

## Determinants of Residential Location Pattern of Staff of Joseph Ayo Babalola University, Ikeji, Osun-State, Nigeria

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### Abstract

*This research analyzed the determinants of residential location choices/pattern of the academic staff of JABU. It examined among others the time travel distance of the academic staff of JABU from their various residential locations to their work place. The data for the study was collected through structured questionnaires from one hundred and twenty academic staff of JABU (Academic Office, 2017). The data collected were analyzed using Descriptive Statistics (Weighted Mean Scores and frequency tables). The study revealed that the time travel distance of about 60% of the academic staff of JABU is not less than 20 minutes/19km. The study further revealed that nearness to place of work which should have been the highest ranked determinant of residential location of JABU staff was outranked by Location because of the inadequacy of infrastructures in the town where JABU is located. It is therefore recommended that Government should be more responsive and active in the provision of urban infrastructure and services in every neighborhood since this is one of the major reasons why tenants search for accommodation from one location to another. Thus, the distribution of urban facilities and service in Ikeji-Arakeji and environs will enhance proper development in the town and eventually help to minimize the problem of time travel distance which cannot but affect productivity and high mobility of staff.*

**Keywords:** Residential, Determinants and Location choices

### Introduction

Housing plays an important role in the lives of people as it provides the basis for socio-cultural and economic development (Hablemitoglu, Ozkan and Purutoglu 2010; Jinadu, 2004; Onibokun, 1985). Diverse reasons have however been proposed to explain why residents prefer some residential districts to the others. For instance, while Mokhtarian (2003), Cervero and Duncan (2002), Schwanen, Sermons and Seredich (2001), Srinivasan and Ferreira (2001) and Handy (1996) found strong relationship between individual's travel pattern and residential location preference, (Kauko 2006) identified 'the functionality and spaciousness of the house itself' as the most significant determinant. The decision of a household to choose a particular residential area could be due to socioeconomic, cultural, administrative or purely psychological factors. Urban residential location models indicate that the determinants of households' choice of residence include income of the household making the choice, family size, population density, rent and transport cost (Alonso 1964; Mirth 1969). Empirical studies also showed that workplace influence residential location (Quingley 1985; Blackey and Follain 1987).

Every tenant has preferences that dictate his or her residential location decision although he may not be able to get a residential location which satisfies all requirements in any city or town. Tenants cannot satisfy all their preferences of residential location choice in any city of the World (Kerry, 1995). Some people may choose their work location based on their residential locations while others may choose their residential location given their work location (Prashker et al., 2008). Thus, tenants must compromise on certain preferences which occupy the least position in the hierarchy of preference factors (O' Sullivan, 2000). It is no doubt that every tenant and household has similar preference for neighbourhood amenities and decent housing, but income levels and some other factors create difference in spatial location and types of residence tenants live in.

However, given that residential land use occupies about two thirds of all urban land, and that home-based trips account for a large proportion of all travel (Harris, 1996), one of the most important household long-term land use-related decisions is that of residential location. Residential location choice constitutes a problem not only for the household but also for other stakeholders in the housing sector, namely the developer/investor, the financing institution and the authorities, particularly the city planner (Olatunji, 2008). Some tenants may not be aware of some vital information such as electricity supply, water, crime rate, drainage and will only be exposed to such after acquisition/letting of the accommodation. A developer or investor who has not done a thorough feasibility and viability analysis on a location and the types of residential property before development may discover that he or she has made a wrong choice of location after investment. Financial institutions that advance any loan for financing such real estate investment may not be able to recoup his money which can be avoided by sourcing for adequate information on the factors which influence residential location choices.

Since the inception of Joseph Ayo Babalola University, it has been observed that quite a number of the staff commute from neighboring towns and cities to their place of work on daily basis and there is nobody asking questions. Yes, it may be said that the staff quarters cannot accommodate the total number of staff, the majority of these staff are expected to reside in host community but that's not the situation. Nearness to place of work is one of the most significant factors that determine choice of location but the situation on ground proves otherwise. It is therefore imperative that this research should be conducted on the determinant factors of residential location choices of staff of Joseph Ayo Babalola University.

### **Literature Review**

The choice of residence of households generally involves trade-offs among several factors which give the household the highest possible utility. Kelly and Lamb (2003) stated that residential location is a function of diverse factors ranging from distance to work place, school or shopping, physical condition of the environment such as density, pollution and neighborhood conditions, the quality and accessibility to community facility amongst others.

Guo 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. Walker (2007) examined a lifestyle impact on location decision of 611 individuals in Portland. The study found that lifestyle played a vital role in residential location.

Anand and Taraknath (2010) carried out a study on household residential location choice and preferences in the city of Negpur. Findings from the study showed 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. Lindstrom (1997) emphasized that shared values and cultural influences determine residential location choices. However, Toussaint-Comeau and Rhine (2004) found that racial and ethnic factors influence residential location.

Yan Song et al., (2011) explored the role of employment sub centers in determining residential location decisions. They estimated discrete choice models of residential location decisions with both the full choice set and sampled choices: conditional logit models and heteroscedastic logit models. 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. Eun and Rodriguez (2008) discussed residential location decisions in the Mecklenburg County, North Carolina. The purpose of the study was to examine how accessibility to sub-centers influences residential location decision in the study area. The study found out that access to certain employment sub centers measured in terms of generalized cost; seem to be an important determinant of household residential location decision. 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. The results from the study however confirmed that a joint choice specification better represents household spatial choice behavior.

Abraham and Hunt (1997) found that distance related variable (distant to work, costs of transportation and trip time) are the most important location factors influencing residential choice. Levinson (1998) also pointed out the relative importance of accessibility; showing that accessibility to job and housing are more effective variables influencing residential choice than demographic and socio economic variables such as age, gender, home ownership, number of children and household size.

### **Methodology**

The data for the study was collected from the academic staff of Joseph Ayo Babalola University. There are one hundred and twenty two academic staff in JABU (Academic office of JABU, 2017) and these constitute the sample frame. The sample frame was also adopted as the sample size as suggested by Israel (2002) for small population of 200 or less. However, out of the one hundred and twenty two (122) academic staff that were administered questionnaires, only ninety six (96) of them responded representing 78.68% of the sample size.

Descriptive Statistics such as Frequency Table and Weighted Mean Scores were used in analyzing the data collected. The Frequency Tables were used in the analysis of the background information such as the designation, academic qualification, gender, occupancy status of the respondents amongst others. Weighted Mean Score was

used to rank identified factors that determine/influence the residential location choices of academic staff of JABU

### Data Analysis and Discussion of Results

This section of the study presents analysis of data collected from the study area and the discussion of results. The analysis was structured to examine the socio-economic background of the respondents, distance of their accommodation to JABU, location of their accommodation, factors determining/influencing location choices of JABU staff and the adequacy of infrastructural facilities of where they reside.

The socio-economic background of the respondents as detailed in Tables 1 and 2 below

**Table 1: Socio-Economic Background of the Respondents**

Designation of the Respondents			Academic Qual. of the Respondents			Marital Status of the Respondents		
Designation	F	%	Qualification	F	%	Status	F	%
Graduate Assistant	14	14.58	B.Sc.	15	15.63	Single	17	17.71
Assistant Lecturer	22	22.92	M.Sc.	48	50.00	Married	56	58.33
Lecturer II	11	11.46	Ph.D.	33	34.37	Widow	7	7.29
Lecturer I	7	7.29	Others	0	0.00	Widower	9	9.38
Senior Lecturer	28	29.17				Separated	7	7.29
Ass. Professor	4	4.16						
Professor	10	10.42						
<b>Total</b>	<b>96</b>	<b>100</b>	<b>Total</b>	<b>96</b>	<b>100</b>	<b>Total</b>	<b>96</b>	<b>100</b>

Source: Researcher's Survey, 2017

The distribution of the designation of the sampled respondents shown in Table 1 reveals that 29.17% of the respondents are Senior Lecturers while 22.92% are Assistant Lecturers. Graduate Assistants, Lecturers II, Professors, Lecturers I, and Associate Professors represent 14.58%, 11.46%, 10.42%, 7.29% and 4.16% of the respondents respectively. Table 1 further revealed that 50% of the respondents have a minimum of M.Sc. degree which implies that the information so provided can be relied upon.

Table 1 further revealed that majority of the respondents representing 58.33% of the sampled respondents are married while 17.71% and 9.38% of the sampled respondents are single and widows/separated. The diversity in marital status of the respondents gives room for a wide range of factors to be taken into consideration in location decision.

**Table 2: Socio-Economic Background of the Respondent**

Gender of the respondent			Age of the respondent			Income of the Respondent		
Gender	F	%	Age	F	%	Income	F	%
Male	52	54.17	Below 30 years	7	7.29	Below #100,000	7	7.29
Female	44	45.83	31 – 35 years	18	18.75	#101,000 – #150,000	35	36.45
Total	96	100	36 – 40 years	22	22.92	#151,000 – #200,000	23	23.96
			41 – 45 years	10	10.42	#201,000 – #250,000	12	12.50
			46 – 50 years	29	30.20	#251,000 – #300,000	10	10.42
			Above 50 years	10	10.42	Above #300,000	9	9.38
<b>Total</b>	<b>96</b>	<b>100</b>	<b>Total</b>	<b>96</b>	<b>100</b>	<b>Total</b>	<b>96</b>	<b>100</b>

Source: Researcher's Survey, 2017

Table 2 reveals that the academic staff of JABU is made up of 52 male and 44 female representing 54.17% and 45.83% respectively. The Table further revealed that 7 respondents representing 7.29% receives below #100,000 while the remaining respondents receive above #100,000. This implies that majority of the respondents have the purchasing power to reside or live in good accommodation.

**Table 3: Respondents' Location pattern and distance travelled to work**

Respondents' Locational Pattern			Commuting distance of Respondents to place of work		
Location	F	%	Distance	F	%
Campus	20	20.83	Below 2km	19	19.79
Ikeji – Arakeji	6	6.25	3km – 10km	12	12.50
IgbaraOke	14	14.58	11km – 18km	8	8.33
Ilesha	11	11.46	19km – 26km	15	15.63
Akure	32	33.33	27km – 33km	26	27.08
Ile – Ife	9	9.38	Above 33km	16	16.67
Others	4	4.17			
<b>Total</b>	<b>96</b>	<b>100</b>	<b>Total</b>	<b>96</b>	<b>100</b>

Source: Researcher's Survey, 2017

Table 3 reveals that 32 respondents (33.33%) reside in Akure and commute on daily basis to JABU, followed by 20 respondents (20.83%) who reside on Campus. The Table further revealed that 14 (14.58%), 11 (11.46%), 9 (9.38%) and 6 (6.25%) respondents reside at Igbara-Oke, Ilesha, Ile-Ife and Ikeji-Arakeji respectively. This implies that majority of the respondents reside Off-Campus despite that there is provision for rental accommodation for staff on Campus. This could be attributable to the fact that there were other factors taken into consideration by the staff other than nearness to place of work which some researchers (Ferreira (2001) found strong relationship between individual's travel pattern and residential location preference) considered as the major determinant of residential location choices. The Table further revealed that 65 respondents representing

67.70% commute over 11km to work place daily. This implies that over 67.70% reside outside the campus and their work place host community.

**Table 4: Respondents accommodation type and Building Occupancy Status**

Accommodation Type			Building Occupancy Status		
Accom. Type	F	%	Building Occupancy Status	F	%
Tenement/A room	0	0.00	Landlord	26	27.08
Room Self-Contain	9	9.38	Tenant	70	72.92
1 Bedroom Flat	22	22.92	Squatter	0	0.00
2 - 3 Bedroom Flat	34	35.41			
Bungalow	14	14.58			
Duplex	10	10.42			
Others	7	7.29			
<b>Total</b>	<b>96</b>	<b>100</b>	<b>Total</b>	<b>96</b>	<b>100</b>

**Source:** Researcher's Survey, 2017

Table 4 shows that 70 respondents representing 72.92% of the total respondents are tenants. This implies that the residing a far from the school has no relationship with ownership status as it could have been thought. This Table further reveals that majority of the staff reside in 2-3bdrm flat and this is because majority (58%) of the respondents are married and desire enough space to accommodate their family members

Table 5 shows the rank-order of the fourteen identified pull factors that influence residential location decision/pattern. The Table reveals that all the factors identified influence the residential location pattern of academic staff of JABU. The result as shown in the Table 5 above reveals that location emerged the most important pull factor that influence residential location choice/pattern of academic staff of JABU with a mean score of 4.46. This implies that location which is a function of amenities has the strongest influence on residential location patter of academic staff of JABU as people desire to live in places where basic amenities/infrastructures can be accessed. It is suspected that this accounts for the reason why majority of the academic staff reside in Akure, Ile-Ife and Ilesha. The Table also shows that accessibility and nearness to JABU which are inter-related variables ranked number 2 and 3 with mean scores of 4.28 and 3.98 respectively as some academic staff on the other hand are majorly influenced by the time-travel distance to their place of work. The Table also reveals that factors such as age of the property, regularity of power supply, nearness to place of worship, condition of the property, facilities within and around the property, neighborhood quality and crave to reside in a civilized environment ranked 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup>, 9<sup>th</sup>, 10<sup>th</sup> and 11<sup>th</sup> with mean scores of 3.88, 3.82, 3.77, 3.75 respectively. These mean scores imply that these above mentioned factors also influence the location decision/pattern of the academic staff of Joseph Ayo Babalola University. However, the Table revealed that nearness to the school of children; market and sizes of rooms neither influenced or not the residential location choices/pattern of academic staff of JABU. This could be attributable to the presence of an International school within JABU and nearness of a major market to the institution.

**Table 5: Determinant Factors of Residential Locational Pattern of JABU staff**

Factor	Frequency (f)					Mean (n)	Rank
	5	4	3	2	1		
<b>Location of Property</b>	56	28	12	0	0	4.46	1
<b>Accessibility</b>	57	23	9	0	7	4.28	2
<b>Nearness to JABU</b>	35	37	11	13	0	3.98	3
<b>Security</b>	36	38	13	0	9	3.96	4
<b>Age of Property</b>	35	27	21	13	0	3.88	5
<b>Regular Power Supply</b>	32	32	15	17	0	3.82	6
<b>Nearness to Place of Worship</b>	25	35	25	11	0	3.77	7
<b>Condition of the Property</b>	23	39	21	13	0	3.75	8
<b>Facilities within and around the Property</b>	39	25	10	12	10	3.71	9
<b>Neighborhood Quality</b>	25	29	35	0	7	3.68	10
<b>Crave to reside in a Civilized Environment</b>	41	25	7	0	23	3.64	11
<b>Nearness to School of Children</b>	17	35	29	15	0	3.56	12
<b>Nearness to Market</b>	23	23	31	19	0	3.52	13
<b>Sizes of Rooms</b>	23	28	23	14	8	3.46	14

*Source:* Researcher's Survey, 2017

Legend: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Strongly Disagree

### Conclusion and Recommendation

This paper presents an empirical analysis of the residential choice behavior of academic staff of JABU. Since the choice of residential location of a household is influenced by a large number of large parameters, the important findings from the empirical analysis are as follows:

1. Time travel distance of about 60% of the academic staff of JABU is not less than 20 minutes/19km.
2. Nearness to place of work which should have been the highest ranked determinant of residential location of JABU staff was outranked by Location because of the inadequacy of infrastructures in the town where JABU is located.
3. Seventy (70) respondents representing 72.92% of the academic staff of JABU are tenants.

### Recommendations

Based on the researcher's observation and the findings of the study, the following recommendations are discussed as follows;

#### I. Government intervention

Government should be more responsive and active in the provision of urban infrastructure and services in every neighborhood since this is one of the major reasons why tenants search for accommodation from one location to another. Thus, the distribution of urban facilities and services in Ikeji-Arakeji and environs will stimulate proper development in the town and eventually help to minimize the problem of time travel distance which cannot but affect productivity and high mobility of staff.

#### II. An ambitious housing policy was launched by the then military government in 1991

with a slogan "Housing for All by the Year 2000A.D". The goal was for all Nigerians to have access to decent housing at affordable cost before the end of year 2000A.D. There is the need for government to still consider public housing as a form of social responsibilities considering the financial arrangement with the mortgage institutions the required minimum deductible amount which is beyond the reach of a low income earner in Nigeria.

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