Improving student satisfaction of Andalas University Dormitory through Service Quality and Importance Performance Analysis

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Abstract. Residential satisfaction of university dormitories serve as one of the significant aspects in the framework of sustainability in higher education. This research investigated the quality of dormitory services in Andalas University Dormitory based on student’s satisfaction. According to management residential, the enrollment of residential student has increased gradually in Andalas University. In 2016, capacity of residential student is 1686, but only 1081 students can stay at dormitory because some rooms in bad condition. There are a lot of problems and complaints regarding dormitory’s service quality i.e water problems, leaky rooms and bathrooms, cleanliness and inadequate facilities in residential college. In addition, there are 20% of last year student’s residential check out before the time of contract runs out. The aim of this research are understanding the level of GAP exists between expectation and perception students’ residential in the content of service quality and evaluating the improvement priority services using Importance Performance Analysis. This study is measuring service quality by using Responsiveness, Assurance, Empathy, Reliability and Tangible dimension. A negative GAP indicates that the actual services are than what was expected and the GAP is highlighted area for improvement. Based on IPA, management should improve this following dimension services: responsiveness, tangible and assurance dimension.

Keywords: Dormitory, GAP Analysis, Importance Performance Analysis, Service Quality

1. Introduction
In accordance with DIKTI and KEMENDIKBUD RI decree (Number 25/DIKTI/Kep/2014) about general guidelines in educational system for new students, Higher Learning Institutions are trying to attract more new students to stay in residential and employing various strategies to maintain them. New students need psychological and social readiness to be able quickly adapt to college life and in particular learning system. Andalas University located in Padang, West Sumatera Regions of Indonesia, provides a low-cost, attractive, safe, and convenient living quarters for undergraduate students. Andalas University obligates new students with BIDIKMISI Grants (National Scholarship) to stay in residential college (dormitory) and advises other new students (especially students come from outside West Sumatera) to live in dormitory. To achieve a good educational system in national education, Andalas University should examine and understand how students receive a well services and best physical environment of higher institution of learning. Service quality is one of the factors that can lead to customer satisfaction [1]. It can be used as a strategy for achieving the residential college satisfaction. Service quality is among factors that
determine customer satisfaction and customer satisfaction can lead to customer loyalty. Customer satisfaction and service quality have been for this latest year’s important topic both for the researches. Many studies talked about the relationship between service quality and customer satisfaction. [2] revealed that students are satisfied with the student housing facilities. Overall satisfaction is positively related to loyalty behaviour. [3] identified factors contributing to satisfaction consist of the social qualities (e.g., social densities, the kitchenette, bathroom, and storage facilities) and some demographic, characteristics of the students. Hall configuration is a predictor of satisfaction. Another researcher [4] refered using SERVQUAL model and tested the conceptual model of service quality based on five service quality dimensions of the student residential in China. Consequently, the result indicated the important link between service quality and student satisfaction.

According to residential management, the enrolment of residential students has increased gradually in Andalas University. In 2016, capacity of residential student is 1686 students, but only 1081 students can stay at dormitory because some rooms in bad condition. Based on the results of the suggestion box in every building Andalas Dormitory, the complaints from student residential college quite a lot. In addition, there are 20% of last year student’s residential leave the dormitory (check out) before the time of contract runs out. The facts above indicates that there are many student residential who are not satisfied with the service provided. So that, it is important to improve the quality standard of service in residential student in Andalas Universities by evaluating the facilities in residential students or measuring user experience of residential colleges.

This research limits on Andalas University Dormitory which has three buildings for female students which are Oren Dormitory, Hijau Dormitory and RPX Dormitory, and two buildings for male students which are Roesma-M.Shaff Dormitory and Menpera Dormitory. The objectives of the current study are to analyze the effect service quality provided by Andalas University Dormitory to student residential satisfaction, to identify the gap between student’s perception and expectation on the service quality in Andalas University Dormitory and to evaluate the improvement priority service based on students perception using Importance Performance Analysis.

2. Service Quality Dimensions
The service quality in the field of education and higher learning institution particularly is not essential, but also important parameter of educational excellence [5]. Consequently, the measurement of service quality, including student residential service quality, has to be based on perceived quality rather than objective quality. The service quality instrument is structured in five dimension, namely [6]:

(i) Responsiveness : The focus of this dimension is on promptness and attentiveness to deal the customer’s requests, complain, problems and questions.

(ii) Tangibles : Tangibles was defined as physical appearance of facilities, personnel, communication material, equipment etc.

(iii) Empathy : Caring, individualist attention provided to customer

(iv) Assurance : This dimension is refered to employee’s courtesy and knowledge, and ability to gain customer’s confidence and trust.

(v) Reliability : Reliability is service provider’s ability to perform certain service accurately and dependably.

[7] research show important indicator factors of responsiveness dimension in student residential such as perceptive to provide information, fast respond in complaints and respond innovation/suggest from customers. The findings of [8] revealed another important indicator factors of responsiveness are service in student complaints, willingness to provide information and alertness of management in handling students complaints. According to [9] tangible dimension measured by this following attributes: physical appearance (cleanliness of dormitory, view from residential, adequacy of living space, furniture adjustability, building appearance etc), facilities (electricity &water system, secure facilities, sanitary facilities, recreation/sporting facilities, parking facilities etc) and equipment. [9] categorised ventilation, cost of housing, noise level in the housing estate, lighting in residence, accessibility to public transportation as attributes in Tangible Dimension. [10] defined the factors that raise the level of service quality of Empathy Dimension such as attitude and manner staff or management, privacy in the residence, and neighborhood relations. Besides this, the ability
management to communicate with customer, understanding customer needs and wants, sympathy receiving complaints also affected the service quality level of empathy dimension [11]. [12] proposed 5 items of Assurance dimension that improve service quality in residential. The items are security control and patrol in residential, ability of handling emergency situation, crime rate of neighborhood, potential for flood damage and maintenance regularly facilities. [7] also found the following reliability aspect: professional knowledge, good communication, rigor in service and the conformity service with the promise offered. This indicator will be used as literature to determine the questionnaires in survey.

3. Research Methodology
We used the GAP Analysis and IPA for assessing students’ perception of Andalas University Dormitory. The methodology of the empirical research was articulated in this main steps:

(i) Selection of Attributes
Based on literature review [13],[8],[9],[10],[11],and [12] about attributes in service quality dimension, researcher validated all attributes to management residential andalas university. Therefore, valid attributes was selected as questionaires in Survey. Selection of Attributes to be included in the Gap Analysis and Importance Performance Analysis was 11 attributes on Responsiveness Dimension, 11 attributes on Empathy Dimension, 10 attributes on Assurance Dimension, 10 attributes on Reliability Dimension, and 46 attributes on Tangible Dimension. Total of attributes are 88 attributes.

(ii) Reliability and Validity
To obtain the reliability of instrument testeed Cronbach’s Alpha statistics contained in software SPSS 16.0. Instrument in all dimension was reliable through the result of Cronbach’s alpha calculation show values greater than 0.70. The validity will be tested by comparing the R-value and R-Table (0,361). The all item was considered valid through thr R value are bigger than R-table.

(iii) Data collection
In this research data were collected by using questionnaire. The questionnaire is using Likert scale, which range from 1-5 (1=Strongly Disagree, 2=Disagree, 3=Moderate, 4= Agree, 5=Strongly Disagree.) Sample of the study will be determined based on Slovin formula from 1081 population of students’ residential year 2016, there will be 292 respondents. The response rate was drawn 68 % in consideration of only 200 students filled the questionnaire.

(iv) Data Analysis
GAP analysis was applied to analyze the gap between perception and expectation from students. Meanwhile Importance Performance Analysis (IPA) was used to evaluate the improvement priority service based on students perception.

4. Result and Discussion

4.1 Gap Analysis
Table 1 represents the summary of gap scores for each dimension of SERVQUAL in Andalas University Dormitory. The study showed (Table 1) there is a huge gap exist between service quality all dimension and expectation from students residential ands also all service quality dimensions have negative gap between expectation and perception. It means the result of the research showed that students residential are not satisfied with dormitory services. The responsiveness dimension has the widest gap among other SERVQUAL dimension. It means that Andalas University Dormitory should prioritize responsiveness improvement to improve its service quality. Empathy dimension has the narrowest gap point among all dimensions. As shown on the table 1, it can be seen that empathy has GAP score above -1 for Hijau, RPX, Roesma and Menpera building. Based on the score, assurance dimension is the best service quality dimension that has been provided by Andalas Univeristy Dormitory among other dimension.
4.2 Importance Performance Analysis (IPA)
Importance – Performance Analysis applied with the calculation of the average value each attributes. The statement from the importance variable (expectation) and performance variable (perception). The higher gap from perception-expectation calculated become a view for the dormitory management to focused on the improvement on the service attributes which need an improvement. The priority mapping analysis in this research used in all of respondents for every buildings. From all of the data calculation with SPSS 16 resulted a IPA cartesian diagrams for all student respondent to the service shown in this below.

In Figure 1, the X- axis represents the perception of performance scores relating to students’ residential experience of Andalas University Dormitory. The Y-axis represents the relative importance that five Importance factors Service Quality had to the students when choosing a residential. The mean Importance rating for the pooled data was 4.267 while the mean Performance rating was 3.178. The four quadrants are constructed based on the means scores of the Importance and Performances ratings.

From the description of Cartesian diagram Figures indicates that twenty-two (22) attributes are in A quadrant, twenty-two (22) attributes in quadrant B, sixteen (18) attributes in quadrant C and twenty-six (26) attributes D quadrant. So the total attributes seen in Cartesian diagram are 88 attributes.
IPA analysis in Figure 2 is conducted through a questionnaire with 88 questions relating to “importance” and “performance” on dormitory. The result are expressed as a coordinate diagram with “importance” being horizontal x-axis and “performance” being the vertical y-axis. The mean value for “importance” and “performance” (4,442; 3,1375) is defined as the origin and used to partition the coordinate space into four quadrants. The Quadrant A is “Concentrate Here”, the Quadrant B is “Keep up the Good Work”, the Quadrant C is “Low priority” and the Quadrant D is “Possible Overkill”.

In Figure 3, the X-axis represents the perception of performance scores relating to students’ residential experience of Andalas University Dormitory. The Y-axis represents the relative importance that five Importance factors Service Quality had to the students when choosing a residential. The mean Importance rating for the pooled data was 4,271 while the mean Performance rating was 3,0697. The four quadrants are constructed based on the means scores of the Importance and Performances ratings. From the description of Cartesian diagram Figures indicates that twenty-eight (28) attributes are in A quadrant, eighteen (18) attributes in quadrant B, fifteen (15) attributes in quadrant C and twenty-seven (27) attributes D quadrant. So the total attributes seen in Cartesian diagram are 88 attributes.
This study used IPA to establish the variation between “importance” and “performance”. IPA analysis in Figure 4 is conducted through a questionnaire with 88 questions. The result are expressed as a coordinate diagram with “importance” being horizontal x-axis and “performance” being the vertical y-axis. The mean value for “importance” and “performance” (4.236; 3.2147) is defined as the origin and used to partition the coordinate space into four quadrants.

The X-axis represents the perception of performance scores relating to students’ residential experience of Andalas University Dormitory. The Y-axis represents the relative importance that five Importance factors Service Quality had to the students when choosing a residential. The mean Importance rating for the pooled data was 4.2369 while the mean Performance rating was 3.121. The four quadrants are constructed based on the means scores of the Importance and Performance ratings.

From the description of Cartesian diagram Figures indicates that eighteen (18) attributes are in A quadrant, nineteen (19) attributes in quadrant B, twenty-three (23) attributes in quadrant C and twenty-seven (27) attributes D quadrant.

5. Conclusion
Through the GAP Analysis Importance-Performance Analysis we concluded that the management should focus on the Concentrate Here attribute, and allocate resources to improve service quality to:
Fast respond in complaints (Res 4), Check regularly facilities (Res 5), Replacing damaged facilities (Res 6), water supply system (Tan 2), Arrangement of waste collection (Tan 6), availability of health care center (Tan 23), Availability of internet (Tan 30), Speed of internet (Tan 32), Cleanliness of shared bathrooms/toilets (Tan 41), easy check in and check out (Rel 7), Speed of service management (Rel 10), security patrol and control 24 hours (Ass 1), and crime rate of occupants residential/neighborhood (Ass 4). In the possible overkill quadrant, there is an over emphasis in the government’s allocation of resources on attributes that are deemed to be unimportant and it is time to consider divesting investment in these area by allocating more resources to concentrate here quadrant.

GAP Analysis and Importance Performance Analysis (IPA) are simple and useful techniques that can help management residential in Andalas University to identify which attributes should be improved to increase overall students residential satisfaction. From the research prospective, this study support the adoption of GAP analysis and IPA as an alternative framework for evaluating students’ satisfaction. Such framework can be used in further research on students’ residential satisfaction.

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