ASSESSMENT OF HOUSEHOLDS' SATISFACTION WITH NEIGHBOURHOOD FACILITIES IN SELECTED RESIDENTIAL LOCATIONS OF MINNA URBAN

BY

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Abstract

One of the challenges facing the cities of the world particularly in developing economies is unsustainable nature of housing. And as neighbourhood remains the utmost fundamental environmental unit for dweller's social platform influencing his or her quality of life, it should be ascribed serious attention. This study examined the effects of seven neighbourhood facilities on households' satisfaction across six residential neighbourhoods in Minna. Systematic random sampling technique was used to administer questionnaires to the household heads in the study area. Spearman's rank correlation and multiple regression were statistical tools employed using SPSS Version 16.0 Statistical package. The study revealed a positive relationship between level of households' satisfaction and neighbourhood facilities considered in F-layout and Bosso Estate with correlation coefficients of 0.689 and 0.529 respectively; positive relationship in Bosso Town, Tunga Lowcost and GRA with correlation coefficients of 0.465, 0.375 and 0.360 respectively; and negative relationship between the variables in Minna Central (-0.033 correlation coefficient). The correlation results confirms the regression analysis which reveals significant relationship (p values < 0.01) between households' satisfaction and neighbourhood facilities in F-layout (R^2=0.501), Bosso Estate (R^2=0.230), Bosso Town (R^2=0.205), Tunga Lowcost (R^2=0.180) and GRA (R^2=0.124)) and reverse relationship (p value > 0.01) in Minna Central (R^2=0.000). The study recommends that neighbourhood facilities should be augumented with other public facilities and households or community residents should be involved in infrastructure input decisions that affect their neighbourhoods. This will improve residential neighbourhood satisfaction by the residents and also enhance property values.

Key Words: residential neighbourhood, neighbourhood facilities, household satisfaction

1.0 Introduction

In every city around the world, residential land use occupies about two-third of all urban land as it offers shelter role to every mankind and a major household decision is that of residential

location (Harris, 1996). Inspite of this fact, it is not possible for everyone to live where they would prefer, as competition for the most desired locations means that price limits the options available as well as inadequate housing supplies to accomodate the increasing demand (Kim, Pagliara & Preston, 2003; Whitfield, Zhu, Heath & Martin, 2004). On the other side, different studies have also shown that the choice of where to live would appear to be determined by a combination of social and environmental factors, economic constraints, personal preferences, priorities and values (Kim et al, 2003; Limbumba, 2010). In practice, the reasons for choice of location are probably mixed. These reasons transcend beyond financial strength as they may include quality of neighbourhood life, availability of public services, access to shopping, employment and schools; business, educational, cultural or recreational opportunities; affordability; familiarity with one location or type of location perhaps as a result of growing up there; or emotional attachment to a place or a lifestyle or family's safety; dwelling characteristics such as age, number of rooms; prevailing urban policies and institutional environment (Curtis & Montgomery, 2006; Whitfield et al, 2004; McFadden, 1977; Limbumba, 2010).

Several studies have focused on residential location choice, residential choice as one element of a larger mobility travel decision making framework, location choice for specific demographic groups and others have been more inclusive such as the analysis of residential amenity (New Jersey Office of State Planning, 1992; Kim et al, 2003; Molugaram & Krishna Rao, 2005; Shin, Kim & Hong, 2011; Jordan, Birkin & Evans, 2012; Inoa, 2013; Curtis & Montgomery, 2006). However, the decisions about residential mobility and housing location choices are usually made in stages (figure 1) and the decision to move or stay in a particular home within a neighbourhood is influenced by a range of pull and push factors (Curtis & Montgomery, 2006). This current study which is a quality of life study is recently gaining the attention of environmental designers, urban planners and policy makers (Sedaghatnia, Lamit, Ghahramanpouri & Mohamad, 2013) and will be distinguished from other studies in the sense that it is applied in different neighbourhood densities in the context of households' satisfaction with neighbourhood facilities having the attributes of pull factors that will influence the

decision of household to stay in a current home or move to a new home. The neighbourhood facilities remained the critical component and most fundamental base of life of housing components and quantifying their attributes tend to address major problem facing empirical work on urban housing markets (Ingram, 1977; Sedaghatnia et al., 2013). The Tiebout Location theory emphasized that individuals "vote with their feet" for the combinations of amenities and disamenities they prefer and if they are not satisfied with the way things are, they will not necessarily bear with it (Jordaan, Drost & Makgata, 2004). So, to what extent are people satisfied with neighbourhood amenities in Minna? A rational human being will either stay or move from his or her current home having taken cognisance of the level of satisfaction with the community facilities. Thus, this study will analyse the relationship between neighbourhood facilities and residential household satisfaction in certain neighbourhoods in Minna.
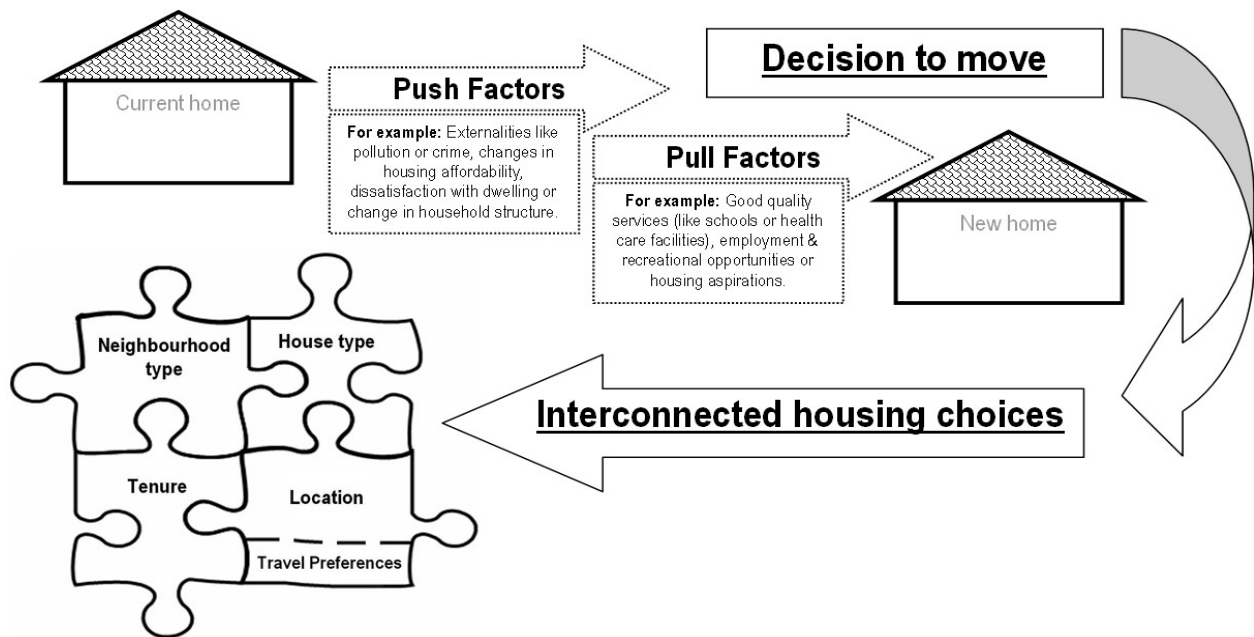

Figure 1: Stages in Residential Decision Making
Source: Adapted after Curtis and Montgomery, 2006

1.1 The Study Area

Minna is located on Latitude 9° 37' North and Longitude 6° 33' with geographical cordinates of $9^0 36' 50''$ North and $6^0 33' 25''$ East and occupies an area of about 884 hectares. In 1951, Minna became the provincial headquarters of Niger province and divisional headquarters during the first military regime in 1983. This brought about the growth of population of both indigenes and non indigenes of the state and accelerated physical development of the town commenced after becoming the seat of the capital of Niger State in February, 1976. The highest proportion of the population is composed of Gwari, Hausa, Nupe and Non-natives residing in Minna. By the 2006 Population and Housing Census Figures, Minna has a population of 348,788. There are Twenty-five neighbourhoods excluding Army Barracks in Minna (Figure 2).
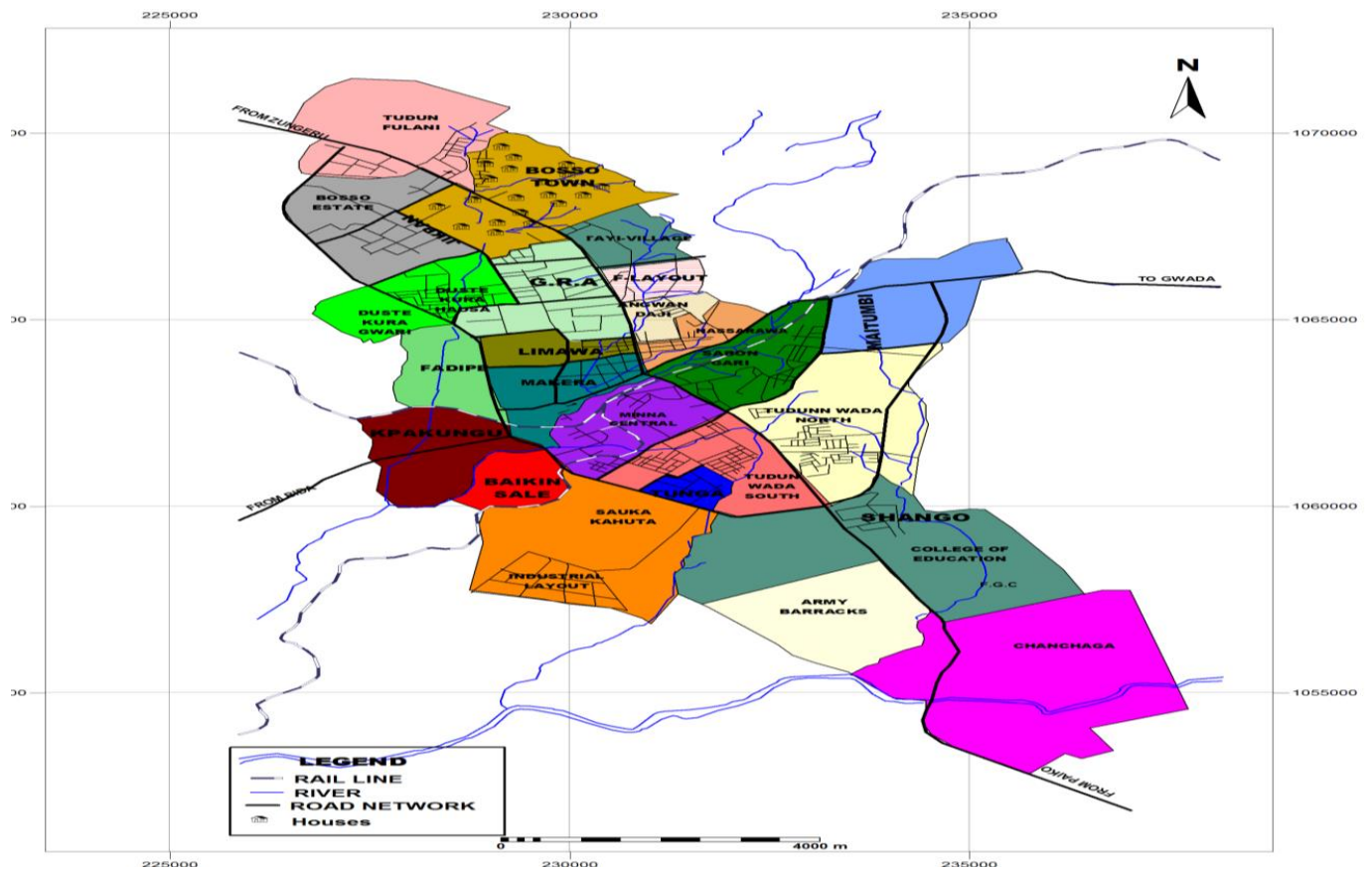

Figure 2: Minna and its Neighbourhoods
Source: Depatment of Urban and Regional Planning, 2013

2.0 Literature Review

2.1 Determinants of Housing and Neighbourhood Satisfaction

Increasing interests are now shown towards the satisfaction of people with their housing and or neighbourhoods. The variables or factors that are likely to influence residential satisfaction based upon review of literatures are inexhaustible and have been grouped by the researchers into eight components. These include dwelling unit features or Internal household characteristics such as living and dinning, bedroom, kitchen, bathroom, toilet and drying areas including ventilation of the house (Mohit, Ibrahim & Rashid, 2009; Jiboye, 2010; Adewale, Taiwo, Izobo-Martins & Ekhaese, 2015; Kaur & Gupta, 2015), dwelling unit support services or external household attributes such as corridors, staircase, balconies, drainage, electricity, sewerage, lifts, fire fighting system and telecommunication (Kaur & Gupta, 2015; Mohit, et al., 2009; Adewale et al., 2015; Jiboye, 2010), public facilities which constitute open space, play area, parking, prayer and multipurpose hall, perimeter road, pedestrian walkways, local shops and food stalls (Adewale et al., 2015; Mohit et al., 2009; Jiboye, 2010) and social environment which include noise, crime, accident, security and community relations (Mohit et al., 2009; Kaur & Gupta, 2015). Others include neighbourhood facilities or physical attributes which constitute town centres, schools, police station, hospital, distance to workplace or CBD, market, shopping centres, public library, religious building, bus and taxi stations (Herting & Guest, 1985; Mohit et al., 2009; Kaur & Gupta, 2015), personal or socio-economic characteristics such as age, level of education, level of residence, gender composition, occupation of residents, family income, layout of neighbourhood and tenure status (Topcu & Dokmeci, 2005; McCrea, Stimson & Western, 2005), cost related attributes like market value of property, property tax, availability and cost of land, interest rates, loan to value ratio, travel costs, maintenance/service costs and property related costs (Kaur & Gupta, 2015) and Management subsystem in terms of management's attitude on rules and regulation as well as its involvement/response rate in case of housing estates services (Jaafar, M., Hasan, N.L., Mohamad, O. & Ramayah, T., 2009; Jiboye, 2010).

2.2 Housing Components and Neighbourhood Satisfaction

Residential satisfaction is an important indicator used by planners, architect, developers and policy makers in a number of ways and is defined as the degree of contentment which an individual or family has or obtains with what he or she wants or covets in housing (Djebuarni and Al-Abed, 2000). The issue of housing satisfaction to households is therefore crucial for sustainable housing. Employing individual's subjective evaluations in the Seattle, Washington Metropolitan region, Herting & Guest (1985) found out that physical and social environment, specific attributes of the home and social character of the local population are strongly correlated to community satisfaction while nature of individual's location in relation to urban activities, local community institutions and the quality of government services which have been stressed by theorists as important to neighbourhood residents are much less useful as predictors.

Mohit et al (2009) assessed residential satisfaction of dwellers of newly designed public low-cost housing in Kuala Lumpur, Malaysia, with forty-five variables grouped into five components namely dwelling unit features, dwelling unit support services, public facilities, social environment and neighbourhood facilities. The result showed that the residents are moderately satisfied with their residential environment. However, the percentage of residents moderately satisfied is high with neighbourhood facilities followed by support services, and public facilities, than with dwelling unit features and social environment, which have got higher percentage of respondents with low level of satisfaction. Jiboye (2010) examined the correlates of public housing satisfaction with three housing components in six estates in Lagos. The results showed that while the dwelling and environmental components of housing were satisfactory to the tenants, the management component appeared quite unsatisfactory to the tenants. The regression analysis indicates that 18.2% of the variation in satisfaction with environment was determined by the identified variables (R Square, R^2 = 0.182); about 17.6% of the variation in satisfaction with the dwelling is determined by the identified variables (R square, R^2 = 0.176), while 46.1% of the variation in satisfaction with management component is determined by the explanatory variables (R square, R^2 = 0.461).

Sedaghatnia et al. (2013) employed subjective indicators measurement of quality of Life to gauge individuals' attitudes, perceptions and levels of satisfaction of six physical and social attributes of the neighbourhood namely social life, good condition for children, security and safety, greenery and quietness, transport, and community facilities and services such as shopping centers, leisure facilities, schools, universities, and workplaces in Kuala Lumpur city center, Malaysia. Data were analyzed using descriptive statistics. With revealed preference method of psychological approach, the result showed neighbourhood satisfaction to be a direct result of neighbourhood attributes including proximity to the public transport services, educational services, workplaces, and public facilities while the least satisfied aspect of the neighbourhood attributes was safety. The study has an implication for policy makers and planners to construct and develop sustainable neighborhoods through residents' own assessment of their local condition.

Adewale et al. (2015) made a comparison of neighbourhood satisfaction level within different age groups in the core area of Ibadan, Oyo State, Nigeria. The research approach was a mix of qualitative (ethnographic) and quantitative (Non parametric test – Chi square) methods. The result showed that age of residents was significantly related to neighbourhood satisfaction. However, they noted that the differences were more significant below 20 years age bracket and 61-70 years. The authors suggested that policy makers need to pay substantive attention to the provision of recreational spaces, open spaces and communal spaces as well as pay attention to the physical appearance of the environment in terms of cleanliness and housing layout should be improved upon by residents and the local government. Kaur & Gupta (2015) in their qualitative approach on Attributes affecting Neighbourhood Level of Satisfaction of Middle Income Group Housing in India identified certain other cost related attributes such as property related costs, maintenance/service costs and travel costs noting that the amount of money invested, regular expenses that one incurs by residing at a particular location may affect the satisfaction level.

From the extant literatures, we observed that little or no emphasis has been given to comparative study enrouted in isolation of neigbhouhoods by comparing level of residential

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satisfation with existing neighbourhood facilities within a particular urban area with reference to neighbourhood densities as well as planned and unplanned neighbourhoods. Abdu & Hashim (2015) noted that studies on residential satisfaction have focused on the perceptions of individuals and households living in a well-planned public or private housing developments in both developed and developing countries, while there was little concern on the households living in unplanned or informal neighbourhoods. They compared residential satisfaction among young households in three unplanned neighbourhoods with focus on four housing components namely; housing features, neighbourhood facilities, neighbourhood accessibility and housing condition in Wailari, Dorayi Karama and Gana E within Kano Metropolis. One-way ANOVA revealed that there that there were statistically significant differences in the mean satisfaction with housing features $\{F_{(2, 361)} = 9.478, p = 0.0001\}$, neighbourhood facilities $\{F_{(2,361)} = 14.383, p = 0.000\}$ and neighbourhood accessibility $\{F\ 19.879, (2, 361), p = 0.0001\}$ among the respondents in all the neighbourhoods while there was no significant difference in the mean of satisfaction with housing conditions $\{F_{(2, 361)} = 1.201, p = 0.302\}$ in the neighbourhoods. Post-hoc comparison test indicated that satisfaction with neighbourhood accessibility differed among the respondents in the three neighbourhoods, while satisfaction with housing features, neighbourhood facilities differed between Wailari and Dorayi Karama and no difference was found between Wailari and Gama E.

Also, Jiboye (2010) examined the correlates of public housing satisfaction with three housing components in six estates across low income, medium income and high income estates in Lagos, Nigeria. It is observed that analysis were not specific or pinned down to each of these categories of estate and so it was unclear what were the level of satisfaction with the housing components in each of the estates to be considered for policy implications. This study will improve on the methodology by examineing the level of satisfaction of seven variables to houshold heads of six neighbourhoods cutting across areas of densities (high, medium and low) as well as areas of planned and unplanned neighbourhoods.

3.0 Methodology

The Research Approach or Method for this study is a mix of qualitative and quantitative methods. The analysis in this study draws on primary data source from Minna urban. The survey based technique involving a designed structured questionnaire was employed to obtain primary data on neighbourhood facilities from household heads in the selected neighbourhoods in Minna. By adopting cluster random sampling, the study area (consisting of 6 neighbourhoods) for the questionnaire administration was drawn from the twenty-five (25) neighbourhoods in Minna Urban. The selected six (6) neighbourhoods comprise: Flay-out, GRA, Bosso Estate, Tunga Low-cost, Minna Central and Bosso Town.

Minna neighbourhoods household size data of 2003 for the selected residential locations were gotten from Sanusi (2006) and projected to required household size in 2015 using annual growth rate from provisional results of 2006 population census put at 3.2% (Fagbohun, 2007). The formula, $Pr = Po (1+r/100)^n$, was employed for the projection, where Pr = Required population, Po = Initial population, r = population growth rate and n = Time interval. Sample size is determined by the formula, $n = \{Z^2 * \sigma^2 * [N/(N-1)]\} / \{ME^2 + [Z^2 * \sigma^2/(N-1)]\}$. Where n is the sample size, Z is the standardised normal value and for this study it is taken as 1.96 for a 95% confidence interval, σ is the standard of deviation which was put at 0.5 depicting a safe decision enhancing large enough samples, N is the Household population and ME is the margin of error put at +/- 5%. The sample sizes got confirmed the result given by Raosoft sample size calculator (Smith, n.d; Raosoft, 2004; Stattrek, 2015).

A total of 1778 questionnaires were administered to household heads across the six neighbourhoods. Data as diverse as the level of residents satisfaction in the neigbouhood, role of environmental and social factors on choice of residential location and availability of social amenities which are mainly primary in nature were extracted from this One Thousand, Seven Hundred and Seventy Eight (1778) household heads in the six (6) neighbourhoods in Minna, Niger State. Table 1 shows the questionnaires administered to household heads in the six selected neighbourhoods in Minna.

Table 1: Questionnaire Administration to Household Heads in Minna

S/NO	Neighbourhoods	Density	Household size(2003)	Required Household size(2015)	Sample size
1	F-layout	Low	825	1,204	291
2	GRA	Low	581	848	265
3	Bosso Estate	Medium	306	447	207
4	Tunga low cost	Medium	726	1,059	282
5	Minna Central	High	4,495	6,560	363
6	Bosso Town	High	6,717	9,802	370
	TOTAL		**13,650**	**19,920**	**1,778**

Source: Adapted from Sanusi, 2006 and modified by Author, 2015

In this study, the spearman rank correlation and multiple regression models were employed to determine the relationship between the level of satisfaction of respondents in residential locations and considered community facilities. The value of the correlation coefficient ranges between +1 and -1. There is a perfect degree of association between the two variables when the correlation coefficient lies around ±1 and the relationship becomes weaker as the value goes towards 0. Cohen's standard stressed that small association exists where correlation coefficient lies between .10 and .29, medium association for correlation coefficients between .30 and .49 while coefficients above .50 represent a large relationship (Bobko, 2001). The results of the study is presented in the subsequent section.

4 Results and Discussions

4.1 Occupational Status of the Respondents

The occupational status of residents in an urban area is fundamental as it is related to the degree of their economic empowerment. The standard of living of people is a function of their occupational status thus facilitating production and trade in cities. Table 2 shows the occupational status of sampled household heads across the neighbourhoods under consideration.

Table 2: Percentage Distribution of Respondents' Occupational Status at the Study Areas

Neighbourhoods	Staff Category							
	Federal Staff	State Staff	Trader	Farmer	Business Venture	Professional	Artisan	Others
F-layout	26%	24%	9%	1%	6%	3%	1%	30%
GRA	16%	19%	12%	4%	7%	11%	5%	26%
Bosso Estate	20%	27%	7%	1%	15%	7%	2%	21%
Tunga Lowcost	13%	44%	8%	0%	14%	1%	2%	18%
Minna Central	4%	55%	11%	2%	14%	1%	3%	10%
Bosso Town	22%	27%	18%	3%	12%	0%	5%	13%

According to the survey, the state's civil servants generally are more in any of the neighbourhoods, comparable to other categories of staff but closely followed by federal civil servants and others. Respondents in others category include Bankers, Telecommunication staff, Staff of Non Governmental Organizations, self emloyed, unemployed and the retired.

4.2 Living Duration in Neighbourhoods

The span of period that a resident would live in a particular neighbourhood can be a function of level of satisfaction with neighbourhood infrastructures, nature of income, nature of occupation whether tenanted or owner occupied, neighbourhood security, social class and proximity to activity areas (such as workplace and children school) among others. This study unearthed the living durations of household heads in each Neighbourhood as depicted in table 3.

Table 3: Duration of Living in the Neigbourhood

Length of stay in the Neighbourhood	Neighbourhoods					
	F-layout	GRA	Bosso Estate	Tunga Lowcost	Minna Central	Bosso Town
1-5 years	134	104	83	130	69	87
6-10 years	43	72	47	81	120	119
11-15 years	74	62	26	26	64	75
16-20 years	26	16	33	18	40	42
21 years and above	14	11	18	27	70	47
Total	291	265	207	282	363	370

From table 3, large percentages of the respondents, 46% in F-layout, 39.2% in GRA, 40.1% in Bosso Estate and 46.1% in Tunga Lowcost have stayed in their respective neighbourhoods for between 1 to 5 years while highest percentages of respondents, 33.1% in Minna Central and 32.2% in Bosso Town have stayed in their housing areas for the period of 6 to 10 years. It means that the rate at which residents change their housing areas in the former neighbourhoods is shorter in terms than in the later neighbourhoods. The possible reasons for this could be that renters of accomodations would want to be self owners of properties and as such will move to where land is available and affordable. Minna central and Bosso Town are indegenous areas and so the attachment to these areas by residents may be high and more importantly family houses are situated here. Evidence on this fact is that 19% and 12.7% of the respondents in Minna central and Bosso Town have stayed in their housing areas for 21 years above, percentages higher than those that have stayed for between 16 to 20 years which are 11% and 11.4% respectively. This is similar to the scenario in Tunga Lowcost but contrary to the situations in F-layout, GRA and Bosso Estate. To further understand the dynamics in the behaviour of residents enrooted in the level of their satisfaction with their neighbourhoods, this study will looked at the relationship between neighbourhood facilities and households satisfaction.

4.3 Relationship between Levels of Households Satisfaction and Neighbourhood facilities

Neighbourhood facilities play significant role in residential satisfaction of households in our urban areas. The variables included in this component for this study are mini water works (government borehole), police station, street lighting, primary and secondary schools, health care centers and market. Table 4 shows the level of adequacy of these facilities in each of the neighbourhoods under consideration from residents' conceit.

Table 4: Level of Adequacy of Neigbourhood Facilities

Facilities	F-layout	GRA	Bosso Estate	Tunga Lowcost	Minna Central	Bosso Town
				Neighbourhoods		
Mini water works						
Adequate	79	122	89	156	239	259
Not Adequate	212	143	116	121	124	111
Missing			2	5		
Police station						
Adequate	92	57	151	215	44	3
Not Adequate	199	208	56	67	315	367
Missing					4	
Street lighting						
Adequate	81	146	95	186	168	15
Not Adequate	210	116	108	92	195	355
Missing		3	4	4		
Primary School						
Adequate	286	236	171	255	359	227
Not Adequate	2	29	33	27	4	143
Missing	3		3			
Secondary School						
Adequate	241	240	160	260	68	138
Not Adequate	50	25	47	22	295	232
Missing						
Health care center						
Adequate	254	56	107	250	336	224
Not Adequate	37	207	96	32	27	146
Missing		2	4			
Market						
Adequate	17	37	52	177	109	220
Not Adequate	274	228	153	105	254	150
Missing			2			

From table 4, In F-layout, health care centre, primary and secondary schools constitute the neighbouhood facilities that are adequately provided while mini water works, police station, street lighting and market are inadequately provided. The responses revealed the highest score of 98.28% on residents' view of the adequacy of primary school and on the other hand, market earned lowest score of 5.84% on the level of its adequacy. In GRA, secondary school is the most adequate provided while market is the most inadequately provided. The score for the adequacy

of the former is 90.57% while that of the latter is 13.96%. 82.61% of the respondents said that primary school is mostly provided in Bosso Estate but market is the least provided earning a score of 25.12%. The level of adequacy of all the neighbourhood facilities in Tunga Lowcost appears to be above average as the respondents said that the most provided is secondary school accounting for 92.2% of their views while 55.32% said that the least facility provided is mini water works. 98.9% of the residents said that primary school is the most provided in Minna Central while mini water works is the most provided facility in Bosso Town as revealed to be 70% of the responses of the residents. Police station is the least provided in Minna Central and Bosso Town as depicted by the responses of the residents to be 12.12% and 0.81% respectively.

Data on residents' perception of the extent to which each of the neighbourhood facilities influence their level of satisfaction were obtained using a likert-type scale ranging from '1' for no effect; '2' for low; '3' for neutral; '4' for high and '5' for very high. So, variables such as level of satisfaction with water supply, proximity to primary and secondary schools, work, healthcare, market and security were derived from household heads perception and composite ranking of the variables to arrive at their Mean Satisfaction Scores. A descriptive statistics of the variables for this study is as shown in Table 5.

Table 5: Summary of Descriptive Statistics of the Variables

Variables			Neighbourhoods			
	F-layout	GRA	Bosso Estate	Tunga Lowcost	Minna Central	Bosso Town
Water supply	2.36	2.11	1.90	2.70	1.40	2.16
Security	3.46	2.18	2.30	2.82	2.08	2.53
Proximity to primary/secondary schools	3.14	2.62	2.73	3.10	2.93	1.69
Proximity to work	2.83	2.09	2.00	2.78	2.48	1.62
Availability of Healthcare	2.92	1.69	2.03	2.72	2.90	1.69
Proximity to market	1.53	1.82	1.73	2.37	2.34	2.05

In F-layout and Bosso Town, the means of the importance level of the variable "Security of neighbourhood" ranked at the top, followed by the variables "Proximity to School" and "water supply" in F-layout and Bosso Town respectively. But in GRA, Bosso Estate and Tunga Lowcost, the variable "Proximity to School" ranked at the top and variable "Security of neighbourhood" followed. "Proximity to School" ranked at the top in Minna Central followed by "Availability of health care".

There has always been a demand for neighbourhood facilities in cities by households with the aim of improving the well being of the citizens and/or making life easier. Neighbourhood facilities are also vital for urban area's economy and knowing the factors affecting the choice and or satisfaction of residential location is a substantial advantage in diagnosing the offing of urban development. Table 6 shows the correlation between the level of neighbourhood satisfaction in sampled neighbourhoods and the neighbourhood facilities considered in their residential locations.

Table 6. Correlation results between Neighbourhood Facilities and Level of Neighbourhood Satisfaction

	Neighbourhood Facilities					
	Flayout	GRA	Bosso Estate	Tunga Lowcost	Minna Central	Bosso Town
Households' satisfaction Spearman's rank Correlation	0.689**	0.360**	0.529**	0.375**	-0.033	0.465**
N	275	265	185	274	355	370
Missing	16		22	8	8	

** Correlation is significant at the 0.01 level (2 - tailed)

From Table 6, there is large association between level of satisfaction of respondents in their chosen residential locations within the neighbourhoods and the considered neighbourhood facilities in F-layout and Bosso Estate as the correlation coefficients of 0.689 and 0.529 are above 0.50. The correlation coefficients of 0.465, 0.375 and 0.360 in Bosso Town, Tunga Lowcost and GRA signified moderate association between level of neighbourhood satisfaction and neighbourhood facilities as they are fall between 0.30 and 0.49 while there is weak correlation between level of satisfaction and neighbourhood facilities in Minna Central as the correlation coefficient of -0.033 is negative and close to zero. Then a regression analysis was made by using all the data gathered from the sample areas to determine the extent to which the neighbourhood facilities have satisfied the households'. In this analysis, level of satisfaction was used as dependent variable and all the data gathered on neighbourhood facilities from the sample areas was used as independent variables.

Tables 7 gives the summary of the results of regression analysis for all the six neighbourhoods. In all the neighbourhoods except Minna Central, the p – values are lower than 0.01 level of significance, thus the researchers reject the null hypothesis and accept the alternative hypothesis which states that there is significant relationship between the level of neighbourhood satisfaction of respondents with neighbourhood facilities in their respective residential locations, whereas there is no relationship between the level of satisfaction of respondents with neighbourhood facilities as the P – value of 0.897 is greater than 0.01.

Table 7: Summary of the Regression Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1 (FL)	.708(a)	.501	.499	5.41202	.501	274.290	1	273	.000
1 (GRA)	.352(a)	.124	.120	3.80832	.124	37.087	1	263	.000
1 (BE)	.480(a)	.230	.226	3.46952	.230	54.654	1	183	.000
1 (TL)	.425(a)	.180	.177	3.46997	.180	59.819	1	273	.000
1 (MC)	.007(a)	.000	-0.003	4.01798	.000	0.017	1	353	.897
1 (BT)	.453(a)	.205	.203	3.16345	.205	94.954	1	368	.000

a   Predictors: (Constant), Social Facilities: Primary School, Health care, Secondary School, Market, Police Station, Mini Water works (government borehole), Street lighting.

b Dependent Variable, LOS: Level of Satisfaction

The seven variables of neighbourhood facilities and services account for 50.1%, 12.4%, 23.0%, 18.0% and 20.5% of the level of neighbourhood satisfaction of respondents in Flayout, GRA, Bosso Estate, Tunga Lowcost and Bosso Town respectively. These seven variables are significant predictors since p-values of .000 in all the neighbourhoods as shown in the regression model summary table are lower than 0.01 level of significance. In Minna Central, the seven variables do not depict any level of satisfaction since the P value of 0.897 is greater than 0.01, level of significance. The unexplained factors can be attributed to other factors.

5. CONCLUSION

The results of this study have confirmed the relationship between the level of satisfaction of respondents in each residential locations and neighbourhood facilities considering the

interractions of primary and secondary schools, health care facilities, market, police stations, mini water works (government boreholes) and street lightings. The feedback from household heads would indicate that some level of emphasis were placed on these explained factors in F-layout, GRA, Bosso Estate, Tunga Lowcost and Bosso Town as they were significant predictors from the correlation and regression results. This finding supports those of Mohit et al. (2009) and Sedaghatnia et al. (2013) that neighbourhood satisfaction is correlated to neighbourhood attributes. On the other side, no emphasis was placed on these explained factors in Minna Central, a finding which supports partly that of Herting and Guest (1985) which dipicted that the nature of individual's location in relation to urban activities, local community institutions and the quality of government services are much less useful predictors of community satisfaction.

The feedback from household heads would indicate that emphasis should also be placed on provision of unexplained factors in F-layout, GRA, Bosso Estate, Tunga Lowcost and Bosso Town with major empasis on the unexplained factors in Minna Central. These unexplained factors can include other physical and or economic infrastructures such as electricity, transportation facilities, road network, sewage/drainage system and telephone services. If the neighbourhood facilities which contributed 50.1%, 12.4%, 23.0%, 18.0% and 20.5% of the variation in the level of neighbourhood satisfaction of household heads in Flayout, GRA, Bosso Estate, Tunga Lowcost and Bosso Town respectively are combined with other factors such as constant electricity, efficient transportation facilities, good road network, adequate sewage/drainage system and telephone services; and involvement of households or community residents at infrastructure input decisions that affect their neighbourhood, it is likely that the level of satisfaction of community facilities will be enhanced.

The outcome or policy implication of this study will indicate that location of new housing development by investors should be at places like F-layout and Bosso Estate where satisfaction of neighbourhood facilities by households are reasonably experienced. It is therefore pertinent for the state, Bosso and Chanchaga local governments to intensify efforts in maintenance and enhancement of existing infrastructures across all the neighbourhoods in Minna. The

household heads should as well embrace a community-based framework in provision and management of public infrastructure. If these recommendations are put into action by the government and households, it is hoped that there will be high residential neighbourhood satisfaction in Minna.

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