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Quantitative Analysis Of Architectural Landscape Effect and Preference on Accommodation Costs in Cities: A Case Study Of Enugu Urban Housing Models

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ABSTRACT

The Enugu urban area has experienced a shift from community-oriented apartment living to isolated single-family housing demands over the past decade. The population has increased since Nigerian independence and the civil war, but there has been little change in attitudes except, the drift from the old and dilapidated apartment buildings (neighborhoods) to the newly well-surveyed architectural landscaped neighborhoods. This research aims to analyze the cost implications of quality architectural landscaping and preference for newly well-surveyed neighborhoods in the Enugu urban area. Different authors have responded to the changes in urbanization and housing accommodation problems differently, as a result, the authors, adopted a descriptive-survey research design. Architectural landscaping is vital for new residential buildings, with Nigeria showcasing lush gardens, well-maintained lawns, decorative pathways, and water features in housing schemes. Urban spaces are increasingly incorporating green areas and sustainable practices to promote environmental conservation and create more livable communities. However, in places like Enugu Urban, public residential buildings are often constructed without considering proper architectural landscaping. All areas of activities are generators of growth that require land and space for their conduct, and which, in turn, have implications and consequences on growth structure.

Keywords: landscaping, architecture, shelter, sustainability, urban planning, development

INTRODUCTION

Post-independent Nigeria has seen Enugu, Nigeria's urban area double in population especially, after the Nigerian civil war. Enugu, which served as the capital of Eastern Nigeria, was not designed for the population it accommodated after the Nigerian civil war and still taking in more people because of the insecurity in most parts of Nigeria where the easterners live. This influx of people in the general Enugu urban area is causing problems for the government, particularly in the provision of housing, infrastructure, and other support services.

Today, the major threat to the human environment is more complex, and more closely connected with the very way in which cities are built. For example, the largest cities have grown nearly tenfold in a century. Yet, their consumption of land is greater still. An immense transport system is required. In the wealthier countries this bears strongly on the fact that masses of automobiles raise the level of air pollution and noise, and create serious problems of congestion and accidents. In poor countries where poor housing structures dominate the urban landscape, spaces are littered with settlements lacking the most basic urban infrastructures. All this tends to reduce the quality of the human environment especially, in the urban areas (Okonkwo, 1998: 32).

Within the past decades, the architecture of different cities has gone through changes and according to Shane (2011), different urban actors in different periods during the last 60 years worked to create different urban models, using the basic urban elements of enclaves, armature, and heterotopias. A beautiful and delightful city environment is an oddity, some would say an impossibility, a legible city would be one whose districts or landmarks or pathways are easily identifiable and are easily grouped into an overall pattern and that legibility is crucial in the city setting. Although clarity or legibility is by no means the only important property of a beautiful city, it is of special importance when considering environments at the urban scale of size, time, and complexity. To understand this, we must consider not just the city as a thing in itself, but the city being perceived by its inhabitants (Lynch, 1985:3).

Environmental images are the result of a two-way process between the observer and his environment. There seems to be a public image of any given city which is the overlap of many individual images. The content of the city images, which are preferable to physical forms, can conveniently be classified into five types of elements: paths, edges, districts, nodes, and landmarks (Lynch, 1985:46). These elements are used by the urban development actors in planning and developing the urban areas especially, dealing with built environment, housing and urbanization control.

The first root of urbanization could be located at the point when man's conception of the universe changed from the limited geocentric one to the still limited heliocentric ideas of Copernicus, so over the centuries, the urban scale has widened and the limitations have disappeared. Now that the universe is conceived of as unbounded yet not infinite, something similar has happened to our cities: their scale and their size have grown beyond all expectations into the open country. The old scale has lost its meaning. The first cities arose where and when agriculture was sufficiently advanced to supply food, not alone for the actual producers, but also for those who were not engaged in agriculture. This was the basic prerequisite, for artisans, craftsmen, soldiers, and traders who congregated in the cities. And even if they owned fields outside the city or gardens without it, they produced hardly more than a welcome portion of the food they needed in addition to the supply from full-time farmers (Gutkind, 1964).

In all, the roots of urbanization go deep into human history. The conventional theory was well stated by Mumford (1961). He identified the first germ of the city in the ceremonial meeting place that serves as a goal for pilgrimage, a site to which early man with his family or clan group is drawn back from his wanderings at seasonable intervals because it concentrates, in addition to any natural advantage it may have, certain spiritual or super natural powers. From periodic meetings a few steps lead to settlement and agriculture, to villages and finally, to a differentiation of villages in terms of concentration of technical and religious power, the seats of power becoming towns' vis-à-vis the villages. In a counter thesis, Jane Jacobs (1969) advanced the claims of the city above those of the village. She argues that historically, it was the development of cities that made possible and necessary the development of satellite agricultural villages; that agriculture was indeed "farmed out" from the city to the countryside.

Whatever its origins and individual peculiarities, an urban center is distinguished most fundamentally by its functions. It is essentially a central place, a center for the mobilization and organization of services for an area. The "basic" urban functions, which generally have to do with administration, commerce, industry, transportation, are facilitated by aggregation. This is in marked contrast to primary production-agriculture, forestry, fishing, mining, extraction and the like – which, spread over favorable sites tied to available sources, is necessarily dispersed (Ukwu, 1980). Walter Christaller (1966), the pioneer urban theorist whose formulation of the problem remained the most elegant, in modern times, in its logic and simplicity, has likened the process of town formation to "the crystallization" of mass about a nucleus". The number, scale and variety of facilities and services concentrated about a given nucleus determine its status as a town and reflect the size and character of its hinterland.

For a given region, the historical process of urban development does not depend on a steady uni-directional pattern of concentration and coalescence of urban facilities and services about a number of given centers. Rather it hinges on a series of critical events in the socio-economic organization of the communities, events which create new nuclei or enlarge, change the character, diminish or destroy pre-existing ones, hence, the development of towns or systems of towns tends to be episodic and it is often possible to identify the key events and the phases of urban development associated with them.

Each key event imposes a new set of area relationships and a new functional ordering of centers thereby setting the scene for a new phase in urban development. This phenomenon has underscored urban development processes in Nigeria, more than ever since the colonial period (Okonkwo, 1993). The first new towns were created in Nigeria during the colonial period; and they were not created to absorb population over-spill from oversized urban centers, but rather to satisfy the economic and administrative interests of the colonial masters. It was in this way that Enugu and Jos were founded essentially for the exploitation of coal and tin resources, respectively, and Kaduna for administrative convenience (Mabogunje, 1968). Consequently, in its post-colonial period, many urban centers have come into existence while others have received more growth impetus under the political instrument of state and local government area creation, as well as the reallocation and redistribution of resources under the process of socio-economic restructuring in the country.

Theoretically, in Nigeria, most of the new towns and urban areas developed after the colonial era were developed without adequate considerations of the urban planning and development principles, and most of them were developed and managed by individuals inadequately trained in the profession of the built environment as was the case in Abuja and other Nigerian cities. Not only that unqualified professionals hijack urban development practices in Nigeria, but the society is also marred by bad governance, and for a very long time, bribery and corruption have become a common practice. Ignorance and all these, led to the consequences of inadequacy in housing provisions in both the urban and rural areas in Nigeria, depletion of the agricultural lands and forests hence, urbanization. Bad government policies, practices, and execution of poor urban development laws and outdated strategies have not allowed or encouraged sustainable urban developments in Nigeria.

Human experiences of the urban spaces have been reshaped by events and how the public domain is framed has produced nagging quests for solutions. These are added to the hitherto baffling situations of how the sustainability of urban spaces has often been affected and on many occasions precluded by decaying urban fabrics, unplanned physical developments, and poor space administration (Smith, Nelisher, Perkins 1997). The Enugu urban area's housing provisions and accommodation have in the past decade, changed from community-oriented apartment living to isolated single-family type of housing demands. This resulted from the major emphasis in the architectural landscaping of the newly developed and well-surveyed neighborhoods that the housing developers are developing in the area.

Statement of Problem

The increasing population of the Enugu urban areas is putting pressure on the area's resources and making it impossible for the communities to sustain themselves with the basic provision of housing accommodations, food, and other necessary infrastructure. These basic needs such as shelter and food are from nature and the people of the Enugu urban areas use natural endowments to get the type of shelter, and infrastructure they want and these in turn, become part of their physical environment. In all these, shelter has the most effect on the built environment. The population of the Enugu urban area has constantly increased since the Nigerian independence and especially, after the Nigerian civil war without much change in the attitude of the people except, the drift from the old and dilapidated apartment buildings (neighborhoods) to the newly well-surveyed landscaped neighborhoods. These well-surveyed and landscaped neighborhoods attract mostly the youth and the rich who can afford them, leaving behind, abandoned apartments in total disrepair.

Aim of the Study

This research aimed to analyze the cost implications of quality architectural landscaping effect and preference on newly well-surveyed neighborhoods of the Enugu urban area.

Study Area

Enugu Urban which is the study area is made up of Enugu East, Enugu North, and Enugu South as shown in (Figure 1). Enugu Urban is also located within latitude 6.240 N and 6.300 N and longitude 7.270 E and 7.320 E. It shares a boundary with Igbo Etiti and Isi-Uzo Local Governments in the north, Udi local Governments in the west, Nkanu West Local Government in the south, and part of the Nkanu East Local Government Area in the east. There are 18 prominent residential areas in the Urban. These are Abakpa, Trans-Ekulu, Nike, GRA, Ogui, Asata, New Heaven, Obiagu, Ogbete, Iva valley, Independence Layout,

Achara Layout, Ugwuaji, Maryland, Awkunawnaw, Uwani, Agbani, and Coal Camp. Enugu Urban is the most developed area in Enugu state.

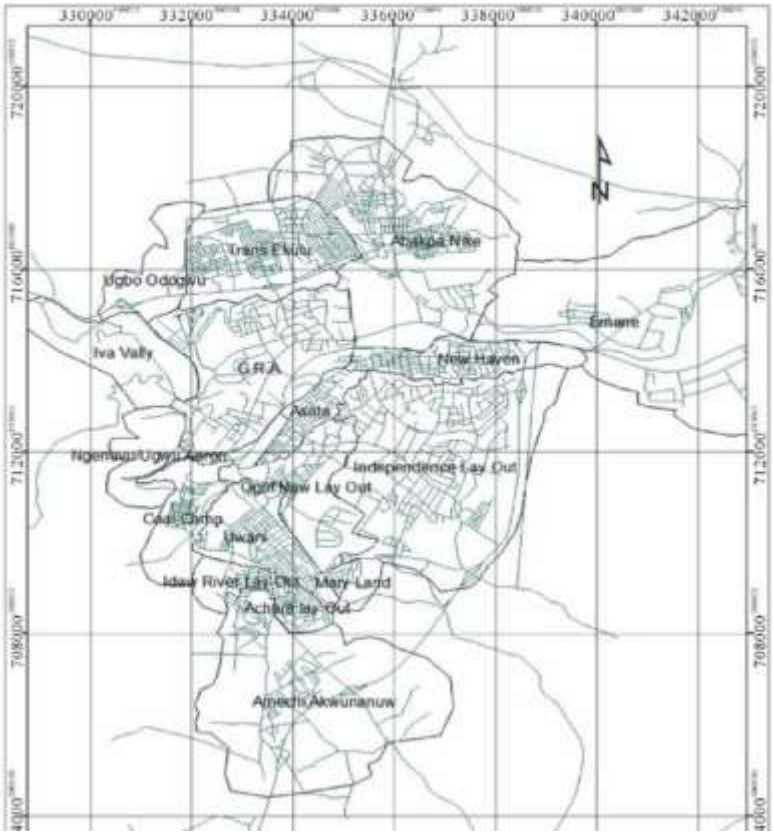

Fig 1. Map of Enugu urban area (study area) showing settlements.

Source: GIS Lab NAU Awka 2019.

RESEARCH METHODOLOGY

The authors primarily adopted a descriptive-survey research design, where it was carefully analyzed and interpreted the works of other authors and used them in buttressing the points as applied to the issue at hand, "Quantitative Analysis of Architectural Landscape Effects and Preference on Accommodation Costs in Cities: A case study of Enugu Urban housing models." The research population comprised the households of the study neigbourhood within Enugu Urban. Taro Yamane formula was used to determine the sample size of 399. To carry out this research, 399 copies of the questionnaires were given to the participants. 86% response rate was indicated by the 350 copies that were returned.

RESULTS AND DISCUSSION

The Enugu urban area has witnessed and continues to see dilapidation in the area's housing settlements especially, in the older areas of Coal Camp, Uwani, Ogui New Layout, Artisan Quarters, New Haven, etc. This dilapidation has resulted in the growth and development of slump in the general area. In most cases, the government has not paid well to adequate attention to the housing industry in the area. The researchers, during their study, noticed that non-professionals were used by the government agencies in monitoring the building construction projects in the area and most times, the monitoring teams did not know what to look

for yet, they were hired to do the job of the professionals in the building industry. They focus more on having more enclosed space for renting based on a mercantile mentality even when their choice tends to work against return on investment.

The researcher's study (table 1), shows that the respondents agree that climate and weather affect the choice of landscape attributes in the Residential Neighbourhoods as indicated by a mean response value of 4.66 greater than the criterion mean of 3. Other factors reported by the respondents include Quality and composition of soil (4.85), Architectural style of layout of homes (4.25), Noise pollution (3.89), Air quality (4.68), Aesthetic and ecological value (4.87), Choice of materials (3.89), Government policies (4.56) and Urban planning and development (4.65). Others include Access to financial options (3.67), High-interest rate (3.92), Culture of the region (3.67), Composition of the family (Nuclear extended) (3.56), Mental well-being (4.60), Attractive appearance (4.75) and Visual harmony (4.62). The respondents disagree that the size of the property is a factor affecting the choice of landscape attributes in the Residential Neigbourhood. This is indicated by the mean response value less than the criterion mean of 3. Other factors they disagree with include Topography of land (2.63), Government prioritization of other essential services (2.25), Inflation e.g. hike in prices (2.17), and Foreign exchange rate (2.06).

Table 1: Factors affecting the choice of landscape attributes in the Residential Neigbourhood

S/n		Strongly disagree n (%)	Disagree n (%)	Indifferent n (%)	Agree n (%)	Strongly Agree n (%)	Mean ± SD
1	Climate and weather	0 (0.0)	4 (1.1)	8 (2.3)	91 (26.0)	247 (70.6)	4.66 ± 0.58
2	Quality and composition of soil	0 (0.0)	0 (0.0)	3 (0.9)	46 (13.1)	301 (86.0)	4.85 ± 0.38
3	Size of property	(0.0)	229 (65.4)	25 (7.1)	34 (9.7)	62 (17.7)	2.79 ± 1.19
4	Topography of land	8 (2.3)	241 (68.9)	7 (2.0)	62 (17.7)	32 (9.1)	2.63 ± 1.09
5	Architectural style of layout of homes	0 (0.0)	0 (0.0)	7 (2.0)	247 (70.6)	96 (27.4)	4.25 ± 0.48
6	Noise pollution	1 (0.3)	40 (11.4)	15 (4.3)	235 (67.1)	59 (16.9)	3.89 ± 0.83
7	Air quality	0 (0.0)	0 (0.0)	9 (2.6)	94 (26.9)	247 (70.6)	4.68 ± 0.52
8	Aesthetic and ecological value.	0 (0.0)	0 (0.0)	(0.0)	47 (13.4)	303 (86.6)	4.87 ± 0.34
9	Choice of materials	1 (0.3)	20 (5.7)	35 (10.0)	255 (72.9)	39 (11.1)	3.89 ± 0.67
10	Government policies	0 (0.0)	16 (4.6)	7 (2.0)	92 (26.3)	235 (67.1)	4.56 ± 0.75
11	Urban planning and development	0 (0.0)	7 (2.0)	0 (0.0)	101 (28.9)	242 (69.1)	4.65 ± 0.59
12	Government prioritization on other essential services	1 (0.3)	301 (86.0)	24 (6.9)	7 (2.0)	17 (4.9)	2.25 ± 0.73
13	Inflation e.g hike in prices	10 (2.9)	296 (84.6)	28 (8.0)	8 (2.3)	8 (2.3)	2.17 ± 0.62
14	Foreign exchange rate	17 (4.9)	297 (84.9)	35 (10.0)	1 (0.3)	0 (0.0)	2.06 ± 0.39
15	Access to financial options	0 (0.0)	32 (9.1)	77 (22.0)	215 (61.4)	26 (7.4)	3.67 ± 0.74
16	High interest rate	0 (0.0)	9 (2.6)	47 (13.4)	257 (73.4)	37 (10.6)	3.92 ± 0.58
17	Culture of the region	0 (0.0)	72 (20.6)	18 (5.1)	215 (61.4)	45 (12.9)	3.67 ± 0.95
18	Composition of the family (Nuclear extended)	0 (0.0)	40 (11.4)	87 (24.9)	211 (60.3)	12 (3.4)	3.56 ± 0.74
19	Mental well-being	0 (0.0)	1 (0.3)	21 (6.0)	94 (26.9)	234 (66.9)	4.60 ± 0.61
20	Attractive appearance	0 (0.0)	1 (0.3)	11 (3.1)	61 (17.4)	277 (79.1)	4.75 ± 0.52
21	Visual harmony	0 (0.0)	1 (0.3)	30 (8.6)	70 (20.0)	249 (71.1)	4.62 ± 0.65

Table 2, shows that the respondents are satisfied with the size and design of Open/Green spaces in their neighborhoods (4.09) as indicated by mean response value of 4.09 greater than the criterion mean of 3. They are also satisfied with The availability of trees and shrubs in the neighborhoods (4.01), Outdoor lighting in common areas and walkways (3.75), availability and condition of outdoor amenities (benches, seating areas, playgrounds) (4.44), Regular maintenance of landscape features and well-maintained gardens, lawns, and public spaces (3.79), Availability, nearness, and functionality of recreation facilities in the layout (3.98), Orientation of your building on site concerning landscape features (3.85), The sense of personal space and natural barriers of landscape features in your layout (4.48), Cost of acquiring a house or rentage in the layout (3.77) and Availability of sidewalks and other necessary urban infrastructure in the layout (3.09). A grand mean of 3.93 indicates that the residents are satisfied with the landscape elements in their Neighbourhoods.

Table 2: Satisfaction of the landscape elements in Residential Neigbourhood in Enugu Urban

S/n		Very dissatisfied n (%)	Dissatisfied n (%)	Not sure n (%)	Satisfied n (%)	Very satisfied n (%)	Mean ± SD
1	The size and design of Open/Green spaces in your neighbourhood.	0 (0.0)	13 (3.7)	30 (8.6)	217 (62.0)	90 (25.7)	4.09 ± 0.69
2	The availability of trees and shrubs in the neighbourhood	0 (0.0)	14 (4.0)	30 (8.6)	246 (70.3)	60 (17.1)	4.01 ± 0.65
3	Outdoor lighting in common areas and walkways.	0 (0.0)	35 (10.0)	45 (12.9)	244 (69.7)	26 (7.4)	3.75 ± 0.73
4	The availability and condition of outdoor amenities (benches, seating areas, playgrounds)	0 (0.0)	18 (5.1)	43 (12.3)	57 (16.3)	232 (66.3)	4.44 ± 0.89
5	Regular maintenance of landscape features and well-maintained gardens, lawns, and public spaces	32 (9.1)	9 (2.6)	14 (4.0)	242 (69.1)	53 (15.1)	3.79 ± 1.04
6	Availability, nearness, and functionality of recreation facilities in the layout	0 (0.0)	14 (4.0)	45 (12.9)	226 (64.6)	65 (18.6)	3.98 ± 0.69
7	Orientation of your building on site concerning landscape elements.	0 (0.0)	40 (11.4)	9 (2.6)	264 (75.4)	37 (10.6)	3.85 ± 0.75
8	The sense of personal space and natural barriers of landscape elements in your layout.	0 (0.0)	38 (10.9)	1 (0.3)	65 (18.6)	246 (70.3)	4.48 ± 0.95
9	Cost of acquiring a house or rentage in the layout.	0 (0.0)	18 (5.1)	56 (16.0)	263 (75.1)	13 (3.7)	3.77 ± 0.59
10	Availability of sidewalks and other necessary urban infrastructure in the layout	0 (0.0)	43 (12.3)	243 (69.4)	52 (14.9)	12 (3.4)	3.09 ± 0.63
				Grand mean			**3.93 ± 0.39**

The quality of housing in other central city layouts: Independence, New Haven, Ekulu Extension and Idaw River, was generally good. But piped water supply and good access roads were inadequate, except for the earlier parts of Independence Layout which were developed in the 1960s and 1970s. The quality of housing in these layouts have greatly improved over the older areas due primarily to a better utilization of

land. Not more than two family units are allowed on a plot, while in later developed pats such as Achara and Awkunanaw Layouts often provided are six family units of three bedrooms each (5 habitable rooms) on three floors. Latterly, urban renewal activities are taking place in the areas and expansion of the existing buildings and improvement in the areas taking place however, the infrastructure and landscaping still remains neglected and mostly unpleasing to the residents (Okonkwo, 1998).

In the greater parts of the Government Reservation Area, Asata, Ogui, New Haven, Onuasata/Obiagu, Idaw River, Uwani North, Uwani South, Achara, Awkunanaw, Ogui New Layout, Ogbete, herein considered central city layouts; and Abakpa Nike, Riverside, Trans-Ekulu, Iva Valley and Emene which are considered central areas peripheries, despite all government efforts to install and improve upon the existing infrastructure, the areas still lacked and over populated (Okonkwo,). In most cases, some of the areas are infiltrated by the urban poor who occupy most of the buildings in disrepair. However, during the researchers study, it was evident that the wealthy young adults and the rich older people who can afford the newer and well surveyed and landscaped estates were abandoning their older communities and moving into the newly developed estates.

Some of those buildings abandoned by the rich and wealthy unabatedly deteriorating into slums alongside rising housing deficits which have remained problematic for most Nigerian urban centers and resulted in individuals moving with well-maintained and landscape housing units (Okonkwo, 1998). Plate 1, shows a typical example of those abandoned buildings.

Plate 1. Typically, shared accommodation blocks with no distinct landscape characteristics, Old Uwani
Source: Okonkwo (1992)

Asata Layout is an area of about 45 hectares, located between the southern part of the Asata River and Ogui Road to the north of Presidential Road. Its population in 1980 was estimated at 21,594; It is also estimated that an average of six family units occupy each building at an interior density of four persons per room. Land use pattern in Asata indicates 58 percent of the structures are used for residential, and 38 percent for mixed residential and commercial, while 6 percent is solely for commercial purposes. 86 percent of the structures are one-storey buildings, buildings, 10 percent are two-storey and 5 percent are three or more-storey buildings while 45 percent are structurally fair (Okonkwo, 1998), typical all over Enugu urban (plate 2). These buildings are abused by the tenants irrespective of the facts that building regulations were not met and obeyed.

Plate 2. Asaba Lane in Asata layout with poor landscape with bad road network
Source: Authors fieldwork (June23, 2023)

Consequent upon the behavior of the landlords, tenants and the government officials in keeping and maintaining the buildings, the rich and wealthy abandoned them for newer and well surveyed estates, not minding the cost.

CONCLUSION

Residential developments in the Enugu urban areas could come under: rehabilitation, conservation, redevelopment, revitalization (through a combination of other economic activities).

It is the finding of this research that, the appropriate approach is redevelopment of the areas. It will involve the clearance of existing greatly degenerated dilapidated buildings, re-zoning of the land-use, complete replacement of the majority decayed or blighted areas with new structures and facilities.

But a special feature of this recommended approach is that the present dwellers of the areas should be retained in the same area because of the established economic linkages between the slums and their outsiders. So the slum dwellers shall be made to participate directly in the production and implementation of redevelopment programmes.

The changing global economy has heightened concerns about living environments, prompting professionals, governments, and developers to recognize the importance of architectural landscaping in residential house planning and development. By integrating architectural landscaping into residential design, we can enhance the aesthetic appeal, functionality, and sustainability of outdoor spaces, ultimately contributing to better living standards and user comfort. Moving forward, stakeholders need to consider the impact of the changing global economy on living environments and prioritize the thoughtful integration of architectural landscaping in residential developments to create thriving and resilient communities.

RECOMMENDATIONS

In studying the state of existing infrastructure in Enugu, it was made clear the presence of large-scale deficiencies in infrastructure and services in all parts of Enugu city. One of the major repercussions of the type of preoccupation government gave to urban problems in the city is the central city slum areas which have since the early 1940s lacked administrative attention consistently and need to be corrected.

The changing global economy has had a profound impact on living environments around the world. Rapid urbanization, population growth, and technological advancements have reshaped the way people live and interact with their surroundings. As more people move to urban areas in search of better opportunities, the

demand for housing has increased significantly. This has led to the development of high-rise buildings, compact living spaces, and a shift towards sustainable and eco-friendly design practices.

Furthermore, the changing global economy has also brought about new challenges such as climate change, resource depletion, and social inequality. These challenges have directly influenced the way living environments are planned and developed. Professionals, governments, and developers are now tasked with creating living spaces that not only meet the needs of the growing population but also address environmental and social concerns. This has led to a greater emphasis on architectural landscaping as a means to enhance the quality of residential spaces and promote a sustainable way of living.

The increase in demand is far faster than supply so the inevitable result has been higher rents for "equivalent" housing than in the non-slum market. Rent differentials may persist, like wage differentials, because of immobility between the two markets (Okonkwo, 1998).

REFERENCES

Christaller, Walter (1966). Die zentralenOrte in Suddeutschland. Jena: Gustav Fischer, 1933. (Translated (in part), by Charlisle W. Baskin, as Central Places in Southern Germany. Prentice Hall

Gutkind, Peter C. W. (1974). Urban Anthropology: Perspective on "Third World" Urbanization and Urbanism, Van Gorcum, Assn.

Jacobs, J. (1969): The Economy of Cities, Penguin, London.

Jibril Ibrahim Usman (2006). Resettlement Issues, Squatter Settlements, and Problems of Land Administration in Abuja, Nigeria's Federal Capital. Promoting Land Administration and Good Governance, 5th FIG Regional Conference, Accra, Ghana. 1-13.

Kain, J. F. (1966): "The Big Cities Big Problems", Challenge, Sept., pp. 5-8; and (1968): "The Lynch, Kevin (1985). The Image of a City. The M. I. T. Press: Massachusetts Institute

of Technology Cambridge, Massachusetts, and London, England. p. 1, 3, 105.

Mabogunje, Akin (1968): Urbanization in Nigeria, University of London Press, London, pp.107-108.

Mumford, L. (1961): The City in History, University of London Press, London.

Okonkwo Moses M (1998). The Building of a New Capital and its Local Communities:

Abuja Federal Capital City on Focus. Department of Architecture, Abia State University, Uturu, Nigeria.

Okonkwo, M.M. (1993): "New Pattern of Development for Cities in Nigeria", Unpublished Ph.D. Dissertation, Warsaw University of Technology, Warsaw, Poland.

Shane, David Grahame (2011). Urban Design Since 1945-A Global Perspective. Wiley A John Wiley and Sons Ltd, Publication. United Kingdom

Smith, T., Nelisher, M., Perkins, N. (1997). Quality of an Urban Community: A Framework for Understanding the Relationship Between Quality and Physical Form, Landscape and Urban Planning, Vol.39, s.229-241

Ukwu I. Ukwu (1976). Rural Employment and Rural Urban Migration in Anambra and Imo States, Economic Development Institute, University of Nigeria, Enugu

Ukwu, I. Ukwu (1980): "The Pattern of Socio-Economic Development in Nigeria", Seminar on Revitalizing the Nigerian Economy, organized by the Association for Social, Economic and Management Studies of Nigeria, Enugu, May 1980, p. 12.