

The Effect of Students' Perceived Service Quality and Perceived Price on Student Satisfaction

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Abstract: This research aims to examine the effects of students' perceived quality and students' perceived price on students' satisfaction. This research used quantitative approach with survey method. The research respondents are 155 students of two Indonesia public universities. The analysis technique that used is multiple regression analysis. The research results show that students' perceived quality and perceived price have positive influence on the student satisfaction. Besides that, students' perceived quality is more affected to student satisfaction than perceived price.

Key words: Perceived quality; Perceived price; Higher education; Student satisfaction

Customer satisfaction is a strategic issue to companies in this competitive era. Customer satisfaction can affect customers' trust (Omar et al., 2009) and their future behavior intention (Clemes et al., 2008; Cronin and Taylor, 1992; and Fornell, 1992). Furthermore, the increase in customer satisfaction will also affect on economic returns, i.e. profitability, market share, and return on investment (Anderson et al., 1994).

In an educational institution, students are the main costumer of the organization (IWA, 2007; Sakhivel et al., 2005; Hill, 1995; Zairi, 1995). Thus, in a university, its main costumer is the college student. Students' satisfaction should always be considered by the university due to intensive competition among universities, internationalization spirit, higher expectation of customer to higher educational institution, an increase in the tuition fee, and the classification of education as a marketable service (Kwek et al., 2010).

Furthermore, student satisfaction is important to be discussed, considering that there is a good effect if the students are satisfied, and vice versa. Letcher and Neves (2010) reported that "psychologists have found that student satisfaction helps to build self-confidence, and that self-confidence helps students develop useful skills, acquire knowledge". On the other hand, student dissatisfaction can lead to negative student activities, such as a bad grade, an unpleasant relationship between the student and the staff, faculty, and friends (Letcher and Neves, 2010; Athiyaman, 1997). Based on the previous explanation, it is important to discuss about factors which determine students' satisfaction.

On the services marketing literature, there are two factors that have been proven empirically as customer satisfaction determinant, i.e. customer perceived service quality and perceived price. Clemes, et al. (2008)

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have done a research on an international air travel industry in order to obtain factors that affect customer satisfaction and their buying behavior. His research adopted means end model (Zeithamel, 1998) and satisfaction model (Parasuraman et al., 1994). He proposed a hypothesis that customer satisfaction is affected by perceived service quality and perceived price. Their research showed that the proposed hypothesis was supported, so it can be concluded that perceived service quality and perceived price are affecting customer satisfaction significantly.

Aga and Safakli (2007) conducted a research towards accounting firms in North Cyprus and found that perceived service quality and perceived price had a significant effect towards customer satisfaction. Furthermore, a research conducted by Hanif, et al. (2010) in a service provider area, also showed similar results. Moreover, Dapkevicius and Melnikas (2009) conducted a literature review, in which they investigated about researches that discussed about the relationship between customer perceived quality, perceived price, and customer satisfaction. They found empirical evidence that the two variable mentioned first are affecting the latter one.

In university context, studies that show the effect of the students perceived quality and students perceived price simultaneously towards student satisfaction are still very poor. The previous studies only focused on the relationship between service quality and student satisfaction. As an example, Abu Hasan, et al. (2008) conducted a research to 200 students in two private universities in Malaysia. In their research, students' perceived quality was measured by using 5 Servqual dimensions, i.e. tangibility, responsiveness, reliability, assurance and empathy. The results showed that students perceived quality affect student satisfaction. Furthermore, that research also found that empathy and assurance is the most contributing dimensions towards students' satisfaction.

Athiyaman (1997) conducted a research towards 1432 students from various level of higher education in Australia. The research aimed to find out the relationship between perceived quality and customer satisfaction. The result showed that there is a high correlation between student satisfaction and perceived quality measures. Soutar and McNeill (1996) investigated 109 students in an Australian University and reviewed the relationship between perceived quality and student satisfaction. The results showed that the student satisfaction is significantly influenced by the perceived quality dimensions that have a correlation with the academic factors.

Moreover, Yunus, et al. (2010) conducted a research to 200 students in 4 Malaysian Polytechnic to test the relationship between motivation, empowerment, and service quality towards student satisfaction. The research results showed that motivation, empowerment, and service quality are affecting student satisfaction. Besides, it also showed that service quality is the most influencing factors towards student satisfaction.

Referring to the above explanation, this research aims to examine the impact of student perceived quality and perceived price towards student satisfaction; moreover, this research also will identify which factor has the most impact on the student satisfaction. On the other words, the research questions of this study are "are the students' perceived quality and students perceived price influence student satisfaction? Which factor is more influential on student satisfaction between the two?"

LITERATURE REVIEW AND RESEARCH HYPOTHESES

Students Perceived Quality, Students Perceived Price, and Students Satisfaction

Quality is an abstract concept that hard to be defined (Lagrosen, et al., 2004). Nevertheless, the service marketing researchers generally saw the quality from the customers' perspective (Abu Hasan, et al., 2008; Clemes, et al., 2008; Aga and Safakli, 2007). Clemes et al. (2008) reported "Although the definitions of service quality vary, the definitions are all formulated from the customer perspective: that is, what customers perceive are important dimensions of quality". Thus, quality is conceptualized based on perceived quality (Hasan et al., 2008).

Zeithamel (1998) argued that perceived quality could be defined as the consumer's judgment about an entity's overall experience or superiority. Ismail, et al. (2009) suggested that perceived quality is a general

overall appraisal of service. Cronin and Taylor (1992) conveyed that perceived quality should be conceptualized as “similar to an attitude” approach. Moreover, perceived quality is defined as the difference between customer expectation and customer perception towards service performance. If customer perception is higher than customer expectation, the customer will have higher perceived quality, vice versa (Parasuraman, et al., 1988; 1994). From the preceding descriptions, in this research we define students’ perceived quality as the students’ evaluation of the performance level of the services provided by the educational institutions, compared with their expectation level.

In addition to perceived quality, other concept associated with this research is perceived price. Price is the amount of money or goods needed to acquire some combination of other goods and its accompanying services (Stanton, et al., 1994; Hanif, et al., 2010). Furthermore, according to Kotler and Armstrong (2010; Hanif et al., 2010), price is the amount of money charged for a product or service, or the sum of the values that customer exchange for the benefits of having or using the product or service. In the other hand, perceived price defines as customer perception about what is sacrificed to obtain a product or service (Zeithaml, 1998; Lien and Yu, 2001); Aga and Safakli, 2007). According to Lien and Yu (2001), perceived price can be measured by the fairness of price to be paid. Thus, the more reasonable or the cheaper the price paid, the more satisfied the customer on the price of a product or service (Clemes, et al., 2008). Based on the previous description, in this research, we define students’ perceived price as student evaluation of what is given or sacrificed to get services from the education institutions.

Perceived quality and perceived price are two important factors to determine customer satisfaction (Anderson et al., 1994; Lien and Yu, 2001; Aga and Safakli, 2007; Clemes et al., 2008). Customers typically generated their satisfaction or dissatisfaction level after judging the service’s price and quality by the concept of “equity” (Oliver, 1997; Clemes, et al., 2008). In the beginning, the concept of customer satisfaction and perceived quality is hard to be distinguished, because they are judged based on the difference function between customer perception and customer expectation (Lien and Yu, 2001). Parasuraman, et al. (1994) mentioned a clear distinction about customer satisfaction, including consideration of service quality, product quality, and price. Moreover, Zeithaml and Bitner (1996; Lien and Yu, 2001) explained that customer satisfaction measurement includes many factors, i.e. product quality, price, situation, and personal attributes, not to mention service quality.

Some experts (Hunt, 1977; Rust and Oliver, 1994) define satisfaction as the emotional evaluation that shows how far consumers believe that the use of the services can generate positive feelings (Jen and Jung, 2003). This means customer satisfaction is related to customer’s emotional evaluation. Furthermore, some experts, such as Oliver (1980), Tse and Wilton (1988), and Yi (1990) believe that customer’s satisfaction lies in the “disconfirmation of consumer expectations” paradigm while a positive disconfirmation leads to customer satisfaction and negative disconfirmation will lead to customer dissatisfaction (Ismail et al, 2006; Jamali, 2005). This means satisfaction is a function of customer experience and expectations of various services outcomes. Based on those explanations, this research defines student satisfaction as students’ emotional evaluations of various outcomes and experiences associated with the education that they actually obtained compared to their prior expectation. Listen Read phonetically.

Research Model and Hypotheses

This research model can be seen on Figure 1. The model is developed based on by Zeithaml’s (1998) mean-end model and Parasuraman et al.’s (1994) satisfaction model, whereas, customer satisfaction was influenced by three abstract concepts, i.e. perceived product quality, perceived service quality and perceived price. On certain service industries, the characteristic of their product make it possible to combine two variables (perceived product quality, perceived service quality) into a single variable, namely perceived service quality (Natalisa and Subroto, 2003; Clemes, et al., 2008). Moreover, Lien and Yu (2001) reported, “In most service industry marketing literature, perceived service quality captures the spot light, while perceived product quality is absent. For most service industries providing intangible service and tangible goods, these two forms of products both play important roles in consumer satisfaction and loyalty”. As educational institution can be categorized as pure services (Oldfield and Baron, 2000; Solomon et al., 1985), then this research model only involves two variables, namely, perceived service quality and perceived price. Thus, in Figure 1, perceived service quality and perceived price are independent variables; meanwhile student satisfaction is dependent variable.

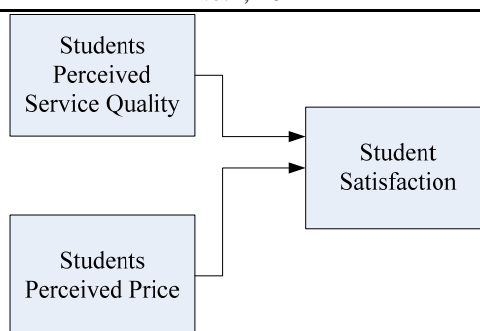


Figure 1: Research Model Representing How Students' Perceived Service Quality and Students' Perceived Price will Affect Student Satisfaction

Previous researches show that student perceived quality has a positive significant effect on student satisfaction. Hasan, et al. (2008) found out that students perceived quality affected student satisfaction. A research by Soutar and McNeill (1996) showed that the student satisfaction is influenced significantly by the perceived quality dimensions that have a correlation with the academic factors. Based on this consideration, the following hypothesis is developed:

H1: Students perceived service quality has a positive influence on students' satisfaction.

On the service marketing literature, several studies had shown that perceived price positively affects customer satisfaction as indicated by Clemes, et al. (2008) and Lien and Yu (2001). In addition, literature review conducted by Dapkevicius and Melnikas (2009) also supports the existence of a positive relationship between perceived price and customer satisfaction. Thus, this study hypothesized:

H2: Students perceived price has a positive influence on students' satisfaction.

A research by Clemes et al. (2008) showed that perceived service quality affects customer satisfaction more than the perceived price. Anderson et al. (1994) also found that customer satisfaction is more influenced by the perceived quality than perceived price. In the context of higher educational institutions, Kao's research (2007) showed that student perceived quality has a positive and significant impact on student satisfaction while student perceived price hasn't. Thus, this study hypothesized:

H3: Students perceived service quality has a greater impact on student satisfaction than student perceived price.

Research Methodology

This research is conducted on a quantitative approach. Data collection of this research is done by conducting a survey with 155 respondents, which come from two well known state universities in Indonesia. Respondents are college students that took undergraduate program.

The research instrument is questionnaire. The questionnaire consists of four main sections namely demographic profile, students' perceived quality, students' perceived price and student satisfaction. The students' perceived quality is measured using 22 statements that divided into seven dimensions based on the work of Kwan and Ng's(1999) and Poh and Jamah (2006). Student perceived price is measured by using statement about the total price/cost should be borne by the students, including the tuition fee, cost of books and teaching materials that modified from the work of Kao (2007). Meanwhile the students' satisfaction is measured also by using statement about the overall students' satisfaction that based on the work of Clemes et al. (2008), Aga dan Safakli (2007), and Kao (2007). The scale used in this questionnaire is a five points Likert scale ranging from strongly disagree to strongly agree.

The data analysis used a statistical package for social sciences (SPSS) version 15.0. First of all, validity and reliability test are conducted. Validity test was conducted by item analysis (item to total analysis) approach; meanwhile reliability test was conducted by alpha cronbach approach. Second, some data

assumption tests, i.e. normality test, multicollinearity test, autocorrelation test, and linearity test, are done. Lastly, a multiple regression analysis is conducted to test the hypothesis. All data analysis is conducted with 95% significant level.

Result and Discussions

Respondents

Respondents of this research are 155 students of two public universities in undergraduate program. Table 1 shows the descriptive statistics of respondents' demographic characteristics. The majority respondents are female (68.39%). In terms of age, mostly respondents aged 20 years old (48.39%). Besides, the majority respondents are studying in year 3 (54.19%)

Table 1: Respondents Demographic Characteristics

Variable	Category	% of Response
Gender	Male	68.39%
	Female	31.61%
Age	Under 19 Years Old	12.26%
	19 Years Old	21.29%
	20 Years Old	48.39%
	Above 20 Years Old	18.06%
Year of Study	Year 1	19.35%
	Year 2	25.16%
	Year 3	54.19%
	Year 4	1.29%

Validity, Reliability, and Data Assumption Test Result

From the validity test, it is showed that each the question items have significant levels (p-value) less than 0.05. This means that each question items was valid (Suliyanto, 2005). From the reliability test, the alpha value for each constructs is ranging from 0.760 until 0.915 greater than 0.7. This means that the measurement scales were stable and consistent in measuring the construct (Churchil, 1977).

Results from data assumption test are shown in table 2. Normality test performed is Kolmogorov-Smirnov method and from the test conducted, we obtained asymp.sig. (Alpha) values of 0.851, which is greater than 0.05. This means that the curve of standardized residual value shaped a normal spread. On other words, there is no normality problem (Suliyanto, 2005).

Table 2: Data Assumption Test Results

Data Assumption Test	Result
Normality Test	asymp.sig. (Alpha) = 0.851
Multicollinearity test	VIF = 1, 255 for both independent variables
Linearity Test	Z1 = 0.844; Z2 = 0.009
Autocorrelation Test	Durbin Watson = 1.956

Multicollinearity test showed that VIF values for the independent variables are smaller than 10. It means that the model used in this research is free from high correlation between independent variables or no multicollinearity problem in these variables (Hair et al, 1995; Dielman, 2001; Kao, 2007).

Linearity test using MacKinnon-White-Davidson (MWD) shows that the significance value of Z1 = 0.844, which is greater than 0.05, and the significance value of Z2 = 0.009, which is smaller than 0.05 means that there is no linearity problem (Suliyanto, 2005).

Autocorrelation test which is conducted by Durbin-Watson method shows that the model used in this study do not have autocorrelation because the value of Durbin-Watson (1.956) is between the value of dU (1.76) with a value of $4 - dU$ (Dielman, 2001; Kao, 2007).

Hypotheses Testing

Multiple regression analysis was used to test the hypothesis. Tables 3, 4, and 5 show the result of the multiple regression analysis.

Hypothesis 1 and 2. The F statistic value is 52.884 with p value ($p = 0.000$) were less than alpha value (0.05) (see table 3). This means the independent variables (students perceived service quality and students perceived price) simultaneously affected the dependent variables (overall students' satisfaction). Hence, the regression model is useful in predicting overall students' satisfaction. The coefficient of determination (R Square) of regression model is 0.41, indicating that 41% of variance in overall students' satisfaction is explained by the students perceived service quality and students perceived price (see table 5).

The beta coefficients for all independent variables (students perceived service quality and students perceived price) were positive and the p values of the t-test for all independent variables were less than the alpha value (0.05) (see table 4). This shows that there is significant positive influence of students perceived service quality and students perceived price on overall students' satisfaction. Hence, the hypotheses 1 and 2 were supported.

Table 3: ANOVA Results for Regression Analysis^b

	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	54.941	2	27.470	52.884	.000 ^a
	Residual	78.956	152	.519		
	Total	133.897	154			

a. Predictors: (Constant), quality, and price

b. Dependent Variable: satisfaction

Table 4: Results of Coefficients for Regression Analysis^a

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	T	Sig.
1	(Constant)	.332	.323		1.029	.305
	price	.200	.056	.251	3.598	.000
	quality	.032	.005	.487	6.979	.000

a. Dependent Variable: satisfaction

Table 5: Model Summary Results for Regression Analysis

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.641 ^a	.410	.403	.72073

a. Predictors: (Constant), quality, and price

Hypothesis 3. "The importance[s] of the dimensions is [are] indicated by standardized beta coefficients" (Clemes et al., 2008). Based on table 3, it can be seen that the standardized beta coefficient of students perceived service quality amounted to 0.487. This coefficient is larger than the standardized beta coefficient of students' perceived price (0.251). Thus, the result supports Hypothesis 3.

Discussion

This research shows student perceived quality has a positive significant effect toward student satisfaction. Thus, any increase in student perceived quality will result in an increase of student satisfaction. Previous literatures show that student perceived quality has a positive significant effect on student satisfaction (Hasan et al., 2008; Hanief et al., 2010; Yunus, et al., 2010; Jusoh, 2004; and Letcher and Neves, 2010). Thus, the first finding is supporting the previous literatures.

Another finding of this research is the student perceived price has a positive impact on student satisfaction. It means that any increase in student perceived price satisfaction will result in the increase of student satisfaction. Thus, this finding is in line with the findings of some service marketing researcher, such as Clemes et al. (2008), Lien and Yu (2001), and Dapkevicius and Melnikas (2009).

Nevertheless, this finding is different from the research findings of Kao (2007). Kao's research – conducted towards 223 commerce students in New Zealand – shows that student perceived price has no impact on student satisfaction. This difference might be caused by several reasons. First, this research is conducted in a developing country. Meanwhile, Kao's research is conducted on developed country. On developed countries, education cost is not a big deal for them compared to those on developing countries. This makes the student in developing countries more concern about education cost. Second, according to Kao (2007), the students who become the object of his study didn't pay the tuition fee by themselves or just paid in some portion, so they lack of sensitiveness towards this matter. Different context is applied to this research, where they are coming from state university. In Indonesia, there is a tendency that state university students pay their own tuition fee, either through a part time job, scholarship, or by tuition weavers.

Furthermore, the first and second finding of this research support Clemes's model (2008) that based on Zeithaml's mean-end model (1998) and Parasuraman, et al.'s satisfaction model (1994). In Clemes's model, it is depicted that perceived quality and perceived price have effect on satisfaction. In other words, perceived quality and perceived price is independent variable to satisfaction.

The research result also shows that student perceived quality has a bigger significant effect to student satisfaction compared to student perceived price. Research by Clemes, et al. (1998) and Anderson, et al. (1994) showed that perceived price has a stronger influence on satisfaction than the perceived price. Thus, this study supports the previous research findings.

Based on table 5, it can be seen that the coefficient of determination (R Square) = 0.410. This means that the independent variables (perceived quality and perceived price) of this research model can explain the diversity of student satisfaction by 41%. Thus 59% of student satisfaction is influenced by factors other than those two factors. The other possible affecting factor is the university image. As quoted from Lovelock, et al. (2004), Little suggest a model that satisfaction is a function of four factors, i.e. product quality, service quality, price, and brand image. In accordance with the context of the educational institution which also can be categorized as pure services (Oldfield and Baron, 2000; Solomon et al., 1985), then the factors that have not been considered by this study is the brand image. This conjecture is supported by empirical evidence presented by Kao (2007). Kao's research (2007) showed that the university image is one of the factors that influence student satisfaction. Furthermore, Mai's research (2005) even suggests that the image has a strong influence on student satisfaction.

“Students obtain a perception of their university's image from the outside community and from their personal experiences within the university. Therefore, as students obtain more inside knowledge about their university it is plausible that their perceptions of the university's image changes with their experiences” (Kao, 2007).

Managerial Implications

Student satisfaction is one of key success factor for managing a university. Students' urge to continue their education program at the same university and positive word of mouth about the academic program of the university are the two strategic impacts of student satisfaction (Kao, 2007). The findings of this study provide managerial implications in the context of student satisfaction enhancement.

This research confirms that student perceived quality has a positive significant effect on student satisfaction. Any increase on student perceived quality will result in increasing student satisfaction. Thus, the university always has to increase its service in order to gain student satisfaction. A quality management system based on ISO 9001 can be implemented in order to increase university's service quality. ISO 9001 is a set of quality management system requirements which is intended to allow the organization to consistently produce qualified product or service, in accordance with customer requirements and applicable statutory and regulatory requirements (ISO 9001, 2008). Application of ISO 9001 in university has been discussed in detail by Karapetrovic, et al. (1998; 2001) and IWA 2 (2007).

Some empirical evidences have shown benefits of ISO 9001 implementation in order to increase student perceived quality. Singh and Sareen (2006) conduct a research for 21 higher educational institutions in India. The research result shows that the ISO 9001 implementation will bring benefits for education institution in terms of system benefits, faculty benefits, students' benefits, and external benefits. Moreover, Sakthivel et al. (2005) conducted a research to develop a TQM model of academic excellence and empirically establish a relationship between TQM implementation and students' satisfaction of academic performance. Result shows that there is significant difference in student perceived quality among ISO 9001 certified education institution and the non ISO 9001 ones.

This research also found that student perceived price has a positive significant effect on student satisfaction. Thus, the university should pay attention to the fairness of university fees in order to obtain student satisfaction. A price benchmarking to other universities can be conducted in order to obtain price competitiveness. Universities should be able to keep the cost that must be paid by its students is not far too different from the cost that must be paid by the student from other university. In addition, in the context of state university context, the steps that can be taken by the university, among others, is by increasing budget transparency and easier access to tuition waivers or scholarships.

CONCLUSION

In this competitive era, where students have many options available for them, universities have to focus on their students' satisfaction; because students' satisfaction will give a lot of benefits for university, such as students' trust, students' loyalty, and economic returns (profitability, market share, etc). This research aims to investigate the factors that affected students' satisfaction. More specific, this research aims to examine the impact of student perceived quality and perceived price towards student satisfaction; moreover, this research identifies which factor has the most impact on the student satisfaction.

The research result shows that students' perceived service quality and perceived price fairness are affecting student's satisfaction. Besides that, students' perceived service quality has more effect on student's satisfaction compared to students' perceived price fairness. Hence, in order to generate student satisfaction, the managers of university/college should always consider and improve their students' perceived quality and students' perceived price, i.e. by adopting ISO 9001 Based Quality Management System or conducting price benchmarking.

LIMITATION

Although this study has provides some interesting findings for marketing research knowledge development, there are some limitations of this research. First, this research is only conducted at two universities with the same geographic area so the findings may differ if the sample was different. Second, this study conducted at a single point of time so the findings also may differ if the study was conducted at other time.

FURTHER RESEARCH

Due to the limitation of this research, we recommend conducting further research in terms of longitudinal study with different geographic sample. Besides, the result also shows that the contribution of perceived quality and perceived price towards student satisfaction is 0,410. This means that there are still 59% of

other factors that may affect student satisfaction. Therefore, this research also recommends in holding an advanced research to identify those factors.

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