Determinants of Residential Neighbourhood Choice in a Nigerian Metropolis

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ABSTRACT: This study examined the relationship between resident's socio-economic status and the factors they consider in making their residential location decision in Port-Harcourt metropolis. Three specific objectives considered were; to ascertain the factors that influence residential location decision, determine the prominent factors influencing residential location decision in Port-Harcourt, and examine the relationship between these factors and socio-economic characteristics of residents. The questionnaire was used to illicit information from residents. The study classified the factors into pull and push factors and found out that purchase/built home, crime/insecurity, increase in income, high cost of rent, and availability of infrastructure, and proximity to industrial land uses are among the 11 most prominent push factors of residential location decision in Port-Harcourt. While Security, income, purchase/build home, power and water supply, affordable rent, size of dwelling, social status are among the most prominent factors that influence the decision to move to a neighbourhood (pull factors). The study also reveal that there was a weak negative relationship between level of education and push factors of r=-.218 and a weak positive relationship between level of education and pull factors of r=.162. There was a moderate relationship between monthly income and the pull factors.

I.   INTRODUCTION

The choice or decision to buy or rent a home is a large financial commitment that, in most cases, will continue to influence the quality of life, access to opportunities and residential location decision that shape our cities in important ways. Studying these decisions can reveal a great deal about the culture, aspirations and expectation of a nation's residents. Furthermore, the relatively permanent influence that certain factors have on residential choices decision makes an understanding of those factors important for the formation and effective management of residential demand (Guo and Bhat 2006). Particularly where those factors focus on location factors solutions such as residential location oriented development.

The decision to move or stay is influenced by a range of factors. According to Rossi

(1955), "Reasons for moving are divided into those which pertain to the decision to move out of the former home-"pushes"-and those reasons pertaining to the choice among places to move to –pulls". Push factors may include an increase in externalities like pollution or crime, changes in housing affordability, dissatisfaction with current dwelling or changes in household structure (as a result of a birth or divorce for example). Pull factors often include things like access to good quality public service (like schools and health care facilities, employment, leisure and recreational opportunities or the fulfillment of housing aspirations (Sanchez and Dawkins 2001). Once the initial decision to move from house is made, it is followed by a series of interconnected decisions about tenure, house, neighbourhood type and location.

According to Burgess and Skeltys (1992) it is difficult to understand these decisions in isolation from each other for a number of reasons. First and foremost, when people buy or rent a home they gain a whole package of goods: features of the house itself, accessibility to work and shopping, social networks and community characteristics, local services and amenities like schools and parks, neighbourhood layout and features of the natural environment. There is also a range of housing type available to consumers' single family detached homes, town houses, apartments or flats and so on. Individual dwelling also vary in quality and availability. It is important to remember that residential location choice are, in many ways a product of constraint in that often they depend on which housing types are available in particular location at a particular

time, affordable price, knowledge of alternative, societal expectation or norms and the regulatory environment (Paaswell and Benjamin 1977).

An urban area implies an area with diverse and spatially dispersed factors. These factors attract and influence residential location decision. Consequently, the more location factors an urban area has, the more diversified or great the factors that influence residential decision and socio economic activities. Residential location choice in cities will be constrained if the location of the factors considered for residential choice are well arranged or planned. The fact that available residential amenities, and infrastructural facilities do not increase at the same rate household demand it especially during the period they select residential apartments, further compounds the situation. This has been the situation in Nigeria's urban centers for years now and has continued to assume crisis proportions because as cities grow in size and population, demand on the urban accommodation or residential location choice increase. The resolution of this dilemma, the disequilibrium between location factor and residential choice selection has always been a challenge to planners, policy makers and administrators (Okon 2008).

This recognition of feedback between residential choice decision and determinant factors has led to calls for integrating various factors and residential choice models used in metropolitan planning process. While there has been some progress in linking together aggregate residential choice decision with aggregate spatial factors interaction or spatial-input-output models of factors, no disaggregate behavioral framework has yet been developed that explain factors and residential location choice decision in an integrated way within urban landscape especially in developing countries (Waddell, 2001). To date, however the framework for the understanding of the interdependence and interrelatedness of urban residential location choice and factors responsible especially in Nigeria and indeed Port Harcourt has not been complete enough to provide a robust behavioral foundation for model and policy development that incorporates existing factors, presence of infrastructure, accessibility and other issues considered during residential location choice making. The theme of this research therefore emerges in view of the factors influencing residential location decisions, and attendant residential choice selection in Port Harcourt Metropolis.

Generally different families have different factors that influence their decision to move or reside in an area. In planning, provisions are made for similar facilities and amenities without taking into consideration these factors. This may lead to an intermix of different income group in an area. How can this be resolved? It is therefore necessary for a study to be carried out so that factor influencing choice of residential location could be better understood by policy maker and town planners for better urban livability. Specifically this research will;
1. Ascertain factors that influence residential location decision from literature;
2. Classify and determine the prominent factors influencing residential location decision in Port Harcourt;
3. Examine the relationship between these factors and socio- economic characteristics of residents in the study area.

Statement of Hypotheses
H0: There is no relationship between factors that influence residential location decision and socio- economic characteristics of residents in Port Harcourt metropolis (income educational attainment, household size).

II. LITERATURE REVIEW
The choice of residence of households generally involves trade-offs among several factors which give the household the highest possible utility. Several researches that studied these factors found out that cost and size of dwelling unit, and proximity to activity centers were the most influential. Choice was also found to be dependent on household demographics such as household size, life cycle and income. Research studies have also attempted to determine resident's decision for central city and suburban locations. Kelly and Lamb (2003) stated that residential location include diverse aspects. This according to them could be distance to work place, school or shopping, physical condition of the environment including density, pollution, and neighbourhood conditions, the quality and accessibility to community facility, financial values of neighbourhood as well as social aspect, such as social, economic or ethnic characteristics. Literature suggests that household location decisions are not influenced by any one particular factor or local services. A range of factors come into play when households choose where to live where they live.

Socio Economic/ Social Connection and Ethnic Determinants
The type of people living in the community and household socio economic status can play a prominent role in people's residential choices. Many past studies in housing research have shown that social stratification and homogeneity is important to residential location choices (Sirgy, Grzeskowiak, and Su, 2005). "Studies have also shown that as households make housing choice within budgetary constraints, Social connection is considered. Studies found social connection and prestige is an important determinant of household residential

location. Gou and Bhat (2006) showed that in United State "households tend to locate in an area with a high proportion of other households with a similar household structure and household size as their own. Winstanley, Thorns, and Perkins, (2002) showed that familiarity and social connections influences residential location choice. They claimed that many people are reluctant to leave familiar and convenient surrounding to which they have grown accustomed and became attached.

Weisbrod, Lerman, and Ben-Akiva (1980) found out that cost and size of dwelling unit, and proximity to activity centers were the most influential. Residential choice was also found to be dependent of household demographics such as household size, life cycle and income. Walker, and Li (2007) examined a lifestyle impact on location decision of 611 individuals in Portland Oregon. Their study found that lifestyle played a vital role in residential location. However, they reported that the lifestyle groups showed an interesting mix of preferences for both urban and suburban neighbourhood and high local shopping which could be linked to a mixed use urban neighbourhood. This may not always be the case. Tatu (2010) explored the factors that urban residents consider when making residential location decisions in Tanzania. The study suggests that in the absence of reliable incomes, limited housing availability and informality; social factors such as networks and informal channels prevail in the decision making process. Lee, Goss and Beemish (2007) found that households in a lifestyle cluster that placed greater value on social connection and prestige prefers their ideal apartment home to be in a down town location while households in a lifestyle cluster that placed greater values on large residential spaces and mental and physical well- being prefers a non – suburban location.

Morris and Winter (1975) identified residential location/neighborhood as one of the six American housing norms. They went further to state that a home's location and the surrounding environment influence household members' achievement of their life goal including their social and economic security. Glen, Moshe, Steven (1980) analyzed consumers' tradeoffs in the decision to move and the selection among alternative residential locations in North America. The study focused on the role of transportation level-of-service changes relative to various aspects of neighborhood quality, including crime, taxes, school quality, and demographic factors. Their study was based on analysis of the actual moving decisions and residential choices of individual households. Their empirical results suggest that households make significant tradeoffs between transportation services and other public service factors in evaluating potential residences, but that the role of both in determining where people choose to live was small compared with socioeconomic and demographic factors. William Marinus, and Frans (2004) found that a significant percentage of residential moves lead to gains in the socio-economic status of the neighbourhood and the amount of green space in the new location. Anand and Taraknath (2010) researched on household residential location choice and preferences in the city of Negpur. They explored the responsiveness of various types of geographic, social and economic parameters on the choice of residential location, type and ownership pattern of household in the study area. Their findings highlighted that age of household as well as number of habitable rooms and bed room were the most significant factors influencing location of low-medium income group (LMIG) household in sub-city, business district while the location decision for high medium income group (HMIG) household were explained by proximity to park and neighborhood facilities and location decision of LMIG is relatively insensitive to ownership and housing type. Sermon and Koppelman (1998) investigated the issue of multi co linearity among measures of socio – economic status in developing residential choice model. The authors tested alternative method representing all the attributes with smaller number of representative measure. They perform factor analysis and found that social status and family status influence residential location more than other variables. Wang and Li (2004) discussed the choice of dwelling and neighborhood of potential home buyer's preference in Beijing, China. They discovered that factors such as family income, age, education, nature of employment organization etc. have influence on housing preference.

Lindstrom (1997) emphasized that shared values and 'cultural influences determines residential location choices. However, Toussaint- Comeau and Rhine (2004) found that racial and ethnic factors influence residential location. They highlighted the tendency for Hispanic immigrants in the United State to locate themselves in 'ethnic enclaves.

Ibraimovic, Masiero, and Scagnolari. (2010) evaluated the importance of neighbourhood preference choices across ten major groups living in the city of Switzerland. They show that among others, two important factors deriving residential segregation have a significant effect on Residential location choice of households, immigrants as well as natives, first the preferences towards the concentration of co-nationals in specific neighbourhoods and secondly presence of ethnic minorities at the neighborhood level. Gabriel and Rosenthal (1989) evaluated household location decision in Washington, D.C. They found that race is a major determinant of residential decision for the area. Furthermore, they showed that the effects of household socio-demographic characteristics on residential location differ significantly by race. While Clark (1991) found that the vast majority of whites in Los Angeles prefer neighborhoods with fewer blacks, that the majority of blacks prefer a mix between blacks and nonblack, and that the majority of Asians and Hispanics prefer neighbourhoods fewer

other-race neighbours. These results suggest that blacks have less pronounced in-group preference than whites, but that Asians and Hispanics are similar to whites in their degree of in-group preferences.

The study done by Tatjana (2013) analyzed ethnic determinants of residential location of habitant in the city of Lugano Switzerland. He used qualitative method to analyze data from interview survey. However, the main result he obtained revealed preferences, provided indication on the value that households place on ethnic neighbourhood characteristics and of the trade – offs with other choice drivers. He stated that the analysis carried out permits to determine the degree of importance of ethnic versus other residential location choice factors for the inhabitants. Factors of residential location choice and the latent heterogeneity across population segments, giving some important insights into factors that influence more or less strongly the self-segregation preferences of different ethnic communities.

Although many studies argue that ethnic characteristic influence residential locations, William (2000) addressed racial preferences in residential location decisions. He tested whether Social class, family structure, and in-grouped racial preferences are sufficient to explain household sensitivity to neighbourhood racial composition. His findings suggested that social class differences, family structure differences, and in-group racial preferences alone are not sufficient to explain household residential racial preference and that household of all races practice racial avoidance behavior. Particularly pronounced avoidance of black neighbours by Asian households, Hispanic neighbours by black households, and Asian neighbors by white households are found. He concluded that residential location choice research are frequently used by urban geographers, planners, and transportation engineers to understand, represent, and predict household residential location behavior. Ahmed (1992) conducted a research on migrant households in Karachi city. He found that ethnic considerations dominated the initial and subsequent mobility of the migrants. He adds that migrants to the city prefer to settle close to friends or relatives, or in areas where the majority of households are of the same ethnic background.

In another study Maria and Reynolds (2002) findings showed that African Americans overwhelmingly prefer 50-50 areas, a density far too high for most whites but their preferences were driven not by solidarity or neutral ethnocentrism but by fears of white hostility. That almost all blacks are willing to move into largely white areas if there is a visible black presence and white's preferences also play a key role, since whites are reluctant to move into neighbourhoods with more than a few African Americans.

III. EMPLOYMENT AND RESIDENTIAL LOCATION

The results of the factors which explore the role of employment in residential location decision of households have been contended. While many scholars showed that employment play a prominent role in household residential location, others contend that the proximity of employment area to households' residency discourage residential mobility in metropolitan areas. Yan Song., (2011) explored the role of employment sub centers in determining residential location decisions. They estimated discrete choice models of residential location decisions: conditional logit models and heteroscedastic logit models with both the full choice set and sampled choices. They found that access to certain employment sub centers, measured in terms of generalized cost, is an important determinant of households' residential location decisions. The proximity to special employment sub centers varies across households with different income levels. Wu (2010) found that safety and proximity to the city, public transportation, proximity to workplace, sense of safety, medical and health facilities, and educational facilities influence residence location. Kim, Horner, and Marans (2005) point to the importance of open space by demonstrating that those who decide to raise a family are more likely to trade accessibility to place of work for accessibility to more open space or a better quality of 'natural' environment. The location and ease of transport accessibility to the workplace has also been highlighted as an important element in the selection of a residence. This is also related to a person's position in the life-cycle. Frans (2001) modelled residential mobility at the micro level; he clarifies the link between place of residence and place of work and assumed that household residential relocation is strongly embedded in housing market conditions at the local and national level. Eun and Rodriguez (2008) discussed residential location decisions in the Mecklenburg County, North Carolina. The purpose was to examine how accessibility to sub-centers influences residential location decision in the study area. They found that access to certain employment sub centers measured in terms of generalized cost; seem to be an important determinant of household residential location decision. Whereas, the proximity to specified employment sub-centers varies across household with different income level. Shammi and Jannatul (2014) examined the factors influencing residential location choice of the garment workers of Dhaka city. The target group is the residents of Mirpur. Methodologically, they used qualitative data from questionnaire survey and the study pointed out house rent, availability of utility facilities, monthly household income, distance from workplace,

social security, dependence on family decision, size of dwelling unit, communal living, availability of community facilities as important factors influencing residential location decision of garment workers in Mirpur. Clark and Withers (1999) showed that in United State, a job change at the local level is much influential on residential move than any other believed factor. They explained a household that had made a job

change turned out to be 24 times more likely to move than a household that did not make such changes. The authors explained that home owners are less likely to change residence in conjunction with a job change than renters; younger households change residence more frequently than older households; and a dual-earner household is more closely bound to the place of residence than a single-income household, which reacts more readily to a job change by making a residential move. Waddell (1993) researched choice of workplace as a determinant of residential location. He developed nested logit model for worker's choice of workplace, residence, and housing tenure for the Dallas-Fort Worth metropolitan region. His results confirmed that a joint choice specification better represents household spatial choice behavior. In his later study, Waddell (1996) focused on the implications of the rise of dual worker households. The choices of work place location, residential mobility, housing tenure and residential location. His hypothesis was that home ownership and the presence of a second worker both add constraints on household choices that should lead to a combination of lower mobility rates and longer commutes. His results indicated that gender differences in travel behavior; specifically, that the female work commute distance has less influence on the residential location choice than the male commute.

Michael and Christopher (2005) researched the spatial behavior and mode choice behavior of two – workers households in Metro Manila. Their result confirmed that the existing pattern of suburbanization in the metropolis gives more households the willing to tradeoff longer distances and hence commuting time in their residential location decision.

IV. INCOME AND ENVIRONMENTAL FACTORS

A number of factors which can be generally classified as 'income and environmental' features, are also known to influence housing location choices. These factors relate to people's monthly income, environmental aesthetics of the surroundings and feelings of safety and security.

Shammi, and Jannatul (2014) emphasized on the factors influencing residential location choice of the garment workers of Dhaka city. The study used questionnaire survey method on mirpur residents. They found that House rent, availability of facilities, monthly household income, distance from workplace, social security, dependence on family decision, size of dwelling unit, communal living, and availability of community facilities were the important factors in residential location choice of the garment workers in Dhaka city.

Frans (2001) research sheds light on joint decision-making by members of a household regarding residential move, and clarified the link between place of residence and place of work.

He concluded that household's relocation is strongly embedded in housing market conditions at the local and national level. While Mikyoung, and Margaret (1991) noted that environmental safety, community/social factor, and housing quality factor are influential factors of residential decision and satisfaction. They explained that environmental safety quality did not have a direct influence on residential satisfaction; but through community/social and housing quality, it affected residential satisfaction. Community/social and housing quality were direct significant factors on residential satisfaction, with housing as the most influential factor.

V. METHOD AND PROCEDURES

Both secondary and primary data were used in this study. Secondary source of information used in this research include those from previous work on factors influencing resident's location decision and related areas from published and unpublished materials. Published sources of secondary data were derived from multiple references such as books, research work, conference/seminar and working paper, government records and reports etc.

Primary Source:
Questionnaire: A questionnaire was prepared for the study to elicit response from the residents to cover issues such as the socio- economic profile of the respondent, factors responsible for residential location in the study areas, and factors considered most when choosing where to live.

Sampling
The neighborhoods were stratified based on population densities after which six neighborhoods were selected for study. A total of 550 copies questionnaires distributed to the public in six selected neighborhoods of different densities (low, medium and high density) 407, representing 86 percent were returned in Port Harcourt metropolis. High density had the highest number of questionnaire with 386 representing (70. %), medium density had 64 questionnaire representing (12. %) and low density 100 questionnaire representing (18. %) of the sample size. see table 1).

Table 1: the sampled neighborhoods and populations

S/N	Density	Neighborhood	Project population	Household Population	Sample size	%
1	HIGH	Borikiri	74,006	12,334	165	30.00
2		Nkpoluoroworukwu	99,295	16,549	221	40.00
3	MEDIUM	Elekahia	28,878	4,813	64	12.00
4	LOW	Abloma	19,725	3,287	43	8.00
5		Oriji old G R A	12,233	2,038	27	4.00
6		Amadi ama	13,275	2,213	30	6.00
	TOTAL		247,412	41,234	550	100.00

Data presentation and analysis
Data is presented in tables .Two categories of factors were identified and used, they are the push and pull factors of residential choice.

Push Factors
Thirty four push factors were identified from literature. The factors were rated on a 4 point likert scale of importance ranging from 1 to 4, where 1 was the least score and 4 the highest score. The highest mean score signifies the most influencing factors of residential location decision. The mean (x) was derived by dividing the total response for each of the factors by maximum score attained. The mean of each is 2.0. However, in this study the mean of 3.0 was used as a cut off point for accepting or rejecting each factor by the researcher .The factors with a mean of 3.0 or above are regarded as a prominent and highly accepted factor that influences residential location decision. This is based on Nwankwo (1999) who stated that researchers should fix a mean cut off point higher than the scale. The mean score(x) was then ranked in order of importance from the highest to the lowest (i.e. 1st to 34th).

Pull Factors
Thirty eight pull factors were also identified from literature. These are factors that influence resident's decision to move into a neighbourhood. These factors were also rated using a 4 point likert scale of importance ranging from 1 to 4, were 1 was the least score of not being a pull factor at all and 4 being a very strong reason to move into a neighbourhood. The mean score (x) was also derived by dividing the total response for each of the factors by the maximum score attended. As stated earlier the mean of 3.0 was used as a bench mark for accepting or rejecting each pull factor by the researcher. The factors with a mean of 3.0 or above were regarded as a prominent and highly accepted pull factors that influences residential decision. The mean score (x) of the pull factors was ranked in order of importance from the highest to the lowest (ie 1st to 38th). Fourteen pull factors were identified as the most prominent factors influencing residential location decision.

VI. RESULTS

Using the mean score obtained from the scale of importance, 11 push factors were identified as the most important factors influencing residential location decision. This is summarised on table 2. The Purchase/ built own home emerged the most important push factor that influence residential location decision in Port Harcourt metropolis, with a mean value of 3.55.This implies that people do not have home security, rather paying rents and leaving the neighborhood people prefer to own their homes and pay mortgages to become home owners. That is why they are willing to move out of their present places of abode to relocate to the area were their buildings is as soon as they build their own houses. This factor was closely followed in order of ranking by crime rate (3.41) and insecurity, given the current insecurity in the country, people are willing to move to neighborhood that expel crime and gives a sense of security.

Table 2: Residential Push Factors in Port Harcourt metropolis

Items	Rank	Mean $\pm$ SD
Purchase/built my own home	1	3.55 $\pm$ 0.88
High crime rate	2	3.41 $\pm$ 1.02
Increase in Income	3	3.39 $\pm$ 1.03
Insecurity	4	3.38 $\pm$ 1.01
Size and quality of dwelling	5	3.38 $\pm$ 0.86
Unaffordable rent	6	3.34 $\pm$ 1.07

Unavailable power supply	7	3.34 ± 1.04
Unavailable water supply	8	3.32 ± 0.99
Social status	9	3.23 ± 1.12
High traffic congestion	10	3.07 ± 1.13
Nearness to petrol chemical activity	11	3.06 ± 1.17
Unavailable Neighbourhood services	12	2.98 ± 1.03
Nearness to construction activity	13	2.91 ± 1.21
Distance from engineering	14	2.90 ± 1.22
Children school	15	2.69 ± 1.23
Nearness to market	16	2.58 ± 1.25
Street cleanliness	17	2.56 ± 1.12
Place of employment	18	2.49 ± 1.22
Nearness to supermarket/retails	19	2.37 ± 1.24
Neighbourhood character	20	2.34 ± 1.03
Family/social contact	21	2.29 ± 0.99
Distant to work	22	2.27 ± 1.09
Change in marital status	23	2.26 ± 1.10
Personal reason	24	2.20 ± 1.07
Nearness to restaurant/drinking pub	25	2.18 ± 1.32
Health facilities	26	2.15 ± 1.06
Commuting cost	27	2.09 ± 1.18
Change in family composition	28	2.08 ± 1.06
Natural features	29	2.07 ± 1.08
Proximity to work	30	2.04 ± 1.15
Access to public transport	31	2.02 ± 1.04
Access to bus stop	32	1.84 ± 1.02
Nearness to fire service	33	1.79 ± 1.02
Nearness to police station	34	1.75 ± 1.08

Source: field Survey (2014)

Neighbuorhood infrastructure such as power and water supply, traffic congestion and industrial land uses also discourages people from living in neighborhoods. Other neighborhood facilities such as schools, Markets, quality of street environment also discourages people. These facilities rank between 2.98 to 2.56.
The factors identified by respondents as being least in the push factors are distance from police station (1.75), distance from fire service (1.79), and access to bus stop (1.84), access to public transport route (2.02) and proximity to work (2.04) which ranked 34th 33rd, 32th, 31nd, and 30th respectively.

Table 3: Residential pulls factors in Port Harcourt metropolis

Items	Rank	Mean ± SD
Security	1	3.78 ± 0.62
Income	2	3.75+0.71
Purchase/built own home	3	3.71 ± 0.64
Available power	4	3.70 ± 0.68
Available water	5	3.65 ± 0.73
Affordable rent	6	3.64 ± 0.78
Size and quality of dwelling	7	3.60 ± 0.67
Social status	8	3.51 ± 0.89
Low crime rate	9	3.43 ± 0.99
Less traffic congestion	10	3.37 ± 1.04
Quietness of area	11	3.11 ± 1.04
Neighbourhood services	12	3.08 ± 0.86
Children's school	13	3.06 ± 1.05
Street cleanliness	14	3.01 ± 1.09
Nearness to police station	15	2.96 ± 1.17

Natural features	16	2.91 ± 0.98
Place of worship closeness	17	2.68 ± 1.07
Nearness to market	18	2.63 ± 1.15
Nearness to bank	19	2.54 ± 1.22
Health facilities	20	2.46 ± 1.09
Nearness to shopping centre/retail/ supermarket	21	2.46 ± 1.18
Commuting cost	22	2.34 ± 1.16
Proximity to work	23	2.34± 1.28
Personal reason	24	2.31± 0.99
Neighbourhood character	25	2.29 ± 0.93
Relative/friends	26	2.24 ± 1.07
Change in marital status	27	2.15 ± 1.17
Family composition	28	2.14 ± 1.08
Race and religion	29	2.13 ± 1.11
Access to public transportation	30	2.11 ± 1.02
Distance from petro chemical activities	31	2.11 ± 1.14
Distance from agro base activities	32	2.02 ± 1.05
Access to bus stop	33	2.00 ± 1.06
Distance from engineering activities	34	1.96 ± 1.08
Distance from construction activities	35	1.92 ± 1.06
Nearness to restaurant/drinking pub	36	1.75 ± 0.97
Breaking up relationship	37	1.63 ± 0.99
Nearness to hotel/dance hall	38	1.60 ± 0.96

Source: field survey 2014

Table 3 shows the rank-order of the thirty-eight identified pull factors that influence residential location decisions of residents of Port Harcourt metropolis. The result as presented in Table 3 indicates that security emerged the most important pull factor that influence residential location decision in Port Harcourt metropolis, with a mean rate of 3.78.This implies that when people want to move into a new neighborhood, they consider security situation top most. Residents wishing to move into another neighbourhood look at security before they leave their present places of abode to relocate. This factor was closely followed in order of ranking by better income (3.75), purchase/built own home (3.71), availability of power supply (3.70), availability of water supply (3.65), affordable rent (3.64) size and quality of dwelling (3.60), social status (3.51). Others are low crime rate (3.43), less traffic congestion/noise (3.37), quietness of an area (3.11), available neighbourhood services (308), children's school (3.06), street cleanliness (301). The factors identified by respondents as being least pull factors (reasons to move into a neighborhood) are engineering activities (1.96), construction activities (1.92) nearness to restaurant/drinking pub (1.75), breaking up of relationship (1.63) and nearness to hotel/dance hall (1.60) which ranked 38th 37th, 36th 35th and 34th respectively.

Hypothesis

H_0: There is no significant1 relationship between factors that influence residential location decision and socio- economic status of residents in Port Harcourt metropolis.
For this hypothesis, three tests were carried out using level of education, monthly income and household size of the respondents. The analysis was done using Spearman's rho correlation coefficient

Table 4: Spearman's rho correlation coefficient

Socio-economic variables	Statistics	Push factors	Pull factors
Level of education	Spearman's rho Correlation Coefficient	-.218**	.162**
	Sig. (2-tailed)	.000	.001
	N	407	407
Monthly income range	Spearman's rho Correlation Coefficient	.268**	-.332**
	Sig. (2-tailed)	.000	.000
	N	407	407

Household size	Spearman's rho Correlation Coefficient	-.053	.041
	Sig. (2-tailed)	.289	.409
	N	407	407

Level of education: The analysis on the relationship level of education and push/pull factors, of residential location decision gave a correlation coefficient 'push' of (r = -0.218, p<.05) and pull (r=.162, p<0.5).This suggests that there is a negative relationship between push factors and level of education and a positive relationship between the pull factors and the level of education of residents of Port Harcourt metropolis. The more the education of the residents the less the push factors influence their residential location decision. This means the strength of the relationship is weak. The coefficient of determination is 4.7% which indicates 4.7 percent shared variance implying that, the education factor helps to explain only nearly 5% of the push factors of residential location in Port-Harcourt.

For the pull factors the coefficient of .162 shows a weak positive relationship between level of education and the pull factors. This has a coefficient of determination of 2.6% which implies that only about 3% of residential location factors are influenced by level of education.

Monthly income: The analysis on the relationship between push factors, pull factors of residence decision and monthly income gave a correlation coefficient of (push) (r =0.268, p<.05) and pull(r = 0.332, p<0.5) which suggested that there is a moderate positive relationship between the push and pull factors of residential location decision and monthly income of Port Harcourt metropolis residents.this means the coefficient of determination is 7.18% which means that the monthly income factor helps to explain only 7% of the push factors of residential location decision in Port-Harcourt See Table 6.5 for details. The pull factors however a slightly higher but moderate correlation of .332 has the coefficient of determination of 11.0% meaning that only 11% of monthly income factor explain only 11% of pull factors of residential location in Port-Harcourt. **Household size:** The analysis for household size and push and pull factors of residential location decision, no relationship was found between household sizes and push and pull factors of residential location decision in Port Harcourt metropolis. (r = - .053 p > .05) and (r = .041 p>.05) See Table 6.6 for details.

From these analyses, there is a significant relationship between levels of education and monthly income of residents of Port Harcourt metropolis and their decision on where to live. The hypothesis also showed that size of household does not influence decision of location of residents of Port Harcourt metropolis.

VII. RECOMMENDATIONS

1. To reduce residential mobility, neighborhoods should be provided with adequate infrastructure and services. The provisions or restoration of these facilities will encourage households to stay in a neighborhood and also attract household to move into a neighborhood. Such facilities should also be provided at the fringes.
2. Petro chemical and other industrial related activities that generate noise, vibration, harmful substances and traffic congestion in residential neighborhoods should be relocated to industrial areas. Such activities should be discouraged in residential neighborhoods.
3. Since push and pull factors differ with densities, town planners should take into consideration the factors for each density when planning for new residential area. There is the need to review existing planning schemes with the aim of sanctioning land uses contraveners.
4. Effort should be made for the provision of security like the police, civil defense and neighborhood vigilantes. The provision of such social security will reduce insecurity and crime. So that areas perceived as insecure will reduce and thus reducing push effect.

VIII. CONCLUSION

This study identified the factors influencing residential location decision in Port Harcourt metropolis. Three null hypotheses formulated in the study are; there is no significant pattern of factors influencing residential location decision in the Port Harcourt city; there is no relationship between factors that influence residential location decision and socio- economic characteristics of residents in Port Harcourt metropolis; and the factors that influence residential location decision across the three residential densities (high medium low) are not significantly different.

The result classified the push and pull factors influencing residential location decision into nine and eleven components respectively. The classified push factors namely: industrial/services, transport facilities, institutional services, commercial services, neighborhood infrastructural services, social factors, family composition, neighborhood character and Housing attribute/tenure accumulatively explained 62.86 percent influence in Port Harcourt. However, the classified pull factors namely: industrial activities/services, commerce/services, nature of area/market, quality neighborhood, leisure/relationship transportation, and utilities/facilities in neighborhood, housing attributes/tenure, family status, security /income and neighborhood quality/affordability accumulatively explained 66.93 percent influence.

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