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Evaluating Off-Campus Student Housing Preferences: A Pilot Survey

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Abstract. In recent decades, the term student housing has been highlighted as a body of knowledge in housing studies. In providing better quality of life, student housing evolved into a critical agenda in developing higher education learning. This research paper aims to discuss on a pilot study examining student housing preferences among university and college students should they reside off-campus. The research aims at identifying the attributes of off-campus student housing preferences to give a significant input for the development of an off-campus student housing preferences conceptual framework. This research is a cross-sectional study in which survey participants are currently-enrolled students throughout the period of survey. During this pilot study, questionnaires were distributed among university students in Shah Alam, Selangor in Malaysia. A total of 86 survey questionnaires were collected, consisting of questions reflecting students' background, Likert scale questions to specify their preferences, and open-ended questions. This preliminary pilot result shows that the 46 variables student housing preferences have a good reliability and validity. The outcomes from this research provide insight into students' preferences on how off-campus housing should be developed. Since Selangor is divided into various districts with a plethora of different local contexts including different university campuses, there is a need for further study to avoid generalization.

INTRODUCTION

The Malaysian Ministry of Education [1] statistics revealed a rapid increase in tertiary student enrolment in Malaysian universities from the year 2002 to 2012. Paradoxically, the number of students enrolled far exceeds on-campus accommodation provided by colleges [2, 3, 4]. Hence, students have to rent private housing within the locality of their campuses [5] leading to "studentification", a term coined to describe the high concentration of tertiary students moving into established residential areas and creating distinct social, cultural, physical and economic effects [6]. Off-campus students are students renting private housing outside university campuses not under the management of the university [7, 8, 9].

The obvious question here is: is every university able to accommodate the enrolled students? The idea of all university students living on-campus is no longer viable. Evidence from numerous studies reported that the numbers of students enrolling at tertiary institutions are far greater than the available student accommodation [4, 2]. [10] mentioned that housing the off-campus is a dilemma exercised by all universities across the United Kingdom. In light

of changing student population distributions in many cities of developed countries, many local authorities cooperate with universities and local governments to enable the development of student housing. Examples of such collaborations are Purpose-Built Student Accommodation (PBSA) in Canada, House of Multiple Occupations (HMOs) in United Kingdom and other off-campus student lounges in Germany.

[11] explained the downsides of studentification where off-campus students hastened physical deterioration of the rented house, created traffic congestion, air pollution, vandalism, noise pollution, and indiscriminate garbage disposal. Dismal housing conditions stemming from lack of basic quality of life such as overcrowding, squalor, roommate incompatibility, tenant-landlord disputes, and rising rents influence the students' academic performance [7, 12]; exacerbating the need for housing that matches their needs. In recognition of the socio-economic impact these off-campus students bring, it is imperative to identify off-campus student housing preferences [12, 14].

In Malaysia, student housing is still bound to the management of the universities; and the development of off-campus student housing has still not been sought in partnership between the developers, universities and local governments [2,3]. With limited sources of income and having to deal with rising rents of private rentals, off-campus students scrimp on housing rental expenses by living with multiple occupations to reduce the rental paid per person [4]. In doing so, they are foregoing comfort and privacy, and must accept the low standard of living. Motivated by the need to mitigate the negative effects of studentification and to provide safe and quality life to students and the local neighborhoods, this research aims to provide significant inputs in identifying the student preferences on housing.

REVIEW OF LITERATURE AND THE DEVELOPMENT OF A CONCEPTUAL FRAMEWORK

The Definition of Off-Campus Students

Student housing is understood as the accommodation built by the universities on-campus or off-campus for students who study in that particular university [8]. Students unable to reside in on-campus accommodations find private housing for dwelling, i.e. off-campus students [2][4][7][8]. Living off-campus means living outside the campus whereby the students are unable or choose not to occupy student accommodation provided by the universities whether in on-campus or off-campus student housing [7].

The Off-Campus Students' Housing Preferences Conceptual Framework

According to [15], housing's physical condition is one of the most important determinants of quality of life and human wellbeing. It refers to various aspects of housing including internal and external conditions. Students search for housing with particular characteristics to satisfy their different needs and preferences [16] towards establishing clear preferences of living conditions [12].

Housing preferences may apply various limitations in degrees of choices and experiences that relate to their life circumstances [7]. Thus, this study of off-campus students' housing preferences takes into consideration that students, specifically off-campus students who are the tenants of housing sub-market, constitute a significant respondent profile in order to identify the off-campus students' housing preferences. The conceptual framework of off-campus students' housing preferences is developed to identify possible attributes that may contribute to said preferences. A preview of these previous studies revealed three important variables in modelling the off-campus students housing preferences: student background, housing preferences, and students' preferences. Table 1 summarizes the list of researchers' discussions on the variables for off-campus students' housing preferences. Figure 1 shows the number of researchers who have discussed the attributes for each variable in off-campus students' housing preferences.

TABLE 1. The Off-Campus Students' Housing Preferences

No.	Variable	Researchers
1.	Housing Preferences	Morgan & McDowell (1979); Rugg & Rhodes (2002); NelKorevaar (2004); Thomsen & Eikemo (2010); Hilmy et al (2012); Khozaei et al. (2012); Seow et al. (2013); Universities UK (2006); D.Amole (2009); Allis & Ismet(2012); Thuraiya et al. (2014)
2.	Student Background	Morgan & McDowell (1979); Rugg & Rhodes (2002); NelKorevaar (2004); Hilmy et al (2012); Khozaei et al. (2012); Seow et al. (2013); Universities UK (2006); Speechley (2013); D.Amole (2009); Thuraiya et al. (2014)
3.	Students' Preferences	Morgan & McDowell (1979); Rugg & Rhodes (2002); NelKorevaar (2013); Thomsen & Eikemo (2010); Hilmy et al (2012); Khozaei et al. (2012); Seow et al. (2013); Carr et al. (2007); Universities UK (2006); Speechley & D.Amole (2009)

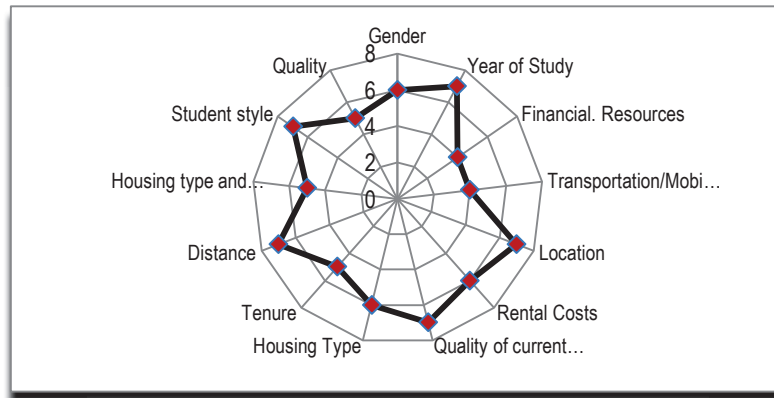


FIGURE 1: The Frequency Of Researchers Discussing About The Attributes For Each Variable In Off-Campus Students' Housing Preferences

The variables are: student background as one of the sub-market groups (off-campus students), housing preferences and student preferences. The conceptual framework for off-campus students' housing preferences is presented in Figure 2. This conceptual model illustrates the relationship between the variables' attributes with the off-campus students' housing preferences variable.

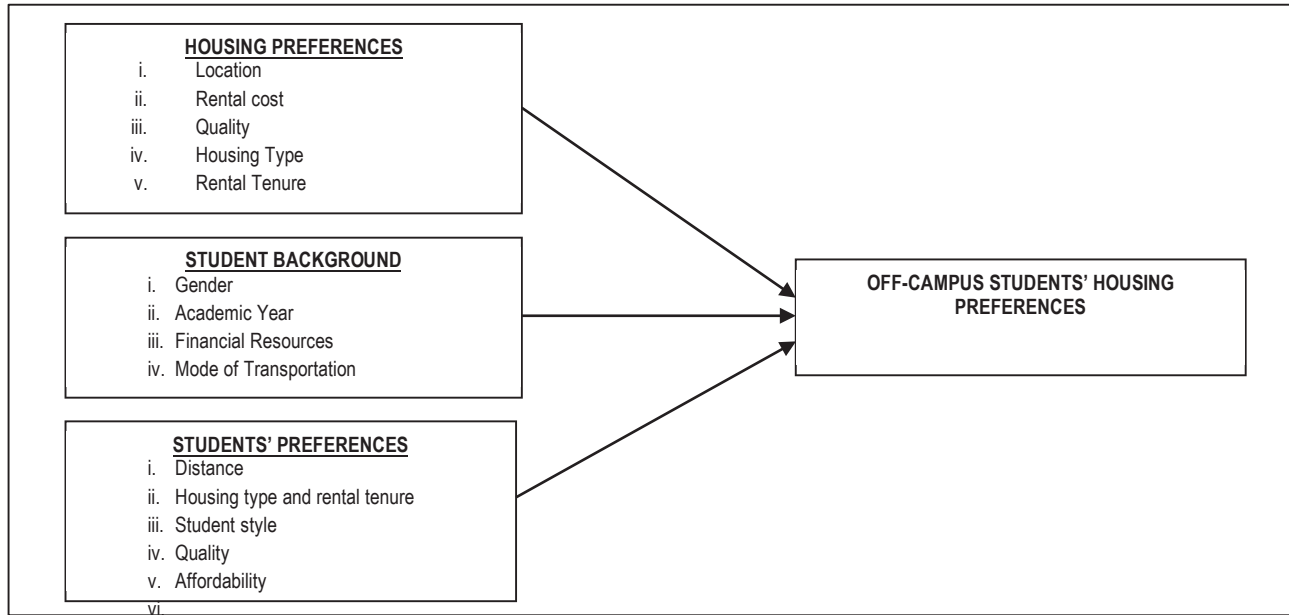


FIGURE 2. A Conceptual Model For Off-Campus Students' Housing Preferences

Student Background

From previous studies on housing preferences by [15, 16, 7, 8, 18]; [12, 2, 3]; [19]; [4], demographic background is often used as one of the independent variables to relate with the preferred housing characteristics. [20] stated that demographics are essential attributes in identifying housing preferences. Demographics concurred that student background is an important variable in measuring several research on student housing, be it satisfaction, accommodation satisfaction or other related studies. This independent variable in student background is according to the following attributes: gender, year of study, financial resources, and transportation.

Housing Preferences

Housing Preferences is one of the related aspects to measure the matrix of off-campus student housing preferences; off-campus students are in fact the sub-market groups that have different preferences which could influence his or her housing preferences [7]. There are five variables in determining housing preference; namely location, rental cost, quality, housing type, and rent tenure.

- i. Location is one of the variables in housing preferences as previous research on housing included this as one of the housing attributes [17, 18, 7, 12, 3, 2]. Location of a place to reside is often associated with transportation costs, security of jobs, moving expenses, and more time for daily activities [13].
- ii. Rental tenure was highlighted as a variable in housing preferences. [12] and [3] indicated that the type of housing tenancy by students does reflect student preferences. It was found that students who reside off-campus have the options to live with their parents, live in their own property, rent a house, or rent a room; and the results showed that off-campus students are likely to select a rental house in their duration of study.
- iii. Housing type as one of the variables since different types of housing may have different effects on the off-campus students' housing preferences. It is necessary to ascertain whether different housing types preferred by the off-campus students have the effect in reducing the cost of housing rental payment [7, 19, 12, 3, 22].
- iv. Students often take into consideration various aspects of housing and will decide based on their preferences and not necessarily to fulfil their needs. Based on the reviews of students' housing preferences, it was clear that students' housing preferences are always constrained by the levels of income [7, 12, 22, 4]. According to [4] the rental cost is important to evaluate the housing preference when the limitation of sources of income by the sub-market groups (off-campus students) has significant effect to the house of multiple occupations

where they tend to reside in high number of occupants and trade-off comfort in order to minimise the cost of rental per person.

- v. Quality aspect is another important variable that requires reviews on off-campus student housing as it is one of the three main variables in the “Housing Choice Hierarchy” [7]. A decision on the selection of housing will definitely be based on the quality of the housing and sometimes, may result in paying additional housing rental cost [4].

Students’ Preferences

Students’ preference is also one of the related aspects to measure the matrix of off-campus student housing preferences. Through literature reviews on students’ preferences, it can be pointed out that student preferences could be well expressed within these important variables: distance (time taken, transportation mode, facilities and amenities), housing type and rental tenure, student’s style (personal style, crowdedness, lighting, air-conditioning, hot water supply, laundry, bathroom, size and privacy) quality (security and safety), and affordability [15,16, 7, 8, 18]; [12, 19, 2, 3, 4].

RESEARCH METHODOLOGY

The research methods are divided into four phases:

(i) First Phase: Literature Review

The first phase would involve reviews of various literature to determine the attributes of off-campus student housing preferences and consequently developing the conceptual model framework for describing the relationship between the variables’ attributes with the off-campus students’ housing preferences variables.

(ii) Second Phase: Data Collection (Pilot Study)

Data collection involves primary data (survey) and secondary data (literature review). A pilot test is carried out before the actual questionnaire is designed. [17] advocated that the purpose of a pilot study is to confirm the reliability and validity so as to improve the design of the questionnaire instrument.

The pilot study for this research was conducted within three weeks in December 2016, among undergraduate students of the MARA University of Technology, Shah Alam, Selangor. Random sampling technique was employed for the pilot study. 90 structured questionnaires were distributed, of which 86 were returned. The total of 90 respondents was selected as the sample size in accordance with recommendations from literature, which are up to 100 respondents or between 10 to 30 [21, 22].

(iii) Third Phase: Analysis of Data

In analyzing and evaluating the results of this pilot study, quantitative approaches were used. These approaches involved the analysis of data and information through the perception survey method. Quantitative data which was obtained through structural questions involving Likert’s scale questions type contained in structured questionnaire forms were analyzed by using the Statistical Package for the Social Sciences (SPSS) software through Cronbach’s Alpha and Confirmatory Factor Analysis (CFA) methods.

(iv) Fourth Phase: Verification of Finding

Data acquired from pilot study was run using Statistical Package for the Social Sciences software (SPSS) (Cronbach’s Alpha (α) and Confirmatory Factor Analysis (CFA)) to test on the reliability and validity respectively. Findings are verified using Kaiser-Meyer-Olkin (KMO) and Bartlett’s tests for CFA together with Anti-Image correlation for model fit and significance factor.

RESULTS AND DISCUSSION

Reliability Test

The reliability of these construct measurement was evaluated by examining the internal consistency reliability. An analysis using the reliability test- Cronbach's Alpha (α) was conducted to ensure the reliability of the constructs. In adopting [23], one of the purposes of pilot study is to identify unforeseen problems with the surveys and obtain feedback from respondents.

TABLE 2. Reliability Test

Variables	Number of Items	Cronbach's Alpha
Aspect of Location	5	0.805
Aspect of Type of House and Cost of Rental	19	0.888
Aspect of Housing Quality	10	0.955
Aspect of Housing Accommodation	6	0.906
Aspect of Housing Environment	6	0.745

Cronbach's alpha is used to indicate how well the items in the set positively correlated with each other. The closer the reliability coefficient gets to 1.00, the better the instruments in general. Reliabilities less than 0.60 are considered to be poor and those above 0.80 are good [24]. Table 2 illustrates the result of reliability analysis for the study variables. Conclusively, all variables show calculated value above 0.60, indicating good reliability and accuracy.

Validity Test

The validity of these construct measurement was evaluated by examining the internal consistency validity by using the CFA analysis. CFA is a statistical technique used to verify the factor structure of a set of observed variables. CFA allows the researcher to test the hypothesis that a relationship between observed variables and their underlying latent constructs exists. The researcher uses knowledge of the theory, empirical research, or both, postulates the relationship pattern a priori and then tests the hypothesis statistically [25]. Initially, the factorability of the 13 attributes in student housing preferences was examined using Kaiser-Meyer-Olkin (KMO) and Bartlett's test.

By using Kaiser-Meyer-Olkin (KMO) and Bartlett's tests for CFA, the result of the factor analysis is as follows:

TABLE 3. KMO and Bartlett's Test

Kaiser-Meyer-Olkin	Measure of Sampling Adequacy	.689
Bartlett's Test of Sphericity	Sig.	.000

A model is deemed fit when the KMO value is more than 0.6 and p value (significant) is less than 0.05 [27]. From Table 3, KMO value is 0.689 which indicates that the model is fit and p. value is significant with 0.000 values. In addition, Anti-Image correlation indicates that all attributes are correlated with value more than 0.6. This concludes that all variables are significant and well represented in the model construct.

CONCLUSION

This research presents the pilot study findings of a research on identifying off-campus student housing preferences among university and college students. The variables construct in the research is synthesized from literature reviews on various variables relating to student background and housing preferences. Variables for student background include gender, academic year, financial resources and mode of transportation. Housing preferences consist of five (5) main aspects i.e aspect of location (5 items), aspect of type of house and cost of rental (19 items), aspect of housing quality (10 items), aspect of housing quality (6 items), and aspect of housing environment (6 items). This pilot study result shows that the 13 variables student housing preferences have a good reliability and validity. A model is deemed fit when the KMO value is more than 0.6 and p value (significant) is less than 0.05. From KMO result value of 0.689, it is evident that the model is fit and p. value is significant with 0.000 values. Anti-Image correlation indicates that all attributes are correlated with value more than 0.6. All these conclude that all variables are significant and well represented in the model construct.

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