



The Relationships among Service Quality, Customer Satisfaction, and Customer Loyalty in Library Services

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ABSTRACT

The purpose of this study is to investigate the effects of service quality, customer satisfaction, and customer loyalty in the library of Trunojoyo University. In total, 204 participants students participated in this research. Questionnaires were used for data collection. Additionally, we employed the Structural Equation Modeling (SEM) method to test the causal relationship model. The results showed that the χ^2 was 82.666 (degrees-of-freedom [df] = 62), and the overall goodness of fit index (GFI) was 0.943, indicating an empirically good fit with the model. The results of the study indicate that service quality and customer satisfaction are significantly and positively related to customer loyalty. Student satisfaction has found to be an important mediator between service quality and student loyalty. A clear understanding of the postulated relationships among the studied variables might encourage the library to figure out appropriate course of action to gratify students by providing better services in order to create a loyal customer.

Keywords: Service Quality, Customer Satisfaction, Customer Loyalty, Library

JEL Classifications: M2, M3

1. INTRODUCTION

University of Trunojoyo Madura (UTM) is a public university on the Madura island. Previous UTM is a private university that turned into public universities on July, 2001. Until now there are seven faculties at UTM, namely: Faculty of Economics, Faculty of Law, Faculty of Agriculture, Faculty of Engineering, Faculty of Teaching, and the Faculty of Islamic Sciences. To support the teaching and learning process, on the campus of the UTM available academic library large enough and supported by complete facilities and infrastructure, so that the students can run the learning process perfectly.

Libraries of UTM serve university students and staff as its first priority members; and other users of other academic institutions and alumni. The major collection cover the subject areas of social science and humanities, science and technology, and applied science. Presently, the libraries serve approximately 14,000 users consisting of: lecturers, undergraduate students, graduate

students, university staff, as well as other users. The libraries' collections comprise monograph. These consist of 325,619 books in the Indonesian language and 104,607 in foreign languages. The libraries have journals in the Indonesia language and journals in foreign languages.

Higher education is facing pressure to increase the quality of the activity (Heck and Johnsrud, 2000). The principle aims to increase the value of education to meet the interests of stakeholders, and increase student satisfaction. Student satisfaction is often used to assess the quality of education, where the ability to address the strategic needs is very important (Cheng, 1990). Education quality can be determined by the extent to which the needs and expectations of students can be met. Various concepts and models have been developed to measure student and stakeholder satisfaction. This study builds upon the SERVQUAL instrument.

Service quality, customer satisfaction, and customer loyalty has recently been emerging as important parameters for both

researchers and practitioners in various service industries, including academic, public, and special libraries (Anderson and Fornell 1994a; 1994b).

Primary objective of this study is to find out the interrelationship among service quality, customer satisfaction and customer loyalty in UTM libraries. The result obtained from this study will help the library managers in understanding institutional and user differences and similarities, finding the user problems and reducing the gap between user perception and expectation.

2. REVIEW OF LITERATURE

2.1. Service Quality

According to Ducker (1991) service quality defined as “what the customer gets and is willing to pay for” rather than “what the supplier (of the service) puts in”. Another author stated that service quality conceptualized as the difference between customer expectations regarding a service to be received and perceptions of the service being received (Grönroos, 2001; Parasuraman et al., 1988). In some earlier studies, service quality has been referred as the extent to which a service meets customers’ needs or expectations (Lewis and Mitchell, 1990; Dotchin and Oakland, 1994). It is also conceptualized as the customer’s overall impression of the relative inferiority or superiority of the services (Zeithaml et al., 1990). Hence, service quality is often “conceptualized as the comparison of service expectations with actual performance perceptions” (Bloemer et al., 1999; Kara et al., 2005).

2.2. Customer Satisfaction

Customer satisfaction has been discussed using many different models and taxonomies. According to Khirallah (2005) customer satisfaction as: A customer’s perception that his or her needs, wishes, expectations, or desires with regard to products and service have been fulfilled. Another author stated that customer satisfaction as the state of mind that customers have about a company when their expectations have been met or exceeded over the lifetime of the product or service (Cacioppo, 2000). In summary, customer satisfaction is the meeting of customer’s expectation after a product or service has been used. Jones and Sasser (1995) wrote that “achieving customer satisfaction is the main goal for most service firms today”. Increasing customer satisfaction has been shown to directly affect companies’ market share, which leads to improved profits, positive recommendation, lower marketing expenditures (Reichheld, 1996; Heskett et al., 1997), and greatly impact the corporate image and survival (Pizam and Ellis, 1999).

2.3. Customer Loyalty

Customer loyalty defined as “a deeply held commitment to rebuy or repatronize a preferred product/service consistently in the future, thereby causing repetitive same-brand or same brand-set purchasing despite situational influences and marketing efforts having the potential to cause switching behavior.” It was suggested that the loyal customer would pursue the product against all odds and at all costs (Oliver, 1999). Research has shown that loyalty may be determined by one good service encounter with a service organization (Solomon et al., 1985). In addition, it was suggest

that loyalty can occur at any stage of a business relationship (Oliver, 1999).

Pearson (1996) has defined customer loyalty as the mindset of the customer who hold favorable attitudes toward a company, commit to repurchase the company’s product/service, and recommend the product/service to others. The researchers have used the definition of Pearson (1996) for this study. Customers who feel they have obtained value from a product or service may develop a loyalty to that product or service. Therefore, efforts at retaining customers should be paramount. Supporting this since, Reichheld and Sasser (1990) concluded that the positive outcomes of loyalty have been the subject of several theoretical articles and empirical studies. Reichheld and Sasser (1990) found that reducing defections by 5% yields improvements in profitability of 20-85%.

2.4. Relationship Service Quality, Customer Satisfaction and Customer Loyalty

The success of services sector depends on prudent efforts and feasible investments. In a competitive market, service providers are expected to compete on quality of services and also it is necessary for the service providers to meet the consumer’s requirements and expectations in service quality (Melody, 2001). The relationship of service quality with customer satisfaction is well proven in the academic literature (Danaher and Mattsson, 1994; Kim et al., 2004).

Since customer satisfaction has been considered to be based on the customer’s experience on a particular service encounter (Cronin and Taylor, 1992) it is in line with the fact that service quality is a determinant of customer satisfaction, because service quality comes from outcome of the services from service providers in organizations. Some researchers have found empirical supports, where customer satisfaction came as a result of service quality (Anderson and Sullivan, 1993; Fornell et al., 1996; Spreng and Macky, 1996).

In service business, a high level of contact between service providers and customers is required. The greater customer satisfaction with their service experience, the more they feel that they can trust both the organization itself and the personnel that provide its service. Thus, satisfied customers are more likely to increased use on short and in the long run building trust of an organization than are dissatisfied customers (Yieh et al., 2007). Kantsperger and Kunz’s (2010) empirical findings also supported this argument. In addition, several authors have found a positive correlation between customers satisfaction and loyalty (Akbar and Parvez, 2009; Bourdeau, 2005; Castaldo, 2009).

Service quality is considered to be a key factor in service sector performance, that is, profitability. Service quality not only entices new customers away from competitive firms but also induces customers’ repurchase intentions (Venetis and Ghauri, 2002). Bloemer et al. (1998) indicated that service quality is positively related to customer loyalty. Buzzell and Gale (1987) found out that service quality results in increased market share and repeated sales that ultimately leads to customer loyalty. Furthermore, that there is a positive relationship between service quality and customer loyalty (Aydin and Özer, 2005; Kuo et al., 2009).

Based on the above discussion of literature review, the theoretical propositions inform the development of hypothesized model (Figure 1) and research hypotheses.

2.5. Research Hypothesis

H1: Service quality significant effect on customer satisfaction.

H2: Customer satisfaction significant effect on customer loyalty.

H3: Service quality significant effect on customer loyalty.

3. RESEARCH METHODOLOGY

3.1. Research Method and Sample Size

This study used second source (library and other recorded observations) data and case study. First, the literature of service quality, customer satisfaction, customer loyalty and structural equation modeling (SEM) was reviewed. After extracting criteria, 204 completed questionnaires from the students of UTM libraries in Indonesia. Finally, using SEM by AMOS 16 software, analysis of output was conducted. The rationale behind utilizing SEM is that it investigates the multivariate dependence relationships simultaneously (Molinari et al, 2008).

3.2. Sampling and Respondent Profile

Paper survey was distributed to students’ of Trunojoyo University. During a period of 1 month, 204 questionnaires were collected through a proportional sampling method from students’ of Trunojoyo University. Of the respondents, 42% were males and 58% were females. Table 1 shows the demographics of respondents.

4. ANALYSES AND INTERPRETATIONS

There were 210 questionnaires collected, but 6 questionnaires were incomplete or invalid. All questionnaires were coded for statistical analysis using the SPSS 14.0. Table 1 reflected the demographic respondents of the sample who participated in this study. The

Figure 1: Hypothesis model

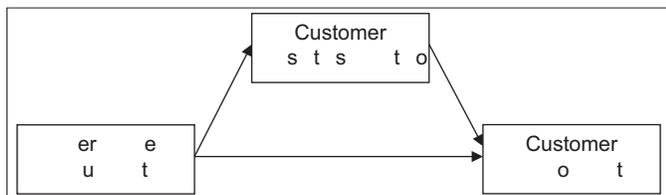


Table 1: Demographics of respondents

Demography variables	Frequency	Percentages
Gender		
Female	118	0.58
Male	86	0.42
Categories of undergraduate student		
1 st year	26	0.13
2 nd year	54	0.26
3 rd year	48	0.24
4 th year	76	0.37

descriptive analysis shows the demographic characteristics of respondents with their institutes. Overall males are 42%, while 58% are females. About 13% students are in 1st year of study in the universities, 26% are in 2nd year, 24% are in 3rd year, and 76% are in 4th year.

The instrument was composed of 13 measurement items. The measurement items relate to the constructs of service quality, satisfaction, and loyalty. This study used items which have effectively measured these constructs based on their high level of reliability and validity in previous research. However, modifications have been made on certain measures to make them more appropriate for the context of this study. All constructs were operationalized by using multi-item measures. A five-point Likert scale, ranging from “1 = strongly disagree” to “5 = strongly agree” was used. Table 2 presents a listing of the constructs and measures employed in the study. In this paper, the items of antecedent factors of service quality were mostly adopted from the model of SERVQUAL (Parasuraman et al., 1988; Parasuraman et al., 1991) and later studies in terms of service quality (e.g., Asubonteng et al., 1996; Cronin et al., 1997; Leung and To, 2001). Further, customer satisfaction and customer loyalty measures were mainly based on qualitative studies by Zeithaml et al. (1990), Parasuraman and Grewal (2000), and Ribbink et al. (2004).

4.1. Reliability and Validity

The analysis of the data was done with the help of SPSS and AMOS. Cronbach’s (α) coefficient for the internal consistency of service quality, customer satisfaction, and customer loyalty, were 0.728, 0.817, and 0.725, respectively. The Cronbach’s alpha reliability of all the latent variables are more than 0.70 (α > 0.7), that

Table 2: Latent and manifest variables used to test the hypotheses of the study

Latent variables	Manifest variables
Service quality (SQ)	SEQ1: My overall opinion is that physical aspects of the library are convenient and visually appealing SEQ2: My overall opinion about retailer’s reliability is very positive SEQ3: My overall evaluation about staff’s personal interaction is very positive SEQ4: Library’s personnel are always ready to handle potential problems SEQ5: My overall opinion about library’s policy is very positive
Satisfaction (SAT)	SAT1: Based on all my experiences with this library, I am very satisfied SAT2: I am satisfied with the price/quality ratio offered at the library SAT3: In general, I am satisfied with the service offered at this library SAT4: In general, this library offers a satisfactory assortment of products
Loyalty (LOY)	LOY1: I can highly recommend this library LOY2: If I could decide again, I would choose this library again LOY3: I like to be a customer of this library LOY4: I will prefer this library to other libraries at any time

indicates all scales demonstrate good reliability (Nunnally, 1978; Hair et al., 2009). Table 3 provides the Cronbach’s alphas for scale items used in this study.

5. RESULTS

5.1. Analysis of the Structural Model

In this research, before we proceed with structural analysis on the collected questionnaires, we have to understand the confirmatory analysis of the research model. The main purpose of the confirmatory analysis of the research model is to determine whether the theory model constructed by the researcher is instrumental in explaining the observed data. Four common model-fit measures were used to assess the model’s overall goodness of fit (GF): (i) Chi-square/degree of freedom, (ii) GF index (GFI), (iii) comparative fit index (CFI), and (iv) root mean square error of approximation (RMSEA) (Smith and McMillan, 2001) as shown in Table 4. The ratio of χ^2 to degrees-of-freedom (χ^2/df) for the measurement model was calculated to be 1.333.

Table 3: Cronbach’s alpha for scale items

Scales	Number of items	Sample size	Cronbach’s alpha
Service quality	5	204	0.728
Satisfaction	4	204	0.817
Loyalty	4	204	0.725

Source: Own

Table 4: The fit indices and analysis results of the structural model of the overall model

Fitness indices	Measure of index
Chi-square	82.666
Df	62
Cmin/Df	1.333
p-value	0.041
GFI	0.943
CFI	0.964
RMSEA	0.041
TLI	0.955

TLI: Tucker-Lewis Index, GFI: Goodness of fit Index, CFI: Comparative fit index, RMSEA: Root mean square error of approximation, DF: Degrees-of-freedom

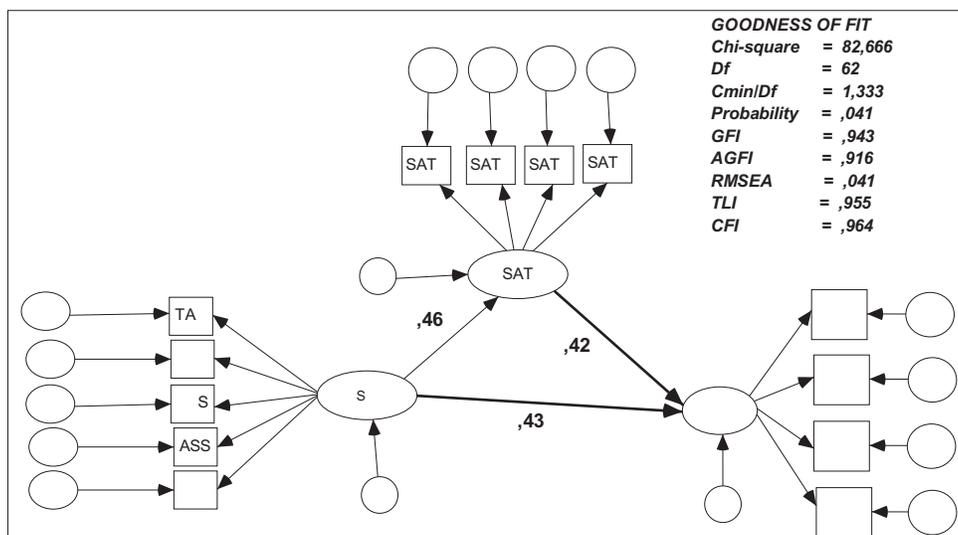
The GFI was 0.943, which is greater than the 0.90 benchmark suggested by Hu and Bentler (1999). The adjusted GFI was 0.916, which is greater than the 0.90 benchmark suggested by Hu and Bentler (1989). The CFI was 0.964, which is greater than the 0.90 benchmark suggested by Bentler (1989). The RMSEA was 0.041, which was slightly greater than the recommended range of acceptability (<0.05-0.08) suggested by MacCallum et al. (1996). The significant structural relationship among the research variables and the standardized path coefficients are presented in Figure 2. The Figure 2 shows that hypotheses H1 was supported. Service quality had a positive effect on customer satisfaction of library services ($\gamma = 0.46$, $p < 0.01$). Therefore, hypotheses H2 was supported. Service quality had a positive effect on customer loyalty of library services ($\gamma = 0.43$, $p < 0.01$). Therefore, hypotheses H3 was supported. Customer satisfaction had a positive effect on customer loyalty of library services ($\beta = 0.42$, $p < 0.01$).

Mean scores have been computed by equally weighting the mean scores of all the items. On a five-point scale, the mean scores of service quality of the library of Trunojoyo University is range from 4.26-4.33 indicate that service quality being offered by the library is quite high. The mean score of customer satisfaction is 4.34 (sd = 0.42) implies that the customers of the library are highly satisfied. The mean score of customer loyalty is 4.49 (sd = 0.40). Seems that the customers are very loyal to the service of library.

6. CONCLUSION

The study used the AMOS method to test the proposed model. The results showed that the overall model fit the data extremely well (Chi-square is 82.666 with 62°, GFI = 0.943). The results of the internal structure model fitness test were also suitable ($t > 3.29$, $p < 0.001$). Therefore, this study concludes that, in the library, service quality and customer satisfaction is directly related to customer loyalty. These findings agree with those of previous studies (Reichheld and Sasser, 1990; Liao, 2007; Bindu et al., 2009; Liao, 2012; Islam et al., 2012). The obtained results in this research are in line with other research findings. They confirmed the relationship between service

Figure 2: Structural model



quality and customer satisfaction. (Anderson and Mittal, 2000; Cronin et al., 2000; Edward and Sahadev, 2011; Islam et al., 2012) and service quality and customer satisfaction is directly related to customer loyalty. These findings agree with those of previous studies (Reichheld and Sasser, 1990; Liao, 2007; Bindu et al., 2009; Islam et al., 2012). Finally, this study infers that service quality may be the most significant factor influencing customer satisfaction. Then, service quality may be considered the antecedent of satisfaction, and its effect on loyalty is mediated by satisfaction. These findings are consistent with those of authors (Yieh et al., 2007; Subhash et al., 2010, Liao, 2012; Islam et al., 2012).

7. LIMITATIONS AND FUTURE RESEARCH

This study is based upon easy sampling processes, a random probability sampling method can provide results that are more accurate. Due to limitations of time and budget, the study has been carried out on a small scale that could be expanded in future.

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