

## Factors Affecting Customer's Satisfaction Toward Internet Banking: PAKSERV Model

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**Abstract:** As the internet penetration rate increases, more and more Malaysian have used the internet banking due to its convenience. However, there are challenges facing banks in offering the internet banking services and retaining its customers. Instances of cybercrimes has been reported to increase by 480% between 2017 to 2018, which may affect internet banking quality of service in the eyes of customers. PARKSERV is a model for measuring and evaluating service quality dimensions that are culturally relevant to customers. In addition, service efficiency has also been suggested to be a factor for service quality. A total of 384 data was collected via online survey. The study model was able to explain almost 70% of the variation in customer satisfaction. All seven variable were initially to have positive significant correlation with the dependent variables. However, out of the seven predictor variables, only tangibility, reliability, and assurance were found to be positively significant influence of customer satisfaction in the study

**Keywords:** *Internet banking, Malaysia, virtual banking, customer satisfaction, PAKSERV*

### INTRODUCTION

As the internet penetration rate increases, more and more Malaysian have used the internet banking due to its convenience. The internet banking services has been reported to be the most profit-making e-commerce application [1]. However, there are challenges facing banks in offering the internet banking services and retaining its customers. Instances of cybercrimes has been reported to increase by 480% between 2017 to 2018, which may affect internet banking quality of service in the eyes of customers. The banking industry is under increasing pressure to demonstrate that their services are customer – focused and that continuous performance improvement is being delivered. However, in introducing improvement, banks need to ensure that their customers satisfaction are met [2]. Prior studies have looked at service quality using SERVQUAL, a model which provides a measurement system for perceived service quality. The model measures quality as the difference between customer expectations against their evaluation of performance [3]. More recently, the PAKSERV model was introduced which further extended the SERVQUAL model by adding service quality

dimensions that are culturally relevant to customers, namely tangibility, reliability, assurance, sincerity, personalisation, and formality [4]. In addition, service efficiency has also been suggested to be a factor for service quality [5], [6]. In the rapid pace of banking bring about by the advancement of technology, it is believed that efficiency is also an important factor to increase customer satisfaction. Therefore, this study will examine the internet banking customer satisfaction using the dimensions as proposed by PAKSERV which are tangibility, reliability, assurance, sincerity, personalisation, formality, plus service efficiency.

The study thus, aims to seek answers to the following research questions:

- Does tangibility have significant effect on internet banking customers' satisfaction?
- Does reliability have significant effect on internet banking customers' satisfaction?
- Does assurance significantly effect internet banking customers' satisfaction?
- Does sincerity significantly influence effect internet banking customers' satisfaction?
- Does formality significantly affect internet banking customers' satisfaction?

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- Does personalization significantly affect internet banking customers' satisfaction?
- Does efficiency significantly effect internet banking customers' satisfaction?

## LITERATURE REVIEWS

### PAKSERV Model

The PARKSERV model is a combination of service quality with social culture dimensions of sincerity, formality, and personalisation [4]. Other than the social culture dimension, PAKSERV has also been introduced to overcome the weakness of its predecessor model, namely SERVQUAL. SERVQUAL has been found to be not very suitable to be used in the context of developing countries [7].

### Customer Satisfaction (CS)

Traditionally customer satisfaction has been defined as the consumer response after using a product or service [8]. Customer satisfaction can be measured as the repeat purchases the goods/services [9]. Chances of repeat buying increases as customer satisfaction towards a product or services increases [10]. Customer satisfaction in the banking industry has obtained researchers interest for years and studies have been conducted on the many aspects of the banking services all over the world [11], [12], [13], and [14].

### Tangibility (TAN)

Tangibility is defined as the quality of the physical environment that takes into account several elements such as personnel, physical facilities, materials used and other physical features used to function to facilitate the services provided [15]. In addition, tangibility is defined as a term of service scape that has significant elements to facilitate each of the physical facilities used [16]. Service tangibility are further categorized into five categories, namely including the furniture and equipment arrangement, the setting comfort, clear visible displays, signs and symbols and cleanliness of the premise. In the context of internet banking services, also measure the attractiveness and user friendliness of the system.

### Reliability (REL)

Trustworthiness is defined as a trust that is fully placed from the customer to administrative management [17]. Reliability also refers to the quality of records provided to customers, the accuracy of meeting requests, accuracy in charges, should be the most fundamental element that drives customers satisfaction [18]. Prior studies' findings have not been very consistent on the positive and significant influence of reliability on customer satisfaction [19], [20] and [21].

### Assurance (ASR)

Assurance is defined as display of good and trustworthy attitude by both managers and employees [22]. The banking industry has been suggested to provide assurance or guarantee of convenient services, transparency of charges to their customers at any time using their services [23]. Findings of prior studies have been consistent in the positive significant influence of assurance on customer satisfaction [19], [24].

### Sincerity (SNC)

Sincerity is defined as the honesty that management needs to have to be preferred by customers who come to service or buy goods [25]. Sincerity also refers to the level of sincerity that is necessary in both an organization and an individual. Sincerity in providing services is considered as being determined by culturally oriented emotions [26]. Review of previous studies found that sincerity has not been very consistently influencing customer satisfaction [4], [27], and [28].

### Formality (FML)

Formality, which is also a culturally influenced dimension of PAKSERV, refers to customers' assessment of the service provider's behaviours in observing social distance, form of address and rituals [4]. Findings of previous studies have not been very consistent on the positive influence of formality on customer satisfaction [4], [29], and [30].

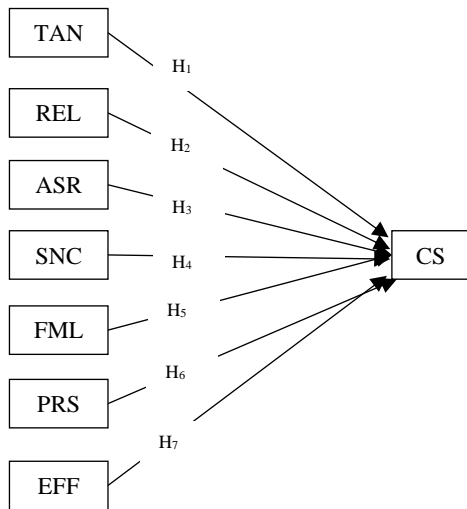
### Personalization (PRS)

Personalization refers to consumer's evaluation of customization and individualized attention [4]. Personalization that can attract the customer's attention and also have a positive impact on the company or management. Prior studies have found that personalization has significant positive influence on customer satisfaction [4], [31].

### Efficiency (EFF)

In the context of the internet efficiency literature, efficiency is treated as a relative measure which reflects the deviations from maximum attainable output for a given level of input [32]. Previous studies have found internet services efficiency as a significant influence of customer satisfaction, particularly in the context of banking and e-banking services [5], [33].

**Conceptual Framework of the Study**



**Figure 1: Study Framework**

**Research Methods**

The study uses the quantitative methodology for data collection and analysis. The independent variables are tangibility, reliability, assurance, sincerity, formality, personalization, and efficiency, while the dependent variable is customer satisfaction. Data was fully collected using online survey as physical interactions are not possible due to the movement control order imposed during the COVID-19 pandemic. A total of 384 survey responses were received by the end of the data collection.

**Instrument Development**

The following table describes the sources as the basis for instrument development:

Constructs	Sources
Customer satisfaction	Amanda, Chia, Choong, Foo, 2017 [1]
Tangibility	Kashif, Suzana, Mohsin & Syamsulang, 2015 [2]
Reliability	
Assurance	
Sincerity	
Formality	
Personalisation	
Efficiency	Jham V., 2016 [3]

**Table 1: Sources of Items**

The questionnaire was submitted to an entrepreneur and academic practitioner as experts to review its face and content validity. In addition, a pilot study was conducted where a total of 45 responses were obtained and used for its internal reliability analysis of the survey instrument. The pilot test results are as per Table 2.

Constructs	No. of items	Cronbach's $\alpha$
CS	5	0.748
TAN	5	0.868
REL	5	0.796
ASR	5	0.875
SNC	5	0.783
FML	5	0.901
PRS	5	0.863
EFF	5	0.881

**Table 2: Reliability Analysis for Pilot Study**

Based on Table 2, all the variables have Cronbach's alpha of between 0.748 to 0.901, which is higher than the recommended threshold of 0.70 [36], therefore the instrument is sufficient for use in the study.

**Data Analysis**

**Response Rate**

Data collection was administered using Google Form. The Google Form was distributed via email to a total of 400 recipients. Out of that, a total 384 responses were received, which is 96% response rate.

**Descriptive Analysis**

Majority (62.2%) of the respondents were Malay (n = 320, 83.3%), female (n=239), aged between 18 to 25 years old (n = 317, 82.6%), holding at least a bachelor's degree (n = 209, 54.4%), and having an average monthly income of below RM1,000 (n = 246, 64.1%). While in terms of the internet banking services usage, 177 respondents (46.1%) often used the internet banking services for services of online bill payment (n = 97, 25.3%), followed by checking account balances (n = 88, 22.9%), performing inter-bank transfers (n = 79, 20.6%), and performing inter-account transfers (n = 53, 13.8%).

**Reliability Analysis**

The results of internal reliability analysis done is as follows (figures in brackets are the Cronbach's alpha):

- Customer satisfaction (0.904)
- Tangibility (0.889)
- Reliability (0.879)
- Assurance (0.863)
- Sincerity (0.862)
- Formality (0.808)
- Personalization (0.875)
- Efficiency (0.925)

As all variables achieved above 0.700, the items are considered good and suitable for use.

**Pearson Correlation Analysis**

The results for Pearson product moment correlation analysis are as per Table 3.

	<b>Correlations Coefficient</b>
TAN	0.0.627799**
REL	0.764**
ASR	0.737**
SNC	0.676**
FML	0.606**
PRS	0.715**
EFF	0.697**
**Correlation is significant at the 0.01 level (2-tailed)	

**Table 3: Pearson Correlation Coefficients**

Based on Table 3, all the independent variables have positive (0.606 to 0.764) correlation the dependent variable and the correlation coefficient are significant at 0.01 level of confidence. This is translated into moderate to strong positive association between the variables.

**Multiple Regression Analysis**

The multiple regression analysis is performed to predict the value of the dependent variable, that is customer service, based on the value of the study independent variables. The results are as per Table 4, Table 5 and Table 6. Table 5 and Table 6 are placed in Appendix.

**Model Summary<sup>b</sup>**

<b>R</b>	<b>R Square</b>	<b>Adjusted R Square</b>	<b>Std Error</b>
0.836 <sup>a</sup>	0.698	0.693	0.35721

- a. Predictors: (Constant), Efficiency, Formality, Tangibility, Sincerity, Assurance, Reliability, Personalization
- b. Dependent Variable: Customer Satisfaction

Based on Table 4, the multiple correlation coefficient, R = 0.836, indicates a good level of prediction. While the R square, which is the coefficient of determination (R<sup>2</sup> = 0.698) coefficient), indicate that 69.8% of variance in the customer satisfaction is be explained by the independent variables of tangibility, reliability, assurance, sincerity, formality, personalization, and efficiency.

**Statistical Significance**

**ANOVA<sup>a</sup>**

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	111.074	7	15.868	124.359	0.000 <sup>b</sup>
Residual	47.976	376	0.128		
Total	159.050	383			

- a. Dependent Variable: Customer Satisfaction
- b. Predictors: (Constant), Efficiency, Formality, Tangibility, Sincerity, Assurance, Reliability, Personalization

**Table 5: ANOVA**

Based on Table 5, the F-ratio in the ANOVA table tests indicates that whether the overall regression model is a good fit for the data. The table shows that the study independent variables statistically significantly predict the customer satisfaction, F(7, 376) = 124.359, p < .0005 (i.e., the regression model is a good fit of the data).

**Coefficients**

Model	Unstandardised Coefficients		Standardised Coefficients	t	Sig
	B	Std Error	Beta		
(Constant)	0.362	0.140		2.578	0.010
Tangibility	0.430	0.055	0.419	7.794	0.000
Reliability	0.212	0.055	0.228	3.859	0.000
Assurance	0.135	0.057	0.130	2.355	0.019
Sincerity	-0.047	0.054	-0.048	-0.878	0.381
Formality	0.074	0.046	0.069	1.618	0.107
Personalization	0.070	0.060	0.070	1.170	0.243
Efficiency	0.047	0.052	0.049	0.919	0.359

- a. Dependent Variable: Customer Satisfaction

**Table 6: Estimated Model Coefficients**

Based on Table 6, only the coefficients for Tangibility, Reliability and Assurance are statistically significant to the prediction,  $p < 0.05$ .

**Hypothesis Testing**

The results for hypothesis testing for the study are summarized as per Table 7:

Hypothesis	Statement of Hypothesis	Results
H <sub>1</sub>	TAN → CS	Supported
H <sub>2</sub>	REL → CS	Supported
H <sub>3</sub>	ASR → CS	Supported
H <sub>4</sub>	SNC → CS	Not Supported
H <sub>5</sub>	FML → CS	Not Supported
H <sub>6</sub>	PRS → CS	Not Supported
H <sub>7</sub>	EFF → CS	Not Supported

**Table 7: Summary of Hypothesis Testing Results**

Based on Table 7, only 3 hypotheses are supported which are the positive significant association of tangibility, reliability and assurance with customer satisfaction.

**Conclusions and Recommendations**

The purpose of the study is to analyze the effect of PAKSERV dimension and efficiency as predictors of customer satisfaction among internet banking users in Malaysia. On initial examination, all seven variables are found to have positive association with customer service. The study model was also found to have a moderately high predictive power where almost 70% of the variation in customer satisfaction level among the study data was explained by the variation in the seven independent variables of the study. However, on a deeper examination, it was found that only the dimensions of tangibility, reliability and assurance have positive and significant association with customer satisfaction.

This study contradicts the findings on positive significant effect of sincerity [4], formality [4], personalization [31], and efficiency [5]. A possible explanation is that this study is conducted among internet banking users where social and cultural influence sincerity, formality, personalization, and efficiency have little effect on the customer service experience. Used in the fully virtual environment which is of human interactions may render social aspects of the internet banking service having almost no effect on customer experience level. The same goes for personalization and formality, which is about observing behaviors and formal address, where internet banking users interact with the

internet banking applications which has little place for social behavior and protocols required in traditional banking transactions. Efficiency of services is also not found to be a significant predictor of customer satisfaction. A possible example is that service efficiency of internet banking is highly dependent on the general internet service efficiency experienced by the customers. A probable explanation would be there is high internet service efficiency, which makes internet banking service among Malaysian customers a pleasant experience and thus, a not a determinant of the customer satisfaction.

Findings of this study can shed information to banking practitioners, particularly internet or digital banking practitioners on the predictors of their customer satisfaction. This is important as the banking industry are forced to move more rapidly into virtualization and digitalization of their services as their customers are becoming more and more internet savvy. The study findings has also provide empirical evidence on the ability of the PAKSERV model and its dimensions in predicting customer satisfaction in the context of virtual customer service.

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