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E-PAYMENT SERVICE QUALITY AND STUDENT SATISFACTION: A STUDY AT UUM SINTOK

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Abstract:

The purpose of this study, which used the SERVQUAL model of service quality in an e-payment system, was to ascertain that service quality is linked with student satisfaction in UUM Sintok. Further, an investigation of service quality dimension items has found that they are the greatest associated with student satisfaction. This study used sample random sampling to choose the respondents, and data were gathered from validated respondents. Thus, results revealed that the respondents generally expressed higher satisfaction with the service quality of e-payment systems. The findings also positively correlated student satisfaction and service quality, such as tangibles, reliability, responsiveness, empathy and assurance in e-payment systems. The studies developed hypotheses for testing using quantitative research methodology and data analysis was done using SPSS. Furthermore, the study outcome showed that the e-payment system's service quality is an important predictor that showed a significant fit for student satisfaction. Retailers may use the study's output to develop a new strategy to increase student satisfaction.

Keywords:

Student Satisfaction, E-Payment System, Service Quality

Introduction

Due to the world's rapid technological improvements, users are migrating to cashless (Rahman et al., 2020). At the same time, advancing of internet facilities had tremendous popularity and could obtain goods and services in an entirely new way. Thus, users prefer online payments to traditional one (Oussama et al., 2020). Additionally, electronic payments (e-payments), also known as cashless payments are an alternative payment method instead of using credit and debit

cards to pay any transaction of products or services as a convenient payment method to users

(The Economic Times, 2022). Thus, an e-payment system as one transaction method can enhance customer satisfaction strategies.

Generally, customer satisfaction is measured as a sensation of satisfaction, a feeling of pleasure and satisfaction that comes from consuming a product or service, also known as the general attitude of a customer toward a product or service after use (Juwaini et al., 2022). In online transactions, customer satisfaction often refers to good service quality and attitude toward the product or service encountered on an online website (Rita et al., 2019). Hence, customer satisfaction is essential to an organization for long-term viability, and satisfying customers gives an organization several advantages, including greater sales growth and sustainability in business (Pakurár et al., 2019).

However, numerous studies claimed that service quality is inconsistent with customer satisfaction (Hasan et al., 2012; Usman, 2021; Poturak, 2014; Ali & Mohamed, 2014; Kajenthiran & Karunanithy, 2015). Such as Simo (2018) found that only reliability and responsiveness items are associated with student satisfaction. Moreover, Tarekgn, (2019) suggested that only three of service quality are significant in customer satisfaction. Similarly, Thanzin and Chua (2019) also found that student satisfaction is only linked to reliability, responsiveness, and assurance. Thus, a previous study of the e-payment system of service quality of student use items still lacking and needs serious attention for further study. This research investigates the relationship between UUM students' satisfaction with using e-payment service quality and the SERVQUAL model, which includes reliability, assurance, tangibility, empathy, and responsiveness (Ramya et al., 2019).

Literature Review

Electronic Payment System

An electronic payment or e-payment system as system allows people to use paperless money such as pay online for any products and services they have used (Gandawati, 2018). Therefore, e-payment systems simplify the purchasing process involving payers, payees, e-commerce, banks, organizations, and governments that benefit from the e-payment system (Fatonah et al., 2018). The Federal Financial Institutions Examination Council (2020) defines e-payment as a new retail payment technique involving payment information for products and services into an electronic template that produces electronic files for network processing.

The advantages of e-payment systems are faster payments, better documentation, transaction transparency, less time consuming, and lower organization costs. Current financial transactions, identifiable users, and successful e-payment technology significantly impacted e-payment utilization technology in the banking sector. As a result, the e-payments system is popular in the services sector (Hamid et al., 2020).

Student Satisfaction

Student satisfaction the degree of satisfaction for products and services, including their loyalty and purchase intention (Marta, 2021). Hence, any organization success relies on the satisfaction it fulfils. It is determined by perceived product quality, value-added, and convenience for consumer expectations (Patel & Trivedi, 2021). As common practices, for continuous improvement to achieve satisfaction in the organization, the management should identify user

needs by measured throughout constructed questionnaires or interview via online surveys, and these results may assist organization to improve their products and services more to meet user satisfaction (Bernazzani, 2021).

Service Quality

Service differs from physical products in its characteristics. Such as, service is intangible and non-detachable (Thapa, 2022). One type to measure service characteristics is service quality, which that able to meets customer needs (Chin et al., 2019). Furthermore, improving customer satisfaction might indicate that an organization management is more focused on service quality. Because, customers intend to use those who give them excellent service quality that suit certain needs, and they expect an organization to fill their needs (Indeed Editorial Team, 2022).

Parasuraman, Zeithaml, and Berry in 1985, discovered that any organization can use the service quality model to increase its profit margins, reduce costs, and increase market share. Hence, Goula (2021) claimed that service quality can be measured and analyzed by empirical data, which is critical for any organization (Jamel et al., 2021). This study identifies service quality (SERVQUAL) items as tangibles, reliability, responsiveness, assurance, and empathy (Mouzaek et al., 2021; Shared, 2019; Maharsi et al., 2020).

Tangibles

Tangibles are any tools or equipment used in an organization to fill customer needs (Thazin & Chua, 2019). The tangibles also serve as characteristics to evaluate the service provider's physical premises, supplies, people, and equipment (Kandampully, 2007). The physical technology facilities, communications equipment, tools, and infrastructure also are considered tangible services. Therefore, the organization must focus on tangibles of customer needs as part of service quality (Ramya, 2019).

Reliability

Reliability is defined as organization's dependability, consistency, and accuracy in satisfying customer needs (Kandampully, 2007). Meanwhile, Thazin and Chua (2019) claimed that reliability is the capability to perform any service to the customer and meet its promises. Ramya (2109) emphasized that reliability can be explained by delivery, service provided, and prompt problem resolution. It could be advantage for any organization to improve service quality reliability by keeping their promises to attract customers and understanding customer expectations (Ramya, 2019).

Responsiveness

Responsiveness is the staff's ability to deliver prompt service and more efficient and effective commitment to service, including teamwork and correspondence to customer needs (Kandampully, 2007). Responsiveness also defined as helpful, responsive and timely customer service (Leigh, 2020). Furthermore, focusing on employees' dependability to perform any job able to respond to customer needs are most important criteria in service quality. (Ramya, 2019)

Assurance

Assurance of service quality can be defined as organization staff delivering prompt and efficient service to the customer, including attributes like teamwork among staff, friendliness toward the customer, and showing compassion to the customer (Kandampully, 2007). At same time, service providers must be helpful and timely in giving any service to customers within a specific required period (Leigh, 2020). The term assurance can also be measured as the respond of staff

in any organization to help customers quickly. This element also entertains customer inquiries, complaints, and requests. Assurance of service quality also emphasize the staff's dependability, dedication on job, and ability to delivery processes as customer requests (Ramya, 2019).

Empathy

Empathy is defined as giving special treatment to customers with caring and personalized attention and recognizing customer needs (Kandampully, 2007). Empathy of service quality also defined as creating relationships with consumers and showing how more desirable service results are given to customers (Valtakoski, 2020). If we properly manage care to customers related to our service with additional personalization attention, they will return to use our service or product (Ramya, 2019). **Figure 1** shows the framework of this research. The independent variables are tangibility, reliability, responsiveness, assurance and empathy; the dependent variable is student satisfaction.

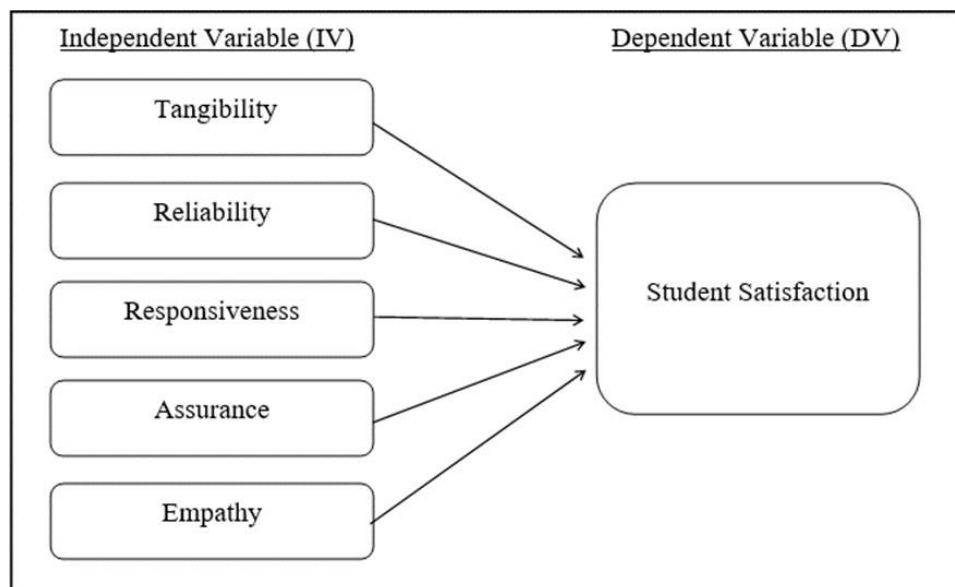


Figure 1: Research Framework

The following hypotheses are designed in this study,

H1: Tangibility of service quality is positively associated with student satisfaction

H2: Reliability of service quality is positively associated with student satisfaction

H3: Responsiveness of service quality is positively associated with student satisfaction

H4: Assurance of service quality is positively associated with student satisfaction

H5: Empathy of service quality is positively associated with student satisfaction

Research Methodology

This research uses a questionnaire as a tool to collect quantitative primary data. The inferential statistics of the Pearson correlation are used to determine the relationship between service quality and student satisfaction. The questionnaire of this study is divided into three sections: A, B, and C. Meanwhile, respondents are required to answer all items completely in the questionnaire

Section A is about the respondents' demographics. This section's objective is to gather information on respondents. This section asks about the gender, race, and number of times the e-payment system is used per week. In section B, the service quality dimension elements

include tangibility, reliability, responsiveness, assurance, and empathy. Section C of the questionnaire is on student satisfaction. This study uses simple random sampling as its probability-based sampling strategy. This study's target respondents were University Utara Malaysia (UUM) undergraduate students. The sample size used in this study is based on Krejcie and Morgan's (1970) method, where 379 UUM students took part in the questionnaire survey through an online Google Form.

Findings

Demographic of Respondents

The study collected a total of 379 respondents. **Table 1** shows the respondents' race; the percentage of Chinese respondents is 38.3 percent; Malay respondents are 30.3 percent; Indian respondents are 21.1 percent, and other races represent 10.3 percent.

Table 1: Respondents Race

Item	Race	Frequency	Percent
Race	Chinese	145	38.3
	Malay	115	30.3
	Indian	80	21.1
	Other	39	10.3

Table 2 shows the gender of respondents. The result shows that 57 percent of respondents are female, and 43 percent are male.

Table 2: Respondents Gender

Item	Category	Frequency	Percent
Gender	Female	216	57
	Male	163	43

Table 3 shows the frequent use of e-payment services. The result shows that more than 3 times a week represents 39.8 percent, below 3 times a week is 24.5 percent, once a week is 19 percent, and less than once a week is 16.6 percent.

Table 3: Frequency Use E-Payment by Respondents

Item	Criteria	Percent
Use E-Payment	More than 3 times a week	39.8
	Below 3 times a week	24.5
	Once a week	19.0
	Less than once a week	16.6

Reliability Test

The reliability test of the study uses the Cronbach Alpha value, which demonstrates the dependability of multi-item scales. Cronbach's Alpha should be greater than 0.7 (Leech et al., 2005). **Table 4** shows all items of Cronbach's Alpha value; tangibles were (0.840), reliability was

(0.809), responsiveness was (0.829), assurance was (0.843), empathy was (0.854), and student satisfaction was (0.798). All value above 0.70 was considered to achieve the reliability test.

Table 4: Reliability Test Results

Variables	No of Items	Cronbach's Alpha
Tangibles	5	0.840
Reliability	5	0.809
Responsiveness	5	0.829
Assurance	5	0.843
Empathy	5	0.854
Student Satisfaction	5	0.798

Pearson Correlation Analysis

The Pearson Correlation Analysis evaluates the relationship between the two variables: service quality of tangibles, reliability, responsiveness, assurance, and empathy. The dependent variable is student satisfaction. **Table 5** shows the Pearson correlation results, tangibles ($r = 0.713$), reliability ($r = 0.710$), responsiveness ($r = 0.722$), assurance ($r = 0.705$) and empathy ($r = 0.662$) that indicated a strong and positive relationship between service quality and student satisfaction.

Table 5: Pearson Correlation Results

Variables	Student Satisfaction
Tangibles	0.713**
Reliability	0.710**
Responsiveness	0.722**
Assurance	0.705**
Empathy	0.662**

**. Correlation is significant at the 0.01 level (2-tailed)

Model Summary and Analysis of Variance Results

The relationship between student satisfaction and the service quality dimensions of empathy, tangibles, reliability, assurance, and responsiveness is moderate. **Table 6** is shown by the table's $r = 0.783$. According to the r square value of 0.614, about 61.4% of changes in student satisfaction will be attributable to variables beyond the study's purview. **Table 7** The F test statistics and significance value are then shown in the table below to be 118.518 and .001, respectively, indicating that the model specification is appropriate for the investigation.

Table 6: Model Summary of Study

Model	r	r^2	Adj. R^2	Std.Error	F	Sig.
1	0.783 ^a	0.614	0.6090	0.27571	118.518	<.001

a. Predictor (Constant): Empathy, Tangibles, Reliability, Assurance, Responsiveness

Table 7: Analysis of Variance Results

Model	Sum of Square	df	Mean Square	F	Sig.
Regression	45.045	5	9.009	118.518	<.001 ^b
Residual	28.353	373	0.076		
Total	73.398	378			

a. Dependent Variable: Student Satisfaction

b. Predictor (Constant): Empathy, Tangibles, Reliability, Assurance, Responsiveness

Discussion

This research shows that most respondent are female 57 percent and male 43 percent. The respondents' race was from ethnic Chinese was 38.3 percent, Malays was 30.3 percent, Indian was 21.1 percent, and other was 10.1 percent. Analyzed results of the Pearson correlation indicated that service quality is positive and strongly correlated with student satisfaction. It means all independent variables of service quality consisting of tangibles, reliability, responsiveness, assurance, and empathy have significantly influenced student satisfaction in the e-payment system. The ANOVA result also supported that the F distribution value is significant between service quality and student satisfaction in the e-payment system.

Implication and Conclusion

Student satisfaction is one of the most critical determinants of an e-payment system's success. It seeks various methods to be provided for customer and meet their demand. This study found that it is critical to make the service quality of e-payment systems exceed their service for user and fit with their expectations. The findings show that service quality substantially impacts student satisfaction in the e-payment system. Furthermore, the variables of service quality such as tangibles, reliability, responsiveness, empathy and assurance, are among the factors that significantly impact student satisfaction. This study also recommended that the e-payment system of service quality is sufficient to support student satisfaction. Hence, improving service quality is related to increasing customer retention and encouraging students to utilize more e-payment systems daily.

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