THE IMPACTS OF THE DEMOGRAPHIC CHARACTERISTICS OF RESIDENTS ON THE PERCEPTION OF QUALITY OF OFF-CAMPUS STUDENT ACCOMMODATION IN SOUTH-SOUTH, NIGERIA

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ABSTRACT

This study presents the findings of the evaluation of the impacts of the demographic characteristics of residents on the perception of quality of off-campus accommodation. It is limited to students who are currently residing in privately developed off-campus accommodation in selected universities, towns and cities in South-South, Nigeria. The data for this study were gathered between June and August, 2014 with the used of self-study structured questionnaire. A total of 520 respondents participated in the survey. The findings of the study revealed that though the demographic characteristics of students are essential in the determination of perception of quality of attributes of housing, the degree of influence differs among gender, age groups, income levels and the years of study of students. The influence of age, gender, income and year of study on the perception of quality of off-campus accommodation were also found to be statistically significant. The main implication of these findings is that investors in the student housing market can segment the development of off-campus accommodation to serve a selected demographic group(s).

Keywords: demographic characteristics, quality, student housing

1. INTRODUCTION

Housing is designed and developed to provide and support the needs and requirements of residents (Pullan, 2012; Oppewal *et al.*, 2005). Therefore, investors in housing as well as dwelling owners incorporate components with varied quality that are capable of providing the required users' needs. However, investors are faced with the challenge of determining the quality of component that is by residents as

this is influenced by demographic characteristics and geographical locations (Abdullah, *et al*, 2013; Akingbohungbe & Akinluyi, 2012). Thus, the demographic characteristics of residents are critical in the formation of needs and requirements by residents. Thus, to a large extent, the understanding of the moderating influence of the characteristics of residents on the perception of quality of housing is important to residential development. A series of studies were undertaken to explore the influence of the demographic characteristics of residents in different residential sectors, for example; social housing (Vera-Toscano & Ateca-Amestoy, 2007), workers housing (Morrison, 2003) and students (Amole, 2005; Amole, 2009) among others. The findings of specific study were difficult to generalise and apply to other residential sectors because of the differences in the demographic characteristics of the occupants. In addition, these findings were also found to vary from one geographical location to another. Thus, this study is focused on understanding how the perception of quality of off-campus housing is influenced by the demographic characteristics of students in tertiary institutions in South-South, Nigeria.

Student housing facilities (SHFs) are important aspects of institutional infrastructural facilities and are used as places of accommodation for students while undergoing academic training. SHFs exist either as on-campus accommodation or off-campus accommodation (Akingbohungbe & Akinluyi, 2012). On-campus accommodation are built within the boundary of tertiary institutions while off-campus are located outside the campus precinct and are mostly owned and managed by private investors. Within this category of housing, most of the studies were on-campus accommodation (Amole, 2009; Khozaei *et al.*, 2010) with few that are particular to off-campus accommodation (Akingbohungbe & Akinluyi, 2012).

The need for an increased emphasis on the study of the impacts of the demographic characteristics on the perception of quality of off-campus housing is advocated as current trend has revealed that the majority of students in tertiary institutions worldwide now reside in privately developed off-campus accommodation (Fields, 2011). This study is relevant as the findings of this research are needed by off-campus housing investors that intend to cater for the residential needs of specific demographic group(s) such as age groups, gender, income levels and years of academic study.

In carrying out this study, self-study questionnaire were administered to students who are currently residing in an off-campus accommodation in seven universities towns in the study area. The survey instrument is comprised of two sections; section on the demographic characteristics of respondents and another that dwells on the perception of quality of off-campus housing based on a 7-point semantic scale. The SPSS 16 was used to generate the results from data obtained from field survey. The analyses of interest include the summary statistics, t-test and the ANOVA.

The findings revealed that though the demographic characteristics of students are essential in the determination of perception of quality of housing, the degree of influence differs among the gender, age, income level and the year of study of students. The influence of age, gender, income and year of study on the perception of quality of off-campus accommodation were found to be statistically significant. In addition, the interaction between two demographic variables were statistically significant. The key implication of these findings is that investors in the student housing market could segment the development of off-campus accommodation by offering different quality attributes to serve a selected demographic group(s).

2. LITERATURE REVIEW

Different categories of off-campus housing exist in the market and each is composed of distinct components that serve a function(s) either individually or in combination with other attributes (Coulombel, 2011). The degree of quality of components in particular and housing in general is evidenced in how the safety, comfort, health and security of the occupants is assured (Ibem et al., 2013). The quality of housing is defined by the design and housing configuration, material used in construction, the environment in which the residence is located, configuration of rooms, building components and amenities and the residential environment. Investors in housing develop to attract residents, however, the demographic characteristics of students play considerable roles in student housing facilities (SHFs) development and utilization has received considerable attention from researchers (Najib et al., 2012; Kaya & Ertrip, 2001). These studies reported that the perceptions of quality or performance of SHFs attributes are influenced by the demographic characteristics of students (Macintyre, 2010; Najib et al., 2012). Important demographic characteristics of students that act as intervening or moderating variables in the perception of quality and performance attributes of student housing include the gender, marital status, income level and years of study of students (Oppewal et al., 2005). The general perception of quality of housing is formed by residents from experiences gained from the used of individual attributes that make up the residential environment. Therefore, the following sections discuss the preference for different form of attributes based on their demographic characteristics.

2.1 Gender

The relationship between gender and perception of residential quality and performance is well reported in the literature on on-campus SHFs (Oppewal *et al.*, 2005). Li *et al.*, (2005) reported that female students were more contented with the quality of attributes of SHFs than their male counterparts. In a study in Turkey, Kaya and Etrip (2001) reported that between gender and privacy, female students preferred accommodation with shared facilities while male students preferred exclusive access to residential amenities. Similar studies in Malaysia by Khozaei *et al.* (2010) also supported this view. However, in a study in Nigeria, Amole (2005) reported contrary results that male students prefer shared accommodation while female students prefer a room with personal amenities. A variety of reasons was attributed to this inconsistency. Meir (2007) suggested that the use of a space influences perception of fulfilment of needs. For example, a high degree of privacy is required in spaces that are used for study, sleep or relaxation, whereas, less consideration is given to privacy in a space that is used for social interaction. In a related study, Kaya and

Etrip (2001) reported that female students experience a higher level of discomfort in a smaller space than their male counterpart.

2.2 Economic status

The economic status of student plays an important role in residential choice. Thomsen and Eikemo (2010) reported that access to better quality SHFs is a function of the amount of money at the disposal of the student. Mostly, students in tertiary institutions are funded with money received from relatives, earned savings, loans, grants and salary from a part-time job. Wealthy students or those who work part-time jobs have access to money to pay high rent and live in high-quality off-campus residences (Petruzzellis *et al.*, 2006). Also, students who are financially buoyant could also adjust the unsatisfactory housing elements in order to improve housing quality (Frank & Enkawa, 2009).

2.3 Study years

Experience with housing attributes influences the perception of quality as well and is gained either from home or while on campus. As the student progresses academically, more interaction with housing is gained. New students combine previous experience iparental home experience and present residence, whereas for returning students, it includes both parental home experiences and past campus SHFs experiences (Fourbert *et al.*, 1998:41; Thomsen, 2007:577). These studies observed that privacy or relationships that exist in homes are critical in the determination of satisfaction with SHFs by students.

3. RESEARCH METHODOLOGY

Both secondary and primary data were sourced and used in this study. A review of relevant literature was conducted to identify the demographic characteristics of students that are relevant for the study. The survey method was adopted to collect the data from respondents employed a structured questionnaire which was comprised of two sections; namely, demographic characteristics of respondents and the perception of quality of off-campus accommodation. A total of 520 questionnaires were retrieved from respondents out of 790 that were personally administered to respondents in their various off-campus residences, academic departments by the researcher or trained field workers. A return rate of 66%, which is higher than the minimum 40% limit specified by Moser and Kalton (1993) was considered as adequate for valid results. In addition, in order to achieve good sample representations and spread, purposive sampling was adopted to select a total of seven tertiary institutions out of the existing 17 institutions in the geopolitical region of South-South, Nigeria. Furthermore, for ease of access to study subjects, the convenience sampling method was adopted to select participants of the survey.

In developing the survey instrument, the perception of quality of off-campus accommodation was elicited with the use of a 7-point semantic scale with 1 (very low quality) and 7 (very high quality). However, in the interpretation of results, a

rating of between 1 and 3 was classified as low quality, 4 as moderate quality and between 5 and 7 was qualified as high quality. The analysis conducted on the data includes the summary statistics and the ANOVA.

A one-way ANOVA test was conducted to determine whether the impact of demographic characteristics of residents of SHFs on the perception of quality of off-campus SHFs is statistically significant. The variables that were subjected to ANOVA test include the age, year of study and income levels of students. For gender with two only groups, the t-test was used to test for differences in means.

The decision rule was to reject the null hypothesis if the test statistic is greater than a *p*-value of 0.05. Where a difference exists within a group, a *post hoc* analysis based on Tukey test was conducted to determine the groups that are significantly statistically different.

Furthermore, a two-way "between groups" ANOVA was also conducted to determine the influence of two different categorical independent variables on the perception of quality of on-campus SHFs. In this section, the main effects and joint effects of the interaction between two demographic variables on the perception of the quality of SHFs was examined and described accordingly. A two-way "between-groups" ANOVA was used to test three effects: the main effects of two individual variables and the interaction effect of combined variables. The interaction of the following demographic variables on the perception of quality were tested for statistically significant results.

- i. the interaction between gender and age of students on the perception of quality of SHFs;
- ii. the interaction between the gender and income level of students on the perception of quality of SHFs;
- iii. the interaction between gender and year of study of students on the perception of quality of SHFs;
- iv. the interaction between income of students and year of study on the perception of quality of SHFs; and
- v. the interaction between income of students and age on the perception of quality of SHFs.

4. FINDINGS AND DISCUSSION

The summary of the demographic characteristics of respondents is presented in Table 1 and it shows that 55% of the respondents were male while the rest 45% were female. The majority of the respondents were between the age groups of 19-21 years (42.5%) and 22-24 years (32.4%) and the least being the group above 27 years (5%). Furthermore, more of the respondents are in the 2^{nd} year (36.8%) and 1^{st} year (30.8) while 20% and 12.4% are in the 3^{rd} and 4^{th} year respectively. Out of these students, 26.6%, 24% and 23% received between R301-R600, R601-R900 and less than R300 respectively as monthly financial stipends.

	Percent	
Gender	Male	55
	Female	45
Age	Under 18 years	7.4
	19-21 years	42.5
	22-24 years	32.4
	25-27 years	12.7
	Above 27 years	5.0
Year of study	1 st year	30.8
	2 nd year	36.8
	3 rd year	20.0
	4 th year	12.4
Monthly income	< 4,500 Naira (300 Rand)	23.0
	4,501-9,000 Naira (301-600 Rand)	26.6
	9,001-13,500 Naira (601-900 Rand)	24.0
	13,501- 18,000 Naira (901-1,200 Rand)	15.6
	>18,000 Naira (1200 Rand)	10.8

Table 1: Demographic characteristics of respondents

4.1 Influence of demographic characteristics on the perception of quality of off-campus housing.

Respondents were asked to rate how the quality of off-campus accommodation is perceived when compared to on-campus accommodation. A 7-point semantic scale with '7' as very high quality and '1' as very low quality was used for the evaluation. Four different demographic attributes, namely, gender, age, income and years of study of students were analysed to observe their impact on perception of quality by the different groups. The results are presented in the following sections.

4.1.1 The influence of age on the perception of quality of off-campus accommodation

Five age groups were identified for the purpose of this study and the result is presented in Table 2 and it shows that in all the age groups, a higher percentage perceived that the quality of off-campus SHFs is better than on-campus. However, for the group of students between the ages of 25-27 years, the perception that off-campus accommodation is better than on-campus accommodation was lower (45%). This goes to show that the approval rating of the quality of off-campus is higher among the age groups above 27 years (66.7%), 22-24 years (66.6%) and below 18 years (61%).

Participants were divided into five age groups, Group 1: below 18 years, Group 2: 19-21 years, Group 3: 22-24 years, Group 4: 25-27 years and Group 5: above 27

years. An ANOVA test shows that there was a statistically significant difference at p < 0.05 alpha level {F (4,458) = 3.08, p=0.016}. The comparison of the *post-hoc* Tukey HSD test results indicated that the mean score of Group 3 (M=5. 10, SD=1. 64) was statistically different from Group 4 (M=4. 2; SD=1. 68) while Group 1 (M=5. 08; SD=1. 86), Group 2 (M= 4.83; SD = 1.81) and Group 5 (M=5. 21; SD= 1.91) were not statistically different. The null hypothesis is rejected and the alternative that the perception of quality of SHFs differs among age groups was accepted.

	1-3 (Low)	4 (Moderate)	5-7 (High)
Above 27 years	16.6%	16.7%	66.7%
25-27 years	31.6%	23.3%	45%
22-24 years	15.7%	17.7%	66.6%
19-21 years	20.9%	20.9%	58.%
Below 18 years	16.8%	22.2%	61%

Table 2: Age and quality of off-campus

4.1.2 Gender and the perception of quality of off-campus accommodation

The gender involved two groups; male (M=4.79; SD=1. 74) and female (m=4. 93; SD=1. 82). In all the age categories, a higher percentage of students perceived that their off-campus accommodation was better than on-campus accommodation. Between the rating of '5-7' on a 7-point semantic scale, about 45% to 67% of respondents within the age brackets in all the age rated their off-campus accommodation to be better than on-campus accommodation. The result of the independent-samples t-test supported the null hypothesis that there is no statistically significant difference {t (444) =-.829, p = 0.41} in the way male and female students perceive the quality of SHFs attributes.

Table 3: Gender and quality of off-campus			
	1-3 (Low)	4 (Moderate)	5-7 (High)
Female	20%	15.6%	64%
Male	21.8%	23.5%	52%

4.1.3 Year of study and the perception of quality off-campus accommodation

The results of the cross-tabulation between years of study and perception of quality of off-campus SHFs are presented in Table 6.10. The table reveals a high evaluation score (4th year (71%), 3rd year (68%), 2nd year (55%) and 1st year (52%)) for ratings in the upper region (5-7) of the 7-point semantic scale. These could be interpreted to mean that the perception of quality increases as the student progresses academically.

Four educational levels were identified for the analysis; Group 1: 1st year, Group 2:

2nd year, Group 3:3rd year, Group 4: 4th year. The impact of educational levels of students on the perception of satisfaction with the quality of SHFs at p < 0.05 was not significant {F (4,457) = 1.93, p < .104}. Therefore, the null hypothesis is accepted that the perception of quality of residence does not differ by educational level.

	1-3 (Low)	4 (Moderate)	5-7 (High)
4 th Year	12.3%	14%	71%
3 rd Year	15.1%	17.2%	68.8%
2 nd Year	18.7%	25.5%	55%
1 st Year	30.1%	18.9%	52%

Table 4: Year of study and quality of off-campus and on-campus accommodation

4.1.4 Income and the perception of quality off-campus accommodation

The cross-tabulation of income and quality-perception is presented in Table 6.9. Likewise, between the rating for '5' to '7' on a 7-point semantic-scale, 82% and 61% of students that earn an income above R1200 and R601-R900 perceived that their off-campus accommodation was better than on-campus SHFs respectively. A high degree of support was also obtained for residents earning below R300 (56%), R301-R600 (52%) and R900-R1200 (46%). Five income groups were identified for the study; Group 1: below 300 Rand, Group 2: 301-600 Rand, Group 3: 601-900 Rand, Group 4: 901-1200 Rand and Group 5: above 1200 Rand. The impact of income levels of students on the perception of satisfaction with the quality of SHFs at p < 0.05 was statistically significant {F (4,382) = 4.19, p < .002}. The post-hoc comparisons using the Tukey HSD test indicated that the mean score of Group 2 (M=4. 67, SD=1. 84), Group 3 (M=4. 70; SD=1. 54) and Group 4 (M=4. 34; SD=1. 87) were statistically different from Group 5 (M=5. 68; SD=1. 14). Group 1 (M= 4.88; SD=1. 90) did not differ significantly from other groups.

These findings signify that irrespective of income level of students, students perceived off-campus accommodation to be better than on-campus SHFs. In another vein, a higher level of perception of quality in the high income bracket indicated that preference for SHFs is connected to the proposition that wealthy students are better positioned financially to secure high-quality accommodation (Thomsen & Eikemo, 2010:273).

Table 5: Income and quality of off-campus and on-campus accommodation		
1-3 (Low)	4 (Moderate)	5-7 (High)
-	18.2	81.8%
36.1%	18%	45.9%
61%	22.6%	61.4%
26.9%	21.2%	52%
23.3%	20%	56%
	1-3 (Low) - 36.1% 61% 26.9%	1-3 (Low) 4 (Moderate) - 18.2 36.1% 18% 61% 22.6% 26.9% 21.2%

4.2 Interaction of demographic characteristics of students on the perception of quality of off-campus housing

A two-way "between-groups" ANOVA was conducted to explore the impact of interaction between two demographic characteristics of students on the overall perception of quality of SHFs.

4.2.1 The interaction between age and gender on the perception of quality off-campus student housing

The results in Table 6.44 showed that the interaction between the gender of respondents and age of students does not have significant effects on the perception of quality of SHFs, F (4, 434), p< .194, Eta Squared = .014. The main effect of the age of students on the perception of quality of SHFs was significant, F (4,434) = 3.35, p< 0.010, Eta Squared = 0.030 (moderate). The post-hoc comparisons using the Tukey HSD test indicated that the mean for the 22-24 years group is significantly different from the 25-27 years group. However, the main effect of the impact of gender groups on the perception of overall quality of SHFs, was not statistically significant F (2,434) = .242, p< .785, Eta Squared = 0.001 (low).

4.2.2 The interaction between the age of students and income levels on the perception of quality of SHFs

A two-way between-groups ANOVA was conducted to determine the interaction between the age of students and income level on the perception of quality of SHFs. The results are presented in Table 6.45 and it is clearly shown that the interaction between the age of students and income level has no significant effects on the perception of quality of SHFs, F (15, 361) = 1.43, p < .132, Eta Squared = .056. However, there was a statistically significant main effect of income levels on the perception of quality F (4,361) = 4.45, p < .002, however the effect size was moderate (partial Eta squared =0.056). The comparison of the post-hoc Tukey HSD test revealed that the mean score for students on income level above R1200 was significantly different from students on 301-600 Rand , 601-900 Rand and 901-1200 Rand. In addition, the main effect of age of students on the perception of quality of SHFs was not significant, F (4,361) = 1.844, p < 0.120, Eta Squared = 0.02 (moderate).

4.2.3 The interaction between age and year of study on the perception of quality of SHFs

The result of the two-way "between-groups" ANOVA is presented in Table 6.46. The results show that a statistically significant effect exists in the interaction of the age of students and levels of education on the perception of quality of SHFs, F (12,

439) = 2.204, p < .011, Eta Squared = .057. The main effect of age of students on the perception of quality with the quality of SHFs was significant, F (4,439) = 3.670, p < 0.006, Eta Squared = 0.032 (moderate). The post-hoc comparisons using the Tukey HSD test indicated that the mean for the 22-24 years group was significantly different from the 25-27 years group. The results also revealed that the main effect of the year of study of students on the perception of satisfaction with the quality of SHFs at p < .05 was also significant, F (4,439) = 3.758, p < 0.005, Eta Squared = 0.033 (moderate).

Therefore, the null hypothesis that there is no statistically significant effect of the interaction of age and year of study on the perception of quality of SHFs is rejected.

4.2.4 The interaction of income of students and gender on the perception of quality of SHFs

The results of the analysis of two-way ANOVA on the interaction between the age and income of the student on the perception of quality are presented in Table 6.47. The results reveal that the interaction between income levels and gender at p<.05 have significant effects on the perception of quality of SHFs, F (4, 359) = 4.299 p<.002, Eta Squared = .046. The main effects of income of students on perception of satisfaction with the quality of SHFs were statistically significant F (4,359) = 4.695, p< 0.001, Eta Squared = 0.050 (moderate). The post-hoc comparisons using the Tukey HSD test indicated that the mean score is significant between the income group above R1200 and those within 301 to 1200 Rand income bracket. In this interaction, though, the main effect of gender was not significant, F (1,359) = .2404, p<.122, Eta Squared = 0.007 (low).

4.2.5 The interaction between the year of study of students and income level of students on the perception of quality of off-campus student housing

A two-way "between-groups" ANOVA was conducted to compare the effect of the interaction between the year of study of students and income levels of students on the perception of quality of SHFs. The results in Table 6.51 showed that the interaction between the year of study and the income level of students on the perception of quality of SHFs was statistically significant at p<.05 level F (13, 363), p< .26, Eta Squared = .065. However, in this interaction, the main effects of the level of income of students {F (4,363) = 1,603, p< 0.173, Eta Squared = 0.017 (moderate)} and years of study of students {(F (4,363) = 1.501, p< .201, Eta Squared = 0.016 (low)} were not statistically significant.

4.3 Discussion

The examination of the influence of demographic characteristics of students in the choice of housing and perception of quality of off-campus SHFs was required in order

to establish a possible segregation of the SHFs market along demographic lines. Success in the housing investment is a function of patronage. The students perceived the attributes of off-campus SHFs to be better than on-campus accommodation; thus, a high demand indicates improved prospect. However, quality housing most often goes with higher rent; thus, higher quality housing costs more than lower quality SHFs. The pattern of income of students and the distribution of students by demographic characteristics in the various housing types is important in order to determine the willingness of students to spend money on their housing.

In terms of quality, a higher percentage of female students perceived their off-campus accommodation to be better than their male counterparts; which is in agreement with the studies conducted by Li *et al.* (2005) and Khozaei *et al.* (2010:35). The result shows that higher income earners judge their residence better through the introduction of furniture and this is in agreement with the findings of Thomsen and Eikemo (2010:273) who observed that access to better quality housing is a function of the amount of money at the disposal of the residents.

There was no statistically significant difference in the perception of quality of off-campus housing on the basis of gender and years of study. However, students of different gender held different levels of perception of quality between off-campus SHFs and on-campus accommodation. The female students (64%) had a more positive perception of the quality of off-campus accommodation than did male students (52%). The perception of quality of off-campus residences was found to increase as the income of students rose and as students move to higher academic levels. A possible explanation of this trend might be that wealthy students could afford SHFs that have better attributes that are found in self-contained and shared flat with private amenities. Secondly, students with higher income could possibly acquire superior personal amenities and furniture to re-arrange their residences to meet their individual needs. The perception of higher quality by senior students could be influenced by years of experience with campus accommodation. Senior students who had adapted to the environment could easily identify SHFs types and locations that yield higher quality as most of these off-campus accommodation facilities are not advertised. In addition, students may tend to relax judgment on the quality of attributes as a result of prolonged experience with the SHFs environment. Consequently, the quality of attributes of SHFs is taken for granted.

Equally important in the results are the impacts of the interaction between pairs of demographic variables on the perception of quality. The interaction between the age of students and year of study, gender and income level, and year of study and income levels on the perception of quality were statistically significant. Investors in off-campus accommodation might consider the individual and combined effects of the demographic characteristics of students on preference and perception of quality to segment the market. These findings are indicators that a more targeted approach to off-campus development and improvement may be a worthwhile effort.

5.0 CONCLUSION AND RECOMMENDATION

The influence of the demographic characteristics of residents on the perception of quality of off-campus student housing is important to SHFs development. The findings of the study revealed that though the demographic characteristics of students are essential in the determination of perception of quality of attributes of housing, the degree of influence differs among gender, age groups, income levels and the years of study of students. The influence of age, gender, income and year of study on the perception of quality of off-campus accommodation were also found to be statistically significant. The main implication of these findings is that investors in the student housing market could segment the development of off-campus accommodation to serve a selected demographic group(s) of residents.

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