



Residents' Resentment of Neighbourhood Choice in Port Harcourt Municipality

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Author's contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

This study examined residents' resentment of neighborhood choice in Port Harcourt municipality, Nigeria. The study utilized both secondary and primary data sources. Primary data were collected using face-to-face administration of a largely pre-coded household questionnaire, to a probability sample of 396 respondents, drawn from the neighbourhoods. Data analysis was based on responses from 193 questionnaires retrieved and the univariate analytical method was adopted. The study found that large percentage of residents reported a negative rating of neighbourhood choice indicators such as waste collection and disposal, safety of lives and property, fire stations, cleanliness of the neighbourhood, residential planning, and government provision of housing for the poor, hospitals/clinics, recreational areas, maintenance of streets, aesthetic condition, noise level and the neighbourhood condition. Residents rated markets adequate and fire hazards low. The study concluded that majority of the residents rated neighbourhood quality indicators inadequate. The study recommended that government should intervene in these areas to improve the neighbourhood quality to achieve sustainability.

Keywords: Resentment; neighbourhood; choice; rating; residents; inhabitants; Port Harcourt.

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1. 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 [1]. Particularly where those factors focus on location factors solutions such as residential location oriented development.

The concept of residential neighbourhood choice assumes a prominent position when households are planning their lives. As the name suggests, residential neighbourhood choice is the vocational choice made by an individual household in relation to residential property and is informed by a variety of factors. In the context of housing, it is the interrelationship among the individual, affordances (manifest such as sleeping, eating, shelter, leisure; and latent such as privacy, sense of community, sense of security peace and quiet) and environmental objects (places) [2].

The decision to move or stay is influenced by a range of factors. According to Rossi [3], "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 fulfilment of housing aspirations [4]. 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 [5] 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. The physical components that add up to the beauty of neighbourhood are the land use, built form, quality and preservation of open space and common habitat, productivity of transport system, accessibility to work, education, health, community services and recreational activities open spaces, playground and parks(Duany et al. 2003): [6].

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 of household demand. Many factors have contributed to neighbourhood satisfaction (NS) in the core areas of Nigerian cities. However, a host of other factor have been associated with high level of dissatisfaction namely: water supply, electricity supply, size of open spaces, layout of neighbourhood, toilet facilities, ad recreational facilities [7]. 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 [8].

1.1 Statement of Hypotheses

H0: There is no residents' resentment by factors that influence residential location decision and socio- economic characteristics in Port Harcourt metropolis (income educational attainment, household size).

1.2 The Study Area

This study covers selected neighbourhoods in Port Harcourt city of River State. The city which is the capital city of River State is geographically located between Latitudes 4° 45' N, and Longitudes 6° 55'E and 7° 05'E. It is situated between Dockyard Creek/Bonny River and the Amadi Creek (Oyegun et al., 1999). The city was founded in 1913 by the British in an area traditionally inhabited by the ikwerres. It is said to

be one of Nigeria fastest growing cities, the rapid growth and urbanization of the city has been fuelled by the massive influx of people from the surrounding hinterland to the city for job opportunities in various industries that sprang up as a result of the discover of petroleum in the Niger Delta (Chima&Inah, 2012).

The average annual growth rate of Port Harcourt between 1963 and 2010 has been computed to be 5.2%. The growth of Port Harcourt is tied to the social and economic history of the country.

Port Harcourt, the administrative Capital of Rivers State is one of the most industrialized Cities in Nigeria. The city of Port Harcourt plays host to one of the major sea ports in Nigeria and the hub of oil and gas activities.

2. LITERATURE REVIEW

The basic concept of neighbourhood refers to a physical boundary where people live their private lives which have the physical environment, social and economy which constitute the sense of community and place of attachment Rahman, et al [9]. Kelly and Lamb [10] 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.

2.1 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 [11]. 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 [1] 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 et al. [12] 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.

The neighbourhood changes are required to improve the neighbourhood conditions such as neighbourhood quality, liveability, health and sustainability, dynamic and self-stabilising neighbourhood; all these are shared towards the people's well-being, health, safety and sustainable communities Rahman et al. [9]. Walker and Li [13] 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 [14] 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 [15] 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 paces and mental and physical well-being prefers a non – suburban location.

William Marinus and Frans [16] 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 [17] 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 neighbourhood facilities and location decision of LMIG is relatively insensitive to ownership and housing type. Sermon and Koppelman [18] 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 [19] discussed the choice of dwelling and neighbourhood 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.

The study done by Tatjana [20] 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 [21] 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 behaviour. Particularly pronounced avoidance of black neighbours by Asian households, Hispanic neighbours by black households, and Asian

neighbours 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 behaviour. Ahmed [22] 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 [23] 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.

2.2 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 [24] explored the role of employment sub centres 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-centres, measured in terms of generalized cost, is an important determinant of households' residential location decisions. The proximity to special employment sub centres varies across households with different income levels.

Wu [25] 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 [26] 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 [27] 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 [28] 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 [29] 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 [30] 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 [31] 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 Michael and Christopher [32] researched the spatial behavior and mode choice behavior of two – worker's households in Metro Manila. Their result confirmed that the existing pattern of suburbanization in the metropolis gives more households the willing to trade off longer distances and hence commuting time in their residential location decision.

2.3 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 [29] 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 [27] 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 [33] 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.

2.4 Conceptual Issues of Choice in Residential Location

One of the dynamics of urban development is RLC. The definition of the term residential location could sensibly refer to the exact house or apartment that a household chooses [34]. According to Giuliani [35], residential choice involves an assessment wherein the desires of an ideal environment are evaluated and used to make a choice among alternatives. The literature outlines various techniques or approaches to studying housing choice. The two major techniques are the revealed and stated (expressed) preferences [36-38].

The revealed preference approach relates to observed or actual behavior of individual respondents to estimate housing choices that have taken place. Contrastingly, stated preference estimates utility functions based on peoples' opinions – what they like or dislike in a set of alternatives [39-42]. In this study, revealed preference information from the tenants' survey was used. The tenants were asked to assess the influence of certain housing attributes on their housing decisions when they moved to their current residential locations. Studies by Kim et al. [26], Zondag and Pieters [36] and Curtis and Montgomery [43] suggest that irrespective of the stated preference and revealed preference approaches, household's decisions consist of two major stages, namely the residential mobility stage and the housing choice stage. Kim et al. [26] add that the residential mobility stage and housing choice stage as shown in Fig. 1 are interdependent and hierarchical. Furthermore, Curtis and Montgomery [43] explain that a household's decision to move or stay in a current home is influenced by a range of push factors (crime and housing affordability) and pull factors (access to quality schools and employment). In the residential mobility stage, once the decision to relocate is made, it leads to the housing

choice stage which involves a series of interconnected decisions about dwelling and location attributes. In the first stage, the decision to relocate or stay by a household is ascertained after weighing housing attributes. If the household's assessment of housing attributes is satisfying, then the current house is maintained. On the other hand, households will consider moving from the current house if the push factors outweigh the pull factors. This results in the housing choice stage which involves residential searches and choices between various available residences.

Subsequently, a large part of housing preferences/choice theory suggests that a household's residential location decision is a function of dwelling (dwelling type, house price and size of dwelling unit), socio-demographic (household income, household size and workplace location), a variety of accessibility (travel time and cost to work), neighbourhood (neighbourhood type and availability of community facilities), environmental (air quality and size of natural areas) and socio-cultural attributes (racial diversity and dependence on decision) [26],[36],[44],[34],Shammi&jannatul, 2014; [45].

2.5 Empirical Review

2.5.1 The neighbourhood theory

Perry (1929), developed the concept of neighbourhood which was based on the physical form to describe a populated area that supports a primary school with pupils' enrolment of between 1000 and 1200. This implies that the entire population of the neighbourhood is between 5,000 and 6,000 persons. The concept was bounded by arterial road and other boundaries with an open space, school, community centre and local shops. In addition, there should be no thorough traffic within the neighbourhood centre.

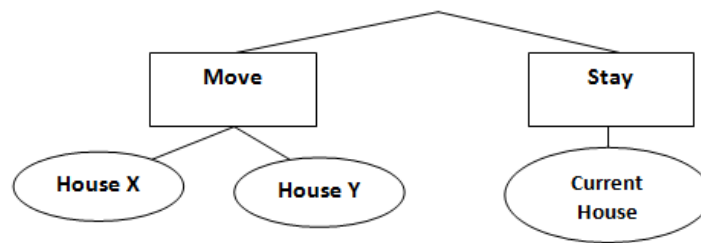


Fig. 1. The sequence of the housing choice decision-making process

Source: Adapted from Kim et al. [26]

This concept dominated scholar discourse during the industrial revolution, the concept as developed as response to degradation of the city surrounding because of the excessive and heavy traffic movement through the city, insecurity to school, and distance of shopping and recreational facilities among others (Shambharkar, 2008).

Similarly, a study by Kim et al. [26] employed a nested multinomial legit model to estimate the nested structure of housing choices in terms of the intention to change residential location by home-owners in Oxfordshire, in the UK. This study makes use of the stated preference approach which models the intention to move according to the tradeoffs between accessibility, neighbourhood, dwelling and household characteristics. This contrasts the variables included in the empirical model of the housing choice which are house price, accessibility and neighbourhood. The authors therefore find that the probability of a household moving increases with more expensive housing costs, higher travel times, higher costs to work, and higher costs to shop, higher population densities and residence in the central city. When they estimate the indirect random utility functions of RCL, Kim et al. [26] conclude that individuals prefer a residential location with a combination of shorter commuting time, lower transport costs, lower density, higher quality schools and lower house prices.

Furthermore, Jun and Morrow-Jones [44] use regression analysis to describe a homeowner's choice of denser neighbourhoods in Columbus, Ohio. In contrast with Kim et al. [26], Jun and Morrow-Jones provide a specific role for each of the explanatory variables employed in the model; neighbourhood characteristics rank the lowest with a limited role while accessibility factors and household characteristics play moderate and important roles respectively. Following this trend to rank characteristics, the multinomial logit model used by Sanit et al. (2013) shows that sociodemographic characteristics, particularly income and workplace location, play a significant role in explaining the location decisions of people to live near a rail transit system in Bangkok, Thailand. Sanit et al. (2013) find that transportation variables such as travel costs and travel time are significantly less important in the minds of households.

Similarly, African scholars have investigated the theory surrounding RLC. In Ghana, a study by

Acheampong and Anokye [46] notes that family relations, proximity to workplace, relatively low land price and house rentals are the most important explanatory variables for RLC in two of Kumasi's per-urban settlements. The study suggests that socio-cultural, dwelling and accessibility considerations are significantly more important than the housing attributes related to the neighbourhood. This view is supported by Acheampong and Anokye [46]. Contrastingly, these authors critique the work of Jun and Morrow-Jones [44] who suggest that the role of neighbourhood characteristics are significantly more important than housing attributes. They considered socio-economic attributes, and like Zondag and Pieters [36] and Opaluwa and Aribigbola [45], find the component to be significantly less important.

The multinomial logistic regression used by Opaluwa and Aribigbola [45] shows that accessibility to work, distance to health facilities and housing costs in particular have a strong impact on households' RLC for all dwelling types in Lokoja, Kogi State, Nigeria. The findings of the study suggest that accessibility and dwelling attributes are almost constant explanatory variables for the considered dwelling types while attributes related to socio-economic factors are less important. In another study, Ubani, Alaci and Udoo [47] use a variety of push and pull factors to explain housing decisions of households in Port Harcourt Metropolis, Nigeria. They find that highly ranked push factors include ownership of a home in a new location, high levels of crime and insecurity. Highly ranked pull factors comprise of the new destination's security, household's change in the level of income and home ownership status in a new destination. The study did not attempt to statistically identify the significant determinants of RLC of households in the study area.

A careful look at studies in Africa reveal the importance of socio-cultural attributes in the RLC of households unlike studies in continents like America and Europe. The possible reason for this could be as a result of the cultural affinity of many people in an African setting. The findings from the above empirical studies suggest that the factors that influence households' residential location preferences vary from one geographical area to another and by household types. However, the important role played by dwelling attributes in RLC remain constant across these studies [36,46,45]. Moreover, the findings give a sense of how individuals and households select

their residential locations. By understanding households' needs, policymakers can work to better policy in a real and meaningful way. Hence, it is justifiable to research the RLC of different household types across different geographical areas. It is on this premise that this study employs a variety of housing attributes to examine their influence on residential location choices of tenants in Bosso Local Municipality of Minna in Nigeria.

3. RESEARCH METHODS

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.

3.1 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.

3.2 Sampling

The neighbourhoods were stratified based on population densities after which six neighbourhoods were selected for study. A total of 396 copies questionnaires distributed to the public in six selected neighbourhoods 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).

3.3 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.

3.4 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.

3.5 Pull Factors

Thirty eight pull factors were also identified from literature. These are factors that influence resident's decision to move into a neighborhood. These factors were also rated using a 4 point Likertscale 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 neighborhood. The mean score (x) was also derived by dividing the total response

Table 1. Sample size

| S/N | Neighbourhood | Project Population | Household Population | Sample Size | % |
|-----|------------------|--------------------|----------------------|-------------|-----|
| 1 | Borokiri | 74006 | 12334 | 118 | 30 |
| 2 | Nkpoluoroworukwo | 99295 | 16549 | 158 | 40 |
| 3 | Elekahia | 28878 | 4813 | 48 | 12 |
| 4 | Abuloma | 19725 | 3287 | 32 | 8 |
| 5 | Orij old GRA | 12233 | 2038 | 16 | 4 |
| 6 | Amadiama | 13275 | 2213 | 24 | 6 |
| | | 247,412 | 41234 | 396 | 100 |

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.

4. 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 summarized 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 where 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 | SD |
|--------------------------------------|------|------|--------|
| Purchase/built my own home | 1 | 3.55 | ± 0.88 |
| High crime rate | 2 | 3.41 | ± 1.02 |
| Increase in Income | 3 | 3.39 | ± 1.03 |
| Insecurity | 4 | 3.38 | ± 1.01 |
| Size and quality of dwelling | 5 | 3.38 | ± 0.86 |
| Unaffordable rent | 6 | 3.34 | ± 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 (2020)

Neighborhood 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 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 neighborhood 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 neighborhood services (3.08), children's school (3.06), street cleanliness (3.01). 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.

4.1 Hypothesis

4.1.1 H0

There is no residents' resentment by factors that influence residential location decision and socio-economic characteristics in Port Harcourt metropolis (income educational attainment, household size).

For this hypothesis, tests was carried out using level of education, monthly income and household size of the respondents. The analysis was done using Spearman's rho correlation coefficient

4.1.2 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.

4.1.3 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 3 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.

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 | |
| Neighborhood 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 2020

4.1.4 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 3 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.

5. CONCLUSION

This study examines the neighborhood factors influencing residential location choice in Port Harcourt metropolis, which is the pull and push factor by residents living in the neighborhood. The study found that most of the residents in the neighborhoods strongly agreed that the push factors include some of the following: industrial/services, transport facilities, institutional services, commercial services, neighborhood

infrastructural services, social factors, family composition, neighborhood character and Housing attribute/tenure etc. while the available power, water, 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 are pull factors indicators of neighborhood residential location.

These findings may be helpful and useful for government, policy makers, and planners and also individuals to better comprehend and respond to the needs of neighborhoods development in Port Harcourt.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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