

# **Crime and Rental Values of Residential Property in Ikono South District, Ikono, Akwa Ibom State of Nigeria<sup>1</sup>**

**Mbosowo Ebong EKPO<sup>i</sup>, PhD<sup>2</sup>, Dianabasi Reuben AKWAOWO<sup>ii</sup> and Hosanna Moses ATTAI<sup>iii</sup>**

<sup>i</sup> Department of Estate Management and Valuation, Akwa Ibom State Polytechnic, Ikot Osurua. Ikot Ekpene. Akwa Ibom State.

<sup>ii</sup> Department of Architecture, Akwa Ibom State Polytechnic, Ikot Osurua. Ikot Ekpene. Akwa Ibom State.

<sup>iii</sup> Department of Surveying and Geoinformatics, Akwa Ibom State Polytechnic, Ikot Osurua. Ikot Ekpene. Akwa Ibom State.

## **Abstract**

This research examined the impact of crime on rental values of residential properties in Ikono South, Ikono, Akwa Ibom State. In order to achieve the stated aim, the objectives were to assess the trend of crime in Ikono South, Ikono Local Government Area, to evaluate the trend of rental values of residential properties in Ikono South, Ikono Local Government Area and to establish the relationship between crime and property values in Ikono South, Ikono Local Government Area. The research work adopted the cross-sectional survey type of design. The research population comprised occupiers of residential real estate in the study area. Stratified random sampling method was used to stratify Ikono South District into thirty-six villages forming the Ikono South District. Disproportionate stratified random sampling was then used to select 10 respondents from each of the villages forming the Ikono South District, thereby bringing the sample size to 360. Data from 2015 to 2022 was obtained from the questionnaire and was analysed using both descriptive and inferential statistics. Findings from the study revealed that there was a consistent year-to-year increase in crime rate between 2015 and 2022. The study also found out varying rental values, with the maximum rental value of ₦240,000.00 per annum observed in 2022 in Ekang village, while the minimum rental value of ₦70,000.00 per annum was observed in 2015 and 2016 in Ukpom Ikot Akpakam village in the study area. The regression results showed a statistically significant negative relationship between crime and rental value. This implied that as crime rate increases, the rental value decreases. The study then concluded that increase in crime rate in the study area has a negative effect on the rental value of residential properties.

---

<sup>1</sup> How to cite this paper: Ekpo, M. E., Akwaowo, D. R., Attai, H. M. (2024). Crime and Rental Values of Residential Property in Ikono South District, Ikono, Adwa Ibom State of Nigeria; *PM World Journal*, Vol. XIII, Issue IV, April.

<sup>2</sup> Corresponding Author: [mbosowo.ebong@akwaibompoly.edu.ng](mailto:mbosowo.ebong@akwaibompoly.edu.ng)

**Keywords:** Crime, rental value, residential property, Ikono South, Akwa Ibom State.

## **Introduction**

Residential real estate investment is very vital in the physical and economic development of settlements, including rural communities, towns and cities all over the world. Development is hampered in economies that are ravaged with acrimony, disunity, unrest, insecurity, war or social conflict. Crime generally may breed loss of human life, insecurity, and unrest. It has also been found to disorganise productive activities and affect the economic wellbeing of the people, households as well as destroy the economy of the nation (Otu, 2010). The problem of skyrocketing rural crime has become a phenomenon of concern to all and sundry. Crime affects residents' quality of life and the rental values of real estate with attendant loss of returns on investments (Ahmed, 2012).

Studies have been carried out on the relationship between crime and residential property values, both in a developed country by Jargowsky and Yoonhwan 2009; and in Nigeria, by Pope, (2008) but little or no effort has been made in this direction in Ikono-South, Ikono Local Government Area of Akwa Ibom State. In addition, there are existing studies on crime rate and the effect of crime on property value (Afon 2001; Otu 2010) as well as patterns of violent crime in urban areas (Ahmed 2012). Ikono South, which is a suburb in Ikono Local Government Area of Akwa Ibom State in Nigeria, has been experiencing a rise in crime. Ikono Local Government Area comprises Ibakesi District, Odoro Ikpe District, Uquok District, Ibiaku District, Asanting District, Mbiafun District, Mbiabong II District, Ikpe District, Iwerre District, Nquot District, Ekpene-Ediene District, Ikono-South District, Nung-Ukem District, Nkari District, Itu-Mbonuso District, Aka-Ekpeme District, Ndiya District and Itak District.

Ikono-South District was chosen for this research because of the economy of the area. There are convincing indicators for unrefined petroleum in Ikono, which has attracted investments from all walks of life. There is an increase in crime rate in the study area as a result of the investment potential. This study, therefore, investigates the impact that crime might have on the rental value of residential real estate in Ikono South District. This is done by obtaining the incidence of different crimes within the villages making up the study area. The study also used parametric analysis to ascertain the relationship between crime and rental value of residential real estate.

## **Study Area**

This research was carried out in Ikono South District, Ikono Local Government Area, a fast-growing hub with an estimated population of 48,072 (Village Council Records, 2022). It is a ward

in Ikono located between latitude 5°0'0"N and longitude 7°50'28"E. It has a population density of 850.9 per square kilometers. Ikono South is a typical example of a rapidly growing commercial hub in Akwa Ibom State of Nigeria. Most investors have now indicated interests in carrying out massive real estate investments in the study area, which has led to influx of people into the area alongside men of the underworld who are good at committing diverse types of crimes including burglary, rape, murder, kidnapping, among other crimes. This has seriously influenced land and landed property investment in the area.

### **Statement of the Problem**

In Akwa Ibom State of Nigeria and in Ikono South District in particular, residential property investors consider best quality locations and other factors such as increase in demand for lettable space, among others, before deciding to carry out residential real estate investment. Consequently, investment decisions are rarely made by the investors based on the crime rate prevalent in that location. This leads to wrong investment decisions as it affects the property values in subsequent years. While there has been much research on other variables and their impacts on real estate values, researchers are yet to explore the influence of crime rate on the value of residential real estate. Several authors (Bello, 2011; Mark, 2010; Pope and Pope, 2012) have emphasized the need for prospective investors to carry out a thorough evaluation of the crime rate in any location, before embarking on real estate investment. However, little consideration was made by the authors to employ a quantitative approach to ascertain the relationship between crime rate and rental values of residential real estate. Possible relationships between rental values of residential real estate and crime rate, therefore elicited the interest of the researchers in this study.

### **Aim of the Study**

The aim of the study is to examine the influence of crime on the rental values of Ikono South, with a view to establishing the relationship between crime rate and property values in the study area.

### **Objectives of the Study**

In order to achieve the stated aim, the following objectives were set:

- (i) To assess the trend of crime in Ikono South, Ikono Local Government Area.
- (ii) To evaluate the trend of rental values of residential properties in Ikono South, Ikono Local Government Area.

- (iii) To establish the relationship between crime and property values in Ikono South, Ikono Local Government Area.

## **Review of Related Literature**

Crime is known as any unlawful act (Martin, 2003). The term does not have any simple or universally accepted definition in modern criminal law, though statutory definitions have been provided for certain purposes. One purposed meaning is that a crime or offence is an act harmful not only to communities, persons or the state, but crimes may also be an offence against properties (Aluyor, 2005). A real estate investment must be carried out in a place that is free from criminal activities. In other word, when choosing to invest in real estate, it has to be in a safe location. This implies that investors should choose locations where tenants enjoy their lifestyle in a safe neighbourhood with low crime rates. Failure to crime rate in a prospective neighbourhood may dash the hope of a profitable residential real estate investment. Many studies of the geographical distribution of crime rate are motivated by Routine Activity Theory. Routine Activity Theory refers to a sub-field of crime opportunity theory that focuses on situations of crime. It was first proposed by Marcus Felson and Lawrence Cohen, when explaining crime rate changes in the United States between 1947 and 1974. The theory studies crime as an event and closely relates crime to its environment and emphasizes its ecological process. According to Felson and Cohen, the reason for the increase in crime is that the prosperity of the contemporary society offers more opportunities for crime to occur. The theory also posits that social changes such as urbanization, suburbanization and rich lifestyles all contribute to the supply of opportunities that brings about the occurrence of crime. This relates to this research in the sense that the suburbanization of Ikono-South has provided an ambient environment for the occurrence of crime in the area.

Many different correlates and causes of crime have been proposed with varying degree of empirical support (Baumeister, 2012; Fredrickson, 2005). They include socioeconomic, psychological, biological, and behavioural factors. Both chronic and current emotional states have a tremendous impact on individual thought processes and, as a result, can be linked to criminal activities (Baumeister, 2012). The positive psychology concept of Broaden-and-Build theory posits that cognitive functioning expands when an individual is in a good-feeling emotional state and contracts as emotional state goes down (Fredrickson, 2005). In positive emotional states an individual is able to consider more possible solutions to problems, but in lower emotional states fewer explanations can be established. The narrowed thought-action repertoires can result in the only paths observable to an individual being ones they would never use if they saw an option, but if people cannot conceive of the substitutes that carry less risk, they will choose one that they can

see. Research has shown that criminals who committed even the most horrendous of crimes, such as mass murders and other offences against properties, did not see another solution (Baumeister, 2012). Aluyor (2005) listed the types of crime include to include committed in Nigeria to include armed robbery, burglary, trespass, vandalism, politically-motivated killings, assassination, kidnappings, sabotage, subversions, among others.

High level of crime in a neighbourhood could constitute a challenge to the development of that area that area. The resulting condition may be decreasing neighbourhood satisfaction and increasing residential relocation, which ultimately leads to a decrease in property value. Real estate value can hardly appreciate in places that are ravaged with acrimony, disunity, unrest, insecurity, among others (Pope and Pope, 2012). The examination of the impact of crimes on rental values of properties undertaken in this research captures the cost of rent in Ikono South. Public safety and crimes rate in Akwa Ibom state have been getting more attention in the news lately in the past two years (Akpan, 2010). These recent spikes highlight how communities are sensitive to changes in neighbourhood safety. Neighbourhood safety is proven to be closely connected with business as well as rental prices. Researchers (Akpan, 2010; Olajide and Lizam, 2017) have found out that crime was negatively correlated with rent prices. This implies that the higher the crime, the lower the rental value and vice versa (Pope and Pope, 2012).

Several studies in the United States of America found out that crime rates have a significant effect on property values (Hellman and Naroff, 1979, Olajide and Lizam, (2017). The studies further concluded that at every level of crime reduction, housing prices increased. In research carried out by Lynch and Rasmussen (2001), the study revealed that every 1% increase in violent crime led to a reduction in price by 0.05%. The study concluded that there was a positive correlation between real estate values and crime rate. According to Pope and Pope (2012), the analysis of the relationship between changes in crime techniques and property values was found to indicate a negative relationship, and the changes, as posited by the authors were statistically significant and economically large.

In the South-Western part of Nigeria, Oladije and Lizam (2017) investigated the impact of residential neighbourhood crime on housing investments employing logistic regression and it was found out that residential neighbourhood crime had an effect on residential property value. The study recommended that efforts should be intensified in combating crime for residential real estate investment to be properly boosted. Bello (2011) examined the impact of urban crime on property values in Akure. The author employed multiple regression analysis to assess the effect of crime on

property values and the results showed that as the rate increases, the value of the property decreases and vice versa.

## **Research Methods**

The research design was the survey method. Primary and secondary data were employed in the research. Information obtained includes residents' socioeconomic characteristics, household crime experienced within an eight-year period and data on rental values of residential real estate was also collected from the respondents for the same period. Data obtained from this source was from 2015 to 2022, a period of eight years. Criminal data from this source was categorized into two; offences against real estate and offences against persons. Offences against persons consisted of crime such as kidnapping, murder, assault as well as rape, while crime against real estate investment included robbery including other forms of stealing, burglary as well as arson.

Stratified random sampling method was used to stratify Ikono South District into thirty-six villages forming the Ikono South District. Disproportionate stratified random sampling was then used to select 10 respondents from each of the villages forming the Ikono South District, thereby bringing the sample size to 360. Copies of questionnaire were distributed to selected respondents in the study area, using the simple random sampling method. The questionnaire was designed to elicit information from respondents on crime and rental values of 2-bedroom real estate. Data collected, which was mainly quantitative, was analysed, using both descriptive and inferential statistics (mean, linear graphs and regression analysis). Linear regression was used to establish the relationship between crime and property values. In line with other studies (Ekpo, 2021, Bello, 2011), crime rate was measured by dividing the number of reported crimes by the total population and the result multiplied by 100,000. These analyses on linear regression and graphical illustration of data were done using SPSS 25.0 and Microsoft Excel 2016 versions respectively.

## **Data Presentation and Analysis**

In this section, attempt was made to analyse the data collected in order to achieve the objectives of the research. The respondents' profile was presented in Table 1.

**Table 1: Occupation of Respondents**

<b>Profile</b>	<b>Frequency</b>	<b>Percentage</b>
Professionals (practicing firms of professionals)	7	1.94
Retail Businesses	286	79.44
Banking Services (POS operators)	59	16.40
Others (automobile services, repairs, photocopy, retail business/shop attendants)	8	2.22
	<b>360</b>	<b>100</b>

Source: Field Survey, 2023.

Table 1 presented the profile of the respondents who responded by supplying the data on crime rates and rental values of 2-bedroom flat in Ikono South District. It was found out that 79.44% of the respondents had retail businesses and constituted most of the respondents, 16.40% were on banking services, while about 1.94% of the respondents were professionals in different fields. However, Others (who dealt on automobile services, repairs, photocopy, retail business/shop attendants constituted 2.22%. This implies that all the respondents are qualified to respond adequately to the questionnaire and have enough exposure to supply the necessary data needed for the study. On this note, it can be said that respondents were found fit to supply valid, credible and reliable data for this study.

### **Analysis of the trend of crime rate in the study area.**

In order to answer objective 1, an attempt was made to assess the trend of crime rate in the study area and results presented in Table 2.



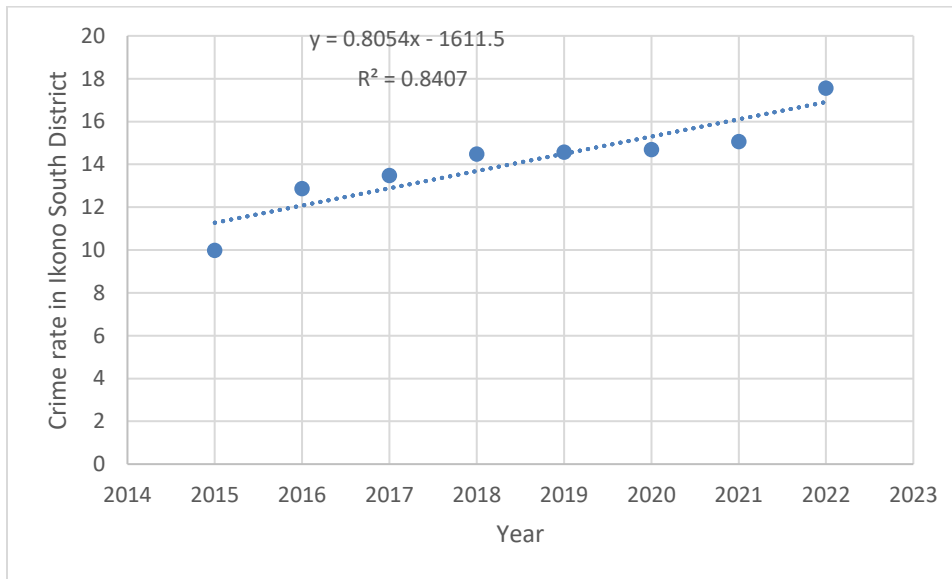
**Table 2: Trend of crime rate in Ikono South District, Ikono Local Government Area**

S/N	Village	2015	2016	2017	2018	2019	2020	2021	2022
1	Ukpom Ikot Nyoho	12.62	13.20	16.36	12.97	15.20	15.75	14.68	15.92
2	Ukpom Nung Eduo	10.47	11.23	14.12	10.76	13.00	13.51	12.01	13.99
3	Ukpom Ikot Okure	9.14	10.01	13.32	9.88	12.01	12.79	11.39	12.97
4	Obom Nkwongo	13.62	14.72	17.20	13.77	16.02	16.69	15.72	16.84
5	Edem	11.65	12.34	15.25	11.62	14.22	14.56	13.20	14.78
6	Ukpom Atai Ession	9.72	6.74	6.88	32.84	26.82	6.70	7.84	23.79
7	Ukpom Ekpene Inuen	8.50	14.87	4.82	30.48	24.72	4.84	5.68	21.86
8	Ukpom Ikot Edem Udo	7.56	13.64	3.76	28.41	23.62	3.95	4.97	20.83
9	Ukpom Ikot Ekem	8.88	5.93	5.98	31.10	25.98	5.63	6.92	22.30
10	Mbiabong Ikot Ntia	6.19	12.72	2.96	28.27	23.46	2.88	7.84	19.62
11	Ukpom Ikot Akpakam	9.39	23.79	19.69	18.34	18.94	19.62	24.66	15.72
12	UkpomIkot Anwangabasi	5.12	19.10	16.50	15.48	15.62	16.70	21.87	12.27
13	Ukpom Ikot Udo	7.49	21.54	17.74	16.60	16.91	17.93	22.51	13.80
14	Ukpom Ikot Odung	5.10	19.54	15.24	14.29	15.39	15.89	20.96	11.53
15	Ukpom Ikot Udonke	8.15	22.93	18.63	17.29	17.89	18.56	23.40	14.63
16	Ukpom Ikot Ntuen	12.50	14.53	17.23	13.68	15.25	16.60	14.56	16.60
17	Ukpim Ikot Inyang	10.19	12.21	15.00	11.67	13.32	14.28	12.49	14.79
18	Eduo	14.72	16.12	19.10	15.84	16.76	17.29	16.69	18.84
19	Mbiabong Ukan	13.98	15.28	18.16	14.92	16.20	16.94	15.95	17.29
20	Ukupon	11.56	13.16	16.01	12.29	14.47	15.64	13.81	15.48
21	Ukpim Ita	14.98	13.02	9.72	13.92	8.88	27.68	27.65	25.06
22	Ukpom Ekpene	15.72	14.34	10.88	14.84	9.42	28.72	28.84	26.00
23	Ukpom Ibakesi Ikot	12.56	10.29	8.56	11.99	7.26	25.26	25.91	23.43
24	Ukpom Ikot Etim	11.89	10.17	7.19	10.97	6.11	24.19	24.87	22.58
25	Ukpom Ikot Nya	13.80	12.58	9.50	12.68	8.53	26.50	26.78	24.93
26	Ekpene Obom	14.33	15.25	18.72	14.56	16.56	17.21	16.60	17.74
27	Asanga Usung	12.01	13.32	16.49	12.49	14.49	15.00	14.48	15.24
28	Esem Udo	16.12	17.20	19.88	16.69	18.69	19.05	17.29	19.79
29	Ibakesi Ikot Mbiet	15.28	16.36	18.80	15.95	17.85	18.13	16.94	18.63
30	Mfon	13.21	14.47	17.56	13.51	15.51	16.01	15.69	16.50
31	Ibakesi Ikot	4.45	6.77	10.96	5.63	9.22	10.50	7.84	11.20
32	Ekan	3.98	5.28	18.16	4.92	6.20	6.94	5.95	17.29
33	Ibakesi Ukpom Unya	1.56	3.16	16.01	2.29	4.47	5.64	3.81	15.48
34	Ikot Ete Udoe	4.98	3.02	9.72	3.92	8.78	7.68	7.65	15.06
35	Ukpim Ikot Imo	5.72	4.34	10.88	4.84	9.41	8.72	8.84	16.00
36	Ukpom Ikot Anwana	2.56	10.29	8.56	1.99	7.26	5.26	5.91	13.43
	<b>Weighted Average</b>	<b>9.99</b>	<b>12.87</b>	<b>13.49</b>	<b>14.49</b>	<b>14.57</b>	<b>14.70</b>	<b>15.06</b>	<b>17.56</b>

Source: Researchers' analysis. 2023



In order to illustrate for more clarity, the trend analysis was carried out and presented in Figure 1.



**Figure 1: Graphical Illustration of crime rate in Ikono South between 2015 and 2022**

Source: Researchers' analysis, 2023.

Figure 1 illustrates the average crime rate in the study area. From Figure 1, it can be seen that the crime rate had the highest value (17.56%) in 2022. On the contrary, the lowest crime rate (9.99%) was recorded in the year 2015. It can also be noticed that there was a consistent year-to-year increase in crime rate between 2015 and 2022. This may be due to the economic meltdown that affected all sectors in 2016, making most youths to be unemployed, thereby bringing most of them to commit different types of crimes.

### **Analysis of the Trend of Rental Value of Residential Real Estate in the Study Area.**

In order to treat objective 2 of this research, an attempt was made to evaluate the rental value of residential real estate in Ikono South District and the average rental values obtained in each of the villages in Ikono South presented in Table 3.

**Table 3: Trend of rental value of 2-bedroom bungalow in the study area from 2015 to 2022**

S/N	Village	2015 (₦)	2016 (₦)	2017 (₦)	2018 (₦)	2019 (₦)	2020 (₦)	2021 (₦)	2022 (₦)
1	Ukpom Ikot Nyoho	100,000	110,000	120,000	120,000	128,000	130,000	130,000	150,000
2	Ukpom Nung Eduo	80,000	95,000	103,000	120,000	140,000	160,000	170,000	185,000
3	Ukpom Ikot Okure	83,000	97,000	110,000	128,000	145,000	180,000	175,000	190,000
4	Obom Nkwongo	90,000	106,000	120,000	120,000	120,000	120,000	128,000	130,000
5	Edem	110,000	110,000	120,000	120,000	130,000	130,000	130,000	130,000
6	Ukpom Atai Ession	90,000	106,000	121,000	122,000	124,000	120,000	128,000	130,000
7	Ukpom Ekpene Inuen	110,000	110,000	120,000	120,000	130,000	130,000	130,000	130,000
8	Ukpom Ikot Edem Udo	110,000	110,000	118,000	120,000	130,000	130,000	130,000	130,000
9	Ukpom Ikot Ekem	110,000	110,000	120,000	120,000	110,000	130,000	120,000	130,000
10	Mbiabong Ikot Ntia	80,000	95,000	100,000	120,000	140,000	160,000	170,000	186,000
11	Ukpom Ikot Akpakam	70,000	70,000	90,000	90,000	90,000	98,000	90,000	90,000
12	UkpomIkot Anwangabasi	100,000	110,000	120,000	124,000	128,000	130,000	130,000	130,000
13	Ukpom Ikot Udo	80,000	80,000	90,000	90,000	100,000	98,000	98,000	100,000
14	Ukpom Ikot Odung	100,000	110,000	120,000	120,000	128,000	130,000	130,000	130,000
15	Ukpom Ikot Udonke	80,000	80,000	90,000	90,000	90,000	98,000	98,000	100,000
16	Ukpom Ikot Ntuen	90,000	106,000	120,000	120,000	120,000	120,000	128,000	130,000
17	Ukpim Ikot Inyang	80,000	95,000	103,000	120,000	135,000	160,000	170,000	185,000
18	Eduo	76,000	83,000	95,000	100,000	105,000	120,000	126,000	150,000
19	Mbiabong Ukan	90,000	80,000	90,000	90,000	90,000	98,000	98,000	110,000
20	Ukupon	100,000	110,000	120,000	120,000	128,000	130,000	130,000	130,000
21	Ukpim Ita	80,000	80,000	90,000	90,000	90,000	98,000	98,000	100,000
22	Ukpom Ekpene	80,000	80,000	90,000	90,000	90,000	98,000	98,000	100,000
23	Ukpom Ibakesi Ikot	90,000	106,000	120,000	120,000	120,000	120,000	128,000	130,000
24	Ukpom Ikot Etim	110,000	110,000	120,000	120,000	130,000	130,000	130,000	130,000
25	Ukpom Ikot Nya	77,000	82,300	94,000	100,000	105,000	120,000	126,000	145,000
26	Ekpene Obom	76,000	83,000	95,000	100,000	105,000	120,000	126,000	150,000
27	Asanga Usung	90,000	106,000	120,000	120,000	120,000	120,000	128,000	130,000
28	Esem Udo	80,000	80,000	90,000	90,000	90,000	98,000	98,000	100,000
29	Ibakesi Ikot Mbiet	80,000	80,000	90,000	90,000	90,000	98,000	98,000	100,000
30	Mfon	90,000	106,000	120,000	130,000	130,000	132,000	128,000	130,000
31	Ibakesi Ikot	100,000	120,000	150,000	150,000	187,000	187,000	190,000	200,000
32	Ekan	92,000	106,000	120,000	150,000	170,000	180,000	198,000	240,000
33	Ibakesi Ukpom Unya	150,000	150,000	180,000	180,000	187,000	190,000	190,000	200,000
34	Ikot Ete Udoe	120,000	150,000	180,000	180,000	187,000	187,000	200,000	200,000
35	Ukpim Ikot Imo	150,000	150,000	180,000	180,000	187,000	190,000	190,000	200,000
36	Ukpom Ikot Anwana	120,000	150,000	180,000	180,000	187,000	187,000	200,000	200,000

**Average Rental Value**      94,833    103,119    116,917    120,667    127,389    134,083    137,083    144,472

Source: Researchers’ analysis. 2023

Table 3 showed the trend of rental values of residential real estate in the study area. It was observed that the maximum rental value (₦240,000.00) was observed in 2022 in Ekang village, while the minimum rental value of ₦70,000.00 was observed in 2015 and 2016 in Ukpom Ikot Akpakam village in the Ikono South District. It can be deduced that the study area had a varying pattern of rental value.

**Analysis of the relationship between crime rate and rental value of residential real estate in the study area.**

In this section, an attempt was made to establish a relationship between crime rate and rental values of residential real estate in Ikono South District. Linear regression analysis was carried out between the independent and dependent variables and results presented in Table 4

**Table 4: Summary Statistics**

	<i>Coefficients</i>	<i>Standard Error</i>	<i>t Stat</i>	<i>P-value</i>	<i>Lower 95%</i>	<i>Upper 95%</i>
Intercept	229612	4301.858	53.37507	2.26E-34	220869.6	238354.4
Crime Rate	-7613.68	297.1729	-25.6204	8.2E-24	-8217.6	-7009.75

Source: Researchers’ analysis, 2023.

The output in Table 4 shows the result of fitting a linear regression model to describe the relationship between rental value of residential real estate and crime rate in the study area. The model to express the result of the fitting is shown in Equation 1

$$y = 22961 - 7613.68\text{crime}$$

...Equation 1

From Equation 1, it can be deduced that there is a negative relationship between crime rate and rental values of residential property in the study. It implies that as the crime rate increases, property values decrease. In addition, as crime rate decreases, the value of residential real estate would increase, all things being equal. This finding is valid and the equation would be useful as a predictive model.

Also, from Table 5, the p-value for crime rate and rental values are less than 0.05, indicating that there is a statistically significant relationship between rental values of residential real estate and crime rate at 95% confidence level. Furthermore, the Analysis of Variance in Table 5 shows that the F-ratio is 656.40 with a p-value of 0.000. In addition, details of the R-squared, R<sup>2</sup> (adjusted for degree of freedom) and Durbin-Watson Statistics are shown in Table 5.

**Table 5: ANOVA of Relationship between Crime Rate and Rental Values**

	<i>Df</i>	<i>SS</i>	<i>MS</i>	<i>F</i>	<i>Significance F</i>
Regression	1	2.29E+10	2.29E+10	656.4027	8.2E-24
Residual	34	1.19E+09	34876255		
Total	35	2.41E+10			
Multiple R		0.975066			
R Square		0.950753			
Adjusted R Square		0.949305			
Standard Error		5905.612			
Durbin Watson Statistics		2.321			

Source: Researchers' analysis, 2023

## Discussion of Findings

The study revealed that the crime rate had the highest value (17.56%) in 2022, while the lowest crime rate (9.99%) was recorded in the year 2015. The study also revealed that there was a consistent year-to-year increase in crime rate between 2015 and 2022. The study also revealed that the maximum rental value (₦240,000.00) was observed in 2022 in Eakang village, while the minimum rental value of ₦70,000.00 was observed in 2015 and 2016 in Ukpom Ikot Akpakam village in the Ikono South District. Finally, in establishing the relationship between crime rate and rental values of residential real estate in Ikono South District, it was found out that there was a 95.07% significant relationship and that the model to express the result of the fitting as shown in Equation 1, can be used in forecasting the rental value of residential property in the study area, given any unit of crime rate. This research is in congruent with the works of Bello (2011), Pope and Pope (2012) and Olajide and Lizam, (2017). Both had results consistent with a strong relationship between changes in crime rate and values of urban properties. They found out that almost all impact of crime on city population results from increased out-migration and causally linked rising crime rate to city depopulation, which in turn affected real estate values.

## Conclusion

This study has looked at the impact of crime on property values in Ikono South District. The study showed that since 2015, the incidence of most crimes has been on the increase especially in the residential neighbourhoods of Ikono South District. This result is consistent with results of other studies in different parts of Nigeria where crime rates are more in high density neighbourhoods and affect residential real estate values. The study concluded that there is a significant negative relationship between crime rate and residential real estate values in Ikono South. It is worthy of note that high crime rates deter new residents and motivate those who can to move out to lower-crime rate neighbourhoods.

## Recommendation

This study recommends that adequate security measures be put in place, by the government to curb the increasing crime rate in the study area. This can be done through the establishment of a Police post in Ikono South District, as there was no single police post spotted during the course of this research. The study also recommends that community policing be carried out by the establishment of vigilante groups, which may help curb the menace.

## References

- Afon, A. O., (2001) Residential diversity factor in perception of and response to fear of crime in Nigeria. Paper Presented at the International Conference on Security, Segregation and Social Network in West African Cities 19th – 20th Centuries, Held at International Centre for African Studies, University of Ibadan.
- Ahmed, Y.A., (2012) The pattern and distribution of crime incidence in an urban environment; A case study of Osun State, southwestern Nigeria, *International Journal of Humanities and Social Sciences* 2(5).178 – 188.
- Anonymous (Personal Communication) (2022, December 9). Group discussion on village records. Council Hall, Ikono-South, Ikono Local Government Area, Akwa Ibom State, Nigeria.
- Akpan, N. (2010) Kidnapping in Nigeria Niger Delta: An exploratory study, *Journal of Social Sciences* 24 (1) 33-42.
- Aluyor, G. B. O. (2005). Performance Evaluation of the Nigerian Police in Crime Prevention in Urban Centers. *Journal of Land Use and Development Studies*, 1 (1), 84 –89.

Baumeister, R.F. (2012). Human Evil: The myth of pure evil and the true causes of violence. In A.P. Association, M. Mikulincer, and P.R. Shaver (Eds.), *The social psychology of morality: Exploring the causes of good and evil* (pp. 367–380). Washington, DC

Bello, V. A. (2011). The Impact of Urban Crime on Property Values in Akure, Nigeria. Proceedings from FIG Working Week 2011, Bridging the Gap between Cultures Marrakech, Morocco, 18-22 May 2011

Fredrickson, B.L. (2005). Positive Emotions broaden the scope of attention and thought-action repertoires. *Cognition and Emotion*, 19: 313–332.

Girgen, J. (2003). "The Historical and Contemporary Prosecution and Punishment of Animals". *Animal Law Journal*. 9: 97. Archived from the original on 29 December 2019. Retrieved 1 October 2017.

Hellman, D. A., and Naroff, J. L. (1979.) The impact of crime on urban residential property values. *Urban Studies*, 16, 105–112.

Jargowsky, P.A, Yoonhwan , P. (2009). Cause or consequence suburbanization and crime in US metropolitan area, *Crime and Delinquency* 55 (11) 28 – 50.

Jiburum, U., Mba, H. C. and Ezeamama, J. U. (2014). Crime and Choice of Residence in Enugu, Southeast Nigeria: A Non-Parametric Analysis. *Research on Humanities and Social Sciences*, 4(17), 144-151

Lynch, A. K., and Rasmussen, D. W. (2001). Measuring the impact of crime on house prices. *Applied Economics*, 33 (15), 1981–1989.

Mark, E. (2010). "What is crime?". *BBC News*. Archived from the original on 27 February 2013. Retrieved 10 June 2013.

Martin, E. A. (2003). *Oxford Dictionary of Law (7 ed.)*. Oxford: Oxford University Press. ISBN 978-0-19-860756-4.

Olajide, S. E., and Lizam, M. (2016). Determining the Impact of Residential Neighbourhood Crime on Housing Investment Using Logistic Regression. *International Electronic Scientific Journal*, 2(12), 6.6-6.17

Olajide, S. E., and Lizam, M. (2017). A Review of the Impact of Neighbourhood Crime on Residential property Values. *Journal of engineering and Applied Sciences*, 12(5), 1205-1211.

Otu, S. E. (2010) Armed robbery and armed robbers in contemporary Nigeria: The social learning and model visited, *International Journal of Criminology and Sociological Theory*, 3 (2) 438-45

Pope, J.C. (2008). Fear of crime and housing prices: household reactions to sex offender registries. *Journal of Urban Economics* 64 (3), 601–614.

Pope, D. G., and Pope, J. C. (2012). Crime and Property Values: Evidence from the 1990s Crime Drop. *Regional Science and Urban Economics*, 42(1-2), 177-188.

---

## About the Authors



### **Mbosowo Ebong EKPO, PhD**

Akwa Ibom State.



**Dr. Mbosowo Ebong EKPO [BSc (Est. Mgt.), MSc (Est. Mgt.), PhD (Est. Mgt.) ANIVS, RSV]** is a native of Utu Ikpe in Ikot Ekpene Local Government Area of Akwa Ibom State, Nigeria. He is the Principal Partner of Mbosowo Ebong & Associates - a firm of Estate Surveyors and Valuers with its Corporate Headquarters at No. 93 Abak Road, Ikot Ekpene, Akwa Ibom State. He obtained his First School Leaving Certificate from Methodist School, Utu, Abak Road, Ikot Ekpene. He attended St. Mary's Science College and obtained his West African Secondary School Certificate in 1998. He gained admission into the prestigious University of Uyo where he studied Estate Management and successfully graduated in 2007 and obtained his Bachelor of Science (HONS) in Estate Management. He taught in Yobe State Polytechnic, Damaturu when he was posted to Yobe State for his compulsory NYSC programme in 2007. He holds a Master of Science (MSc) degree from the University of Uyo, with specialization in Property Valuation. His love for education earned him a Doctor of Philosophy (PhD) in Estate Management from the same prestigious



University of Uyo, with specialization in Real Estate Investment Appraisal. He holds a Diploma Certificate in Statistical Data Analysis.

He is an associate member of the Nigerian Institution of Estate Surveyors and Valuers and has been conferred with the rights and privileges to practice professionally as a Registered Estate Surveyor and Valuer by the Estate Surveying and Valuation Board of Nigeria. He is a lecturer with over 15 years' experience in research and academia. He is happily married to Dr. Unwana Mbosowo Ebong and the marriage blessed with children. He plays all musical instruments and can speak Annang, English and Hausa languages fluently. Dr. Ekpo can be contacted at [mbosowoebong@gmail.com](mailto:mbosowoebong@gmail.com)



## **Dianabasi Reuben AKWAOWO**

Akwa Ibom State, Nigeria



**Dianabasi Reuben Akwaowo**, B.Sc (Architecture), M.Sc (Architecture), currently undergoing his PhD Programme in Architecture is a native of Edem Idim Ishiet in ONNA Local Government Area of Akwa Ibom State, Nigeria. He is a Principal Partner of DesignImpacts & Associates – a firm of Architects, Engineers, Planners and Interior designers with its Corporate Headquarters at No. 31 Enen Afaha Street, off Atiku Abubakah way, Uyo. He obtained his First Leaving Certificate from U.A.C.C. School, Ikot Akpan Ishiet. He attended Senior Science College, Ndon Eyo and obtained his West African Secondary School Certificates in 1998. He gained admission into the prestigious University of Uyo where he studied Architecture and successfully graduated in 2007 and obtained his Bachelor of Science (HONS) in Architecture. He obtained his Certificate of National Service in 2008 after a successful one-year National Youth Service Corps programme. He holds a Master of Science (MSc) degree from the University of Uyo. He is currently undergoing his PhD programme in Architecture in Abia State University, Uturu, where he specializes in Thermal Comfort in dwellings.

He is a licensed Architect with the Architects Registration Council of Nigeria (ARCON) and has been conferred with the rights and privileges to practice Architecture professionally as a principal in Nigeria. He is a full member of The Nigerian Institute of Architects (NIA), and the immediate past PRO of the Institute's State Chapter. He is a lecturer with over 10 years' experience in research and academia. He is a pastor in Believers Loveworld Nation aka Christ Embassy. He is happily married to Jenny Dianabasi Akwaowo, and the marriage is blessed with 4 children. He speaks Ibibio and English languages fluently.

Akwaowo can be contacted at [arcdianabasiakwaowo@gmail.com](mailto:arcdianabasiakwaowo@gmail.com)



### **Hosanna Moses ATTAI, MSc**

Akwa Ibom State, Nigeria



**Hosanna Moses ATTAI, BSc, MSc** hails from Ikot Ntuen in Oruk Anam Local Government Area of Akwa Ibom State of Nigeria. He had his BSc from University of Uyo and MSc University of Nigeria, Enugu with specialization in GIS and Remote Sensing. He is a Lecturer in Surveying and Geo-informatics Department, Akwa Ibom Polytechnic, Ikot Ekpene. He has published in Several local and international Journals. He is a Registered Surveyor. He can be contacted at [hosannaattai@gmail.com](mailto:hosannaattai@gmail.com)