

# Analysis of the Effects of Building Use Conversion on Property Values in Ogui-Enugu (2011– 2021)

EBUBE OGORNA ANGELA<sup>1</sup>, EMOH FIDELIS IFEANYI<sup>2</sup>

<sup>1, 2</sup> Department of Estate Management, Nnamdi Azikiwe University, Awka, Anambra State, Nigeria

*Abstract- The conversion of use of buildings in cities of the developing world is often from residential to commercial with the latter having serious impacts or diseconomies on the adjacent residences and their occupants. The aim of the study is to analyze the effects of building use conversion on property values in Enugu urban between the year 2011 and 2021 with a view to identifying the causes of change in use in the study area. The specific objectives of the study includes; To determine the reasons behind the building use conversion activities in Ogui between 2011 to 2021, To evaluate the perceived effects (negative and positive) of building use conversion activities in Ogui new layout between 2011 to 2021, To examine the trend in land values (rental values and capital value of properties) in Ogui new layout between 2011 to 2021, To analyse the relationship between building use conversion activities and property values in Ogui new layout between 2011 to 2021. Taro Yamane formula was applied to three categories of persons who were administered questionnaire; Registered Estate Surveyors and Valuers in Enugu Urban (72), Real Estate Developers Association of Nigeria Enugu Branch (14) and Tenants/Occupants along Ogui Road (152). A total of 238 questionnaires were distributed; 232 questionnaires were retrieved representing 97.5% which was used for statistical analysis. The hypothesis stipulated that there is no significant relationship between building use conversion and property values in Ogui new layout. There is no significant difference in the perception of property managers and residents regarding the effects of building use conversion in Ogui new layout. Data collected were presented using tables and charts while hypothesis 1 and 2 were tested using the Chi Square and Regression Analysis respectively. The study found consistent rise in the value of landed properties within Ogui new layout between (2011-2021); with the highest rise in value of properties being observed on tenement houses. However,*

*changes in the value of landed properties within Ogui new layout occurred mainly between year 2013 upwards to year 2021, while the value of land properties remained relatively the same between year 2011 and 2012. The study recommended that Government and planning authorities should ensure that the use of each area should be limited to what it was originally zoned for, so that conversion of the residential properties to commercial is reduced. The government should also increase the levies charged for conversion of properties as this will reduce the amount of conversions that take place in a year.*

*Indexed Terms- Building Use, Conversion, Property Values, Ogui Enugu.*

## I. INTRODUCTION

Land occupies a special niche, not only in the marketplace, but also deep in the human soul. In its role as a resource, land has special characteristics that affect its allocation. Topography matters, of course, but so does its location, especially since, in contrast to many other resources, land's location is fixed. It matters not only absolutely in the sense that the land's location directly affects its value, but also relatively in the sense that the value of any particular piece of land is also affected by the uses of the land around it. In addition land supplies many services, including providing habitat for all terrestrial creatures, not merely humans. Some contiguous uses of land are compatible with each other, but others are not. In the case of incompatibility uses conflicts must be resolved.

Urban land use involves the nature and level of spatial accumulation of activities. The nature of land use refers to the activities taking place while the level of spatial accumulation indicates their intensity and concentration. Most human activities, economic, social or cultural imply a multitude of functions, such

as production, consumption and distribution. These functions are occurring within an activity system where their locations and spatial accumulation form land uses.

In Barlowe (1998), Brandeis once observed that "value is a word of many meanings". The validity of this dictum is demonstrated by the different meanings applied to this term in popular usage. In a broad sense, value implies capacity to satisfy wants; and there are as many kinds of value as there are classes of wants. Thus we may deal with economic value, market value, aesthetic values, political values, social values, spiritual values etc. Economists and Appraisers are primarily concerned with economic and market values, but they too use the term "value" in many different contexts and with different adjectives to mean different things.

The conversion of use of buildings in cities of the developing world is often from residential to commercial with the latter having serious impacts or diseconomies on the adjacent residences and their occupants. The extent of the diseconomies, either in terms of effect on price or in terms of geographic reach, has been questioned by many authors in the developed world. An attempt is made here to review the literature on these impacts in cities of developed and developing countries. Actors in the building sector generally have divergent views about the influence of commercial or non-residential property located within or adjacent to residential areas.

Ademola (2010) opined that conversion of residential properties to commercial uses or introduction of commercial uses in residential areas has brought about more negative than positive effects on adjacent residential areas. It is, according to him, almost impossible for new migrants to secure residential accommodation in the area. Another negative externality, Ademola noticed, is the high level of traffic congestion due to an increase in the level of commercial activities. Both customers and shop owners park on the streets, thereby narrowing the carriage ways, and causing traffic hold-up along the roads. Other negative effects include, strain on existing infrastructure such as electricity and water supply, and pollution from high garbage generation and fumes and smells from generators and food joints

(Ademola, 2010). His conclusion therefore is that though the changes promote economic activities but their side effects such as high rent, invasion of privacy, and so on, outweigh the benefits to the neighborhoods.

The desirability and marketability of a residential property is mainly determined by its location. Due to various factors such as location, accessibility, population density, composition and distribution, disposable income, government policies and so on. Property market varies from one geographical location to another. There is a market for different types of properties in Enugu Urban, these are: Residential, Commercial, Industrial, Recreational and Agricultural properties. Some of these markets are segmented from each other by layouts. The study area which is Ogui new layout was formerly more of residential than commercial. However, today that is not the situation. Ogui road has turned into a commercial area. There is therefore, the need to determine the effects of those conversions on property value in the neighborhood.

#### 1.1 Statement of the Problem

From 1940, when Ogui declared an urban area by the then colonial administration, Ogui settlements such as Ogui Urban, Ogui new layout and Ogui Asata layout were predominantly residential neighborhoods. For all development, redevelopment and planning projects, the knowledge of land use as it affects land value is very important. Land use in its broadest sense means the nature of activities carried out on a particular piece of land while land value is the worth of a particular land for the purpose it is intended to serve.

Land is allocated for various uses to ensure that every use is given adequate attention with residential properties given high consideration because shelter is universally accepted as the second most important essential human need after food. Housing, however, is more than mere shelter. It embraces all the social services and utilities that go to make a community or neighborhood a liveable environment (Nigeria, 1991). Housing is a basic human need which provides spaces for work, sleep, recreation as well as other social requirements (Jinadu, 2007).

Urban centres generally provide the spatial context for the provision of the housing needs of the people (Jinadu, 2005). Thus, residential units in almost all

cities in the world form the major elements of the urban landscape. Residential land use is the largest consumer of urban space (Ayeni, 2001; Shaw, 2004). Cities have a greater concentration of people than villages and have over the years, been the areas of attention in terms of housing provision. This is not unexpected as the population of urban centres have for long been increasing astronomically (UN-Habitat, 2003). The implication of this phenomenal growth is that the rate of growth of the housing stock must be high enough to meet the housing need of this rising population. Unfortunately, this has not been the case. Population has continued to outgrow housing supply. Building use conversion is the change in the use of a building from the purpose for which it was originally used or intended to be used.

Change of use of buildings from residential to other uses has increased in Enugu in recent years in areas which predominantly have been used for residential purposes. These residential areas have over the years maintained the housing stock, providing the residential needs of the people, especially those in the low income group. Residential buildings of varying types adorn these areas and accommodate not only the indigenous population but also immigrants from other towns and villages. The buildings are gradually being converted to commercial and light industrial uses wholly or partially. The houses are now used for shops, stores, restaurants, tailoring workshops, watch repairing and so on. In most of these streets, the frontal rooms of buildings are converted and in some cases extensions made, converting valuable residential spaces to commercial use.

This current situation if not checked will add up to the already deficit situation in the provision of residential units for the ever growing population in Ogui-Urban. This study therefore tends to analyse the possible causes and effects of building use conversion on property values along Ogui new layout, Enugu.

### 1.2 Aim and Objectives of the Study

The aim of the study is to analyze the effects of building use conversion on property values in Enugu urban between the year 2011 and 2021 with a view to identifying the causes of change in use in the study area. The specific objectives of the study include:

- i. To determine the reasons behind the building use conversion activities in Ogui layout between 2011 to 2021.
- ii. To evaluate the perceived effects (negative and positive) of building use conversion activities in Ogui new layout between 2011 to 2021.
- iii. To examine the trend in land values (rental values and capital value of properties) in Ogui new layout between 2011 to 2021.
- iv. To analyse the relationship between building use conversion activities and property values in Ogui new layout between 2011 to 2021.

### 1.3 Statement of Hypotheses

The following hypotheses were developed to guide this study.

H01: There is no significant relationship between building use conversion and property values in Ogui new layout.

H02: There is no significant difference in the perception of property managers and residents regarding the effects of building use conversion in Ogui new layout.

## II. LITERATURE REVIEW

### 2.1 Land Use Conversion

This is the change in the use of a particular parcel of land, not only by construction of buildings, remoulding or razing, but as the type of human activities at a particular location changes in response to shifting social and economic relationship.

As a result of some of these factors earlier mentioned, the use of land for residential purposes have been changing to commercial uses because of net returns expected. The more lands used for commercial purpose, the more valuable the land. Various types of commercial activities have been striving to locate on the study area, thereby outbidding one another. This outbidding has made commercial activities more intense thereby increasing the value of the property. Almost everyone has seen these changes to their local environment but without a clear understanding of their impacts.

It is not until we study these landscapes from a spatial perspective and the time scale of decades that we can begin to measure the changes that have occurred and the impact of changes to come. Most major metropolitan areas face the growing problems of urban sprawl, loss of natural vegetation and open space, and a general decline in the extent and connectivity of wetlands and wildlife habitat. The public identifies with these problems when they see residential and commercial development replacing undeveloped lands around them, and redevelopment replacing developed lands. Urban growth rates show no sign of slowing, especially when viewed at the global scale, since these problems can be generally attributed to increasing population. Cities have "changed from small, isolated population centres to large, interconnected economic, physical and environmental features. Urban growth and the concentration of people in urban areas are creating societal problems worldwide.

## 2.2 Land Value and Changes

Most of the earlier theories on land value were based on agricultural land. However, Hurd, in Ratcliff (1983), propounded the first theory as regards urban land values. He argued that since value depends upon economic rent, and rent upon location, and location on convenience and convenience on nearness, we may eliminate the intermediate steps and say that value depends on nearness. He thus pointed out that the pattern of urban structure is largely a result of continuous struggle to minimize friction or transportation, and all these forces are aimed at minimizing cost. This produced a situation where in an unrestricted market, various urban activities competes for sites where cost are lowest low (minimized).

The level of economic rent for sites with low cost was shaped out by the competition for sites with low cost and therefore the level of land values since land values are determined by the level of economic rents. Hay seem not to have differed significantly from Hurd's theory with respect to urban land value, he pointed out in Alonso (2004) that rent appear as the change which the owner of a relatively accessible site can impose because of the savings in transport costs which the use of his site makes possible.

Some ecologist rightly argued that land value is the chief determinant of the use to which an area is put.

They see land value emerging from the bidding process by potential users, thus the pattern and location of land use in the city are determined. But the economists had a different view and argued differently. Generally, it can reasonably be believed that the value of a piece of land lies in its power to serve the needs of men living in a community. If it is agricultural land, its value depends on its fertility and utility to produce food. If it is development land, its value will depend on its ability to serve for that particular kind of development be it industrial, commercial or residential. Value of land, therefore, can be said to be "its capacity to satisfy wants" or in other words, "the worth of that particular land for the particular purpose it is intended to serve".

Economic value of a property has three important components. The property in question must have use-value or utility to its owners or user. Otherwise, no one would want it. It must be sufficiently scarce in supply to command a price. Otherwise, it would be a free good. And it must have futurity -a basis for an expected future flow of returns or satisfactions to it user (Barlowe,). Summarily in the theory of urban land value, Denna (2002) outlined a theory for urban land value similar to Von Thunen's for agriculture. He contends that as a city grows, more remote and hence interior land must be used. The difference in desirability between land of first grade and second grade value produces economic rent in locations of first grade but not in those of the second. Any activity (use) may compete for any location within a city and all land goes to the highest bidder. Practically all land within a city earns some economic rent though it may be small. He therefore concludes that "the value of land depends on economic rent which in turn depends on location and location on convenience and convenience on nearness". We may eliminate the middle step and just say that value depends on nearness.

## 2.3 Real Property Values

The word "value" means different things to different persons. This infinitude of meaning is the basic problem of the value question. As a general concept, value signifies the capacity of a community to satisfy a want or need. It defines utility among other things. A thing has value if it is useful or serves a purpose. Because the number of needs, wants or purposes is

infinite, the number of types of value is also infinite. However attention will be concentrated on value in a market situation, value in exchange or market value. Market value or market price of a particular interest in landed property may be defined as the amount of money which can be obtained for the interest at a particular time from persons able and willing to purchase it. Value is not intrinsic but results from estimates made subjectively by able and willing purchasers, of the benefit or satisfaction they will derive from ownership of the interest.

Market value is an extrinsic value. It is taken to mean the objective long-term equilibrium price at which a property is expected to be sold in the open market (Ifediora, 2005).

The value of a property depends on the purpose or use to which the property is put to. Thus, a property may have different values for different purposes at the same time. The value of a property can be conceptualized as the sum of its attributes or characteristics. These include: view, accessibility, size, noise level, nature of adjacent development, extent and kind of public regulations, as well as the kind of municipal services and utilities, etc.

#### 2.4 Factors Affecting Property Values

The two major factors affecting the value of any commodity is still the same force that affects the real properties values. Values of real properties are seldom constant for a very long period. They fluctuate with changing situations of demand and supply, and other factors such as uses (complementary uses or conflicting uses), location, Highest and best use, design and state of the economy. Olusegun (2003) states the factors affecting property values as follows:

- i. Accessibility: A landed property that is easily accessible will value more than the one sited in an area that is not accessible.
- ii. Adjoining Properties: This has to do with the effect of other properties that surround the subject property. A residential property located in an industrial area will reduce in value compared with the same or similar property located in high income residential areas; likewise the location of commercial properties in residential areas may reduce the value of the residential properties

around it.

- iii. Facilities: This is another attribute of landed properties that tends to influence its value. A landed property that is located where all the necessary facilities needed to make life complete, will command a higher value than one which has none or inadequate facilities.
- iv. Location: The location of the property influences its value to a great extent. In a situation where there is a provision for social amenities, infrastructural facilities and convenience, the property will definitely be of utmost value.
- v. Durability: A property that is not of good attributes will not command a high value. This is because after a while, the property is either redeveloped or renovated. Also, the property or building materials of a property will determine if the building will have an enduring life span, thus making it to have a reasonable value.
- vi. Complementarity of Usage in Relation to Adjoining Properties: Land uses have to complement each other. Complementarily influences the values of landed properties. In an area where industrial properties are located, it will be unheard of to locate residential property in an industrial area, as the value of the property will be low because they do not complement each other.

#### 2.5 Review of Related Empirical Literature

Nwachukwu (2008) did a research on the impact of housing conversion on residential land use development in Nigerian Cities; A case study of Enugu Metropolis. The high incidence of housing conversion is one of the major problems confronting Nigerian cities. While property owners clamour for such conversions which they see as venues for maximizing rents, experts view housing conversion as an aberration. Some experts have attributed housing shortages in Nigerian cities to residential housing conversion other have blamed it on high rent, inadequate housing supply etc. these views were investigated in this study using Enugu Metropolis as the case study.

Egbenta (2009) carried out a research on the analysis of residential land use changes in Enugu Urban from 1997 to 2008. The study shows that the sudden change in residential land use to commercial use in Enugu Urban is to maximize optimum returns from the land.

This finding is a signal to property developers and investors to utilize. The study suggest that there should be legal framework on conversion and advices that rational developers should be aware of the implication of business cycles in that demand for new buildings are highly sensitive to short term output changes.

Kalu, Alozie, Oti and Onyannah (2017) carried out a research on the effects of residential land use change to other land uses in Enugu Metropolis. The study analysed the effects of change in residential land uses in Enugu Metropolis. 150 copies of questionnaires were purposively and randomly distributed to the major residential areas and individuals in Enugu Metropolis. Chi-square analysis was used to test the hypothesis, the findings made showed that land use change from residential to other land uses affect the physical environment (soil, air, and water quality) lack of government planning agency to implement its planning policy in the area is the major factor that causes this land use change, commercial activities contributed more to the land use changes. This works dwells extensively on the effects of residential land use change to other land uses in Enugu Metropolis while this research lays emphasis on the effects of building use conversion on property values in Enugu Urban between the periods 2011 to 2021.

III. METHODOLOGY

This study adopted the descriptive survey research design and data for this work was gathered from two major sources namely; primary and secondary sources of data. The researcher considers this design appropriate for this study since it intends to collect data from Tenants, Property Agents and Developers and Estate Surveyors and Valuers in that vicinity or in the study area. The population distribution is shown Table 1.

Table 3.1: Population Distribution of Groups used for Data Generation

S / N	Name of Group	Population of Group
1	Registered Estate Surveyors and Valuers Firms in Enugu Urban	180

2	Registered Members of Real Estate Developers Association of Nigeria (REDAN) Enugu Branch	35
3	Tenants/Occupants who reside within buildings along Ogui Road	380
	Total	595

3.1 Sample Size and Technique

The adoption of a manageable number as sample size was considered important in this study considering some inevitable challenges involved in sampling every member of the population. Consequently, the Taro Yamane (1967) formula for sample size determination was adopted in this study. This method was applied due to its flexibility and accuracy in determining appropriate sample size for a finite (known) population. The formula is given as:  $n = N/1 + N(e)^2$ .

The sample size is 238 which on analysis was found to be 40.0% of the population of study. Since the target population was sourced from different stratum/groups, the stratified proportionate sampling technique was adopted to ensure that the samples selected from each group were proportion to the size of that group in relation to the total sample. See Table 2.

Table 3.2: Stratified Proportionate Sampling Procedure

S / N	Name of Group	Population Size	% Composition	Proportionate Sample Size
1	Registered Estate Surveyors and Valuers Firms in Enugu Urban	180	30.2	72
2	Registered Members of Real Estate Developers Association of Nigeria (REDAN) Enugu Branch	35	5.9	14
3	Tenants/Occupants who reside within	380	63.9	152

buildings along Ogui Road			
Total	595		238

### 3.2 Sampling Techniques

In this study, the researcher adopted the combination of stratified proportionate sampling, convenience sampling, purposeful and simple random sampling. Given data availability, the selection of the participating buildings was on the basis of convenience that is, bearing in mind the time frame for the study and financial constraints (we focused on buildings that were relatively close to each other). However, to obtain information on the effects of building use conversion on property values, respondents were stratified into three broad groupings: Registered Estate Surveying and Valuation Firms, Members of REDAN Enugu branch and Tenants/Occupants who reside in the selected buildings. This sampling strategy was to increase the opportunity of collecting a full range of information about the effects of building use conversion on property values.

The Estate Surveying and Valuation Firms, REDAN, were sampled using purposeful sampling methods.

### 3.3 Method of Data Presentation and Analysis

Data collected for this work was presented using descriptive statistical tools as this would ensure a more meaningful and simpler way of interpreting data collected; such tools includes frequency and percentages and results of preliminary information on respondents, questions dealing with the objectives of this study were presented in tables, pie chart, bar chart and plates while the hypothesis were tested using Chi Square and Regression Analysis.

## IV. DATA PRESENTATION AND ANALYSIS

Section A: Analysis of socio-demographic characteristics of the respondents

Table 4.1: Summary of Socio-Demographic Characteristics of the Respondents

Socio-Demographic Variables	Frequency	Percent
Occupational Groups		
Surveyors and Values	70	30.2
Estate Agents	14	6.0
Tenants/Occupants	148	63.8
Total	232	100.0
Gender		
Males	132	56.7
Females	100	43.3
Total	232	100.0
Type of Building Occupied		
Detached House	18	7.9
Block of Flats	60	25.9
Duplex (Semi-Detached)	33	14.2
Tenant House	90	38.8
Bungalow	31	13.4
Total	232	100.0
Duration of Occupancy		
1-5 Years	20	8.6
6-10 Years	52	22.4
11-15 Years	77	33.2
16-20 Years	57	24.6
21 Years and above	26	11.2
Total	232	100.0
Average Annual Income (₦)		
70,000 - 119,000	17	7.3
120,000 - 299,000	30	12.9
300,000 - 599,000	42	18.1
600,000 - 990,000	80	34.5
1,000,000 and above	63	27.2

Total	232	100.0
-------	-----	-------

Data for this study were collected from residents, estate developers and estate managers, with residents (tenants/occupants) comprising the majority (45.5%) of the respondents. 33.1% of the respondents were surveyors and valuers, while 21.3% of them were estate developers. Data analysis equally showed that a majority (56.7%) of males participated in this study compared to a slightly lower proportion (43.3%) of female participants. The analysis in terms of types of land property within the study area cut across different types of buildings, with the highest occupied building being tenant house as indicated by 38.8% of the respondents, while the least type occupied building in the study area was detached house as indicated by 7.8% of the respondents.

Data analysis further showed that a majority (33.2%) of the respondents had lived for about 11 – 15 years within the study area. This is followed by 24.6% of them who had lived up to 16 – 20 years in the area; while the least proportion (8.6%) of them were those who had only lived between 1 – 5 years within the area. With respect to level of income, data analysis showed that the majority (34.5%) of the respondents earned an annual average income of about 600,000 – 900,000 naira, while the least proportion (7.3%) of them were those who earned between the average of 70,000 – 119,000 naira annually.

**Objective 1: Reasons behind Changes in Land Use in the Area**

The question that opened up the discussion on this sub-theme was that which asked the respondents whether or not they have observed the conversion of land properties around their residence since between 2011-2021. Data collected in this regard were descriptively analysed as presented in figure 4.1.

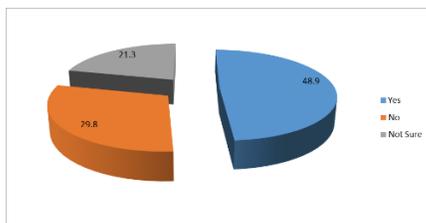


Fig. 4.1: Respondents' Observations Regarding Building Conversion within their Place of Residences

Data analysed in figure 4.1 showed that a majority (48.9%) of the respondents had observed the trend in building conversion between 2011 – 2021. About a quarter proportion (29.8%) of the respondents indicated that they had not observed such trend, while the least proportion (21.3%) of them was not sure about it. Further probes were directed to the respondents who were affirmative in figure 3, to determine the initial and present use of the buildings, as well as the possible reasons associated with the conversions.

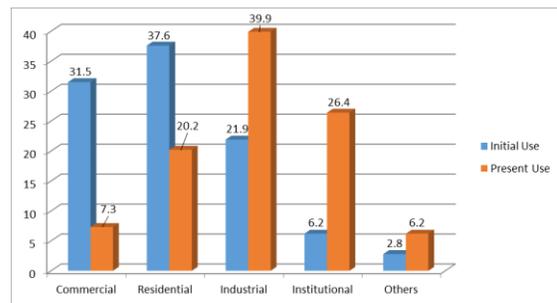


Fig. 4.2: Respondents' Indication on the Initial and Present Use of Land Properties within Ogui new layout

Data analysis showed that the initial use of land properties within Ogui new layout before conversion was mainly for residential purposes, as indicated by the largest proportions (37.6%) of the respondents. This was followed by initial commercial use as indicated by 31.5% of the respondents. However, the least option in the initial use of land properties within the Estate was institutional use, as indicated by a lower proportion (6.2%) of the respondents. 2.8% of the respondents equally indicated other initial uses in land properties within the Estate. On the other hand, data analysis indicates that the major use of the land properties after conversion within the period of this study was mainly for industrial purposes as indicated by 39.9% of the respondents; followed by institutional purposes as indicated by 26.4% of the respondents. It was of interest to the researcher to determine the possible reasons associated with the conversions of land properties between 2011 – 2021. Findings to this are presented in table 4.2.

Table 4.2: Respondents' Views on the Possible Reasons for Land Properties Conversion

Response Options	Frequency	Percent
------------------	-----------	---------

Accessibility	69	29.7
complementarities of Activities	19	8.2
Employment Opportunities	32	13.8
Location	76	32.8
Increase in Income	23	9.9
Others	13	5.6
Total	232	100.0

As contained in table 4.2, the greater proportions (32.8%) of the respondents indicated that location is a major factor that informed the reason for the conversions of land properties between 2011 – 2021. This was followed by 29.7% of them who indicated that accessibility was the major factor that informed the conversions. The least factor as indicated by only 8.2% of the respondents is that of complementarities of activities. This finding suggests that location and accessibility was the major factors associated with the conversion of land properties within Ogui new layout between 2011-2021.

**Objective 2: Perceived Effects of Building use Conversion in Ogui New Layout**

The question that opened the discourse on this theme was that which asked the respondents about their perceptions regarding the effects of building conversion in Ogui new layout. Analysis conducted on their responses is presented in figure 4.3.

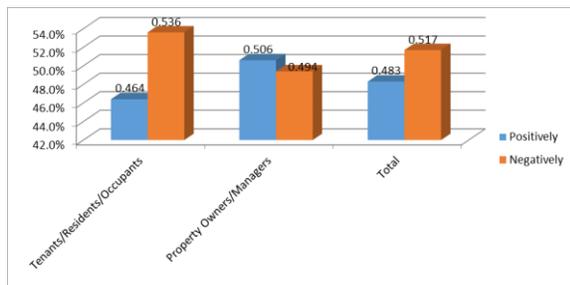


Figure 4.3: Respondents' Views on the Effects of Land Property Conversion on their Property Value

Analysis performed in figure 4.3 shows that the respondents had a mixed feeling about the effects of the conversion activities done on land properties over the property values within Ogui new layout. However,

the greater proportion (51.7%) of them considered it to have positive effects on the property value compared to 48.3% of them who considered it to have negative effects. The analysis was equally extended to determine the variations in the view of property owners/mangers in comparison with that of tenants/residents/occupants regarding the effects of land property conversion on property value in Ogui new layout. Consequently, the result showed that for the majority of the tenants/residents/occupants within Ogui new layout, the conversion activities affected their property values negatively compared to those who considered it as having positive effects. On the other hand, slightly higher proportions (50.6%) of the property owners/managers considered the conversion activities to have positive effects on their property value compared to a slightly lower proportion (49.4%) of them who considered it to have negative effects on their property values. In other to specifically determine how the conversion activities affected the property values within the study area, the respondents were provided with an open-ended question which asked them to express how such was applied to them. Their responses were thematically analysed and summed up to common themes that described their responses. The result of the analysis is presented in table 4.3.

Table 4.3: Perceived Positive Effects of Conversion in land Properties

Response Options	Study Groups		Total
	Tenants/Residents/Occupants	Property Owners/Managers	
It makes the area to look more attractive	30	12	42
	50.8%	22.2%	37.2%
The area is more developed in terms of infrastructure	14	7	21
	23.7%	13.0%	18.6%
There are more access to social amenities in the Estate	8	4	12
	13.6%	7.4%	10.6%

Increase in Value of Properties	2 3.4%	7 13.0%	9 8.0%
Ease of Management	4 6.8%	13 24.1%	17 15.0%
Ease of Maintenance	1 1.7%	10 20.4%	12 10.6%
Total	59 100.0%	54 100.0%	113 100.0%

Note: the analysis in table 4.3 was based exclusively on the responses of respondents who chose the option ‘positively’ in figure 4.3.

For the respondents who considered the conversation activities as having positive effects on their property values, reasons for such considerations were captured in six key themes that emerged from their open-ended responses as contained in table 3. A look at the column contained the total responses, it clearly shows that the highest proportion (37.2%) of the respondents felt that the conversion activities within Ogui new layout made the area look more attractive, while the least proportion (8.0%) of them considered increase in the value of properties within the Estate as the major positive effect of the conversion activities. However, the comparative analysis for the two study groups shows that for the majority of the tenants/residents/occupants, the major positive effect of the conversion activities within the study area was that it made the area look more attractive. On the other hand, the property owners/managers considered ease of management in land properties as the major positive effect of the conversion activities within Ogui new Layout.

The respondents, who considered the conversion activities in land property as having negative effects on the value of their properties, also gave reasons why they considered such. The analysis on such reasons was conducted based on key themes that emerged from their open-ended views on the issue. The results are presented in table 4.4

Table 4.4: Perceived Negative Effects of Conversion Activities in Land Properties

Response Options	Study Groups	Total
------------------	--------------	-------

	Tenants/ Residents/ Occupants	Property Owners/ Managers	
Influences hike in rental prices of Residential Properties	38 56.6%	9 17.5%	47 39.8%
It forces lower income households to leave	19 28.3%	9 17.5%	28 23.7%
It Decreases the availability of Residential Properties	8 11.3%	11 22.5%	19 16.1%
Decreases the availability of Properties for land property managers	3 3.8%	22 42.5%	25 20.4%
Total	68 100.0%	51 100.0%	119 100.0%

Note: the analysis in table 4.4 was based exclusively on the responses of respondents who chose the option ‘negatively’ in figure 4.3.

Based on the analysis conducted on the open-ended responses of the respondents, four key themes emerged from the data to indicate how the conversion activities in land properties negatively affected the value of their properties. Looking at the total column, the analysis indicates that shows that a majority (39.8%) of the respondents considered hike in rental prices of residential properties as the major negative effect of the conversion activities in land properties within Ogui new Layout, while the least proportion (16.1%) of them considered decrease in the availability of residential properties as the major negative effects. The comparative analysis between the two groups showed that for the tenants/residents/occupants, hike in rental prices of residential properties was the major negative effect on their property values, while the least proportion (3.8%) of them considered decrease in the availability of properties for land property managers as the major negative effect on property values within Ogui new Layout. On the other hand, for majority (42.5%) of property owners/managers, decrease in the availability of properties for land property managers was the major

negative effects of land property conversion on the property values within the Estate.

Objective 3: Trend in Land Values in Ogui New Layout

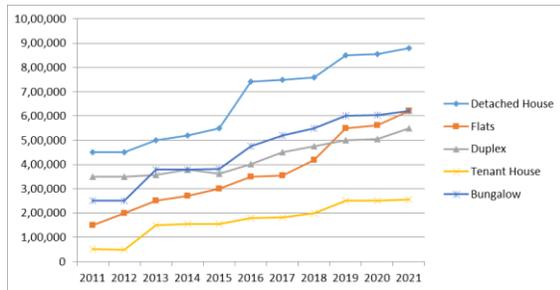


Figure 4.4: Analysis of Trend in Average Value of Land Properties Between 2011-2021

Data analyzed in figure 4.4 clearly shows that there was a consistent rise in the land values in the study area between 2011 – 2021. Further analysis was performed in order to show the percentage changes in the value of land properties between the periods under investigation. The result of the analysis is presented in figure 4.5.

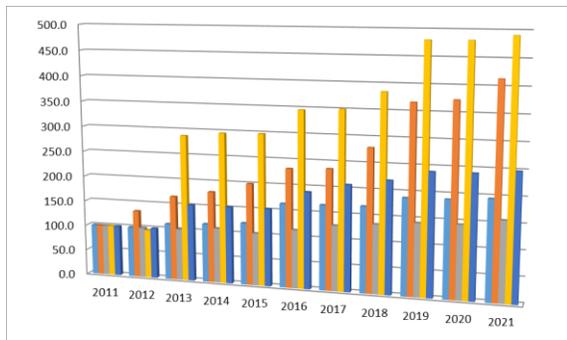


Figure 4.5: Percentage Change in the Values of Land Properties Between 2011-2021.

Data contained in figure 4.5 showed that the percentage change in the value of detached house did not vary between year 2011 and 2021. However the trend became a little different with a slight increase in the value of the properties by 11.1%, 15.6% and 22.3% in year 2013, 2014 and 2015 respectively. However, a significant uptrend was observed in the value of detached house between year 2016, 2017, 2018, 2019, 2020 and 2021 with about 64.9%, 66.7%, 68.4%, 88.9%, 90.0% and 95.6% increase between the six respective years from the base year (i.e. 2011). There

was equally an uptrend in the values of flats within study area with a 33.3% difference between the base year and year 2012. The trend continued to grow drastically with 66.6%, 80.0%, 100.0%, 133.3%, 136.6%, and 180.0% between year 2013, 2014, 2015, 2016, 2017 and 2018; and surprisingly a huge significant increase was observed between year 2019, 2020 and 2021 with 266.9%, 273.6% and 313.4% difference between the three respective years and the base year.

However, only slight differences occurred in the value of Duplex between the years under investigation, with no difference observed between the base year and the following year (i.e. 2012). The slight changes started to occur in year 2013 – with only 1.9%, 8.5%, 3.4%, 14.9%, 28.5%, 35.6%, 42.8%, 44.3% and 57.1% increase in year 2013, 2014, 2015, 2016, 2017, 2018, 2019, 2020 and 2021 respectively from the base year.

The most significant changes in land property values within Ogui new layout was mostly observed within tenant houses, with a -3.9% downtrend in 2012 and exponential uptrend between years 2013 to 2021. Specifically, there was a 188.2% increase in the value of tenant houses in year 2013, 196.0% in year 2014, 197.9% in year 2015, 245.9% in year 2016, 249.7% in year 2017, 284.5% in year 2018, 380.4% in year 2019, 380.9% in year 2020 and 390.6% increase in 2021, from the base year. This implies that by year 2021, the value of tenant houses had increased about three times from the original initial value in the base year (i.e. 2011). The trend in the value of Bungalows was not quite different from what was observed in flats and duplex properties. In other words, the values of Bungalows remained similar between the base year and year 2012, but an uptrend was observed between year 2013 upwards, with 52.0% increase in year 2013, 52.2% in year 2014, 90.1% in year 2016, 108.0% in year 2017, 120.1% in year 2018, 140.1% in year 2019, 141.0% in year 2020 and 148.2% increase in year 2021. In the overall analysis, changes in the value of land properties within Ogui new layout was observed to have occurred mainly between year 2013 upwards to year 2021, while the value of land properties remained relatively the same between year 2011 and 2012.

Objective 4: Relationship between building use conversion activities and Property Values in Ogui New Layout

In order to descriptively analyse the relationship between building use conversion activities and property values in Ogui new layout, the respondents were asked to show their level of agreement or disagreement regarding the view that there has been a steady increase in the value of properties as a result of building use conversion activities since 2011 to 2021. Their responses were analysed and presented in figure 4.6.

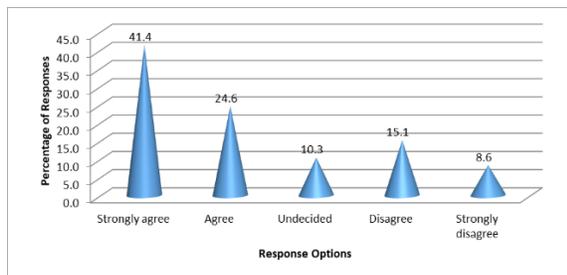


Fig. 4.6: Respondents' Ratings on the Relationship between Building Conversion Activities and Steady Increase in Property Values since 2011-2021

Data analysed as contained in figure 4.6 showed that the highest proportion (41.4%) of the respondents went for the option 'strongly agree'. This was followed by about a quarter proportion (24.6%) of them who went for the option 'agree', while the least proportion (8.6%) of them went for the option 'strongly disagree'. This finding clearly indicates that the respondents agreed with the view that there was a steady increase in the value of properties as a result of conversion activities in Ogui new layout since 2011 to 2021.

Further analysis was conducted to determine if the relationship between building use conversion activities and property values was perceived differently across the type of property occupied/managed by the respondents.

Table 4.5: Views about Relationship between Building Use conversion and Property Values, in Relation to type of Building Property Occupied by the Respondents.

Response Options	
------------------	--

Type of Building Property	Strongly Disagree	Disagree	Undecided	Agree	Strongly Agree	Total
Detached House	2	2	2	3	9	18
	11.1%	11.1%	11.1%	16.7%	50.0%	100.0%
Flats	7	12	6	10	25	60
	11.7%	20.0%	10.0%	16.7%	41.7%	100.0%
Duplex	2	6	3	11	11	33
	6.1%	18.2%	9.1%	33.3%	33.3%	100.0%
Tenant House	7	13	12	20	38	90
	7.8%	14.4%	13.3%	22.2%	42.2%	100.0%
Bungalow	2	2	1	13	13	31
	6.5%	6.5%	3.2%	41.9%	41.9%	100.0%
Total	20	35	24	57	96	232
	8.6%	15.1%	10.3%	24.6%	41.4%	100.0%

From data analysed in table 4.5, it could be observed that 50.0% of respondents who occupied/managed detached houses strongly agreed that the building use conversion activities was related to steady increase in property values within Ogui layout between 2011-2021. This finding was similar across other groups where 41.7% of those who occupied/managed flats strongly agreed to it. Equally, among respondents who occupied/managed duplexes 33.3% of them strongly agreed to the above notion and another 33.3% of them went for the option 'agree'. For those who occupied/managed tenant houses, the majority (42.2%) of them went for the option 'strongly agree', while for those who occupied/managed Bungalow properties, 41.9% of them strongly agreed with the issue of discourse and another 41.9% of them equally ticked the option 'agree'. In a nutshell, descriptively, the relationship between building use conversion activities and property values was perceived in a similar way across respondents in the different building properties investigated.

4.1 Test of Hypotheses

Hypothesis One: There is no significant difference in the perception of property managers and residents regarding the effects of building use conversion in Ogui new layout.

Table 4.6: Summary of Chi-square test showing difference in Respondents' Perception regarding the effects of building use conversion in Ogui new layout

Effects of Building use Conversion	Study Groups		Total	Chi-square	Df	Sig.
	Tenants	Property Managers				
Positive	59 (46.5%)	54 (51.4%)	113 (48.7%)	.569	1	.451
Negative	68 (53.5%)	51 (48.6%)	119 (51.3%)			
Total	127 (100.0%)	105 (100.0%)	232 (100.0%)			

Result of the chi-square test showed statistically significant evidence to accept the stated null hypothesis,  $\chi^2(1) = .569, p = .451$ . This implies that both tenants and property managers did not vary significantly in their perception about the effects of building use conversion in Ogui new layout. Consequently, the stated null hypothesis was upheld.

Hypothesis Two:

Table 4.7: Relationship between Building use Conversion Activities and Property Values in Ogui New Layout

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	37.332	1	37.332	94.347	.000 <sup>b</sup>
	Residual	58.562	23	.396		
	Total	95.893	23			

a. Dependent Variable: Property value  
 b. Predictors: (Constant), Building use conversion activities

Result of the regression analysis showed that the model was significant,  $F(1, 230) = 94.347, p = .000$ . The study therefore rejects the stated null hypothesis ( $H_0$ ) and conclude that there is a significant relationship between building use conversion activities and property values in Ogui new layout between 2011 to 2021.

4.2 Discussion of Findings

From the analysis, it shows that the value of landed properties increased within Ogui new layout between 2011-2021; with the highest rise in value of properties being observed on tenement houses. However, changes in the value of landed properties within Ogui new layout occurred mainly between year 2018 upwards to year 2021, while the value of landed properties remained relatively the same between year 2011 and 2017. The study also observed consistent conversion of land properties within Ogui new layout since 2011 to 2021. However, the initial use in land properties within the area was mainly that of residential purposes. As conversion activities intensified, many residential buildings were converted for industrial use and this was found to be the major reason for the uptrend/rise in the value of land properties between 2011 and 2021.

CONCLUSION

Based on the findings of this study, it was concluded that there was an exponential rise in the values of landed properties sequel to conversion activities in landed properties within Ogui new layout and by extension Enugu State between 2011 to 2021. This uptrend in rise of property values was observed to have significant positive as well as negative effects on the value of properties within Ogui new layout. This could equally have serious implications on people's access to land properties as well as the management practices in relation to landed properties. The study recommends that Government and planning authorities should ensure that the use of each area should be limited to what it was originally zoned for, so that conversion of the residential properties to

commercial is reduced. The government should also increase the levies charged for conversion of properties as this will reduce the amount of conversions that take place in a year. There should be an increase in the taxation of property (ies) that have been converted and strict adherence to the collection of such levies by the government agencies. Planning and re-planning of our cities from time to time will ensure the proper allocation of land uses and also reduce the issue of conversion of residential areas to commercial areas. There should be alteration of properties since only when their quality is improved will they be at their highest and best use as well as profit maximization.

#### REFERENCES

- [1] Ademola, (2010). An Assessment on the Level of Competency of Estate Agents Emotional Intelligence in Lagos Property Market. Retrieved October 2019 from <https://www.Researchgat.net/publication/341412495>.
- [2] Agukoronye, O.C. & Nwankwo, S.O. (2002). Converting Tenements to Flats in Nigerian cities: Lessons from Enugu the tropical environment. *Journal of Faculty of Environmental Studies of the University of Nigeria*, 2(1), 89-94.
- [3] Alonso (1964). *Location and Land Use*. Harvard University Press: Cambridge. (3rd Edition).
- [4] Aluko, O. (2010). The Spatial Structure of Housing Warkel in Ivrrrupolrian, Lagos. *Journal of the Nigerian Institute of Town Planners* 18(1), 65-88.
- [5] Aluko. O. (2003). Effective Housing Provision and National Urban Development Policy. A Paper Presented at the 34th National Conference of the Nigerian Institute of Town Planners, Abeokuta, Ogun State.
- [6] Appraisal Institute (2001). *Appraising residential properties* (2nd edition). Chicago: Longman.
- [7] Asika, R. (1991). *Research Methodology in the Behavioural Sciences*. Ikeja: Longman publishers.
- [8] Ayemi, A. (2001). *The Real Estate Developer; Principles and Prospects* (3rd edition). Ogun: University Press.
- [9] Barlowe, R., (1998). *Land Resources Economics* (3rd edition). Eagle wood Cliffs: NJ, Practices Hall.
- [10] Denman, D. R. (2002). *The Place of Property* (4th edition). Berkhamstead: Geographical Publication Limited.
- [11] Egbenta 1. (2009). The Analysis of Residential Land Use Changes in Enugu Urban From 1997 to 2008. Retrieved September 2014 from <https://www.reserachgate.net/publication/319826976...>
- [12] Egolum C. C. (2002). *Fundamentals of Estate Management*; Nnamdi Azikiwe University, Awka. Anambra State: Snap Press Ltd.
- [13] History of Enugu State (2014). Retrieved October 2019 from <http://en.vvikipedia.org/wiki/Enugu>
- [14] History of Ogui (2014). Retrieved October 2019 from <http://en.wikipedia.org/vviki/Oguilayout>
- [15] Idu, E., (2004). *Monograph on Land Use and Natural Resources*. Ifediora, G.S.A, (1993). Appraisal Frame Work. Enugu: Snapp.
- [16] Ifediora (2005). Building Use Conversion in Nigeria. *Sky Journal of Soil Science and Environmental Management* 7(2), 078-084.
- [17] Kalu, A.U., Alozie M.C., Oti, U.C., & Onyenorah J. (2017). Effects of Residential Land Use Changes to other Land Uses in Enugu Metropolis. *Sky Journal of Soil Science and Environmental Management* 6(5), 059-064.
- [18] Kin A.C., (2010). Towards a General Condition Based Model for a Stochastic Dynamic System, *Journal of the Operational Maintenance Research Society*, 51(2), 145-155.
- [19] Mba, K. C. (2005): Physical Development Planning Standards and Environmental sustainability in Nigeria. *Journal of the Nigerian Institute of Town Planners*, 30(1), 75-88.
- [20] Mbina, C. (2007). Sustainable Real Estate Development in Nigeria. *Journal of the Nigerian Institute of Town Planners* 8(2), 118-120.
- [21] Morse D. (1989). Revolutionization of Real Estate Transactions and Change the Title Industry. Retrieved January 2020 from <https://www.propertysimple.com/dan/morse/activities>
- [22] Nwachukwu M.U., Ukpabi, N. (2008). The Impact of Housing Conversion on Residential Land Use Development in Nigerian Cities; A

- case study of Enugu Metropolis. *Journal of the Nigerian Institute of Town Planners*, 5(1), 108-118.
- [23] Nworgu (2015). *Educational Measurement & Evaluation Theory & Practice (3rd edition)*. Nsukka: University Thrust Publisher.
- [24] Ogu, W. (2010). *Challenges of Real Estate Investment*. An Unpublished Thesis submitted to the Obafemi Awolowo University, Osun State.
- [25] Olusegun, K., (2003). *Principles and Practices of Property Valuation in Nigeria*. Kyle and Associate with the Estate Management Institute (TEMI), Lagos.
- [26] Onyebueke (2000). *The Linkages in the Establishment of Urban Informal Business Sector Businesses in the Urban Residential Space: A Case Study of Enugu*. An Unpublished Dissertation Submitted to the Department of Urban And Regional Planning, University of Nigeria.
- [27] Otokiti, S. O. (2005). *Methodology and Mechanics of Computational System*. New Deli: Sultan Chand and Sons publishers.
- [28] Ratcliff, R.U. (1983). *Urban Land Values*. McGraw-Hill, New York.
- [29] Sule, E. (2004). Residential Land Use Commercialisation & Rental Value Trend in Oshogbo, Nigeria. *Journal of the Nigerian Institute of Town Planners*, 6 (2), 98-108.
- [30] Thorncroft, M. (2005). *Principle of Estate Management Estate (5th edition)* Gazette Ltd, London.
- [31] UN-Habitat (2003). *The Challenge of Slums, Global Report on Human Settlements*, Retrieved August 2020 from <https://unhabitat.org>.