Measuring Satisfaction with Student Housing Facilities

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Abstract: Problem statement: In the past decade, resident satisfaction has been used as an important indicator in evaluating student housing quality and services. This study investigates the level of resident satisfaction with student housing facilities. In particular, it examines the level of student satisfaction with living accommodations at one of the leading universities in Malaysia. Approach: The residential satisfaction framework was based on post-occupancy evaluations and has been utilized in previous studies; we expand the framework to address physical and social variables. Face-to-face surveys were conducted with participants who were selected using a cluster sampling technique. Results: The results show a mean satisfaction level of 2.61, which indicates that students are generally satisfied with student housing facilities. This score was lower, however, than the results of previous studies. Conclusion: By assessing residential satisfaction among students, we hope to provide valuable feedback to housing administrators and facility managers of higher learning institutions, thus enabling them to improve their services and offer better housing facilities in the near future.

Key words: On-campus housing, Closed Circuit Television (CCTV), residential satisfaction, student housing facilities, Post-Occupancy Evaluation (POE), laundry room, dormitory

INTRODUCTION

Assessing and quantifying satisfaction with daily life have recently both been topics of vibrant debate. An individual’s life satisfaction can be gauged on the basis of his or her job; self-esteem; relationships; basic physical needs such as food, shelter, clothes and belongings and other factors (Hofstede, 1984; Maslow, 1987; Lotfî et al, 2009). Numerous studies have examined various aspects of satisfaction, including residential satisfaction, customer satisfaction, job satisfaction and environmental satisfaction. Only a limited number of studies, however, have examined residential satisfaction among university students. Few studies explore the physical and social factors that influence residential satisfaction with student housing, for example, Foubert et al. (1998) in the United States and Khozaei et al. (2010) in Malaysia. Kaya and Erkip (2001) also evaluate student satisfaction, focusing on perceptions of room size and crowding in Turkey. In Saudi Arabia, Hassanain (2008) studies the degree of satisfaction in terms of both technical performance (i.e., thermal comfort) and functional performance (i.e., room layout and furniture quality) in sustainable student housing facilities. He uses his findings to develop a model for so-called Post-Occupancy Evaluation (POE). Meanwhile, Amole (2009a) investigates the characteristics of residence halls in Nigeria that correspond with high levels of residential satisfaction among students. Although the studies by Kaya and Erkip (2001) and Hassanain (2008) were conducted in developing countries, the locations are distinct with respect to the culture and climate found in developing countries in Southeast Asia. The recognize published study based on Southeast Asia, Dahlan et al. (2009) investigate perceptions of thermal comfort in Malaysian on-campus housing rooms. However, as with other studies, Dahlan et al. (2009) adopt a narrow focus on specific aspects of student housing satisfaction, namely, thermal comfort. More recently, Khozaei et al. (2010) scrutinize the correlation between students satisfaction and sense of attachment to that particular student housing. Most previous studies do not address a broad spectrum of satisfaction with student housing and thus, they are unable to provide meaningful guidance for student housing managers and university administrators. For this reason, we devised another study that takes a holistic approach to examining student housing satisfaction in the developing world.

In today’s higher learning environment, the demand for modern on-campus housing has increase (Najib and Yusof, 2009; Khozaei et al., 2010). Modern
student housing facilities are considered essential to cater to student housing needs (Susilawati, 2001; Hassanain, 2008; Najib and Yusof, 2010). Previous studies have identified characteristics that influence resident satisfaction with student housing. Koch et al. (1999) and Olujimi and Bello (2009) specify that kitchens, private bathrooms, study lounges and social spaces are considered basic necessities in student housing. Schenke (2008) highlights the value placed on Internet access, either through a network connection or Wi-Fi, in each student’s room. Torres-Antonini and Park (2008) cite as essential features communal facilities such as laundry rooms, kitchens, study rooms and television rooms; they also specify the use of carpet and air-conditioning in these rooms. Moreover, Abramson (2009) finds that extra amenities such as ATM machines, parking lots, mini markets, bookstores and cafeterias should also be provided in student housing. The inclusion of these sophisticated student housing features results in a higher level of residential satisfaction (Torres-Antonini and Park, 2008; Abramson, 2009; Khozaei et al., 2010). However, in much of the developing world, equipping all student housings with these sophisticated facilities would be prohibitively expensive and illustrate those students as too demanding. This obstacle has prompted some researchers in the developing world to investigate the actual needs of students. Khozaei et al. (2010) postulate that feeling attach to the place can be originated from the overall residential satisfaction. While Dahlan et al. (2009) study thermal comfort in non-air-conditioned hostels in tropical climates and find that in a room of less than 50 m², one ceiling fan cools the room sufficiently. They also find that a satisfactory indoor climate can be achieved by providing a projected balcony adjacent to the window wall in student housing, but the authors do not analyze student satisfaction with other features provided in student housing. A similar study by Hassanain (2008), which was conducted in the desert climate of Saudi Arabia, finds that students are more satisfied with the indoor temperature during the summer than in the winter. Because of the narrow focus of these studies, another study is needed to evaluate student satisfaction with aspects beyond thermal comfort.

Malaysia is the perfect site for such study, given the Malaysian government’s goal of providing world-class facilities. The government seeks to attract 120,000 international students in 2015 and to promote Malaysia as a regional center of educational excellence (Bernama, 2010). Eddsir (2008) notes that Malaysia has maintained an annual increase in international students of 30 percent since 2006, as part of its strategy to become a new contender in global higher education. Providing high-quality living environments for these international students is thus an important inducement for them to live and study in Malaysia. As Amole (2009a) points out, satisfaction with student housing is an important indicator in evaluating the quality of student living environments. Other studies that examine higher learning institutions in Malaysia, such as Sohail et al. (2003) and Sapri et al. (2009) focus instead on factors that influence student enrollment at higher learning institutions; Yeow et al. (2008) discover the preferences of online products and services among students; and Elias et al. (2010) examine the association between adjustment behaviour with students’ achievement motivation and self-efficacy.

Therefore, the aim of this study is to investigate resident satisfaction with on-campus student housing facilities in Malaysia. This study contributes to the literature by expanding the post-occupancy evaluation model developed by Hassanain (2008) and later employed by Dahlan et al. (2009) to include additional variables beyond temperature that are relevant to the tropical climates in the developing world. As a practical contribution, the results provide insights for housing administrators and facility managers at higher learning institutions. This information will enable them to improve their services and to offer better on-campus housing facilities in the near future. The results will also help policy makers develop strategic policies to ensure that Malaysian universities provide world-class on-campus student housing, in keeping with the aforementioned higher education goals of the Malaysian government.

**Student housing facilities**: The conception of student housing draws upon the model of the conventional family house. For Sixsmith (1986), home is not a single place for each person; rather, a number of places can fill this role simultaneously. Similarly, Klis van der and Karsten (2008) argue that home can be a dual-residence situation in which one dwelling is near the workplace and the other is the family residence (hometown). This concept as referenced by Sixsmith (1986) and Klis van der and Karsten (2008) are comparable to commuter residence. A student, for example, has both a university house close to the college and a home in his or her hometown. Students demand and acquire a second residence (i.e., university housing), where they stay during workdays and this second residence is temporary in nature. Moore (2000) and Barnes et al. (2009) suggest that people attach a variety of connotations to their understanding of a house. Thus, Sitar and Krajnc (2008) claim that old houses need to be renovated for
living comfort confirmation, compromise innovative technologies and fulfilled inhabitants needs. The understandings among students of their student housing are similarly diverse. Susilawati (2001) and Khozaei et al. (2010) define student housing as a densely building with many rooms in which each room contains several beds. According to this definition, student housing provides sleeping and living quarters, usually without private baths, for a large number of people and such housing is furnished and rented by the bed. Willoughby et al. (2009), however, describe student housing as a building that provides lodging and gives students an option to stay on-campus if they have nowhere else to reside. In addition, student housing goes by many names, such as halls of residence (Amole, 2005), student dormitory (Kaya and Erkip, 2001), catered halls (Price et al., 2003), university housing (Bland and Schoenauer, 1966) and hostels (Sohail et al., 2003; Dahlan et al., 2009; Khozaei et al., 2010).

What constitutes student housing facilities? According to Melnikas (1998) and Olujimi and Bello (2009), housing facilities can be defined as rooms furnished with sophisticated amenities, suitable to house social activities and indicative of a certain lifestyle. The major need addressed by such facilities is a dwelling, but we also argue that the desire to interact and socialize with friends or to attain a desired social status may explain why individuals demand some housing facilities. Simply put, student housing facilities can fulfill several needs and desires. The student complex offers rooms that are equipped with complete facilities and services, but the space can also encourage friendships and provide a silent study environment. Student housing offers security and privacy and renting such spaces to students allows university housing administrators to fulfill student needs and aspirations (Najib and Yusof, 2009).

In light of the above discussion, the student housing facilities examined in this study consist of study-bedrooms, washrooms (i.e., bathrooms and laundry rooms), pantry, leisure rooms (i.e., study areas, computer centers, television lounges, meeting rooms and a ‘musalla’, or prayer room for Muslims) and other support services (i.e., parking lots, cafeterias, mini markets, ATM machines, Closed Circuit Television (CCTV) surveillance systems and security guards). We add ‘musalla’, or prayer rooms, as an important facility because local authorities require the inclusion of prayer rooms in student accommodations in Malaysia.

Residential satisfaction from the perspectives of students: Some authors argue that students can perform well in their studies if they have good, comfortable living conditions in their student housing (Amole, 2005; Hassainain, 2008). Melnikas (1998) and Sitar and Krajne (2008) stress that evaluating and renovating of housing is crucial to increase occupant standards of living as well as rectify any defects in the facilities. Thus, resident satisfaction must be ascertained regularly to address student housing needs.

What does residential satisfaction mean, from a student’s perspective? The criteria are similar to those used in assessing conventional housing satisfaction. Salleh (2008) and Mohit et al. (2010) explain that residential satisfaction is the positive experience expressed by occupants when their home meets their expectations for unit features, housing services and neighborhood facilities. Thus, Foubert et al. (1998) and Najib and Yusof (2010) specify that residential satisfaction among students stems from high-quality facilities, positive roommate relationships, strong floor communities and quiet study environments in their living accommodations. However, Kaya and Erkip (2001) contend that student satisfaction is based on having wider and brighter rooms with less noise and stress in the living areas, whereas Amole (2005) claims that students assess residential satisfaction based upon levels of crowding and privacy in their rooms. Thus, we argue that student residential satisfaction is an evaluation of their on-campus living accommodations. In other words, resident satisfaction stems from the perceived quality of housing facilities and services.

One common residential satisfaction measurement used in previous studies is the Post-Occupancy Evaluation (POE). Hassanain (2008) points out that student perceptions can be assessed in terms of both technical (i.e., acoustic and visual comfort) and functional (i.e., room finishes and room layout) requirements. He considers technical and functional performances as two different aspects that can be used to explain student residential satisfaction. In a different approach, Foubert et al. (1998), Amole (2009a) and Khozaei et al. (2010) investigate beyond the scope of housing facilities and add management as a factor in student satisfaction. They include elements such as hostel rules and fees and the attitudes of hostel employees. Several factors can used to assess overall satisfaction with student housing, including physical variables such as facilities and extra services (Hassainain, 2008); social variables such as student relationships, financial support, crowding and privacy (Frank and Enkawa, 2009) and a combination of these aspects (Foubert et al., 1998; Amole, 2005, 2009a, 2009b; Khozaei et al., 2010). Nevertheless, previous studies have not provided conclusive results regarding student satisfaction in all of these areas.
Both physical and social variables are used to measure student satisfaction with housing facilities in the present study. Availability of a 'musalla', is included as a feature because prayer rooms are required facilities in Malaysian on-campus housing.

MATERIALS AND METHODS

Respondents, location and sampling: This study employs a quantitative data collection technique, namely, a survey. The location chosen for this study is one of Malaysia’s oldest leading universities, located in the Northern region. Eight clusters of on-campus housing are located in the study area. Each cluster consists of several housing blocks, with female and male students residing in separate blocks. A majority of the study-bedrooms are designed to accommodate two occupants at a time; at one hostel, the rooms are designed for up to three persons.

A random sample of 290 students was drawn from the residential population. These respondents represent 15% of the population. However, only 164 responses were useful for further analysis. Using a simple random cluster sampling procedure, the respondents were selected from every floor level in female and male blocks in every on-campus housing cluster. This sampling method was chosen according to methods used by Lam et al. (1998); Adamchak et al. (2000) and Burton et al. (2005) because the respondents are already “naturally” clustered into groups (that is, by block and gender). The respondents are 41.5% male and 58.5% female and consist of 74.4% Malays, 20.7% Chinese, 4.3% Indians and 0.6% others (all international). A majority of the students are between 19 and 23 years old (89.6%). Most of the respondents (91.5%) are undergraduate students. On-campus student housing is typically reserved for undergraduates, whereas postgraduates usually prefer to reside off campus.

Instrument and data analysis: The survey forms were distributed face-to-face to the targeted respondents in the study area. The questionnaires consist of two sections. Section 1 consists of 14 profile questions and section 2 includes 107 items addressing student satisfaction with housing facilities. A 4-point Likert scale, ranging from 1 “Strongly Dissatisfied” to 4 “Strongly Satisfied” was used, with no neutral choice so that respondents were forced to show a preference in their answers.

A reliability analysis was conducted for the scaled answers in section 2. According to Foubert et al. (1998) and Khozaei et al. (2010), their satisfaction scale shows good internal consistency, with a reported Cronbach’s alpha coefficient ranging from 0.52-0.86. Likewise, in the current study, the Cronbach’s alpha coefficient ranges between 0.82 and 0.97. The results show that the scale can be considered reliable given our sample, which measured the same residential satisfaction concept.

To quantify student satisfaction with housing facilities, we calculated the mean response for each item in the housing facilities construct. Referring to Hassanain (2008) calculations, we followed the following steps. First, to obtain the average satisfaction mean for every facility, the sum of the response mean for every item was divided by the number of items. Second, to determine the total mean average for student satisfaction with their housing facilities, the sum of values from step 1 was divided by the total number of housing facilities. By adopting the mean calibration as proposed by Hassanain (2008), the mean results were validated as follows:

- If the mean response is below 1.49, this indicates that students are “Strongly Dissatisfied”
- If the mean response is between 1.50 and 2.49, this indicates that students are “Dissatisfied”
- If the mean response is between 2.50 and 3.49, this indicates that students are “Satisfied”
- If the mean response is above 3.50, this indicates that students are “Strongly Satisfied”

RESULTS AND DISCUSSION

The results for each variable are shown in the following tables.

Study-bedroom: The study-bedroom is an essential component that must be provided in all students housing. The study-bedroom is a multi-purpose room that combines study, living and sleeping facilities (Amole, 2005; Hassanain, 2008; Schenke, 2008). Most study-bedrooms are designed to accommodate two people for academic, psychological, social and economic reasons. The results shown in Table 1 indicate that students were mostly “Satisfied” with the provided study-bedroom. However, given the mean of 2.26, they were not satisfied with the wireless Internet access in their rooms. The overall average satisfaction mean for this feature is 2.92, which means students were “Satisfied”.

Table 2 shows the results for the evaluation of washroom facilities, which consist of bathrooms and laundry rooms.
Table 1: Satisfaction level for study-bedroom facilities

| Items                               | Mean | Response value |
|-------------------------------------|------|----------------|
| Studying in study-bedroom           | 3.05 | Satisfied      |
| Sleeping in study-bedroom           | 3.10 | Satisfied      |
| Relaxing and resting in study-bedroom| 3.08 | Satisfied      |
| Number of persons in study-bedroom  | 3.24 | Satisfied      |
| Entertaining friends in study-bedroom| 2.99 | Satisfied      |
| Privacy in study-bedroom            | 2.94 | Satisfied      |
| Provided amenities                  | 2.94 | Satisfied      |
| Wi-Fi in study-bedroom              | 2.26 | Dissatisfied   |
| Security of property in study-bedroom| 2.78 | Satisfied      |
| Furniture arrangement in study-bedroom| 2.96 | Satisfied      |
| Color of furniture and finishing in study-bedroom| 2.77 | Satisfied      |

*: Satisfaction mean for study-bedroom (alpha = 0.91)

Table 2: Satisfaction level for washroom facilities

| Items                                      | Mean  | Response value |
|--------------------------------------------|-------|----------------|
| Location of bathroom                      | 2.88  | Satisfied      |
| Number of people sharing the bathroom     | 2.84  | Satisfied      |
| Provided amenities                         | 2.89  | Satisfied      |
| Bathroom arrangement                       | 3.02  | Satisfied      |
| Cleanliness of the bathroom               | 2.51  | Satisfied      |
| Location of laundry room                  | 2.40  | Dissatisfied   |
| Number of people sharing the laundry room | 2.50  | Satisfied      |
| Provided amenities                         | 2.45  | Dissatisfied   |
| Laundry room arrangement                   | 2.56  | Satisfied      |
| Cleanliness of the laundry room            | 2.58  | Satisfied      |

*: Satisfaction mean for washroom (alpha = 0.90)

Table 3: Satisfaction level for pantry facilities

| Items                                      | Mean  | Response value |
|--------------------------------------------|-------|----------------|
| Location of pantry                         | 2.62  | Satisfied      |
| Number of people sharing the pantry        | 2.65  | Satisfied      |
| Making friends in the pantry               | 2.50  | Satisfied      |
| Provided amenities                         | 2.07  | Dissatisfied   |
| Pantry arrangement                         | 2.42  | Dissatisfied   |
| Cleanliness of the pantry                  | 2.29  | Dissatisfied   |

*: Satisfaction mean for pantry (alpha = 0.90)

**Bathroom:** The bathroom must be provided in student housing so that it can serve two adjacent double study-bedrooms or a common bathroom can serve a set of four or five study-bedrooms (Torres-Antonini and Park, 2008). The results shown in Table 2 indicate that students were mostly “Satisfied” with the provided bathroom.

**Laundry room:** These rooms have become a popular requirement in student housing (Staff, 2007; Beitenhaus, 2009); indeed, students now demand more convenient laundry facilities. Thus, the laundry room must be large enough to accommodate students. The results suggest that students were mostly “Satisfied” with the provided laundry room. However, they were not really satisfied with the location of that room and the provided amenities, given the mean of 2.40 and 2.45, respectively. Dissatisfaction with location is almost certainly due to improper planning. The overall average satisfaction mean for this feature is 2.67, which means students were “Satisfied”.

**Pantry:** In student housing, the pantry refers to a kitchen with a dining room. A good pantry must be included in student housing to create a home-like environment. Few researchers clinch that equipping this facility is an inevitable (Olujimi and Bello, 2009; Taha and Sulaiman, 2010). The results shown in Table 3 indicate that the students have ambivalent feelings about the provided pantry. Fifty percent expressed “Satisfied” with the location (mean of 2.62), the number of people sharing (mean of 2.65) and the opportunity to make friends there (mean of 2.50), while the other half were “Dissatisfied” with the provided amenities, the arrangement of the pantry and pantry cleanliness (means of 2.07, 2.42 and 2.29, respectively). The overall average satisfaction mean for this facility is 2.43, meaning that students were “Dissatisfied”.

**Study room:** Student housing must cater to student study requirements. From the results shown in Table 4, students showed mixed feelings about the study room. They were “Satisfied” with the location, arrangement and cleanliness of the room but “Dissatisfied” with the space for discussion, the number of people sharing the room and the provided amenities.

**Computer room:** This room can serve multiple purposes, such as a location to surf the Internet or a place to study. From the results, it seems that this room is not suitable for study given the mean of 2.45. Too many people using a computer room at one time can create noise and crowding, which leads to an uncomfortable study environment. However, the amenities provided are quite satisfactory, with a mean of 2.56.

**Television room:** This room meets the social and recreational needs of students. From the results, students were “Satisfied” with the provided television room. The results also prove that the television room is
Table 4: Satisfaction level for leisure room facilities

| Items                        | Mean  | Response value |
|------------------------------|-------|----------------|
| Study room                   |       |                |
| Location of study room       | 2.53  | Satisfied      |
| Having discussions in study room | 2.39 | Dissatisfied   |
| Number of people sharing the study room | 2.42 | Dissatisfied   |
| Provided amenities           | 2.43  | Dissatisfied   |
| Study room arrangement       | 2.55  | Satisfied      |
| Cleanliness of the study room | 2.61  | Satisfied      |
| Computer room                |       |                |
| Location of computer room    | 2.45  | Dissatisfied   |
| Studying in computer room    | 2.45  | Dissatisfied   |
| Number of people sharing the computer | 2.42 | Dissatisfied   |
| Provided amenities           | 2.56  | Satisfied      |
| Computer room arrangement    | 2.55  | Satisfied      |
| Cleanliness of the computer room | 2.53 | Satisfied      |
| Television room              |       |                |
| Location of TV room          | 2.63  | Satisfied      |
| Making friends in TV room    | 2.71  | Satisfied      |
| Number of people sharing the TV room | 2.68 | Satisfied      |
| TV room arrangement          | 2.53  | Satisfied      |
| Cleanliness of the TV room   | 2.76  | Satisfied      |
| Meeting room                 |       |                |
| Location of meeting room     | 2.61  | Satisfied      |
| Having discussions in meeting room | 2.76 | Satisfied      |
| Meeting room arrangement     | 2.61  | Satisfied      |
| Cleanliness of the meeting room | 2.61 | Satisfied      |
| Lobby                        |       |                |
| Location of lobby            | 2.68  | Satisfied      |
| Entertaining guests or relatives in the lobby | 2.61 | Satisfied      |
| Provided amenities           | 2.47  | Dissatisfied   |
| Lobby arrangement            | 2.58  | Satisfied      |
| Cleanliness of the lobby     | 2.63  | Satisfied      |
| ‘Musalla’                    |       |                |
| Location of the ‘musalla’    | 2.82  | Satisfied      |
| Number of people sharing the ‘musalla’ | 2.89 | Satisfied      |
| Provided amenities           | 2.78  | Satisfied      |
| ‘Musalla’ arrangement        | 2.79  | Satisfied      |
| Cleanliness of the ‘musalla’ | 2.76  | Satisfied      |

*: Satisfaction mean for leisure room (alpha = 0.98)

Meeting room: These rooms provide a venue for student discussions. The results shown in Table 4 indicate that meeting rooms are essential. The highest priority for such rooms is discussion, with a result of 2.76. The rooms are also suitable for presentation because they offer amenities (mean of 2.68) such as microphones and chairs.

Lobby: This common area should have an informal and intimate atmosphere so that students feel comfortable entertaining parents or guests (Bland and Schoenauer, 1966; Ibrahim et al., 2010). The lobby may also be used as a reading area. Table 4 shows that students were mostly “Satisfied” with the lobby. To enhance the lobby’s sense of intimacy and comfort, however, the amenities (i.e., sofa set, magazines and newspaper) should be improved; this aspect shows the minimum mean score (2.47), which is indicative of dissatisfaction.

‘Musalla’: Satisfaction was highest for the number of people sharing the ‘musalla’, (mean of 2.89), which indicates that the room is large enough to feel comfortable. The lowest satisfaction mean is for cleanliness, which was rated with a mean of 2.76. Given the value students place on hygiene, housing administrators must remain aware of this concern. The overall average satisfaction mean for these facilities is 2.61, showing that the students were “Satisfied”.

Support services: Providing additional amenities can add more dimensions and thus more meaning to a student’s daily life. Students need enough parking places for their own use (Wallace et al., 2004; Bello and Bello, 2007; Staff, 2007), which will deter them from parking in lecturer parking lots. In addition, access to a cafeteria, mini market or bookshop as well as to a good banking system (ATM machine) is crucial (Abramson, 2009). Services such as elevators, stairs, electricity, fresh water, garbage disposal, fire safety systems, regular maintenance and safety measures (such as 24 h-on-duty security guards) also help students to feel more comfortable (Koch et al., 1999; Curley, 2003; Bello and Bello, 2007; Staff, 2007; Hassanain, 2008; Abramson, 2009; Khozaei et al., 2010). The results in Table 5 show that students were “Dissatisfied” with support services, with mean ranging from 2.19-2.43. They were most “Dissatisfied” with parking; this may be due to limited space in the campus housing area. Students were merely “Satisfied” with the provided cafeterias, mini markets and/or mini bookshops (mean of 2.59) and lifts, stairs, electricity, water supply, garbage disposal and fire safety (mean of 2.70). The overall average satisfaction mean for this element is 2.44, which indicates that students were “Dissatisfied”.

Overall satisfaction level: Table 6 shows the level of student satisfaction with each housing aspect. In general, students were “Satisfied”, with an overall satisfaction level of 2.61. Specifically, students were “Satisfied” with the study-bedroom (mean of 2.92), washroom (mean of 2.67) and leisure room (mean of 2.61) but were “Dissatisfied” with the pantry (mean of 2.43) and support services (mean of 2.44).
Table 5: Satisfaction level for support service facilities

| Items                                      | Mean | Response value |
|--------------------------------------------|------|----------------|
| Parking lots                               | 2.19 | Dissatisfied   |
| Cafeteria, mini market and mini bookshop   | 2.59 | Satisfied      |
| Public phone and ATM machine               | 2.30 | Dissatisfied   |
| CCTV (closed circuit television) surveillance system | 2.42 | Dissatisfied   |
| Guards on duty                             | 2.43 | Dissatisfied   |
| Lifts, stairs, electrical wiring, water supply, garbage disposal and fire safety | 2.70 | Satisfied |

*: Satisfaction mean for support services (alpha = 0.82)

Table 6: Summary of total satisfaction level for student housing facilities

| Type of housing facilities | Mean | Response value |
|----------------------------|------|----------------|
| Study-bedroom              | 2.92 | Satisfied      |
| Washroom                   | 2.67 | Satisfied      |
| Pantry                     | 2.43 | Dissatisfied   |
| Leisure room               | 2.61 | Satisfied      |
| Support services           | 2.44 | Dissatisfied   |
| Overall Satisfaction Level | 2.61 | Satisfied      |

CONCLUSION

In the present study, we extend the model developed by Hassanain (2008) to address both physical and social variables and examine the level of student satisfaction with student accommodations. The results show that in general, students in the study are “Satisfied” with the provided housing facilities, as demonstrated by the total average mean score of 2.61. Nevertheless, the present study reveals a low total average mean score when compared to the results of Hassanain (2008) and Amole (2009a), who find total means scores of 2.80 and 2.70, respectively. Specifically, students are “Satisfied” with the provided leisure room (mean of 2.61), washroom (mean of 2.67) and study-bedroom (mean of 2.92). These numbers support the findings of Hassanain (2008) and Amole (2009a), which show that students are “Satisfied” with almost all provided building features. However, students are “Dissatisfied” with two elements, namely, the pantry (mean of 2.43) and support services (mean of 2.44).

We hope that student housing departments use these results to address their perceived shortcomings, particularly in those areas where students were most “Dissatisfied”, that is, the pantry and support services. Because the results also show a lower level of satisfaction with the study area in comparison to the results of similar studies in other countries, housing administrators and facility managers at Malaysian institutions of higher learning institutions must improve their services and the quality of their on-campus housing facilities. Policy makers at the ministry level should facilitate this effort, perhaps by supervising the development of student housing and increasing the annual budget so that Malaysia’s universities can deliver world-class on-campus student housing.

As in any study, this study has some limitations. In terms of its scope, this study focuses only on one institute of higher education in Malaysia. Caution should be exercised in applying the results to institutions in other countries with a similar climate and culture. In addition, this study focuses on the level of satisfaction and omits factors that influence satisfaction. As Foubert et al. (1998) and Khozaei et al. (2010) state, identifying the factors that influence satisfaction is a crucial step for student housing administrators and managers. Further research that investigates these factors should add value to current knowledge on student residential satisfaction. Furthermore, the mean scores for items used in the study fall between “Dissatisfied” and “Satisfied”. Future related studies should include additional options such as “Slightly Dissatisfied” and “Slightly Satisfied” to pinpoint student sentiments more precisely.

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