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URBAN TENANTS' PERCEPTION OF NEIGHBOURHOOD SECURITY AND THE IMPLICATIONS ON RENTAL VALUES OF RESIDENTIAL PROPERTIES IN MINNA, NIGERIA

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ABSTRACT

This study explores the perception of urban tenants about the security of residential neighbourhoods in Minna and the implications on rental values of residential properties in the city. Primary data for the study were collected from 211 tenants of residential properties in the city, using structured questionnaires. The tenants were selected randomly for data collection. Results of data analysis show that urban residential tenants in the city rank armed robbery as the most serious crime which threaten the security of their lives and property. Also, Analysis of Variance (ANOVA) of rental values of residential properties selected for the study at 0.05 level of significance shows that differences in rental values of residential properties within and between the various residential neighbourhoods in the city are not statistically significant, the tenants' perception of the security status of the residential neighbourhoods notwithstanding. The study concludes that the perception of urban tenants about the security of residential neighbourhoods in Minna has no significant influence on rental values of residential properties in the city.

Keywords: Perception; Property; Rental Value; Security; Tenants

INTRODUCTION

According to Innes and Jones (2006), neighbourhood security is the condition when any actual or perceived local risks to an individual or group's safety are at tolerable levels. As an essential requirement for neighbourhood security, human security is achieved when and where individuals and communities have the options necessary to end, mitigate or adapt to threats to their human, environmental and social rights; have the capacity and freedom to exercise these options, and actively participate in pursuing these options (GECHS, 1999). On the other hand, neighbourhood insecurity results when people living or working in an area perceive themselves to be vulnerable to particular risks or threats which have a negative impact on how safe they are or feel (Innes and Jones, 2006). However, the concept of neighbourhood security and its antithesis insecurity are complex. While neighbourhood insecurity is caused by crime and disorder, neighbourhood security is the condition that prevails in the absence of any actual or proximate risks to an individual or group's safety, or at least when these are at tolerable level. Wilson and Kelling (1982) established the nexus between crime, disorder and fear of crime in what they called 'broken windows thesis'. This thesis argues that an increase in disorder leads to an increase in crime rates. They further argued that untreated disorder in an area that is not subject to some form of effective formal or informal social control intervention can contribute to increased fear among the local populace, thereby reducing the capacity for effective governance of public and semi - public spaces. Although most people take into account a variety of factors in terms of deciding where to live, the degree of security that a neighbourhood affords to them is one of such factors (Logan and Molotch, 1987). As explained by Taub *etal* (1984), some people may trade a degree of neighbourhood security for good public transport connections or particular local amenities. Innes and Jones (2006) also argued that certain types of crime and disorder have a particularly potent impact upon local perceptions of neighbourhood security. Such types of crime alter how people think, feel or act because they are interpreted as indicators of the local level of safety. In Minna, what are the perceptions of urban residential property tenants on the security of their residential neighbourhoods? Do such perceptions have significant influence on the rental trend in residential properties in the city? The answers to these research questions form the basis of this paper.

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METHODOLOGY AND DATA

The study area was delineated into 10 residential neighbourhoods for the purpose of data collection. These neighbourhoods include Maikunkele, Maitumbi, Barkin Salé, Tunga, GRA, Bosso, Kpagungu, F-Layout, Chanchaga and Dutsen Kura. Primary data for the study were collected from tenants of selected residential properties in these neighbourhoods through field survey using simple random sampling technique. The study is based on 0.05 level of significance and the sample size was determined quantitatively using this model:

$$n = \frac{1}{k^2}$$

Where n = sample size
 k = level of significance

$$\text{Therefore } n = \frac{1}{(0.05)^2}$$

$$n = 400$$

Thus, a total of 400 structured questionnaires were administered to tenants of selected residential properties in the neighbourhoods in a proportion commensurate with their sizes, out of which 211 were properly completed and returned as presented in Table 1 (See appendix). The margin of error in the sample is 5% and was determined as follows:

$$\text{Margin of error} = \frac{1}{\sqrt{n}}$$

$$\text{Margin of error} = \frac{1}{\sqrt{400}}$$

$$= \frac{1}{20}$$

$$= 0.05$$

$$= 5\%$$

The properties selected for the study comprise tenements, 1 – bedroom semi detached bungalows, 2 – bedroom semi – detached bungalows and 2 – bedroom detached bungalows. These residential property types were selected because they are found in all the residential neighbourhoods delineated for the study. Respondents were asked to assess the security status of their residential neighbourhoods. Their responses are presented in Table 4. Respondents were also asked to assign ranks to a list of 9 serious crimes which threaten the security of their lives and property. These crimes include murder, armed robbery, assault, burglary and house breaking, unlawful possession of firearms, rape, manslaughter, kidnapping and arson. Their responses are also presented in Table 3 (see Appendix).

The weighted rents paid by the respondents to occupy the properties under study for the period, 1998 – 2007 were collected as presented in Tables 4, 5, 6 and 7 (See Appendix).

RESULTS AND DISCUSSION

Responses of the respondents on the ranking of serious crimes which threaten the security of their lives and property were analysed using a 9 – point likert scale and the result is presented in Table 8 while the respondents' responses on the assessment of the security status of their residential neighbourhoods were analysed using a 5 – point likert scale . The result is presented in Table 9 (See Appendix).

The composite index/mark – off points for the interpretation of the mean values in Table 9 (see appendix) are: 1.00 – 1.49 (very insecure); 1.50 – 2.49 (insecure); 2.50 – 3.49.

(Undecided); 3.50 – 4.49 (secure); and 4.50 – 5.00 (very secure). As presented in Table 8, armed robbery is the most serious crime which threatens the security of lives and property of residential tenants in Minna. Also, residential tenants in the city perceive that Government Reserved Area (GRA) is the most secure residential neighbourhood in the city. But are the differences in rents paid by tenants to occupy residential properties in residential neighbourhoods perceived to be secure and very secure and rents paid to occupy residential properties in residential neighbourhoods perceived by tenants to be insecure and very insecure statistically significant? The single – factor Analysis of Variance (ANOVA) statistical tool was used to answer this research question. The ANOVA result is presented in Table 10.

As presented in Table 10, the calculated F- ratios are greater than the critical F- values at 0.05 level of significance and at appropriate degrees of freedom for all the residential property types selected for the study. Thus, variations in rental values of residential properties in the various residential neighbourhoods in the city are not statistically significant, the tenants' perception about the security status of the neighbourhoods notwithstanding. The implication of this is that, the perception of urban residential tenants about the security of residential neighbourhoods in Minna has no significant influence on rental values of residential properties in the city. Also, the trend in rental values of residential properties selected for the study was measured through rental index analysis, using 2002 as the base year. Rental index constructed for the residential properties shows upward trend in rental values of residential properties in all the neighbourhoods under study as presented in Tables 11, 12, 13 and 14.

FINDINGS

Differences in rental values of residential properties in the various residential neighbourhoods in the city are not statistically significant, the tenants' perception about the security status of the neighbourhoods notwithstanding. This is explained by the results of the ANOVA test for the study in which the calculated F- ratios are greater than the critical F- values at 0.05 level of significance and at appropriate degrees of freedom for all the residential property types selected for the study (see Table 10). This implies that there is no statistically significant difference in rents paid by tenants to occupy residential properties in residential neighbourhoods perceived to be secure and very secure and rents paid to occupy residential properties in residential neighbourhoods perceived by tenants to be insecure and very insecure in the city. Also, rental index constructed for the properties shows very high upward rental trend in neighbourhoods such as Barkin Sale and Dutsen Kura which tenants perceive are very insecure. This indicates that tenants pay open market rent to occupy residential properties in these areas, without considering their perception about the security of the neighbourhoods.

CONCLUSION

Based on the results of data analysed for this study, the perception of urban tenants about security of their residential neighbourhoods in Minna has no significant influence on rental values of residential properties in the city. This scenario may be attributed to effective demand in the residential property market, coupled with shortage of residential accommodation in the city, among other factors which are subject to further research.

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Appendix

Table 1: Distribution of Questionnaires in the Study Area

Residential Neighbourhoods	No. of Questionnaires Administered	No. of Questionnaires Returned
Maikunkele	35	10
Maitumbi	35	12
Barkin Sale	25	16
Tunga	90	71
GRA	20	5
Bosso	65	42
Kpagungu	35	13
F-Layout	20	8
Chanchaga	40	23
Dutsen Kura	35	11
Total	400	211

Source: Field Survey, 2008.

Table 2: Respondents' Assessment of the security status of Residential Neighbourhoods in the Study Area

Residential Neighbourhood	Opinions and No. of Respondents				
	Very Secure	Secure	Undecided	Insecure	Very Insecure
Maikunkele	-	2	1	6	1
Maitumbi	1	1	2	5	3
Barkin Sale	-	-	1	3	12
Tunga	11	48	4	5	3
GRA	4	1	-	-	-
Bosso	10	25	2	4	1
Kpagungu	3	7	1	1	1
F-Layout	5	2	1	-	-
Chanchaga	1	2	3	15	2
Dutsen Kura	-	1	-	2	8

Source: Field Survey (2008)

Table 3: Respondents' Ranking of Serious Crimes which threaten the security of their lives and property

Serious Crime	Ranks and No. of Respondents								
	1	2	3	4	5	6	7	8	9
Murder	18	11	142	18	12	7	3	-	-
Armed Robbery	124	68	5	3	2	3	4	2	-
Assault	-	-	-	1	3	1	5	10	191
Burglary and House Breaking	27	102	28	23	13	12	6	-	-
Unlawful Possession of Firearms	2	1	1	1	-	5	3	186	12
Rape	11	13	10	4	4	160	6	3	-
Man Slaughter	6	8	20	7	154	11	4	1	-
Kidnapping	2	4	5	3	8	4	173	7	5
Arson	21	4	-	151	15	8	7	2	3

Source: Field Survey (2008)

Table 4: Weighted Rents in Tenements in Minna, 1998 - 2007

Residential Neighbourhood	Year and Weighted Rent in ₦'000									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	0.4	0.5	0.5	0.53	0.6	0.68	0.8	0.87	0.87	0.93
Maitumbi	0.48	0.5	0.55	0.63	0.65	0.70	0.90	0.95	1.04	1.13
Barkin Sale	0.46	0.46	0.46	0.52	0.60	0.72	0.74	0.90	0.90	0.93
Tunga	0.67	0.68	0.70	0.72	0.91	1.00	1.03	1.19	1.46	1.46
Bosso	0.57	0.61	0.64	0.76	1.01	1.04	1.21	1.29	1.69	1.69
Kpagungu	0.44	0.44	0.48	0.70	0.70	0.71	0.74	0.88	0.94	1.00
Chanchaga	0.48	0.48	0.60	0.60	0.65	0.68	0.93	1.00	1.13	1.13
Dutsen Kura	0.45	0.45	0.53	0.60	0.60	0.60	0.75	0.87	0.87	0.93

Source: Field Survey (2008)

Table 5: Weighted Rents in 1 – Bedroom Semi – Detached Bungalows in Minna, 1998 – 2007

Residential Neighbourhood	Year and Weighted Rent in ₦'000									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	11.7	11.7	18.3	18.3	23.3	27.5	27.5	30	33.8	35
Maitumbi	15	15	20	25	28.8	28.8	36.3	38.8	38.8	41.3
Barkin Sale	26.7	28.3	28.8	28.8	30	33.8	36.3	37.5	42.5	42.5
Tunga	22.5	22.8	22.8	27.8	33.9	36.1	37.8	53	58.5	58.5
Bosso	27.5	29.4	36.9	40.6	42.8	45	46.7	58.3	64.5	64.5
Kpagungu	13.3	13.3	20	23.3	31.7	31.7	31.7	36.3	43.8	43.8
F - Layout	28.6	29.3	30.7	32.8	38.3	42.8	49.4	56.7	67.8	68.3
Chanchaga	11.7	11.7	26.7	26.7	30	31.7	33.3	40	47.5	48.8
Dutsen Kura	11.3	16.7	17.5	21.3	25	27.5	28.8	28.8	45	45

Source: Field Survey (2008)

Table 6: Weighted Rents in 2 – Bedroom Semi – Detached Bungalows in Minna, 1998 – 2007

Residential Neighbourhood	Year and Weighted Rent in ₦'000									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	33.3	35	36.7	40	50	53.3	55	63.3	68.8	73.8
Maitumbi	33.3	35	36.7	48.3	50	55	65	68.3	68.8	72.5
Barkin-Sale	16.7	18.3	20	35	36.7	41.7	48.3	56.7	61.3	67.5
Tunga	51.7	53.3	63.8	65	71.3	80	94	96	96.7	106.7
GRA	62.5	65	67.5	80	82.5	95	100	105	122.5	135
Bosso	60	61	62	68	73	78	91	99	100	113.3
Kpagungu	21.7	23.3	25	33.3	48.3	51.7	61.7	70	85	85
F - Layout	38.8	40	48.8	50	62.5	63.8	80	86.3	105	115
Chanchaga	30	35	46.3	50	57.5	76.3	83.8	92.5	93.3	96.7
Dutsen Kura	17.5	17.5	22.5	27.5	35.5	35.5	43.3	60	66.3	66.3

Source: Field Survey (2008)

Table 7: Weighted Rents in 2 – Bedroom Detached Bungalows in Minna, 1998 – 2007

Residential Neighbourhood	Year and Weighted Rent in ₦'000									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	45	45	48.8	55	60	66.3	66.3	76.3	77.5	78.8
Maitumbi	45	45	45	55	65	65	65	78.8	78.8	92.5
Barkin Sale	22.5	25	25	35	45	45	45	66.3	67.5	71.3
Tunga	55	55	60	60	80	80	80	93.3	110	115
GRA	70	70	70	80	100	100	100	113.3	115	117.5
Bosso	55	55	55	65	75	85	85	92.5	105	110
Kpagungu	35	35	45	45	70	70	70	93.3	95	95
F - Layout	65	65	75	90	90	100	100	100	122.5	125
Chanchaga	27.5	27.5	45	45	70	70	70	95	95	100
Dutsen Kura	17.5	22.5	22.5	35	45	45	71.3	71.3	71.3	75

Source: Field Survey (2008)

Table 8: Respondents' Consensus Ranking of Serious Crimes which threaten the security of their lives and property, based on 9- point Likert Scale

Serious Crime	Sum of Responses	Mean	Respondents' Consensus Rank
Murder	1449	6.87	3
Armed Robbery	1751	8.30	1
Assault	251	1.19	9
Burglary and House Breaking	1524	7.22	2
Unlawful Possession of Firearms	452	2.14	8
Rape	981	4.65	6
Man Slaughter	1128	5.35	5
Kidnapping	697	3.30	7
Arson	1262	5.98	4

Source: Computed from Data in Table 5

Table 9: Respondents' Consensus Assessment of the security status of their Residential Neighbourhoods, based on 5-point Likert Scale

Residential Neighbourhood	Sum of Responses	Mean
Maikunkele	24	2.40
Maitumbi	28	2.33
Barkin Sale	21	1.31
Tunga	272	3.83
GRA	24	4.80
Bosso	165	3.93
Kpagungu	49	3.77
F - Layout	36	4.50
Chanchaga	54	2.35
Dutsen Kura	16	1.45

Source: Computed from Data in Table 4

Table 10: Analysis of Variance (ANOVA) of Rental Values of Residential Properties in the Residential Neighbourhoods under study

Residential Property Type	Source of Variance	Sum of Squares	Degrees of Freedom	Mean Square	Calculated F - ratio	Critical F-value @ $\alpha=0.05$
Tenements	Between groups	1590918.7	7	227274.1	3.40	2.14
	Within groups	4814730	72	66871.3		
1-Bedroom Semi-Detached Bungalows	Between groups	4749005555.6	8	593625694.5	4.31	2.05
	Within groups	11155686000	81	137724518.5		
2-Bedroom Semi-Detached Bungalows	Between groups	28567278400	9	3174142044.4	7.13	2.05
	Within groups	40052636000	90	445029288.9		
2-Bedroom Detached Bungalows	Between groups	27153862500	9	3017095833.3	5.30	2.05
	Within groups	51210685000	90	569007611.1		

Source: Computed from Data in Tables 6, 7, 8 and 9

Table 11: Rental Index for Tenements in Residential Neighbourhoods in Minna for the period, 1998 – 2007, using 2002 as the base year

Residential Neighbourhood	Rental Index									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	66.67	83.3	83.33	83.33	100	113.33	133.33	145	145	155
Maitumbi	73.85	76.92	84.61	96.92	100	107.69	138.46	146.15	160	173.85
Barkin Sale	76.67	76.67	76.67	86.67	100	120	123.33	150	150	155
Tunga	73.63	74.73	76.92	79.12	100	109.89	113.19	130.77	160.43	160.43
Bosso	56.43	60.40	63.37	75.25	100	102.97	119.80	127.72	167.33	167.33
Kpagungu	62.86	62.86	68.57	100	100	101.43	105.71	125.71	134.29	142.86
Chanchaga	73.85	73.85	92.31	92.31	100	104.62	143.08	153.85	173.85	173.85
Dutsen Kura	75	75	88.33	100	100	100	125	145	145	155

Source: Computed from Data in Table 6

Residential Neighbourhood	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	66.67	83.3	83.33	83.33	100	113.33	133.33	145	145	155
Maitumbi	73.85	76.92	84.61	96.92	100	107.69	138.46	146.15	160	173.85
Barkin Sale	76.67	76.67	76.67	86.67	100	120	123.33	150	150	155
Tunga	73.63	74.73	76.92	79.12	100	109.89	113.19	130.77	160.43	160.43
Bosso	56.43	60.40	63.37	75.25	100	102.97	119.80	127.72	167.33	167.33
Kpagungu	62.86	62.86	68.57	100	100	101.43	105.71	125.71	134.29	142.86
Chanchaga	73.85	73.85	92.31	92.31	100	104.62	143.08	153.85	173.85	173.85
Dutsen Kura	75	75	88.33	100	100	100	125	145	145	155

Table 12: Rental Index for 1- Bedroom Semi- Detached Bungalows in Residential Neighbourhoods in Minna for the period, 1998 – 2007, using 2002 as the base year

Residential Neighbourhood	Rental Index									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	50.21	50.21	78.54	78.54	100	118.03	118.03	128.76	145.06	150.21
Maitumbi	52.08	52.08	69.44	86.81	100	100	126.04	134.72	134.72	143.40
Barkin Sale	89	94.33	96	96	100	112.67	121	125	141.67	141.67
Tunga	66.37	67.26	67.26	82.01	100	106.49	111.50	156.34	172.57	172.57
Bosso	64.25	68.69	86.21	94.86	100	105.14	109.11	136.21	150.70	150.70
Kpagungu	41.96	41.96	63.09	73.50	100	100	100	114.51	138.17	138.17
F - Layout	74.67	76.50	80.16	85.64	100	111.75	128.98	148.04	177.02	178.33
Chanchaga	39	39	89	89	100	105.67	111	133.33	158.33	162.67
Dutsen Kura	45.20	66.80	70	85.20	100	110	115.20	115.20	180	180

Source: Computed from Data in Table 7

Table 13: Rental Index for 2- Bedroom Semi- Detached Bungalows in Residential Neighbourhoods in Minna for the period, 1998 – 2007, using 2002 as the base year

Residential Neighbourhood	Rental Index									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	66.60	70	73.40	80	100	106.60	110	126.60	137.60	147.60
Maitumbi	66.60	70	73.40	96.60	100	110	130	136.60	137.60	145
Barkin Sale	45.50	49.86	54.50	95.37	100	113.62	131.61	154.50	167.03	183.92
Tunga	72.51	74.75	89.48	91.16	100	112.20	131.84	134.64	135.62	149.65
GRA	75.76	78.79	81.82	96.97	100	115.15	121.21	127.27	148.48	163.64
Bosso	82.19	83.56	84.93	93.15	100	106.85	124.66	135.62	136.99	155.21
Kpagungu	44.93	48.24	51.76	68.94	100	107.04	127.74	144.93	175.98	175.98
F - Layout	62.08	64	78.08	80	100	102.08	128	138.08	168	184
Chanchaga	52.17	60.87	80.52	86.96	100	132.70	145.74	160.87	162.26	168.17
Dutsen Kura	49.30	49.30	63.38	77.46	100	100	121.97	169.01	186.76	186.76

Source: Computed from Data in Table 8

Table 14: Rental Index for 2- Bedroom Detached Bungalows in Residential Neighbourhoods in Minna for the period, 1998 – 2007, using 2002 as the base year

Residential Neighbourhood	Rental Index									
	1998	1999	2000	2001	2002	2003	2004	2005	2006	2007
Maikunkele	75	75	81.33	91.67	100	110.50	110.50	127.17	129.17	131.33
Maitumbi	69.23	69.23	69.23	84.62	100	100	100	121.23	121.23	142.31
Barkin Sale	50	55.56	55.56	77.78	100	100	100	147.33	150	158.44
Tunga	68.75	68.75	75	75	100	100	100	116.63	137.50	143.75
GRA	70	70	70	80	100	100	100	113.30	115	117.50
Bosso	73.33	73.33	73.33	86.67	100	113.33	113.33	123.33	140	146.67
Kpagungu	50	50	64.29	64.29	100	100	100	133.29	135.71	135.71
F - Layout	72.22	72.22	83.33	100	100	111.11	111.11	111.11	136.11	138.89
Chanchaga	39.29	39.29	64.29	64.29	100	100	100	135.71	135.71	142.86
Dutsen Kura	38.89	50	50	77.78	100	100	158.44	158.44	158.44	166.67

Source: Computed from Data in Table 9