

Students' Residential College Assessment through User Experience as a Component of Service Excellence

Musa Alkali Abubakar*, Rozilah Kasim*, Matthew Mamman**

*Faculty of Technology Management, Business
Universiti Tun Hussein Onn Malaysia
86400 Parit Raja Batu Pahat Johor
Malaysia

**Department of Estate Management, Kaduna Polytechnic, Nigeria.

Abstract- In competitive educational environment where international students have many choices available, attributes that enable higher learning institutions to attract and maintain more international students should be studied seriously. Understanding the experience of international students during service delivery is vital for achieving service excellent. The aim of the study is to assess international students' experience on the facilities provided at UTHM students' residential colleges. The study identified the existing level of physical attributes that influence international students' experience in the study area. The study used faced to face survey. Questionnaires were distributed to 210 international students at UTHM students' residential colleges. However, 189 responses were collected. The data was analyzed using SPSS from which descriptive statistics data was obtained. The existing levels of physical attributes identified include the availability, comfortability and quality of the physical attributes. The finding of this study helps to formulate guidelines in terms of improvement, maintenance, design and construction for future developments of students' residential colleges in order to achieve service excellence.

Index Terms- students' residential college, service user experience, service excellence, physical attributes, international students.

I. INTRODUCTION

Presently higher institutions of learning are trying to attract more number of international students in their own programs and employing various strategies to maintain them [1]. The introduction and the delivery of customer value become important in creating a sustainable advantage in the highly competitive education market [2]. Moreover, in today's higher learning arena, international students have been described as a special commodity, and some countries like Australia, the United States and Britain has put in place some methods which aimed at attracting them [3]. However, in Asian region, some countries have expressed their intention of becoming education hubs of higher learning in the region, and leading the initiative are countries in the East Asia region, namely Singapore, Hong Kong and Malaysia [4]. According to the Ministry of Higher Education, Malaysia has two (2) percent of the world's international student population, as of 2009 and was ranked the world's 11th most preferred study destination. However in 2010, the total enrolment of international students in public and private higher learning institutions have increased from 40,525 in the year 2005, to 80,750 students, in the year 2009 [5]. Therefore, Malaysia has become a strong force in international education and thus they need to examine and understand how these students fit into and perceive the service delivered and physical environment of their higher institutions of learning [6].

According to Sirat, the enrolment of international students has increased gradually in Malaysia since 1996, when numerous higher educational transformations were introduced to facilitate the entry of international students into Malaysian higher learning institutions [7]. The National Mission and 9th -10th Malaysia Plans set out the country's vision of moving Malaysia into a high-income knowledge-based economy by 2020. The National Higher Education Strategic Plan (NHESP) was formulated with a vision to transform higher education within the context of establishing Malaysia as an international hub of excellence for higher education [7]. More so, the target of NHESP is to have the total number of 200,000 international students by the year 2020 [5]. It can be understood that there is a provision to accommodate this expansion from now to 2020 based on the internationalization policy for higher education in Malaysia which aimed at accelerating the inflow of international students to 150,000 by 2015 [8]. Moreover, University Tun Hussein Onn Malaysia (UTHM) is among the higher institutions in Malaysia that have witnessed an increase in the number of international students. According to the UTHM International office, the number of international students increased from seventeen (17) students, in 2007 to four hundred and ninety three (493) students in 2014.

User experience refers to different areas of relationship with user including experience with continuing business relationship, experience with the quality of service, experience with the performance ratio of a service and experience because a service met users' expectation [9]. The most significant part of problem solving is to understand the whole structure of user requirements and needs. The

needs of user must be examined independently [10]. Similarly in facilities management, full users' complaints must be recorded accordingly into an integrated maintenance schedule which is transparent, reliable and dependable [11]. Service providers in facilities management should be proactive in finding out the users' needs and wants, and the most important aspect in achieving that goal is through communication [12]. Bashir opined that users' needs should be fully incorporated into the design and development of products and services, especially in students' residential colleges [13].

Student residential college is a supervised living-learning accommodation consisting of shared residential amenities and facilities for the community of residents, which is constructed on-or off campus, and owned or rented by higher institution of learning. It provides low-cost chargeable rooms, and administered to accommodate the undergraduate or postgraduate students [14]. According to Najib et al., student residential colleges have been introduced to provide relatively low-cost, sanitary, safe and comfortable living environment to promote the social, personality, intellectual, physical, carrier, educational and moral development of those who live there [15]. Moreover, student residential colleges has been described as an essential component of the facilities provided by higher institutions of learning in helping students to expand their intellectual competence [16]. Physical attributes of students' residential college, such as architectural design, bedroom size, floor level and density can influence students' experience [17].

The main objective of this study is to determine the existing level of physical attributes that influence service user's experience with the facilities provision in the study area. The overall aim is to assess the service user's experience on the physical attributes of the facilities provided at the UTHM students' residential colleges.

II. LITERATURE REVIEW

Service is an economic activity that creates value and delivers benefits to users at precise times and places by bringing about anticipated change on behalf of the recipients of the service [18]. According to Johnston & Clark, service is a combination of outcomes and experiences delivered to and received by a user, they further explained that users judge the quality of service on the experience as well as the outcome [19]. As services and products are becoming more similar and as it becomes easier for organizations to copy others' they may decide to compete through something that exceeds their service offering. The service concept, relates with the characteristics of the service offered to the target market [20]. He further described the service concept as the bundle of goods and services sold to users. The dominant opinion is that, service concept can be seen as a bundle made up of a set of tangible and intangible elements. Similarly, service is defined in terms of its constituent parts and the most common way of classifying the service concept relates to the degree of customization of these elements [19].

The evolution of service concepts involved two important dimensions; commoditization and customization. Customization means producing in response to a particular user desires. Customization handles the individual user request. Organizations should modify product and services to meet the exceptional needs of individual service users in such a way that nearly all can find exactly what they want at a reasonable price through a new mind-set, one of creating service user unique value, while commoditization on the other hand, refers to the regulation process, that is, it prescribes whether the service delivery has been performed to the needs of every individual user [21]. Moreover, commoditization refers to the description process of a service, where it describes the steps to be followed so that a particular service gets delivered. It also deals with the way in which the request of the individual user is packaged [22].

A. Service User Experience

In the marketing literature, experiences are regularly used to refer to a definite group of services including travel, music, theatre, restaurants, hotels and culture. The basis of these services has to do with hedonic consumption [23]. Meyer & Schwager, define service user experience as the internal and subjective response, users encounter to any contact, direct or indirect with organization [24]. User experience is a holistic concept that involves every aspect of organization's offering [25]. Service user experience is defined as the service process that creates the user's cognitive, emotional and behavioral responses which result in a mental mark, a memory [17].

The concept of experience is also used to add value to user services, for example in telecommunications services, educational services, residential college services and airline services. Ritz Carlton and Singapore Airlines, for example, focus not only on traditional service quality issues and factors such as reliability and assurance, but also on creating favorable user experiences [26] (Pariag, 2009). Some service user experiences are favorable and some are not both tend to stay in the user's memory. These experiences will have a strong impact on user's perceptions.

B. Factors Affecting Service User Experience

Service user experience has been described as an internal and subjective response, users encounter to any contact, direct or indirect with an organization. User experience is a holistic concept that encompasses every aspect of organization's offering [27]. Khozaei et al., described students' residential colleges, as a densely building with many rooms in which each room contain several beds [28]. Thus students residential colleges provides sleeping and living quarters, usually without private baths, for a large number of students and such residential college is furnished and rented by bed. However, provision of student residential facilities is one of the

major issue students will consider in choosing a higher institution of learning [15]. Consequently, if Higher Institutions of Learning fail to provide adequate and suitable residential facilities for students, students may face increase pressure, and lack of affordable off-campus residential colleges may create a significant inconvenience. Therefore, students will give high priority to institutions that provide suitable and adequate facilities in their residential colleges [29]. Students residential facilities can fulfill various needs and will provide rooms that are equipped with complete facilities and services, the space will also encourage friendship and provide friendly learning environment [30].

Factors affecting service user experience may include convenience, choice, age, value adding and life, speed of service delivery, quality and technology. However some of these factors may not necessarily apply to all higher institutions, even though some common factors can be shared [31]. There are various factors that influence students experience with their residential colleges, which include physical and, demographic attributes [32].

Physical Attributes

Physical attributes of residential college, such as architectural design, bedroom size, floor level, density, building layout, bathroom, laundry room, study area, internet facilities and security guards can influence students experience in residential colleges [15]. More so, [27] opined that physical attributes in residential college, such as architectural design, support services; space and location on campus also have influence on students' experience with their residential college. He further added that light, temperature, noise and air quality also has powerful influence over experience with residential college. Moreover excessive noise has been rated as a significant detractor from student experience. According to [25] prolonged exposure to noise and very high noise level during sleep may cause hearing loss, mental stress and irritation. Quietness is the most important requirement in any residential college. Some of the physical attributes that influence service users' experience are discussed as follows:

Study-bedroom: study bedroom has to enable some functions in a reasonably small space; these may include studying, sleeping, eating, socializing and relaxing. The study bedroom must provide privacy and security, with good lighting and ventilation, and a reasonable view; more so, student should be able to control his internal environment such as heating, cooling, lighting and should be able to impose his own personality in the room without causing any damage [33]. Moreover, study bedroom is an important component that must be provided in all residential colleges, it is a multipurpose room that combined study, living and sleeping facilities [34].

Density: is defined as the number of person per structure and is identified as another physical factor that influence students experience with residential college [1]. They further added that, users of triples shows greater feelings of crowding and perceive less control over room activities, expressed more negative inter personal attitudes and experience more negative room atmosphere

Floor Level; [35] on students' residential college settings, opined that students living at the upper floors, perceived larger rooms and found them not crowded compared with those on the lower floor. Floor level could influence students' experience and friend formation. Users of single-story residence hall were significantly more satisfied and establish more residence base friendship than users of multistory residential hall.

Privacy: According to [35] increase in the level of students' experience with residential college depends on the students' perception of their privacy. Moreover, [34] opined that female students were most likely to stay in shared residential facilities while their male counterpart preferred to stay in more private place.

The student residential college should be isolated from sources of noise. The level of noise can affect students' attention for studying and privacy of communication. In residential college facilities, noise mostly originates from aircraft, traffic, construction sites and activities in the neighborhood [34]. However, very high noise levels, prolonged exposure to noise during sleep may cause irritation, mental stress and hearing loss [29]. Quiet is the most required requirement in any living arrangement in the opinion of students. Primary to providing quiet environment are walls, floors, windows and doors providing adequate reduction of sound from adjacent activities [19].

Fire safety equipment: Fire outbreak causes loss of life and property in buildings. Student residential college is a typical type of buildings that house a large number of users. More so, student residential facilities are vulnerable because of their high fire load. Fire load is defined as the amount of fuel within a room or a building, which will burn to release heat and feed the growth of fire [36].

Interior and exterior finish systems: The building components that users interact with include external walls, internal finishes and floor surfaces. Common performance problems associated with external walls include color fading, moisture and wind infiltration, buckling, cracking, cleanability and erosion [37]. Moreover, the performance standards for internal finishes including floors, ceilings and walls emphasize aesthetic attributes such as fading, evenness of surfaces and cleanability. Furthermore, durability of floor surfaces refers to resistance to scratches, indentations, abrasions, spills, stain and cigarette burns [38].

Furniture: Typical provision of furniture in the study bedroom includes bed, desk, chest of drawers, closet, shelving and chair [16]. As the student buying ability increases, the requirement for additional storage facilities for a variety of things and personal belongings such as clothes, electronic sets and sports equipment. Some of these storage facilities should be lockable for permanent storage during student absence from the room, for short or long time and the rest can be simple cabinets [37].

Efficiency of circulation: According to [40] the internal layout of the students' residential college building should be effective in terms of the arrangement of study bedrooms in each floor, the width of the corridors for circulation inside the building and the number and location of staircases in the building. Moreover, the building layout should encourage social interaction among the student population. Visitors should be able to easily locate study bedrooms in the building [41].

Proximity to other facilities on campus: According to [16] student residential college facilities should be located in reasonable proximity (i.e. within short waking distance) to teaching, recreational centers, cafeteria, parking facilities, mini market, health facilities and public transportation.

Visual comfort: The optimal design of lighting in the residential colleges, involves providing a comfortable and healthy visual environment that supports the activities of users. The benefits of achieving lighting comfort include providing enough light to permit safe accomplishment of tasks; avoid eye strain and headaches; and improve social interaction [42]. Electrical lighting should not compensate for natural daylight in student residential colleges. The window size must allow sufficient light and electrical lighting must provide for comfortable reading conditions at the desk, in bed and in the armchair. Moreover, general lighting should be enhanced by task lighting to serve desk, chair and bed positions [43].

Provision of ventilation: Indoor air quality is an important essential of a pleasurable and productive indoor environment. Building users with indoor air quality problems suffer from symptoms such as eye, nose and throat irritation, dry skin and mucous membranes, fatigues, headache, wheezing, nausea and dizziness resulting in discomfort [44]. The benefits gained from achieving an acceptable indoor air quality include: providing enough air exchanges to avoid lack of oxygen; filtering air to avoid particles which cause respiratory ailments; and providing enough air exchanges to rid areas of odors such as smoke [37].

Support services: Toilet/bathrooms, showers and water closets are generally designed to the minimum practical area and must be close proximity to all study bedrooms. Students are not often careful in the way they use the facilities; overflowing and leaking showers are common problems [16]. Good ventilation should be provided in the study bedrooms to reduce the effects of condensation problems. However, it is important that all external materials used in the toilet/bathroom should have moisture-resistance finishes [45]. Waste disposal and water supply systems should be properly installed, maintained and managed. A laundry with washing and drying machines should be provided. A sink for hand-washing clothes and facilities for ironing and folding clothes should be provided with maintenance of fittings and equipment. Since laundries can be noisy, smelly and humid, their locations should be carefully selected. They should be provided with good lighting, ventilation to remove moisture and odor and a floor gully. Services such as electricity supply and hot water must be adequate for the level of use [46].

C. The Concept of Service Excellence

The continuous globalization of services has prompted organizations in various service industries to concentrate on achieving user delight through service excellence, which will enable them to secure their competitive position and establish long-term user relationship [47]. They also added that service excellence occurs when users perceive that a service exceeds their previous expectations. Similarly, service excellence could be described as that which the user perceives as providing the services they need quickly, conveniently without any error and delivered politely by knowledgeable staff at an acceptable cost [48]. More so, the provision of excellent services is central to the competitive strategies of most, if not all service organizations. Particularly, issues related to service quality in higher institutions have led to an increased awareness of the significance of internal user satisfaction [49]. The challenges and benefits of service excellence are emphasized as previous research shows that users and other stakeholders' expectations are growing and that the demand in better returns for their investment in higher institutions of learning are increasing [50]. As a result, service excellence is becoming a major component of higher education institutes' (HEIs') which they struggle to accomplish and maintain sustainable competitive advantage. Service excellence is an integral part in higher education delivery; various employees came into contact with a range of internal and external stakeholders and are directly responsible for the provision of quality services provided to their students [50]. They further stated that, in order to deliver the best service and to gain competitive advantage, HEIs should recruit, train and develop highly motivated and committed employees.

III. METHODOLOGY

The face to face survey was employed in this study, where data was collected only from international students, who are studying and living in five out of the seven students' residential colleges in UTHM. The residential colleges under study include, Kolej Kediaman Melewar, Kolej Kediaman Taman University, Kolej Kediaman Tun Syed Nasir, Kolej Kediaman Perwira and Kolej Kediaman Kelisa. A random sample of 210 international students was drawn from the residential population, using stratified random sampling technique. Stratified random sampling was adopted because it obtains estimates of known precision for certain subdivisions of the population by treating each subdivision as a stratum [51]. The total number of questionnaires distributed to the targeted population of international students living in five UTHM students' residential colleges, that served as the base for the data analysis was 210, However, 189 questionnaires were returned representing 90%. The questionnaires were distributed face-to-face to the targeted respondents in the study area where 5-point Likert scale was used with neutral choice. Moreover, reliability analysis was conducted for the scaled answers and the scale shows a good internal consistency, with cronbach's alpha coefficient ranging from 0.895, 0.861 and 0.877.

The background of the respondents is very important, as shown in Table 1, it disclose the gender, age, religion, race/nationality, marital status, economic status, level of study and duration of staying of the respondents. Out of 189 international students, 169

respondents representing 89% are males while 20 respondents representing 11% were females. The age distribution of the respondents ranges between 20-25 (53%), 26-30 (24%), 31-35 (10%) and 35 and above (12%). Religion of the respondents shows that 179 respondents representing 95% are Muslims, 8 respondents representing 2% are Christians while only 2 respondents representing 1 respondent came from other religion. Marital status of the respondents, single 63%, married 36% and divorced 1%. Race/nationality of the respondents is classified as Arab 50%, Africans 33%, Pakistan 10%, Indian 2% and others 5%. The respondents' level of study also is classified as undergraduate 45%, masters 31% and PhD 24%. Duration of staying shows that 50% stayed less than 1 year, 38% between 1- 2 years, while 12% between 3-4 years.

Table 1: Respondents demography

Attributes	classification	Frequency	Percentage (%)
Gender	Male	169	89
	Female	20	11
Age	20-25	100	53
	26-30	46	24
	31-35	19	10
	36 & above	23	13
Religion	Islam	179	95
	Christian	8	4
	Others	2	1
Race/nationality	Arab	95	50
	African	63	33
	Pakistan	19	10
	Indian	3	2
	Others	9	5
Marital status	Single	119	63
	Married	68	36
	Divorce	2	1
Economic status	Parent	71	38
	Scholarship	56	30
	Student loan	27	14
	Others	35	18
Level of study	Undergraduate	85	45
	Masters	58	31
	PhD	45	24
Duration of staying	Less than 1 year	94	50
	1-2 years	71	38
	2-3 years	24	12

IV. ANALYSIS AND FINDINGS

A detailed descriptive analysis of service user's experience with the facilities provision at UTHM students' residential college is presented using SPSS (Version 20). The study identifies the opinion of service users on the existing level of physical attributes at UTHM students' residential colleges. Moreover, three existing levels of physical attributes considered in this research were the availability, comfortability and the quality of the existing physical attributes. In this regards, questions were presented to the respondents which describe various level of the existing physical attributes. The five Likert scale approach was used to rate the answers, whereas five choices were defined. These ranged from 'one' as the most negative answer, to 'five' as the most positive answer. The results of this analysis are shown below. It is important to note that all percentages were rounded to the nearest figure.

A. Experience of service users on the availability of the physical attributes at UTHM students' residential colleges

This section determines the existing level of physical attributes that influence service users' experience with the facilities provision at UTHM students' residential colleges. To determine the availability of the existing physical attributes, the mean calibration proposed by Hassanain, (2008); Najib et al., (2011) was adapted, the mean results were validated and the following scale of 1-5 was used.

- The physical attribute is extremely adequate if the mean score is between 4.5 and 5.
- The physical attribute is adequate if the mean score is between 3.5 and 4.49.
- The physical attribute is fairly adequate if the mean score is between 2.5 and 3.49.
- The physical attribute is inadequate if the mean score is between 1.5 and 2.49.
- The physical attribute is extremely inadequate if the mean score is less than 1.49.

From the data analysis, as illustrated in Table 2, the findings revealed that space in the Mosque, safe living environment, building security, security guards and perimeter fence were ranked adequate as their mean score fall within the range of 3.70 to 3.81. However, some variables were ranked fairly adequate by their mean falling within the range of 2.5 to 3.49, such as cooling/heating

facilities in study bedroom, adequate storage facilities in study bedroom pantry/kitchen, sport facilities, cross ventilation in study bedroom, natural/artificial lighting, privacy, emergency exit, high level of privacy, firefighting equipment's, burglary proof, toilet facilities, number of people sharing toilet, study area, internet facility in the study area, parking space, cafeteria/restaurants, laundry facilities and waste disposal. While net on windows in the study bedrooms was ranked inadequate as the mean score fall within the range of 1.5 to 2.49.

Table 2: Experience of service users on the availability of existing physical attributes (Field Survey 2014)

Availability of Physical attributes		1	2	3	4	5	Mean score	Level of availability
Study Bedroom	Adequate storage facilities in study bedroom	15 (8%)	44 (23%)	52 (27%)	60 (32%)	18 (10%)	3.12	Fair
	Natural artificial lighting in study bedroom	13 (7%)	28 (15%)	48 (25%)	73 (39%)	27 (14%)	3.39	Fair
	Cross ventilation in study bedroom	22 (12%)	52 (27%)	49 (26%)	46 (24%)	20 (11%)	2.95	Fair
	High level of privacy in study bedroom	24 (13%)	42 (22%)	49 (26%)	44 (23%)	30 (16%)	3.07	Fair
	Net on windows in study bedroom	61 (32%)	48 (25%)	39 (21%)	27 (15%)	14 (7%)	2.39	Fair
	Cooling/heating facilities in study bedroom	53 (28%)	52 (27%)	34 (18%)	36 (20%)	14 (7%)	2.50	Fair
Building layout	Emergency Exit	19 (10%)	33 (18%)	36 (19%)	76 (40%)	25 (13%)	3.29	Fair
	Firefighting equipment's	16 (8%)	24 (13%)	40 (21%)	79 (42%)	30 (16%)	3.44	Fair
Toilet/bathroom	Toilet Facilities	25 (14%)	31 (16%)	50 (26%)	64 (34%)	19 (10%)	3.11	Fair
	Number of people sharing toilet/bathroom	16 (7%)	55 (31%)	46 (24%)	54 (29%)	18 (9%)	3.02	Fair
Study area	Study area facilities	18 (9%)	31 (16%)	38 (20%)	75 (40%)	27 (15%)	3.33	Fair
	Internet facility in the study area	33 (17%)	25 (13%)	39 (21%)	69 (37%)	23 (12%)	3.13	Fair
Mosque	Adequate space in the Mosque	9 (5%)	10 (5%)	46 (24%)	67 (36%)	57 (30%)	3.81	Adequate
Security	Safe living environment	13 (7%)	18 (9%)	25 (13%)	86 (46%)	47 (25%)	3.72	Adequate
	Security guards	7 (4%)	12 (6%)	41 (22%)	77 (41%)	52 (27%)	3.82	Adequate
	Building security	8 (4%)	16 (8%)	45 (24%)	75 (40%)	45 (24%)	3.70	Adequate
	Perimeter fence	8 (4%)	16 (8%)	45 (24%)	75 (40%)	45 (24%)	3.53	Adequate
	Burglary proof	17 (9%)	47 (25%)	49 (26%)	43 (23%)	33 (17%)	3.15	Fair
Support Services	Enough parking space	21 (11%)	38 (20%)	60 (33%)	52 (27%)	18 (9%)	3.04	Fair
	Sport facilities	33 (17%)	37 (21%)	53 (28%)	48 (25%)	18 (9%)	2.90	Fair
	Adequate waste disposal	13 (7%)	21 (11%)	54 (29%)	69 (36%)	32 (17%)	3.46	Fair
	Cafeteria/mini market	13 (7%)	21 (11%)	54 (29%)	69 (36%)	32 (17%)	3.46	Fair
	Laundry facilities	21 (11%)	22 (12%)	49 (26%)	68 (36%)	29 (15%)	3.33	Fair
	Pantry/kitchen	48 (25%)	45 (24%)	44 (24%)	35 (18%)	17 (9%)	2.62	Fair

Note: 1= Extremely adequate, 2= Inadequate, 3= Fairly adequate, 4= Adequate, 5= Extremely adequate

B. Experience of service users on the comfortability of the existing physical attributes at UTHM students' residential colleges

To determine the comfortability of the existing level of physical attributes in UTHM students' residential colleges, the mean calibration proposed by Hassanain, (2008); Najib et al., (2011) was adapted, the mean results were validated and the following scale of 1-5 was used.

- a). The respondents were extremely comfortable with the existing physical attribute if the mean score is between 4.5 and 5.
- b). The respondents were comfortable with the existing physical attribute if the mean score is between 3.5 and 4.49.
- c). The respondents were neither comfortable nor uncomfortable with the existing physical attribute if the mean score is between 2.5 and 3.49.
- d). The respondents were not comfortable with the existing physical attribute if the mean score is between 1.5 and 2.49.
- e). The respondents were extremely not comfortable with the existing physical attribute if the mean score is less than 1.49.

As shown in Table 2, the findings revealed that, the service users' were neither comfortable nor uncomfortable with some variables as their means score fall within the range of 2.5 to 3.49 such as, the study bedroom size, furniture in the study bedroom, conducive living environment, proximity of the residential college to university, proximity of the residential college to health facilities, proximity of residential college to public transportation, proximity of residential college to restaurants, proximity of residential college to ATM machine, proximity of residential college to mini market, proximity of residential college to recreational centres, proximity of residential college to waste collection centers and proximity of residential college to local shops.

Table 2: Experience of service users on the comfortability of the existing physical attributes (Field Survey 2014)

Comfortability of physical attributes		1	2	3	4	5	Mean	Level of comfortability
Study bedroom	Study bedroom size	27 (14%)	37 (20%)	51 (27%)	52 (27%)	22 (12%)	3.03	Neutral
	Furniture in the study bedroom	20 (11%)	55 (29%)	47 (25%)	49 (26%)	18 (9%)	2.95	Neutral
Security	Conducive living environment	15 (8%)	26 (14%)	73 (38%)	64 (34%)	11 (6%)	3.16	Neutral
Location	Proximity of residential college to University	22 (12%)	31 (16%)	44 (23%)	66 (35%)	26 (14%)	3.23	Neutral
	Proximity of residential college to health facilities	15 (8%)	35 (18%)	54 (29%)	66 (35%)	19 (10%)	3.21	Neutral
	Proximity of residential college to public transportation	19 (10%)	27 (14%)	60 (32%)	63 (33%)	20 (11%)	3.20	Neutral
	Proximity of residential college to restaurants	21 (11%)	29 (15%)	48 (26%)	65 (34%)	26 (14%)	3.24	Neutral
	Proximity of residential college to ATM machine	25 (13%)	48 (25%)	41 (22%)	49 (26%)	26 (14%)	3.02	Neutral
	Proximity of residential college to mini market	19 (10%)	42 (22%)	60 (32%)	51 (27%)	17 (9%)	3.03	Neutral
	Proximity of residential college to recreational centers	24 (13%)	40 (21%)	60 (32%)	48 (25%)	17 (9%)	2.97	Neutral
	Proximity of residential college to waste collection centers	19 (10%)	32 (17%)	52 (27%)	63 (34%)	23 (12%)	3.21	Comfortable
	Proximity of residential college to Local shops	12 (6%)	31 (16%)	43 (23%)	81 (43%)	22 (12%)	3.37	Comfortable

Note: 1= Extremely not comfortable, 2= Not comfortable, 3= Neutral, 4= Comfortable, 5= Extremely comfortable

C. Experience of service users on the quality of the existing physical attributes at UTHM students' residential colleges

To determine the quality of the existing level of physical attributes in UTHM students' residential colleges, the mean calibration proposed by Hassanain, (2008); Najib et al., (2011) was adapted, the mean results were validated and the following scale of 1-5 was used.

- a). The quality of the physical attribute is very good, if the mean score is between 4.5 and 5.
- b). The quality of the physical attribute is good, if the mean score is between 3.5 and 4.49.
- c). The quality of the physical attribute is fair, if the mean score is between 2.5 and 3.49.
- d). The quality of the physical attribute is poor, if the mean score is between 1.5 and 2.49.
- e). The quality of the physical attribute is very poor if the mean score is less than 1.49.

As shown in Table 3, the findings revealed that Mosque location, Mosque, amenities and the cleanliness of the Mosque were ranked good by the service users as their mean score fall within the range of 3.5 to 4.49. However, some variables were ranked fair as their mean score fall within the range of 2.5 to 3.49, such as architectural design of the residential college, study bedroom design,

convenient walkway, good drainage system, toilet/bathroom location, cleanliness of toilet/bathroom, study area accessibility, internet connectivity in the study room, furniture in the study area, security of parking facilities, internet connectivity in the residential college, directional signage, directional signage are writings, cleaning services, transportation links to university and city center, transportation service (Bus) from residential college to the University and operation of bus service in weekends and holidays. While the directional signage was ranked poor as the mean score fall within the range of 1.5 to 2.49.

Table 3: Service users experience on the quality of physical attributes (Field Survey 2014)

Quality of Physical attributes		1	2	3	4	5	Mean	Quality level
Building Layout	Architectural design of the residential college	33 (17%)	47 (25%)	56 (30%)	41 (22%)	12 (6%)	2.75	Fair
	Study bedroom design	21 (11%)	66 (35%)	49 (26%)	47 (25%)	6 (3%)	2.74	Fair
	Convenient walkway	12 (6%)	35 (18%)	53 (28%)	74 (40%)	15 (8%)	3.24	Fair
	Good drainage system	11 (6%)	27 (14%)	41 (22%)	85 (45%)	25 (13%)	3.46	Fair
Toilet/bathroom	Toilet/bathroom location	25 (13%)	51 (27%)	40 (21%)	54 (29%)	19 (10%)	2.95	Fair
	Cleanliness of toilet/bathroom	21 (11%)	34 (18%)	38 (20%)	72 (38%)	24 (13%)	3.23	Fair
Study area	Study area accessibility	13 (7%)	30 (16%)	43 (22%)	66 (35%)	37 (20%)	3.44	Fair
	Internet connectivity in the study room	49 (26%)	49 (26%)	31 (16%)	40 (21%)	20 (11%)	2.65	Fair
	Furniture in the study area	29 (15%)	41 (22%)	45 (24%)	49 (26%)	25 (13%)	3.00	Fair
Mosque	Location of Mosque	12 (6%)	16 (8%)	29 (15%)	75 (41%)	57 (30%)	3.79	Good
	Mosque amenities	8 (4%)	18 (9%)	48 (25%)	64 (34%)	51 (28%)	3.70	Good
	Cleanliness of Mosque	7 (3%)	11 (6%)	34 (18%)	78 (41%)	59 (31%)	3.90	Good
Support services	Security of parking facilities	12 (6%)	28 (15%)	54 (29%)	70 (37%)	25 (13%)	3.36	Fair
	Internet connectivity in the residential college	50 (26%)	55 (29%)	36 (20%)	31 (16%)	17 (9%)	2.52	Fair
	Directional signage	31 (16%)	56 (30%)	50 (26%)	37 (20%)	15 (8%)	2.73	Fair
	Directional signage are written in international language	68 (36%)	55 (29%)	38 (20%)	25 (13%)	3 (2%)	2.15	Fair
	Cleaning services	48 (25%)	45 (24%)	44 (24%)	35 (18%)	17 (9%)	2.62	Fair
Transport services	Transportation links to university and city center	38 (20%)	20 (11%)	51 (27%)	55 (29%)	25 (13%)	3.05	Fair
	Transportation service (Bus) from residential college to the University	36 (19%)	37 (20%)	52 (27%)	40 (21%)	24 (13%)	2.89	Fair
	Operation of bus service in weekends and holidays	46 (24%)	43 (23%)	43 (23%)	35 (18%)	22 (12%)	2.70	Fair

Note: 1= Very poor, 2= Poor, 3= Neutral, 4= Good, 5= Very good

V. CONCLUSION

In general, findings of the study reveal that, international students in the study area have a positive experience with the facilities provided in the students' residential colleges. However, most of the positive views related to the respondents experience were rated 'fair' instead of 'extremely adequate, extremely comfortable' or 'very good', therefore this is not sufficient if the intent of UTHM students' residential colleges, is moving from delivering a quality service to excellent service. Because it will contribute a complete shift of cultural change within UTHM students' residential colleges and help create service excellence as endorsed by this study.

Service user experience has a significant influence on the international students' experience, which infers that if higher learning institution of learning wants to attract more number of international students, provision of excellent service would be a good tool. Moreover, It can be concluded that provision of excellent service contribute towards increase level of service user experience and which ultimately increases conducive learning facilities and the willingness to excel in their studies. This study targets only UTHM international students, more studies should be conducted in order to get the opinion of other stakeholders like local students, residential college administrators, facility managers and university authorities. However, international students of only one higher

learning institution was considered in this study, future studies should include more higher institutions of learning that has more number of international students, so that policy making and guidelines could be derived.

REFERENCES

- [1] Khozaei, F., Hassan, A. S., & Khozaei, Z. (2010). Undergraduate students' satisfaction with hostel and sense of attachment to place: case study of University Sains Malaysia. *American Journal of Engineering and Applied Sciences*, 3(3), 516.
- [2] Abdullah, N. A., & Rahman, S. A. (2011). Making Strategy at a Malaysian Higher Education Institution, 22, 193–198.
- [3] Pandit, K. (2007) *The Importance of International Students on our Campuses*, yearbook of the Association of Pacific Coast Geographers.
- [4] Ministry of Higher Education Malaysia, (2013). *Operational Framework for International Student Management*, 2013. Retrieved May, 14,2013 via <http://www.mohe.gov.my>.
- [5] Ministry of Higher Education Malaysia, (2013). *Data of Public Education Enrollment as at December 2011*, 2013. Retrieved May, 14,2013 via <http://www.mohe.gov.my>.
- [6] Njie, B., Asimiran, S., & Baki, R. (2012). Perceptions of international students on service quality delivery in a Malaysian public university. *Quality Assurance in Education*, 20(2), 153–163.
- [7] Sirat, M. Bin. (2009). Strategic planning directions of Malaysia's higher education: university autonomy in the midst of political uncertainties. *Higher Education*, 59(4), 461–473.
- [8] Ministry of Higher Education Malaysia, (2011). *Internationalization Policy For Higher Education Malaysia, 2011*, 2013. Retrieved May, 14,2013 via <http://www.mohe.gov.my>
- [9] Gilbert, H., Slade, M., Rose, D., Lloyd-Evans, B., Johnson, S., & Osborn, D. P. J. (2010). Service users' experiences of residential alternatives to standard acute wards: qualitative study of similarities and differences. *The British Journal of Psychiatry. Supplement*, 53, s26–31
- [10] Vermeeren, A. P. O. S., Law, E. L., & Roto, V. (2010). User Experience Evaluation Methods : Current State and Development Needs, 521–530.
- [11] Waheed, Z., & Fernie, S. (2009). Knowledge based facilities management. *Facilities*, 27(7/8), 258–266.
- [12] Drion, B., Melissen, F., & Wood, R. (2012). Facilities management: lost, or regained? *Facilities*, 30(5/6), 254–261.
- [13] Bashir, S. (2012). Students ' Perception on the Service Quality of Malaysian Universities ' Hostel Accommodation, 3(15), 213–222.
- [14] Winston Jr, R. B. (1993). *Student Housing and Residential Life: A Handbook for Professionals Committed to Student Development Goals*. Jossey-Bass, Inc., Publishers, 350 Sansome Street, San Francisco.
- [15] Najib, N. U., Yusof, N. A. & Osman, N.Z. (2011b). Measuring satisfaction with student housing facilities. *American Journal of Engineering and Applied Sciences*, 4(1), 52-60.
- [16] Hassanain, M. A. (2008). On the performance evaluation of sustainable student housing facilities. *Journal of Facilities Management*, 6(3), 212–225.
- [17] Najib, N.U, Yusof N.A. & Osman, N.Z (2011c). The influence of socio economic background towards satisfaction with students' housing facilities. pp 478-483
- [18] Jumat, A. R. (2012). Stakeholder service delivery expectations of military facilities management. *Built Environment Project and Asset Management*, 2(2), 146–166.
- [19] Johnston, R. & Clark, G. (2005). *Service Operations Management: Improving Service Delivery* (2nd Ed). Prentice Hall.
- [20] Mascio, R. Di. (2007). A method to evaluate service delivery process quality. *International Journal of Service Industry Management*, 18(4), 418–442.
- [21] Pine, B. J., & Gilmore, J. H. (2011). *The experience economy*. Harvard Business Press.
- [22] Pine II, B.J. & Gilmore, J. H. (1999). *The Experience Economy: work is theatre and every business a stage*. Harvard Business Press, Boston, Massachusetts.
- [23] Sundbo, P. & Darmer, P. (Eds.). (2008). *Creating experiences in the experience economy*. Edward Elgar Publishing.
- [24] Meyer, C. & Schwager, A. (2007). Understanding customer experience. *Harvard business review*, 85(2), 116.
- [25] Teixeira, J., Patrício, L., Nunes, N. J., Nóbrega, L., Fisk, R. P., & Constantine, L. (2012). Customer experience modeling: from customer experience to service design. *Journal of Service Management*, 23(3), 362–376.
- [26] Pariag, P. (2009). Classification of Services. *Regional Symposium on Services*, pp. 15-17.
- [27] Ahmed, I. (2011). Student's Perspective of Service Quality in Higher Learning Institutions ; *An evidence Based Approach*, 2(11), 159–164.
- [28] Khozaei, F., Ramayah, T. & Hassan, A. S. (2012). A Shorter Version of Student Accommodation Preferences Index (SAPI).
- [29] Thomsen, J., & Eikemo, T. A. (2010). Aspects of student housing satisfaction: a quantitative study. *Journal of Housing and the Built Environment*, 25(3), 273–293.
- [30] Khozaei, F., Hassan, A. S., Al kodamy, K. & Aarab Y. (2014). Examination of student housing preferences, their similarities and differences. *Facilities*, 32 (11/12).
- [31] Rowley, J., (1999). Measuring total customer experience in museums, *International Journal of Contemporary Hospitality Management*, 11(6), pp. 303-308.
- [32] Foubert, J. D., Tepper, R. & Morrison, D. (1998). Predictors of student satisfaction in university residence halls. *The Journal of College and University Student Housing*, 27(1), 41-46.
- [33] Olufunke, A., & Adedoyin, O. (2012). User 's Satisfaction with Residential Facilities in Nigerian Private Universities : A Study Of Covenant University 2(11).
- [34] Amole, D. (2008). Residential Satisfaction and Levels of Environment in Students' Residences. *Environment and Behavior*, 41(6), 866–879.
- [35] Kaya, N., & Erkip, F. (2001). Satisfaction in a Dormitory Building the Effects of Floor Height on the Perception of Room Size and Crowding. *Environment and Behavior*, 33(1), 35-53.
- [36] Husin, H. N., Nawawi, a. H., Ismail, F., & Khalil, N. (2011). Development of Hierarchy for Safety Elements and Its Attributes for Malaysia's Low Cost Housing. *Procedia Engineering*, 20, 71–79.
- [37] Al-dossary, S. A. (2008). *A Study of the Factors Affecting Student Retention at King Saud University, Saudi Arabia*. University of Sterling: Ph.D. Thesis.
- [38] Yusof, N., Abdullah, S., Zubedy, S., & Najib, N. 'Ulyani M. (2012). Residents' Maintenance Priorities Preference: The Case of Public Housing in Malaysia. *Procedia - Social and Behavioral Sciences*, 62(2003), 508–513.
- [40] Sheely, M. C., & Whalen, D. F. (2003). Contributors to Residence Hall Student Retention : Why do Students Choose to Leave or Stay ?
- [41] Nijenstein, S., Haans, A., Kemperman, A. D. a. M., & Borgers, A. W. J. (2014). Beyond demographics: human value orientation as a predictor of heterogeneity in student housing preferences. *Journal of Housing and the Built Environment*.
- [42] Muslim, M. H., Karim, H. A., & Abdullah, I. C. (2012). Satisfaction of Students' Living Environment between On-Campus and Off-Campus Settings: A Conceptual Overview. *Procedia - Social and Behavioral Sciences*, 68, 601–614.
- [43] Sawyer, P. T. (2013). Student satisfaction with hostel facilities in Nigerian polytechnics. *Journal of Facilities Management*, 11(4), 306–322.
- [44] Liu, A. M. (1999). Residential satisfaction in housing estates: a Hong Kong perspective. *Automation in Construction*, 8(4), 511–524.

- [45] Ge, J., & Hokao, K. (2006). Research on residential lifestyles in Japanese cities from the viewpoints of residential preference, residential choice and residential satisfaction. *Landscape and Urban Planning*, 78(3), 165–178.
- [46] Ibem, E. O., Opoko, A. P., Adeboye, A. B., & Amole, D. (2013). Performance evaluation of residential buildings in public housing estates in Ogun State, Nigeria: Users' satisfaction perspective. *Frontiers of Architectural Research*, 2(2), 178–190.
- [47] Gouthier, M. (2012). Service excellence models: a critical discussion and comparison. *Managing Service Quality*, 22(5), 447–464.
- [48] Jones, C. R. (2004). A “scorecard” for service excellence. *Measuring Business Excellence*, 8(4), 45–54.
- [49] Solnet, D., & Kandampully, J. (2008). How some service firms have become part of “service excellence” folklore: An exploratory study. *Managing Service Quality*, 18(2), 179–193.
- [50] Khan, H., & Matlay, H. (2009). Implementing service excellence in higher education. *Education + Training*, 51(8/9), 769–780.
- [51] Creswell, J.W (2012). *Educational Research: Planning, Conducting and Evaluating Quantitative and Qualitative Research* (4th Ed). Boston: Pearson.

AUTHORS

First Author – Musa Alkali Abubakar, Masters Student, University Tun Hussein Onn Malaysia. modibbo23@yahoo.com.

Second Author – Rozilah Kasim, Assoc. Professor, University Tun Hussein Onn Malaysia. Rozilah@uthm.edu.my

Third Author – Matthew Mamman, Assistant Lecturer, Kaduna Polytechnic, Nigeria. Mamman16ali@yahoo.com

Correspondence Author – Musa Alkali Abubakar, Masters Student, University Tun Hussein Onn Malaysia.

modibbo23@yahoo.com, abufatima34@gmail.com. +60166884429