Assessing the Effects of Service Quality of Government and Student Satisfaction in Education's Field

D Purwaningsih*
Graduate School of Management Science, Universitas Pendidikan Indonesia

*dyahsidik@student.upi.edu

Abstract. The aim of the research is to analyze how the service quality of Indonesian government affect student’s satisfaction in the education field. Data collection was conducted in September 2016 through distributing questionnaires to 132 students at private universities in south Tangerang city. Sampling used incidental sampling method, while data analysis is descriptive, qualitative and quantitative, which were analyzed with the Importance Performance Analysis. The survey results revealed that the satisfaction level of the students of South Tangerang good enough to service of the Government in higher education sector with a value of 83.61 using Customer Satisfaction Index (CSI). Nevertheless, there are several factors that should be prioritized for immediate enhanced, namely: government's ability to respond effectively to solve the problems in the academic world, fairness of the government in providing assistance to both state and private universities and attention of the government to higher education.

1. Introduction
To achieve good results in higher education it is important to know what things are required of students in the learning process. In today's competitive academic environment where students have many options available to them, factors that enable educational institutions to attract and retain students should be seriously studied (Fitri & Hasan, 2008). Russell (2005) stated that the important goal for higher education institutions is delivering perceived service quality to students. Related research has largely focused on measurement of student satisfaction index for service quality performed by the university. Nevertheless education is a shared responsibility between the government and educational institutions. The government also play a big role for educational success in higher education. Unfortunately until now, there is no study about service quality from government to student satisfaction. On the other side there are many private universities have more problems when compared with state universities, and have complained of unfair competition. Both educational institutions and students want more help from the government. In comparison to the state universities, facilities and infrastructure of private universities is less satisfactory. nevertheless tuition fees at private universities are more expensive. While the level of acceptance of a private university graduates working world is still far below the country university. This led to the low number of students interested in studying at a private university.

The aim of the research is to analyze how the service quality of Indonesian government affect student's satisfaction in the education field. the implications of this research is expected to eliminate the gap between the satisfaction of private university students and students of state universities.
2. Literature review

1.1. Higher Education Institution as a business organization
De Jager & Jan (2015) stated that higher education institutions like most other organizations have realized the importance of customer-centred approach to survive amongst competitors. Zhang, Han, & Gao (2007) observed that in the accepting process to higher education service, students’ payouts are not only money, but a great lot time, endeavors and other non-price costs to realize the study objective (i.e. the result of higher education service), and the non-price costs far exceed the price costs. Higher Education is one of the most important service sectors in modern business and play an increasingly important role in the economies of all countries (Alnaser, Khalid, & Info, 2014). Further Shauchenka, Bleimann, Knoll and Clarke (2009) stated educational Institutions should adopt the principles from the business ideal, Total Quality Management (TQM) approach and marketing paradigm. However Dib & Alnazer (2013) concluded that if the student satisfaction rises, the loyalty will increase and complaint will decrease. Thus to improve education should be treated as the business world in general. Waseem & Chhapra (2014) said the researchers in the study have selected the education sector to examine customer satisfaction in this service sector keeping in view the importance of this service industry. There has been a continued research on the definition, modeling, measurement, data-collection procedure, data analysis, etc. issues of service quality, leading to development of sound base for the researchers (Sepah & Study, 2012).

1.2. Attributes that influence student satisfaction
Khan & Fasih (2014) identified that service quality and all its dimensions such as tangibles, reliability, assurance and empathy have significant and positive association with satisfaction and loyalty of customers towards their respective financial service providing organizations. Kundi et. al (2014) reveals, there is a significant relationship between the tangibility and assurance for improvement of service quality in universities. According to Archambault (2008) there is positive relationships between service quality performance and satisfaction, and satisfaction and student retention. Further, there are a positive and significant correlation between the factors of advising, curriculum, teaching quality, financial assistance and tuition costs and facilities with student satisfaction (Farahmandian, Minavand, & Afshardost, 2013). Furthermore De Jager (2015) analyzed that facilities, infrastructure, location of the university and access to that university are responsible for students’ satisfaction. Besides institution quality factors namely, location, academics, infrastructure, image and personnel significantly influence the overall satisfaction of students towards the institution (Ravindran & Kalpana, 2012). Peng (2006) stated that students expect to have significant gains in the knowledge and expect to use it as a tool for their career development. But the most important responsibility of higher education institutions is to manage all aspects of their services to students by improving student satisfaction which can be achieved by way of improving perceived service quality (Helgesen 2006).

3. Research Method
The study was conducted in September 2016 through distributing questionnaires to students at a private university in south Tangerang city. Questionnaires were collected as many as 132 respondents. Method to determine the sample used purposive sampling, incidental sampling method, while data analysis is descriptive, qualitative and quantitative. This study uses 15 of the questions attributes shown in Table 1. 5 Likert scale is used to measure the quality of service and the level of consumer interest. Scale in measuring the interest rate of 1 = very important to 5 = very important) and a scale to measure the level of performance (1 = very poor to 5 = excellent). Validity and reliability are used to ensure the indicators used are valid and reliable.
Table 1. List of Attributes

| Attribute nr. | Attributes                                                                 |
|--------------|---------------------------------------------------------------------------|
| 1            | The curriculum is in accordance with the desire of students.             |
| 2            | Lecture is able to give confidence to get the job in accordance with the chill. |
| 3            | Attention of the government to higher education                          |
| 4            | Government’s ability to respond quickly to student complaints.           |
| 5            | Government’s ability to respond effectively to solve the problems in the academic world. |
| 6            | The provision of the government scholarships for students               |
| 7            | Government communication with students about the lecture                 |
| 8            | Provision of information from the government to students                |
| 9            | Industry aids to the education world                                    |
| 10           | Industry attention to the success of the learning process in higher education |
| 11           | Cooperation universities with industry                                  |
| 12           | Communications industry with students                                   |
| 13           | Fairness of the government in providing assistance to both state and private universities |
| 14           | Visit of government officials to colleges                               |
| 15           | The attention of the government for students research                   |

The trial questionnaire was conducted to 30 respondents (n = 30) with test level $\alpha = 0.05$ has df = n-2, so the tables $r = r(1/2; n-2) = r(0.025; 28) = 0.3610$. Validity test performed using SPSS version 22 for Windows. After getting $r_{xy}$, the value of $r_{xy}$ is compared with the value of $r_{table}$. If $r_{xy} > r_{table}$ so the item tested is valid. It means that the instrument can be used as equipment for collecting data. Result of Validity test shown in Table 2.

Table 2. Result of Validity test

| Attribute | Corrected Item-Total Correlation (performance) | Corrected Item-Total Correlation (importance) |
|-----------|-----------------------------------------------|-----------------------------------------------|
| 1         | .523                                          | .417                                          |
| 2         | .636                                          | .647                                          |
| 3         | .585                                          | .829                                          |
| 4         | .738                                          | .731                                          |
| 5         | .741                                          | .860                                          |
| 6         | .331                                          | .663                                          |
| 7         | .575                                          | .703                                          |
| 8         | .788                                          | .828                                          |
| 9         | .531                                          | .809                                          |
| 10        | .550                                          | .772                                          |
| 11        | .639                                          | .797                                          |
| 12        | .516                                          | .801                                          |
| 13        | .601                                          | .711                                          |
| 14        | .510                                          | .433                                          |
| 15        | .738                                          | .694                                          |
From the output of validity test in Table 2 found that the level of all items above 0.36 and it can be said that all indicator used in the questionnaires are valid. Then based on the output of reliability analysis, from the calculation of all the indicators, cronbach alpha value, 0.908 and 0.943, were greater than 0.6, both from performance and importance variable, thus the indicators used is reliable.

The analysis technique used are Customer Satisfaction Index (CSI) and the Importance Performance Analysis (IPA). According to Irawan (2002), measurement of Customer Satisfaction Index (CSI) is necessary because the results of the measurements can be used as a reference for determining the targets in the future. Customer Satisfaction Index (CSI) can be calculated with the following steps:

a. Counting Weighting Factors (WF), which is a function of the median level of importance of each attribute in the form of a percentage (%) of the total score of the median level of importance for all attributes tested.

b. Calculating Weighted Score (WS), which is a function of the level of satisfaction median score for each attribute multiplied by Weighting Factors (WF) for each attribute.

c. Calculating Weight Median Total (WMT), the total value of Weighted Score (WS) overall.

d. Calculating customer satisfaction index (Customer Satisfaction Index), the calculation of the Total Weight Median (WMT) divided by the maximum scale, and then multiplied by 100%.

IPA is used to understand customer satisfaction and prioritise areas for improvement. IPA can be plotted graphically using the importance and performance for each attribute. IPA evaluation tool is used to prescribe the prioritisation of attributes for improvement. The IPA model is divided into four quadrants with performance on the x-axis and importance on the y-axis. The indicators of each quadrant are described as follows:

a. Quadrant I main priority (high expectations and low performance)
b. Quadrant II maintain achievement (high expectations and high performance)
c. Quadrant III, excessive (high performance low expectations)
d. Quadrant IV low priority (low expectations and low performance).

4. Result and Discussion

Customer Satisfaction Index (CSI) is used to determine the satisfaction level of the students of South Tangerang to service of the Government in higher education sector. The CSI analysis results, shown in Table 3.

| Attributes | Performance (Xi) | Importance (Yi) | Level of Compliance (Xi/Yi) (%) |
|------------|-----------------|-----------------|-----------------------------|
| 1          | 3,29            | 3,98            | 82,67                       |
| 2          | 3,49            | 4,04            | 86,49                       |
| 3          | 2,93            | 4,11            | 71,27                       |
| 4          | 2,77            | 4,05            | 68,35                       |
| 5          | 2,87            | 4,08            | 70,32                       |
| 6          | 3,28            | 4,14            | 79,30                       |
| 7          | 2,92            | 3,92            | 74,52                       |
| 8          | 3,10            | 4,03            | 76,88                       |
| 9          | 3,16            | 4,18            | 75,54                       |
| 10         | 3,30            | 4,18            | 78,80                       |
| 11         | 3,47            | 4,33            | 80,21                       |
| 12         | 3,23            | 4,14            | 77,88                       |
| 13         | 2,89            | 4,20            | 68,65                       |
| 14         | 3,05            | 3,72            | 82,08                       |
| 15         | 3,17            | 4,12            | 76,84                       |
Table 3 shows level of compliance, value of performance and importance. The value of the Customer Satisfaction Index (CSI) obtained after the calculation Weighting Factors, Weight Weighted Score and Median Total. The value of CSI= 82.28 % or 0.8228. This means that the satisfaction level of the students of South Tangerang good enough to service of the Government in higher education sector.

Table 3 presents the position indicator in the four quadrants of the Cartesian diagram with dividers is the average rate of interest and performance, the average interest rate by 4.082 and the average performance by 3.13. Cartesian diagram will portray the line of intersection quadrant of the average value of the interest rate and the performance of the service quality of Indonesian government in the education field with the aim to find out the specifics of each indicator located on the quadrant. Treatment for each indicator based on the location of each quadrant in the Cartesian diagram shown in Figure 1.

**Figure 1. Cartesian diagrams IPA**

Figure 1 presents the location of each quadrant indicator, the indicator function of grouping indicators to determine the priority in improving the performance of the service quality of Indonesian government affect student’s satisfaction in the education field. The indicators of each quadrant are described as follows:

*a. Quadrant I main priority (high expectations and low performance)*

The indicators located in this quadrant are considered important by the students but in reality these factors have not been in line with expectations. The indicators included in this quadrant are government's ability to respond effectively to solve the problems in the academic world, fairness of the government
in providing assistance to both state and private universities and attention of the government to higher education. The indicators included in this quadrant should receive more attention or repaired so that the performance is increased.

b. Quadrant II maintain achievement (high expectations and high performance)

The indicators located in this quadrant are considered in accordance with the reality perceived by the students so that high levels of satisfaction. The indicators must be maintained because the indicator has attracted the attention of the students. The indicators included in this quadrant are the provision of the government scholarships for students, Industry aids to the education world, Industry attention to the success of the learning process in higher education, cooperation universities with industry, communications industry with students and The attention of the government for students research.

c. Quadrant III, excessive (high performance low expectations)

The indicators located in this quadrant are considered less important by the students but in reality it is quite satisfactory. The indicators included in this quadrant are the curriculum is in accordance with the desire of students and lecture is able to give confidence to get the job in accordance with the chill. Indicators were satisfactory but not so important by students so that not too much attention or repaired, simply by adjusting the current conditions based on the needs of students.

d. Quadrant IV low priority (low expectations and low performance).

The indicator located in this quadrant is considered less important by the users of public transport and in fact not too special. The indicators in this quadrant are government's ability to respond quickly to student complaints, government communication with students about the lecture, provision of information from the government to students and visit of government officials to colleges. The increase in the indicator could be reconsidered as an influence on the perceived benefits of students is very small.

5. Conclusion

Based on the results from the discussion, can be concluded that the level of customer satisfaction with the service quality of Indonesian government affect student’s satisfaction in the education field showed a good performance. The survey results revealed that the satisfaction level of the students of South Tangerang good enough to service of the Government in higher education sector with a value of 83.61 using Customer Satisfaction Index (CSI). Nevertheless, there are several factors that should be prioritized for immediate enhanced, namely: government's ability to respond effectively to solve the problems in the academic world, fairness of the government in providing assistance to both state and private universities and attention of the government to higher education. These results provide guidance to Indonesian government to improve performance by identifying areas that should be improved and maintained based on students perception.

The indicators located in the quadrant II must be maintained because the indicator has attracted the attention of the students. The indicators included in this quadrant are the provision of the government scholarships for students, Industry aids to the education world, Industry attention to the success of the learning process in higher education, cooperation universities with industry, communications industry with students and the attention of the government for students research. This study is line with previous study conducted by Park, Heo, & Rim (2008) that stated the higher the customer expectations, the higher the perceived quality; the higher the customer expectations and the higher the perceived quality, then the higher the perceived value, which finally results in higher customer satisfaction.

6. Limitation and Recommendation

This research is limited from one public university in Tangerang city, Indonesia. The sample size of this research is just 132 students which are small. So, the finding of this study cannot be generalized to the all public universities in Indonesia. Therefore, further studies may focus on larger sample size and more university.
References

[1] A. C., Kundi, G. M., Khan, M. S., Scholer, M. P., & Akhtar, R. (2014). Impact of Service Quality on Customer Satisfaction in Higher Education Institutions, *Industrial Engineering Letters* ISSN 2224-6096 4(3), 23–28.

[2] Alnaser, A. S., Khalid, M., & Info, A. (2014). Service Quality Dimensions and Student’s Satisfaction, *Journal of Advanced Social Research*, 4(6), 1–17.

[3] Archambault, L. Z. (2008). Measuring Service Performance, Student Satisfaction and its Impact on Student Retention in Private, Post-Secondary Institutions, proceedings EDU-COM International Conference, Edith Cowan University. Retrieved from http://ro.eco.edu.au/ceducom/2.

[4] De Jager, J. W., & Jan, M. T. (2015). Antecedents of customer satisfaction in the higher education institutions of South Africa. *Problems and Perspectives in Management*, 13(3), 87–95.

[5] Dib, H., & Alnazer, M. (2013). The Impact of Service Quality on Student Satisfaction and Behavioral Consequences in Higher Education Services, *TI Journal* 2, 285–290.

[6] Farahmandian, S., Minavand, H., & Afshardost, M. (2013). Perceived service quality and student satisfaction in higher education. *IOSR Journal of Business and Management*, 12(4), 65–74.

[7] Fitr, H., & Hasan, A. (2008). Service Quality and Student Satisfaction: A Case Study at Private Higher Education Institutions, *CCSE International Business Research Journal* 163–175.

[8] Helgesen, Oyvind. (2006). Are loyal customers profitable? Customer satisfaction, customer (action) loyalty and customer profitability at the individual level. *Journal of Marketing Management*, 22(3-4), 245-266.

[9] Irawan, Handi. (2002). 10 Prinsip Kepuasan Pelanggan. Jakarta: PT. Elex Media Komputindo Kelompok Gramedia.

[10] Khan, M. M., & Fasih, M. (2014). Impact of Service Quality on Customer Satisfaction and Customer Loyalty: Evidence from Banking Sector. *Pak J Commer Soc Sci Pakistan Journal of Commerce and Social Sciences*, 8(2), 331–354.

[11] Park, Y., Heo, P., & Rim, M. (2008). Measurement of a Customer Satisfaction Index for Improvement of Mobile RFID Services in Korea, *ETRI Journal*, 30(5), 634–643.

[12] Peng, P. J. (2006). Measuring students ‘Satisfaction for Quality Education in a e-Learning University, *unitar e-journal*, 2(1), 11–21.

[13] Ravindran, S. D., & Kalpana, M. (2012). Students ’Expectation , Perception and Satisfaction towards the Management Educational Institutions, 2nd Annual International Conference on Accounting and Finance ( AF 2012 )2(Af), 401–410. https://doi.org/10.1016/S2212-5671(12)00102-5

[14] Russell, Marilyn. (2005). Marketing education: a review of service quality perceptions among international students. *International Journal of Contemporary Hospitality Management*, 17(1), 65-77.

[15] Sepah, B., & Study, C. (2012). The Influence of Service Quality on Customer Satisfaction : Customers of Boushehr, 1149–1159.

[16] Waseem, S. N., & Chhapra, I. U. (2014). Analysis of customer satisfaction in services industry: A case study of private universities in Karachi, Pakistan, *Asian Journal of Research in Business Economics and Management*, 4(1), pp. 223-234.

[17] Zhang, L., Han, Z., & Gao, Q. (2007). Empirical Study on the Student Satisfaction Index in Higher Education, *International Journal of Business and Management* 3(9).