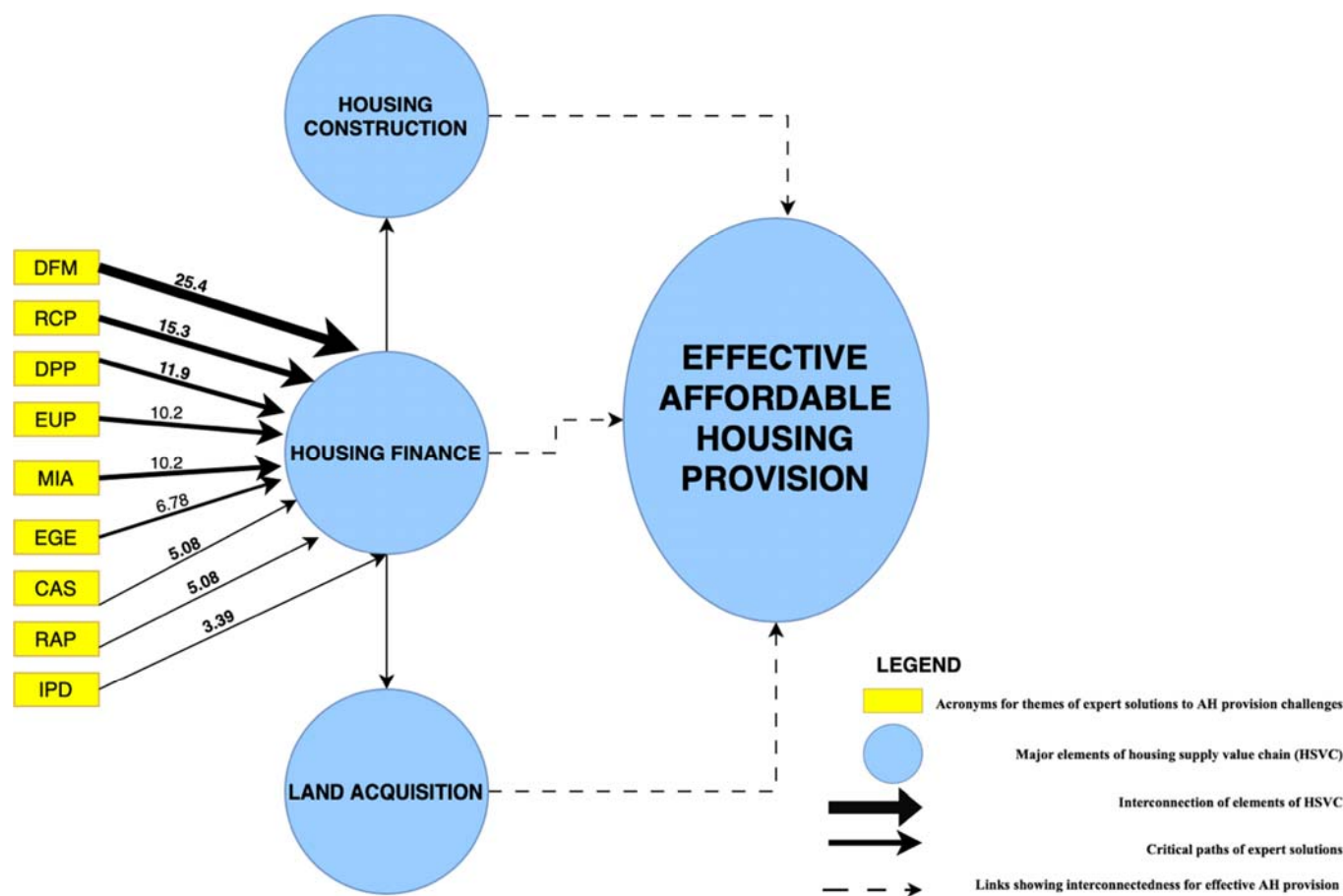


Fig. 1 Equation model of critical solutions to AH finance challenges

This study is to examine experts' opinions vis-à-vis AH finance as a major component of HSVC, revealing expert solutions to challenges in AH finance. A contribution from this qualitative study is the development of an equation model of critical solutions to AH finance challenges in developing economies. This is a crucial extension of housing literature by thoroughly investigating housing experts to provide supply-oriented solutions to AH finance challenges. If findings from this study are consolidated into demand-oriented solutions for AH finance, the prevalent disagreement between AH demand and supply will be eliminated and SDGs will be better achieved, especially goal 11 for inclusive, resilient, safe and sustainable cities in developing economies.

It is recommended that housing intervention approaches are multidisciplinary but strongly anchored on deliberate government policies that are informed by research. Housing interventions should prioritize AH finance solutions based on the critical paths established in this study for effectiveness,

particularly in Nigeria and can be adapted in other developing economies of the world. Study findings are policy-oriented and are essential for future studies on housing the urban poor in developing economies. This study is a vital step towards EAH provision in developing countries which will lead to the achievement of the SDGs. The nature of this study sample limits generalizability of findings but results are robust and can be transferred to other groups urban poor people. The contributions of this study are useful to all stakeholders interested in AH provision in the global south.

APPENDIX

TABLE III

DETAILED INFORMATION OF ALL FG DISCUSSANTS AND INTERVIEW RESPONDENTS

S/N	Date	Organization	Years of experience	Address of organization	Codes
1	2/8/2022	University of Lagos/Centre for housing (CHSD)	30 years	Research Management Office, University of Lagos, Akoka, Lagos.	Co-moderator
2		Lands Bureau	25 years	Land Regularisation Directorate, The Secretariat, Alausa, Ikeja, Lagos.	D1
3		Eximia Realty Company	29 years	62/64, Campbell Str, Lagos Island.	D2
4		AG Mortgage Bank Plc.	20 years	96, Opebi Road, Ikeja, Lagos.	D3
5		Ministry of Housing	25 years	Lagos State Valuation office, State Secretariat, Alausa, Ikeja, Lagos.	D4
6		University of Lagos/Centre for housing (CHSD)	20 years	Centre for Housing and Sustainable Development, University of Lagos, Akoka, Lagos.	D5
7		Arctic Infrastructure	20 years	7, Ekololu Street, Surulere, Lagos.	D6
8		Lagos State Development Property Corporation (LSDPC)	10 years	2/4, Town Planning Way, Ilupeju, Lagos.	D7
Semi-structured interview					
1	9/8/2022	University of Lagos/Centre for housing (CHSD)	40 years	Deans Office, Faculty of Environmental Sciences, University of Lagos, Akoka, Lagos.	R1
2	10/8/2022	University of Lagos/Centre for housing (CHSD)	20 years	Centre for Housing and Sustainable Development, University of Lagos, Akoka, Lagos.	R2
3	10/8/2022	Realty Development Limited	25 years	Onigbongbo, Maryland, Lagos.	R3
4	14/8/2022	University of Lagos/Centre for housing (CHSD)	25 years	Centre for Housing and Sustainable Development, University of Lagos, Akoka, Lagos.	R4
5	21/9/2022	Federal mortgage bank of Nigeria (FMBN)	20 years	Federal Mortgage Bank, Plot 266, Cadastral AO, CBD, Abuja.	R5

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