# IMPORTANCE-SATISFACTION ANALYSIS OF FACE TO FACE TUTORIAL: A CASE STUDI AT UNIVERSITAS TERBUKA

Adhi Susilo (adhi@ut.ac.id)
Deddy Ahmad Suhardi (deddy\_as@ut.ac.id)

#### Abstract

Student satisfaction survey serve as a useful tool for a higher education institution in measuring its effectiveness, and at the same time providing auditable evidence that students have been given the opportunity to reflect on their learning. This study employs a 2-dimensional i.e. importance-satisfaction survey which consists of 23 items, categorized under 5 dimension. Items are phrased as positive expectations and students are asked to assess how important it is to them that the institution meets each expectation, using a five-point Likert scale ranging from not at all important (1) to very important (5). They are then asked to rate their level of satisfaction, using the same scale from very dissatisfied (1) to very satisfied (5). A total of 588 responses were used in this study. The questionnaires were analyzed using SPSS and both Quadrant and GAP analysis were used. The result showed that the graduate's students are generally satisfied with face to face tutorial's programs and services. This study has combined both the quadrant and the gap analysis to determine the 'Selling Points' and the "Critical Points" for Universitas Terbuka (UT) in light of the learning support services provided to the students.

Keywords: Face to face tutorial, gap analysis, importance-satisfaction analysis.

### INTRODUCTION

Universitas Terbuka (UT) is a state university for Indonesia dedicated to open and distance learning. UT provides face to face tutorial and online tutorials as an alternative to face-to-face tutorials, particularly for students who have access to the Internet. Face to face (F2F) tutorial facilitate two-way synchronous communication and offer interactive human contact to distance learners (Suparman, 2007). Face to face tutorial at UT are mandatory for teacher training students, students with special scheme and students who demand for it.

Face to face tutorials are learning support services for students provided by UT. In the F2F tutorial, learning activities carried out under the guidance of the tutor as a facilitator. F2F tutorials discuss things that are considered difficult and very important student mastered.

For some courses, F2F tutorials at UT are usually provided only if the number of participants is minimum 20. These tutorials are fees-based and provided according to demand (ATPEM). The targets of F2F tutorials are students who live in urban area and those who have access to the closest locations of F2F tutorials. F2F tutorial is manage by UT's regional offices. Therefore, students must contact regional office if they want to join F2F tutorial. There are 39 Regional Offices all over Indonesia serving about 550,000 students. Since the face tutorials are fees based, these activities are in the form of selling services. UT's students as customers have to receive at least good services that can fulfill their needs (Herman, 2012). Herman (2014) also found that there is significant and positive correlation between customer value and

customer satisfaction. Marketing theory for tangible product could also be used for face to face tutorial as an intangible product.

According to O'Neill and Palmer (2004), universities employ a combination of qualitative and quantitative methods to gauge quality of service. Qualitative methods include interviews, focus groups and observation research. In addition, O'Neill and Palmer (2004) explained the quality in education as the diagnosis between what a student anticipate obtaining and their conception of real acquire. Accordingly, there is a continuing need to define the quality dimensions in higher education and to measure the students' satisfaction based on the relevant quality dimensions in order to improve the higher education systems.

According to Parasuraman, Zeithaml, and Berry (1988), service quality can be defined as an overall judgment similar to attitude towards the service and generally accepted as an antecedent of overall customer satisfaction (Zeithaml, Berry, & Parasuraman, 1996). Parasuraman et al. (1988) have defined service quality as the ability of the organization to meet or exceed customer expectations. It is the difference between customer expectations of service and perceived service (Zeithaml, Parasuraman, & Berry, 1990). Perceived service quality results from comparisons by customers of expectations with their perceptions of service delivered by the suppliers (Zeithaml et al., 1990). If expectations are greater than performance, then perceived quality is less than satisfactory and hence customer dissatisfaction occurs (Latif, Bahroom, & Afzhan, 2015; Lewis & Mitchell, 1990; Parasuraman, Zeithaml, & Berry, 1985).

Parasuraman et al. (1988) and Berry, Zeithaml, and Parasuraman (1990) identified five dimensions that form service quality related to customer expectation, namely: Tangibles, Reliability, Responsiveness, Assurance (competence, courtesy, credibility, security) and Empathy (access, communication, understanding of the customer) which is defined below:

- 1. **Tangibles**: These include the appearance of physical facilities, equipment, personnel, communications, use of appropriate materials, etc. Tangibles are more important in face to face tutorial services, i.e. conditions of the buildings/classrooms.
- 2. **Reliability**: It is the ability to provide the promised service dependably and accurately. For example, tutor quality to perform face to face tutorial services.
- 3. **Responsiveness**: It is the ability to deal effectively and promptly with customer requirements and complaints. For example, tutor quality to respond the participants/students of face to face tutorial.
- 4. **Assurance**: Knowledge, experience, courtesy and readiness to maintain client confidence and trust. For example tutor knowledge and skills to explain the learning materials.
- 5. **Empathy**: It involves caring and providing individualized attention to customers.

Importance-Performance Analysis was first proposed and introduced by Martilla and James (1977) as a means by which to measure client satisfaction with a product or service. The IPA approach recognizes satisfaction as the function of two components: the importance of a product or service to a client and the performance of a business in providing that service or product. In this way, IPA examines not only the performance of an item, but also the importance of that item as a determining factor in satisfaction to the respondent (Silva & Fernandes, 2010). The combined client ratings for those two components then provide an overall view of satisfaction with clear directives for management and where to focus agency resources. IPA is also an analytic technique that generates a two-dimensional importance-

performance grid, where the values of importance and performance across attributes are plotted against each other. This technique is used to assist service and other firms in prioritizing areas for service improvement when resources are limited (Feng, Mangan, Wong, Xu, & Lalwani, 2014).

This method has proven to be a generally applicable tool which is relatively easy to administer and interpret resulting in extensive use among researchers and managers in various fields, and is a way to promote the development of effective marketing programs, because it facilitates the interpretation of data and increases usefulness in making strategic decisions (Feng et al., 2014; O'Neill & Palmer, 2004; Sarabi & Israel, 2013; Silva & Fernandes, 2010).

The performance gap provides a measure as to how well higher education institution is meeting its learner expectation for a quality educational experience. The larger the performance gap for a particular item or dimension (i.e. high importance but low satisfaction), the greater the concern for the improvement so as to increase learner satisfaction (Latif, Sharma, & Bahroom, 2007).

# **Objective of Study**

The objective of this paper is to examine the extent to which face to face tutorial services meet the expectations of the students with regard to five dimension of students' importance and satisfaction.

# Methodology

Research Design

This study utilized a quantitative approach whereby the link of online survey questionnaires were sent by email to students and were published on UT's website on the May-September 2015. A Web-based survey was designed to empirically assess the importance and satisfaction attribute of the aforementioned constructs. The web-based survey was developed as a multi-item measure using Likert-type scales. Existing validated scales were used to develop the web-based survey. The target population of this study was students of the Open University of Indonesia (Universitas Terbuka-UT). 588 responses from students was collected from this survey.

Descriptive statistics were used to analyze the research findings. An Importance-Satisfaction Quadrant analysis was carried out for the four dimensions of face to face services. A gap analysis was also carried out together with dependent samples t-tests to determine areas of strengths and weaknesses as perceived by the students.

#### Instrumentation

The items related to Importance and Satisfaction with regard to face to face tutorial services were largely adapted from those validated and utilized in the Student Satisfaction Survey by Herman (2014). The respondents were required to rate the level of importance on a five-point Likert-type scale (1) Not at all important; (2) Not very important; (3) Somewhat important; (4) Very important; and (5) Extremely important. A similar five-point Likert-type scale was also offered for the respondents to rate their level of satisfaction with the performance of face to face tutorial services.

**Table 1:** Dimension, Number of Items and Reliability of Dimensions

|                | Cronbac    |               |                    |
|----------------|------------|---------------|--------------------|
| Dimension      | Importance | Satisfacation | Number of<br>Items |
| Reliability    | 0.819      | 0.777         | 5                  |
| Responsiveness | 0.819      | 0.776         | 5                  |
| Assurance      | 0.812      | 0.757         | 5                  |
| Empathy        | 0.819      | 0.760         | 3                  |
| Tangible       | 0.818      | 0.776         | 5                  |

The Cronbach alpha coefficients for the dimensions exceeded 0.7 and these alpha values indicate that as a whole, the Importance-Satisfaction scale has a high internal consistency (DeVellis, 2012).

# Population and Sample

Out of a total of 1.277 students from the 39 regional offices in the period May-September 2015, email addresses via the online system were selected randomly. Out of that number, only 588 completed surveys were received, giving an overall response rate 46% percent.

# Data Analysis

In the quadrant analysis, the overall mean for satisfaction was plotted against the overall mean for importance, for each competency dimension. Interpretation for each of the four quadrants is as follows:

- 1. If the plotted values fall in the upper right quadrant (High Importance and High Satisfaction), the items are considered *Strengths*;
- 2. If the plotted values fall in the upper left quadrant (High Importance and Low Satisfaction), the items draw attention to *Opportunities for Improvement*;
- 3. If the plotted values fall in the lower left quadrant (Low Importance and Low Satisfaction), the items are considered of *Low Priority*; and
- 4. If the plotted values fall in the lower right quadrant (Low Importance and High Satisfaction), these items are considered under *Misallocation of Resources*.

#### Results

The five dimensions involved in this study include:

- 1. Reliability
- 2. Responsiveness
- 3. Assurance
- 4. Empathy
- 5. Tangible

The Means and Standard Deviations for each dimension is as shown in Table 2. The overall importance mean is 4.56 while the overall satisfaction mean is 3.41.

**Table 2:** Means and Standard Deviations of the Dimensions

| Dimensions     | Importance | SD   | Satisfaction | SD   |
|----------------|------------|------|--------------|------|
| Reliability    | 4.7        | 0.18 | 3.6          | 0.51 |
| Responsiveness | 4.6        | 0.20 | 3.4          | 0.44 |
| Assurance      | 4.7        | 0.18 | 3.5          | 0.46 |
| Empathy        | 4.5        | 0.21 | 3.2          | 0.45 |
| Tangible       | 4.4        | 0.27 | 3.4          | 0.52 |
| Average        | 4.56       | 0.21 | 3.41         | 0.48 |

# Quadrant Analysis

A visual representation of the ratings given by the employers can be seen in Figure 1 by plotting the importance means and satisfaction means in a scatter diagram, depicted in the form of a quadrant. All the four dimensions fall in the Strength Quadrant, indicating that UT has successfully produced F2F which are well equipped with services required (importance) by and to the satisfaction of their students.

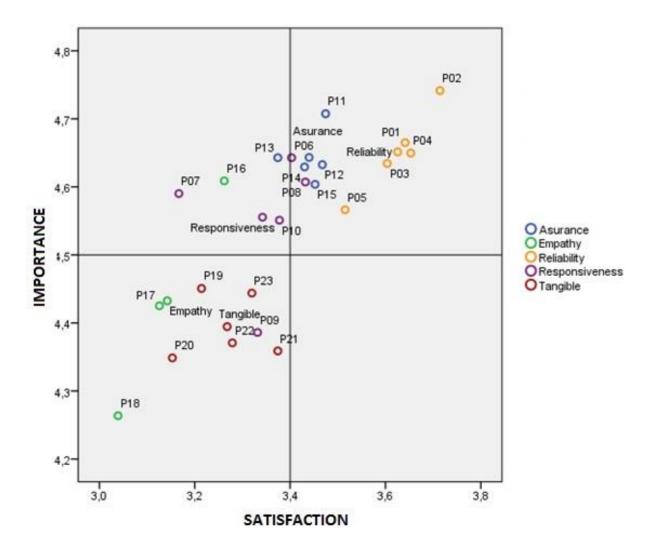


Figure 1: Quadrant analysis for overall dimensions

To further refine our analysis to gain deeper insights into the ratings by the UT's regional offices, we reconstruct the above quadrant by using the overall standard deviations of importance (0.21) and satisfaction (0.48) as the reference points or new axis (Figure 2).

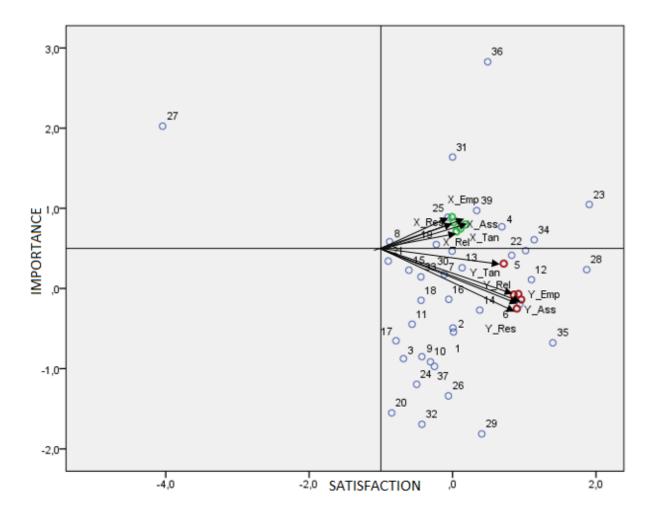


Figure 2: Relative quadrant analysis for UT's branch offices

Based on the above, not all the items are distributed to their respective quadrants, which are labeled as HIHS (high importance high satisfaction); HILS (high importance low satisfaction); LILS (low importance low satisfaction) and LIHS (low importance high satisfaction) (Table 3).

Across all the five different types of services, a majority that is 11 out of 23 or 47.8% are high importance-high satisfaction items, followed by 8 items, which contribute 34.8% of the low importance-low satisfaction (low priority) quadrant. The high importance-low satisfaction (need to concentrate here) bears 17.4% of the items. The item is not availabe in the quadrant of low importance-high satisfaction (misallocation of resources).

Based on the figure 2, we can see that:

- 1. The importance and satisfaction on regional office number 27 and 36 is different among the other regional offices.
- 2. Items corelation:
  - The importance attribute on the all dimension is intercorrelated and located in quadrant 2.
  - Satisfaction atribute is also intercorrelated on all dimension, but separated among dimension.
  - Importance and satisfaction atribute intercorrelated each other.

- 3. Variable variance: The importance variables at five dimension are more vary compare to satisfaction variables (it shown by the length of arrow from the centre). The tangible dimension is shorter than other four dimensions.
- 4. Quadrant explanation:
  - Quadrant 1: The importance value of the all regional offices are higher than the satisfaction value. The regional office number 27 has the lowest satisfaction value.
  - Quadrant 2: This quadrant has high importance and high satisfaction value. The highest importance value is shown at regional offices number 31 and 36. The highest satisfaction value is shown at regional offices number 23.
  - Quadrant 3: There is no regional offices that has low importance value and low satisfaction value.
  - Quadrant 4: This quadrant has low importance value and high satisfaction value. Regional offices number 29, 32, 20, 26, 24 and 37 are the regional offices that have lowest importance value compare to others. The highest satisfaction value is located in regional offices number 28.

# Gap Score Analysis

The gap analysis was also carried out with an objective of explicitly identifying the gaps between importance and satisfaction. The gap was measured by subtracting the mean score of satisfaction from the mean score of importance. Items with large positive gaps are indicative of problems areas that need correction, as these items are not meeting students' expectations. Small gap values imply that expectations are met. Percentage difference was also computed by subtracting the Satisfaction score from the Importance score and dividing by 5 (since the responses were based on a five-point scale) and then multiplying by 100 (see Table 3).

**Table 3:** Distribution of Items by Important-Satisfaction Gap and Quadrants

| DIMENSIONS/ITEMS  | IMP  | SAT  | GAP    | HILS | HIHS       | LILS | LIHS |
|---|------|------|--------|------|------------|------|------|
| 1. The availability of tutorial plan  | 4.66 | 3.64 | -1.02* |      | V          |      |      |
| 2. The availability of core subject of tutorial                                 | 4.74 | 3.71 | -1.03* |      | V          |      |      |
| 3. The availability of questions and answers which are concordant with the book | 4.63 | 3.60 | -1.03* |      | V          |      |      |
| 4. Tutorial plan is completed   | 4.65 | 3.65 | -1.00* |      | V          |      |      |
| 5. Time efficient   | 4.57 | 3.52 | -1.05* |      | V          |      |      |
| RELIABILITY   | 4.65 | 3.62 | -1.03* |      | 5<br>(100) |      |      |
| 6. Skill to direct the participant to focus on learning subject                 | 4.64 | 3.40 | -1.24* | V    |            |      |      |
| 7. Skill to see the obstacles faced by students                                 | 4.59 | 3.17 | -1.42  | V    |            |      |      |
| 8. Skill to ask student participate in discussion                               | 4.61 | 3.43 | -1.18* |      | V          |      |      |
| 9. Skill to feel the classroom environment                                      | 4.39 | 3.33 | -1.05* |      |            | V    |      |
| 10. Skill to receive suggestion from the participants                           | 4.55 | 3.38 | -1.17* |      | V          |      |      |
| RESPONSIVENESS  | 4.56 | 3.34 | -1.21* | 2    | 2          | 1    |      |

| DIMENSIONS/ITEMS                                      | IMP  | SAT  | GAP    | HILS | HIHS | LILS | LIHS |
|---|------|------|--------|------|------|------|------|
| 11. Skill to explain learning material                | 4.71 | 3.47 | -1.23* |      | V    |      |      |
| 12. Skill to present illustration/example             | 4.63 | 3.47 | -1.16* |      | V    |      |      |
| 13. Skill to solve the problems in learning materials | 4.64 | 3.37 | -1.27* | V    |      |      |      |
| 14. Skill to answer the question from the students    | 4.63 | 3.43 | -1.20* |      | V    |      |      |
| 15. Skill to give hint to simplify the concept        | 4.60 | 3.45 | -1.15* |      | V    |      |      |
| ASSURANCE   | 4.64 | 3.44 | -1.20* | 1    | 4    |      |      |
| 16. Readiness to response the students' distress      | 4.61 | 3.26 | -1.35* | V    |      |      |      |
| 17. Readiness to serve the students individually      | 4.43 | 3.13 | -1.30* |      |      | V    |      |
| 18. Readiness to serve students after office hours    | 4.26 | 3.04 | -1.22* |      |      | V    |      |
| EMPATHY   | 4.43 | 3.14 | -1.29* | 1    |      | 2    |      |
| 19. Classroom quality                                 | 4.45 | 3.21 | -1.24* |      |      | V    |      |
| 20. Image projector availability                      | 4.35 | 3.15 | -1.20* |      |      | V    |      |
| 21. whiteboard quality                                | 4.36 | 3.37 | -0.98  |      |      | V    |      |
| 22. Chair and desk availability                       | 4.37 | 3.28 | -1.09* |      |      | V    |      |
| 23. Room cleanness                                    | 4.44 | 3.32 | -1.12* |      |      | V    |      |
| TANGIBLE  | 4.39 | 3.27 | -1.13* |      |      | 5    |      |
| Overall Mean  | 4.51 | 3.31 | -1.16  |      |      |      |      |
| Overall SD  | 0.13 | 0.17 | 0.12   |      |      |      |      |

<sup>\*</sup> Significant at 5% confidence level

Empathy dimensions showed the largest gaps of 1.29 and this is greater than the overall mean gap of 1.16. The smallest gap was for Reliability (see Table 3). The detailed analysis of items by dimension using combined quadrant and gap analysis is given in the following paragraphs.

#### *Reliability*

As for the Reliability dimension, the difference between the importance and satisfaction mean scores is significant for five (5) items (see Table 3). The two items in which the differences are not significant are: *Understanding of international business environment* and Specific technical knowledge required for the job. Of the five items with significant differences, three are in HIHS quadrant while the other two are in the LILS quadrant.

## Responsiveness

In the Responsiveness dimension, the difference in the importance-satisfaction scores is significant in all five (5) items. Of the five items, eight (8) and ten (10) are in the HIHS quadrant, six (6) and seven (7) are in the HILS quadrant and with only one (1) item in the LILS quadrant.

#### Assurance

In the General Skills dimension, the difference in the importance-satisfaction scores of all five (5) items is significant. Of these items, four items are in HIHS quadrant and and the remaining thirteen (13) is in the HILS quadrant.

# **Empathy**

Furthermore, in the empathy dimension, the difference between the importance and satisfaction scores for all items is significant. Of this number of items, only sixteen (16) is in the HILS quadrant with the other two items are in the HIHS quadrant.

# **Tangible**

Finally, in the tangible dimension, the difference between the importance and satisfaction scores for all items is also significant. All of items are in the LILS quadrant.

# Items with Top 5 Highest Importance-Satisfaction Gap

To further examine the relative importance of all the skill items, top five (5) of them were identified based on the magnitude and percentage of their importance-satisfaction gaps. This is shown in Table 4 below.

**Table 4:** Top Five Highest Gaps in the F2F services in All Five Dimensions

| Items  | Importance | Satisfaction | Gap   |
|--|------------|--------------|-------|
| Skill to see the obstacles faced by students                 | 4.59       | 3.17         | -1.42 |
| Readiness to response the students' distress                 | 4.61       | 3.26         | -1.35 |
| Readiness to serve the students indivually                   | 4.43       | 3.13         | -1.30 |
| Skill to solve the problems in learning materials            | 4.64       | 3.37         | -1.27 |
| Skill to direct the participant to focus on learning subject | 4.64       | 3.40         | -1.24 |

As can be seen from the table, *Skill to see the obstacles faced by students* has the largest gap of 1.42, followed by *Readiness to response the students' distress* (1.35), *Readiness to serve the students individually* (1.30), *Skill to solve the problems in learning materials* (1.27) and *Skill to direct the participant to focus on learning subject* (1.24).

# **Overall Satisfaction**

The study found that 100 percent of the students were somewhat satisfied with F2F services.

# **Discussion**

The gaps for all items in this study range from a low of 0.98 to a maximum of 1.42. This range of values is higher based on the empirical data obtained by Latif, Bahroom, et al. (2015) and Latif, A, et al. (2015). In another study by Latif, Bahroom, et al. (2015), they found that the level of satisfaction was generally below the importance level. The much higher values for the gaps obtained in this study compared to other studies seem to suggest that F2F services have not been successful in producing learning process which meet the expectations of the students with regard to the five different types of customer satisfaction dimensions.

In the Importance-Satisfaction quadrant as depicted in the tabular form in Table 3, 47.8% of all items are located in the HIHS or the Strength quadrant. This shows that a majority of students in this study perceives that regional offices do exhibit the required services in their

organization and applied these services to their satisfaction. However, there are quite substantial items that fall under the LIHS (0%), HILS (17.4%) and LILS (34.8%) quadrants. The LIHS is a low priority quadrant which implies that the students accord low importance to these items even though they are well satisfied with them. For the items in the LILS, even though students are not satisfied, they can be safely ignored. The items in the HILS quadrant, which students place very high importance but are not satisfied with them, are of concern to the university. There are four items in this quadrant, namely, *skill to direct the participant to focus on learning subject, skill to see the obstacles faced by students, skill to solve the problems in learning materials*, and *readiness to response the students' distress*. This suggests that efforts need to be undertaken by UT to improve on these services/skill sets.

Notwithstanding the above positive feedback, there is still room for further improvements. Looking at the top five items with the highest importance-satisfaction gaps, skill to see the obstacles faced by students appears to top the list (Table 4). This result at first appears to be perplexing in view of the tremendous emphasis on the tutor's social presence.

Closely related to the skill to see the obstacles faced by students issue is the level of both readiness to response the students' distress and readiness to serve the students indivually which fall into the second and third position based on the I-S highest gap ranking. UT needs to take heed of these apparent weaknesses among its services and measures to improve them need to be instituted immediately. It is generally agreed that for most of today's tutors, to response and to serve the student are one of their primary inadequacies.

Skill to solve the problems in learning materials and skill to direct the participant to focus on learning subject also need to be further improved. The first, which is problem-solving skills is one of the critical factors that will place the graduates ahead of the others and ensure the success in their career and the second deal with personal integrity, honesty and trust. In order to prepare learners with these skills, f2f provides some subjects that are incorporated as part of the curriculum in all of UT's programs.

One of the tools used to develop the above skills is the academic curriculum, which is a vehicle through which attributes can be transferred during the learning process. And in general the teaching and learning assumes a self-study format, which is guided by a tutor (face-to-face and online). This self-study approach is actually the tacit goal of higher education as it produces scholars who can work independently. However, the variations among all students in the classroom, (face-to-face and online) compounded by variations in their academic levels, and cultural background poses a great challenge. A variety of instructional techniques that simultaneously help learners gain self-study skills and content knowledge, has been implemented, but obviously there is ample room for improvements.

Specific for skill to direct the participant to focus on learning subject, the following instructional components have been cited as potentially helpful to help learners increase their focus: an audience response system, visuals and demonstrations, scaffold instruction, connections to student experiences, student-to-student interaction, appropriate use of supplementary materials, sufficient opportunities for oral presentation, and explicit teaching of learning strategies (Cain, Black, & Rohr, 2009; Elder et al., 2011; Forsten, Grant, & Hollas, 2003; Lehman, Conceição, & ebrary, 2014; Smith & Sodano, 2011). Incorporating the above instructional components will most likely lead to better outcomes.

While improving tutors' readiness to serve the students indivually may be more objectively measured and has traditionally been the mainstay of tertiary education. Taking up this suggestion, tutors could perhaps be required to assess their own attributes and generic skills on a yearly basis and track their progress towards self-improvement in their classroom.

Last but not least, in order to adequately equip a regional office which meets the challenges and demands of the students, the lifelong learning system in UT and the roles of tutors needs to be further strengthened.

According to Zubaidah (2015), conducting educational deliveries in in difficult areas with no regular and adequate transportation has made the regional office have specific strategies in making the learning process run as smooth as possible. Sending a tutor to an area to meet some students and conducting a series of tutorial, which are supposed to be weekly, in several days is one of the strategies. Recruiting local people to manage the students in the area is another strategy. The absence of regular transportation from island to island, high tides, hurricanes, are among the obstacles faced by the regional offices in doing their job. Non geographical barriers such as unavailability of qualified tutor, inadequate tutor payment, are problems as well. The learning process, however, has to be done in any way, otherwise the distance education mission to reach unreachable cannot be achieved (Zubaidah, 2015).

# **Conclusion**

Importance-Performance Analysis (IPA) is simple and useful techniques that can help managers identify which attributes should be improved to increase overall customer satisfaction. From the research prospective, this study supports the adoption of the IPA as an alternative framework for evaluating students' satisfaction. Such framework can be used in further research on students' satisfaction.

Through the Importance-Performance Analysis we concluded that the attributes considered most important by students in face to face tutorial services were: the availability of tutorial plan, the availability of core subject of tutorial and tutor'skill to explain learning materials.

The results showed that in general, students are satisfied with the performance of face to face tutorial services since the average of all variables are higher than the intermediate value. The attributes considered by the students surveyed, with higher performance included: the availability of core subject of tutorial, the availability of tutorial plan and the completed tutorial plan. The attribute with the lowest performance was the tutor's readiness to serve students after office hours.

The generalization of these results should not, however, be overstated. It would be interesting to look at institution board management and students' perceptions in terms of education quality attributes and how these differences affect the types of policy and management practice.

The feedback from students such as the one reported in this study is a critical element in the success of our institution's lifelong agenda as it provides the much needed information on the tutor's skills sets that are of importance in the f2f tutorial and whether students are satisfied with the performance of the f2f tutorial services.

#### References

- Berry, L. L., Zeithaml, V. A., & Parasuraman, A. (1990). Five imperatives for improving service quality. *Sloan Management Review*, *31*(4), 29.
- Cain, J., Black, E. P., & Rohr, J. (2009). An audience response system strategy to improve student motivation, attention, and feedback. *American journal of pharmaceutical education*, 73(2), 21. doi:10.5688/aj730221
- DeVellis, R. F. (2012). *Scale development: theory and applications* (Vol. 26). Thousand Oaks, Calif: SAGE.
- Elder, R. L., Lewis, P. A., Windsor, C. A., Wheeler, M., Forster, E., Foster, J., & Chapman, H. (2011). Engaging undergraduate nursing students in face-to-face tutorials. *Nurse Education in Practice*, 11(5), 314-319. doi:10.1016/j.nepr.2011.02.003
- Feng, M., Mangan, J., Wong, C., Xu, M., & Lalwani, C. (2014). Investigating the different approaches to importance–performance analysis. *The Service Industries Journal*, 34(12), 1021-1041. doi:10.1080/02642069.2014.915949
- Forsten, C., Grant, J., & Hollas, B. (2003). *Differentiating textbooks: strategies to improve student comprehension & motivation*. Peterborough, N.H: Crystal Springs Books.
- Herman. (2012). Face-to-Face Tutorials in ODE and Student Satisfaction in Indonesia. *Asian Journal of Distance Education*, 10(2), 4-13.
- Herman. (2014). Relationship between customer value and customer satisfaction in face to face tutorial at Universitas Terbuka. Paper presented at the Teaching and Learning in the 21st Century Challenges for Lecturers and Teachers, Bandung-Indonesia.
- Latif, L. A., A, T., Subramaniam, P. T., Herman, Puspitasari, K., & Huong, N. M. (2015). *Importance-Satisfaction Survey: OU5 Collaborative Research*. Paper presented at the 29th AAOU 2015 Conference, Kuala Lumpur.
- Latif, L. A., Bahroom, R., & Afzhan, M. (2015). *Prioritizing services and facilities in a higher education institution: Importance-Satisfaction quadrant and gap analyses*. Paper presented at the 29th AAOU 2015 Conference, Kuala Lumpur.
- Latif, L. A., Sharma, R., & Bahroom, R. (2007). *Student priority and satisfaction with university services in a distance education institution*. Paper presented at the 7th SEAAIR Conference, Bangkok-Thailand.
- Lehman, R. M., Conceição, S. C. O., & ebrary, I. (2014). *Motivating and retaining online students:* research-based strategies that work (Vol. Firstition.). San Francisco, CA: Jossey-Bass.
- Lewis, B. R., & Mitchell, V. W. (1990). Defining and Measuring the Quality of Customer Service. *Marketing Intelligence & Planning*, 8(6), 11-17. doi:10.1108/EUM000000001086
- Martilla, J. A., & James, J. C. (1977). Importance-Performance Analysis for Developing Effective Marketing Strategies. *Journal of Marketing*, 41(1), 77.
- O'Neill, M. A., & Palmer, A. (2004). Importance-performance analysis: a useful tool for directing continuous quality improvement in higher education. *Quality Assurance in Education*, 12(1), 39-52. doi:10.1108/09684880410517423
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1985). A Conceptual Model of Service Quality and Its Implications for Future Research. *Journal of Marketing*, 49(4), 41-50.
- Parasuraman, A., Zeithaml, V. A., & Berry, L. L. (1988). SERVQUAL: a multiple-item scale for measuring customer perceptions of service quality. *Journal of Retailing*, 64(1), 12-40.
- Sarabi, M., & Israel, E. Y. (2013). Managing and improving service quality in higher education. *International Journal of Quality and Service Sciences*, 5(3), 309-320. doi:10.1108/IJQSS-03-2013-0016
- Silva, F., & Fernandes, P. (2010). *Using importance-performance analysis in evaluating institutions of higher education: A case study.*
- Smith, C. M., & Sodano, T. M. (2011). Integrating lecture capture as a teaching strategy to improve student presentation skills through self-assessment. *Active Learning in Higher Education*, 12(3), 151-162.
- Suparman, A. (2007). The use of technology in distance education: Lessons learnt from the experience of Universitas Terbuka. *Southeast Asian Journal on Open and Distance Learning*, 5(3).

Retrieved from <a href="http://www.seameo.org/vl/seameo\_library/search\_by\_field.php?ID=1410&page=66&current=66&Field\_Field\_Title&value=l&fieldname=Title&visit=1">http://www.seameo.org/vl/seameo\_library/search\_by\_field.php?ID=1410&page=66&current=66&Field\_Field\_Title&value=l&fieldname=Title&visit=1</a>

- Zeithaml, V. A., Berry, L. L., & Parasuraman, A. (1996). The Behavioral Consequences of Service Quality. *Journal of Marketing*, 60(2), 31-46.
- Zeithaml, V. A., Parasuraman, A., & Berry, L. L. (1990). *Delivering quality service: balancing customer perceptions and expectations*. New York: Free Press.
- Zubaidah, I. (2015). Delivering distance educational services in difficult areas: Universitas Terbuka's case. *International Journal of Educational and Pedagogical Sciences*, 2(12).