

MANAGEMENT & ACCOUNTING REVIEW

Volume 19 No. 2
August 2020

CONTENTS

- 1 An Empirical Study of Servant Leadership on the Performance of Small and Medium-sized Enterprises in Malaysia
Raja Rizal Iskandar Raja Hisham, Saiful Azizi Ismail, Elina Abd Manan and Muhamad Rahimi Ramli
- 19 Customer Relationship Management Strategies in Small and Medium Enterprises: A Study in Tourism Industry in Vietnam
Vu Minh Ngo, Hieu Minh Vu and Mai Hong Nguyen
- 37 Effect of Dividend on Stock Price: An Indian Perspective
Shilpa Jain and Vijay Kumar Gupta
- 61 The Effect of Working Capital Management on Firm Performance in Industrial Products Sector
Siew-Ling Sim and Azlan Ali
- 93 Customer Satisfaction and Brand Switching Intention of Mobile Service among University Students
Mei Ling Goh, Seng Huat Tan, Elaine Ang Hwee Chin and Mei Qi Yap
- 117 Do Audit Committee Attributes Affect Firm Performance of Sri Lankan Firms?
Pratheepkanth Puwanenthiren
- 131 The Effect of Perceived Usefulness, Perceived Ease of Use, Trust, Attitude and Satisfaction Into Continuance of Intention in Using Alipay
Florentina Kurniasari, Nadiah Abd Hamid and Chen Qinghui

Customer Satisfaction and Brand Switching Intention of Mobile Service among University Students

Mei Ling Goh^{1*}, Seng Huat Tan, Elaine Ang Hwee Chin and Mei Qi Yap
Multimedia University

ABSTRACT

The significant role of telecommunication technology in the economic sector has caused increasing competition in the mobile service market. As for business survival, a mobile service package is now required to become even more innovative than before. Customer satisfaction plays a vital role in mobile services and it will impact on brand switching among mobile service users. This study aimed to examine factors that influence customer satisfaction which will subsequently affect the brand switching intention of customers. Among the factors studied were service quality, service pricing, customer service and value-added service. A total of 200 students from a local private university were recruited using the convenience sampling technique based on self-administered questionnaires. The collected data was then analysed using PLS-SEM. The findings show that all the factors tested were found to have a positive impact on customer satisfaction except service quality and value-added service. Customer satisfaction was also found to have a negative effect on brand switching of customers of mobile service. The findings of this research have provided useful information to mobile service providers in planning their marketing strategy. They have to be more innovative in their efforts to meet the growing and different needs of customers and retain them from switching to opponent mobile service brands in the market.

Keywords: Customer satisfaction, Mobile service, Brand switching

ARTICLE INFO

Article History:

Received: 29 June 2020

Accepted: 22 July 2020

Available online: 31 August 2020

* Corresponding Author: Mei Ling Goh, Faculty of Business, Multimedia University, 75450 Jalan Ayer Keroh Lama, Melaka; Email: mlgoh@mmu.edu.my; Tel: 012- 6016664

INTRODUCTION

The telecommunication technology plays a very important role in socio-economic development today. The presence of telecommunication technologies has not only solved the geographical distance challenges but also addressing the problems of traditional communication technology that is time consuming and costly. Mobile service providers (MSP) in the telecommunication industry have provided connectivity services to the wireless phone, tablet and computer through radio frequency (RF) (Rouse, 2011). In Malaysia, the first mobile service provider and mobile phone was established and created in 1985, namely Telecom Malaysia and ATUR 450. During that period, the introduction of ATUR 450 had successfully led to 10% above market share and had 120,000 subscribers in Malaysia (Abdullah, 2003).

Over the years, telecommunication technology has been advancing at a rapid rate and it contributed to a burgeoning demand of telecommunication services in Malaysia. For example, the number of mobile phone internet users in Malaysia had increased from 17.0 million users in 2017 to 19.5 million in 2019 (Statista, 2019). The strong momentum of development of information technology in Malaysia has very much been attributed to this scenario. In Malaysia, among all the ten mobile service providers in the market, DIGI, CELCOM and MAXIS are leading the industry. The intense competition among them has required new promotional strategies to be in place to meet continuous change in customers' needs and to avoid them from switching between brands.

Brand switching has become a major business challenge to the mobile telecommunication industry in Malaysia. In fact, brand switching intention has created a price war in the industry (Sidhu, 2018). There are about 83% of customers in Malaysia who intend to switch to other mobile service providers because of the lack of transparency in existing service pricing and subscription plans (Digital News Asia, 2015). The senior research Manager for Asean Telecommunications in the IDC Market Research firm has pointed out that the total mobile service provider revenue had decreased by 1% in 2014 which is from RM 24.3 billion to RM 23.9 billion (The Star Online, 2015). Statistics in 2017 has also showed that the revenue growth rate of key telecommunication service players like Digi had declined by 0.5%,

Celcom 1.5% and Maxis 1.4 % percent (Farah, 2017). The turnover rate among customers will definitely affect the company's long-term revenue as well as the cost of finding new customers.

According to Saleh *et al.*, (2015), brand switching intention of customers depends highly on customer satisfaction. The higher the satisfaction, the lower the intention of brand switching. Rizwan *et al.* (2013) also revealed that the level of customer switching intention relies on customer satisfaction level. Therefore, mobile service providers should be concerned on service quality, customer satisfaction and increase the perceived value of the service provided (Grigoriou *et al.*, 2018).

There has been a number of studies investigated on brand switching among customers in the telecommunication industry (Lim *et al.*, 2018; Nikbin *et al.*, 2012; Rizwan *et al.*, 2013; Shah *et al.*, 2018). However, these studies did not examine the influence of value-added service on customer satisfaction except studies conducted by Hossain and Suchy (2013) and Saleh *et al.* (2015). Therefore, this study adopted the study from Saleh *et al.* (2015) with the aim to investigate the relationship between customer satisfaction and brand switching along with the effects of service quality, service pricing, customer service and value-added service on customer satisfaction among students of a local private university in Malaysia towards mobile service providers.

LITERATURE REVIEW

Brand Switching

Switching behavior also can be referred to as customer defection or customer exit which relates to the customer's intent to give up their current loyal brands and switch to other brands (Ndubisi & Ling, 2005). Defection can be defined as customers who decided to stop purchasing or break the relationship with a particular service because of the frequently occurring problems from the service firm (Nikbin, *et al.*, 2012). The main concern of the service providers in the telecommunication industry is the switching intention and it is a complex process that depends on the multiple problems faced by customers (Ndubisi, 2006). The main reason for a particular

service to fail is that customers tend to switch to other services. The reasons like trust, inconvenient to use, services failure and pricing issues have contributed to the switching intention among customers (Shah *et al.*, 2018). Some of the scientific studies have found that customer switching intention relies on the level of satisfaction and dissatisfaction (Rizwan, *et al.*, 2013).

Customer's changing behaviour towards service providers is often a function of switching costs. Customers could retain the mobile phone number while switching to other mobile telecommunication service companies. In order to reduce customer's switching rate, service providers should focus on service quality, customer satisfaction and the customers' perceived value of the services (Grigoriou *et al.*, 2018).

Customer Satisfaction

Customer satisfaction is the customers' evaluation after purchase, and it will be affected by customer's response on the product or services experiences. Customer satisfaction can also be recognised from consumers' prior experiences and post purchase behaviour which include word of mouth, complaints, product usage and repurchase intention (Adjei & Denanyoh, 2014). Satisfaction is usually related to the changing of perception or feelings of customers towards the quality of the service or product, price and other factors (Rizwan *et al.*, 2013).

Some of the customers will change to other service providers when they feel dissatisfied because of low service quality or performance. Meanwhile, different customers will act differently when they are dissatisfied with the service provider. For example, a few of the dissatisfied customers will complain about the poor service experience but they will not switch to another brand. In contrast, many dissatisfied customers will not complain but will switch silently and create negative word of mouth towards the poor service experiences (Deng *et al.*, 2010).

According to Lee (2010), customer satisfaction can be viewed as attitude or judgment portrayed by customers. In general, customers will compare their expectations based on the different area of services that sometimes cause dissatisfaction. High customer satisfaction will reduce the customer brand switching intention and increase customer's loyalty

(Santouridis & Trivellas, 2010). Dissatisfied customers will discover their benefits through the services provided by the competitors in order to satisfy their needs and wants. Such behaviour change by customers will eventually have an impact on the company's revenues and profit. Hence, customer satisfaction is a major factor of customer switching behaviour. Any high level of dissatisfaction will negatively affect the entire level of satisfaction level of the entire services of a company and brand switching will occur among customers (Saleh *et al.*, 2015). Mosavi *et al.* (2018) in their study found that there is a negative relationship between customer satisfaction and switching intention consumers. Similar findings also suggested other previous studies (Baek & Kim, 2018; Quoquab *et al.*, 2018; Saleh *et al.*, 2015).

Service Quality

Service quality is a judgment of the consumers about a product or overall excellence of a service, which means customers compare their individual perception towards the delivered service with the perceived service quality (Parasuraman *et al.*, 1994). According to Chen and Chen (2014), service quality also means that subjective reactions from the customers to an object and event which are not able to measure quantitatively. Service quality can also be differentiated into four dimensions of quality, which are technical quality, functional quality, process quality and output quality (EL-refae, 2012).

Liat *et al.*, (2014) revealed that there is a positive influence between service quality with loyalty from customers, brand image and customer satisfaction, which means a high service quality provided by business owners will have a direct impact towards customer satisfaction with the product or service, and customers might stay loyal to the brand. This means providing good service quality is the most effective resolution in order to attract customers to revisit or repurchase the product or service (Liat *et al.*, 2014). Besides attracting new customers, service quality could also maintain existing customers and motivate them to make the repurchase decision for the same brand (Lee, 2010). Service quality was found to be an important factor on customer satisfaction towards customer switching intention (Saleh *et al.*, 2015; Shah *et al.*, 2018).

Nowadays, customers are more concerned about service quality, especially in a market that is having more and more competitors and increasing business challenges (Mirza *et al.*, 2020; Ribeiro, 2002). The services provided by the mobile service providers are considered as intangible services (Boohene & Agyapong, 2011). The essential element of the service quality is to realize customers' needs and wants (Khan, 2010). Hence, the service quality is always measured by the relationship between mobile service providers and customers. Good service quality could also reduce customer brands switching intention. Service quality was found to have a positive influence on customer satisfaction (Quoquab *et al.*, 2018).

Service Pricing

Price is an essential element in marketing (Low *et al.*, 2013). Price refers to the amount on cash bills that need to be paid for the purchase of products or services. Customers will need to sacrifice their money to pay for the price of the acquired product or service (Rizwan, *et al.*, 2013) which is the benefit exchange from the products and services. Razak (2016) stated that price can be measured by five indicators, namely price suitability, discounted price, fair price, competitor's price and affordable price. The intention of purchasing a product or service is significantly affected by the high-low price of a particular product or service. The fairness of price will impact the customer's perception toward the products or services and their willingness to become a potential customer. The aim of implementing price fairness is also to prevent an unfair price policy from occurring (Graciola, *et al.*, 2018).

Customers usually will consider the overall price range of a product or service after comparing two different products or services. Price, poor service quality, product problem, problem resolution, location and merger are all controllable factors according to Malik *et al.*, (2014). The increase and reduction of price will generate different customers' reaction. For example, the increase in price will generate negative responses from customers and price reduction will generate positive responses. Customers are very sensitive toward the change in price of a product or service. Price sensitivity can be affected by product knowledge, advertising exposure and purchasing contexts (Low *et al.*, 2013).

Price plays a very key role in the telecommunication market especially among mobile service providers (Adjei & Denanyoh, 2014). However, price will not be most important when customers perceive that a high priced product (service) is associated with high quality. As such, price will influence customer behavior intentions directly or indirectly (Saleh, *et al.*, 2015). Homburg *et al.* (2005) pointed out that the demand and repurchase intention of customers will increase when the prices decrease. Mirza *et al.* (2020) highlighted that perceived value in terms of price is very important to make customers satisfied with their service which will prevent the switching intention of customers. Studies have found that price is associated with customer's satisfaction as well as the relationship with brand switching intention (Masud, 2016; Shah *et al.*, 2018).

Customer Service

According to Jahanshahi *et al.* (2011), excellent customer services consist of six factors which are corporate quality standard, consistence marketing messages, top management leadership, customer focused procedures, middle management support and individual knowledge and skills. Customer service can be defined as system of activities that consists of customer support systems, complaint processing, and effectiveness of complaint processing, comfortable in reporting complaints and friendliness when reporting complaints (Kim *et al.*, 2004).

Effective customer service activities may help a company to increase loyal customers. Behavioural and technical skills of employees in customer services are crucial to customer loyalty, customer satisfaction and company sales (Chopra, 2014). Customer service is not limited to only provision of customer service support and customer complaint solutions, but it should cover the way to solve customer requirement directly or indirectly in order to retain more customers to the firm and prevent customer switching behaviour (Al-Zoubi, 2013).

The main key to retain existing customers is to provide a great customer service to the customers (Srivastava, 2013). Therefore, customer service will be an important thing that needs to be considered when making the evaluation of suppliers and the effectiveness of the level of customer services. Great customer service could attract customer retention and thus,

reduce the intention of customer brand switching (Adjei & Denanyoh, 2014). Saleh *et al.* (2015) have also highlighted that customer service is one of the main factors that induces brand switching intention among customers.

Value-added Service

Value added service (VAS) can be considered as the intangible objects which includes Short Message Service (SMS), Multimedia Message Service (MMS), Wireless application protocol (WAP), General Package Radio Service (GPRS), music, news, games, ring tone and others. Based on those varieties of services, the quality of the value-added services can be measured through user friendly applications, the level of interface quality, upgrades of the service and regular update of the service (Santouridis & Trivellas, 2010). Moreover, the value-added service (VAS) can also be recognised as mobile value-added service (MVAS) (Ahn, et al., 2011).

The way of managing these varieties of value-added services is significant as it will impact the perceptions of customers towards it (Wu & Frantz, 2012). Value-added services (VAS) could help telecommunication provider companies to attract customer's attention as a complementary source of revenue and to prevent from losing customers. Quoquab *et al.*, (2018) opined that customer satisfaction can be built via value-added services. Hossain and Suchy (2013) in their study have found that value-added services have a positive relationship with customer loyalty. They have also indicated that the number of customers who seek for esteemed satisfaction from a variety of value-added services (VAS) offered by mobile service providers has increased, and this will have an impact on their usage of any mobile service provider. Thus, value-added services (VAS) offered by mobile service providers should be rational and meet customers' needs and wants.

In the study conducted by Wang (2015), service experience of MVAS showed to have a positive relationship with continuance intentions of mobile users in which its uniqueness is important to the success of mobile value-added services (VAS). Good perceptions of customers towards technologies will lead to users' adoption and continuance intentions (Wang, 2015). Aslam and Frooghi (2018) have indicated that better technology or package provided by competitors will have an effect on customer switching

intention too. Satisfaction of value-added services was found to have a positive influence on customer loyalty (Hossain & Suchy, 2013).

Based on the above discussion, the following hypotheses were derived and presented in the research framework.

- H1: Service quality has a positive influence on customer satisfaction towards mobile service providers
- H2: Service pricing has a positive influence on customer satisfaction towards mobile service providers.
- H3: Customer service has a positive influence on customer satisfaction towards mobile service providers.
- H4: Value-added services has a positive influence on customer satisfaction towards mobile service providers.
- H5: Customer satisfaction has a negative influence on brand switching intention of customers towards mobile service providers.

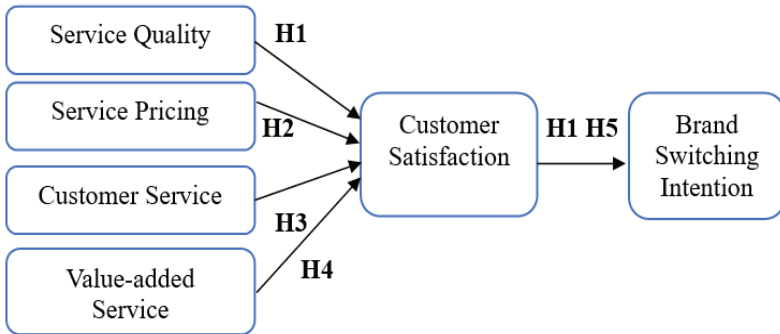


Figure 1: Research Framework for This Study

METHODOLOGY

The target respondents were undergraduate students from a local private university located at the historical city of Melaka, Malaysia. A minimum sample size of 85 was obtained based on the G*Power analysis. Hence, a total of 200 students from a local private university were recruited in this study using convenience sampling. Non-probability convenience sampling was used as the respondents can be easily accessible to the researchers (Sekaran & Bougie, 2013). The survey was conducted using a set of self-

administered questionnaires which covered respondent's demographic and all the variables studied were measured using a 5-point likert scale with '1' representing strongly disagree and '5' representing strongly agree. All the construct measurements were adapted from previous studies as they were validated and tested (Calvo-Porrall & Levy-Mangin, 2015; Ruiz, 2017; Saleh *et al.*, 2015). The collected data was then analysed using the SmartPLS, version 3 to perform structural equation modeling.

RESULTS

As in Table 1, 200 university students were recruited as respondents in this study of which 90 (45%) of them are male and 110 (55%) female. The age of the respondents was grouped in three categories. Most of them (49.5%) are from the age group of 22-25 years old, followed by 18-21 years old with 45% of them and above 25 years old with 5.5%. In terms of the respondents' education level, 57.5% of them were degree level students, 25% diploma level students and 17.5% from foundation studies. Among all the brands of mobile service providers in this study, the most highly used mobile service providers is Maxis/Hotlink with 37% respondents, followed by 28.5% of respondents using Digi and 17.5% of respondents using U- mobile. Lastly, most of the respondents, which is 82 (41%) of them have used their current mobile service for between 1-3 years. 42 respondents or 21 % have used for 3-5 years, 41 respondents or 20.5% have used for more than 5 years and 35 of them or 17.5% have used for less than a year.

Structural Equation Modeling (SEM) was performed to investigate the relationship between all the variables in the model. First, convergent and discriminant validity was tested and assessed under the measurement model to assess the validity and reliability of the variables. The second stage was to test how well all the variables are connected with one another.

MEASUREMENT MODEL

Convergent validity was assessed by factor loadings, composite reliability (CR), and average variance extracted (AVE). As suggested by Hair *et al.* (2017), the convergent validity is satisfied when factor loading, composite

reliability and average extracted variance meets the minimum value of 0.7, 0.7 and 0.5 respectively. Table 2 shows that all the factor loadings are greater than 0.7 except SQ4, SQ5 and VAS 4 with the value of 0.616, 0.588 and 0.648 respectively. This is because those three items had contributed to the validity of contents (Hair *et al.*, ,2011). However, items with a factor loading less than 0.5 such as BSI 3, CS 1, CS 2, CS 3, SP 3, SP 4 and SP 5 were eliminated from the model. Besides, the values obtained for CR ranged from 0.856 to 0.915 and the AVE ranged from 0.55 to 0.805 respectively. This means that all the values for CR and AVE had met the minimum requirement value of 0.7 and 0.5. The convergent validity of all the constructs were thus deemed to be adequate.

Table 1: Respondents' Profile

Variable		Frequency	Percentage
Gender	Male	90	45.0
	Female	110	55.0
Age Group	18-21	90	45.0
	22-25	99	49.5
	Above 25	11	5.5
Education Level	Foundation	35	17.5
	Diploma	50	25.0
	Degree	115	57.5
Brand of mobile service currently using	Celcom	34	17.0
	Maxis/Hotlink	74	37.0
	Digi	57	28.5
	U mobile	35	17.5
Period of using current mobile service provider	Below 1 year	35	17.5
	1-3 years	82	41.0
	3-5 years	42	21.0
	More than 5 years	41	20.5

* Sample Size = 200

Table 2: Convergent Validity

Construct	Items	Loadings	CR	AVE
Brand Switching Intention	BSI 1	0.722	0.9	0.693
	BSI 2	0.867		
	BSI 4	0.871		
	BSI 5	0.86		
Customer Service	CS 4	0.815	0.915	0.684
	CS 5	0.851		
	CS 6	0.806		
Customer Satisfaction	SAT 1	0.828	0.864	0.679
	SAT 2	0.855		
	SAT 3	0.868		
	SAT 4	0.811		
	SAT 5	0.77		
Service Pricing	SP 1	0.914	0.892	0.805
	SP 2	0.881		
Service Quality	SQ 1	0.794	0.856	0.55
	SQ 2	0.871		
	SQ 3	0.796		
	SQ 4	0.616		
	SQ 5	0.588		
Value-Added Service	VAS 1	0.86	0.89	0.673
	VAS 2	0.868		
	VAS 3	0.883		
	VAS 4	0.648		

Table 3: Discriminant Validity using Fornell-Larcker Criterion

Construct	1	2	3	4	5	6
1. Brand Switching Intention	0.832					
2. Customer Satisfaction	-0.463	0.827				
3. Customer Service	-0.051	0.154	0.824			
4. Service Pricing	-0.097	0.294	0.275	0.897		
5. Service Quality	0.414	-0.405	0.161	-0.01	0.741	
6. Value-Added Service	0.534	-0.408	0.026	-0.216	0.625	0.82

Note: Diagonals refer to square root of average variance extracted (AVE) and off-diagonal refer to the correlations.

Table 4: Discriminant Validity using HTMT Criterion

Construct	1	2	3	4	5	6
1. Brand Switching Intention						
2. Customer Satisfaction	0.505 $CI_{0,90}$ (0.365,0.638)					
3. Customer Service	0.082 $CI_{0,90}$ (0.043,0.086)	0.188 $CI_{0,90}$ (0.097,0.282)				
4. Service Pricing	0.132 $CI_{0,90}$ (0.059,0.197)	0.351 $CI_{0,90}$ (0.2,0.495)	0.355 $CI_{0,90}$ (0.182,0.521)			
5. Service Quality	0.426 $CI_{0,90}$ (0.295,0.531)	0.429 $CI_{0,90}$ (0.304,0.548)	0.293 $CI_{0,90}$ (0.192,0.374)	0.169 $CI_{0,90}$ (0.086,0.218)		
6. Value-Added Service	0.612 $CI_{0,90}$ (0.469,0.733)	0.437 $CI_{0,90}$ (0.303,0.575)	0.09 $CI_{0,90}$ (0.042,0.096)	0.289 $CI_{0,90}$ (0.165,0.439)	0.66 $CI_{0,90}$ (0.548,0.751)	

Discriminant validity is the extent to which a construct is truly distinct from the other constructs by empirical standards. Two approaches were used to examine discriminant validity, namely the Fornell-Larcker criterion (1981) and the HTMT criterion (Henseler *et al.* 2015). The Fornell-Larcker criterion was assessed by comparing the value of the square root average variance extracted (AVE) with the correlation coefficients of the other latent variables. As showed in Table 3, all the square root of AVE (diagonal value) was greater than the correlation coefficients between the constructs (off-diagonal value). This means that the discriminant validity is adequate.

Heterotrait - Monotrait criterion (HTMT) was assessed by comparing the HTMT value obtained with the threshold values of $HTMT_{0,85}$ (Kline, 2011) or $HTMT_{0,90}$ (Gold *et al.*, 2001) or $HTMT_{inference}$ which does not contain value of 1. All HTMT values as presented in Table 4 are less than threshold value of $HTMT_{0,85}$ (Kline, 2011) and the $HTMT_{inference}$ results do not contain value of 1. Thus, this means discriminant validity is established under the HTMT criterion.

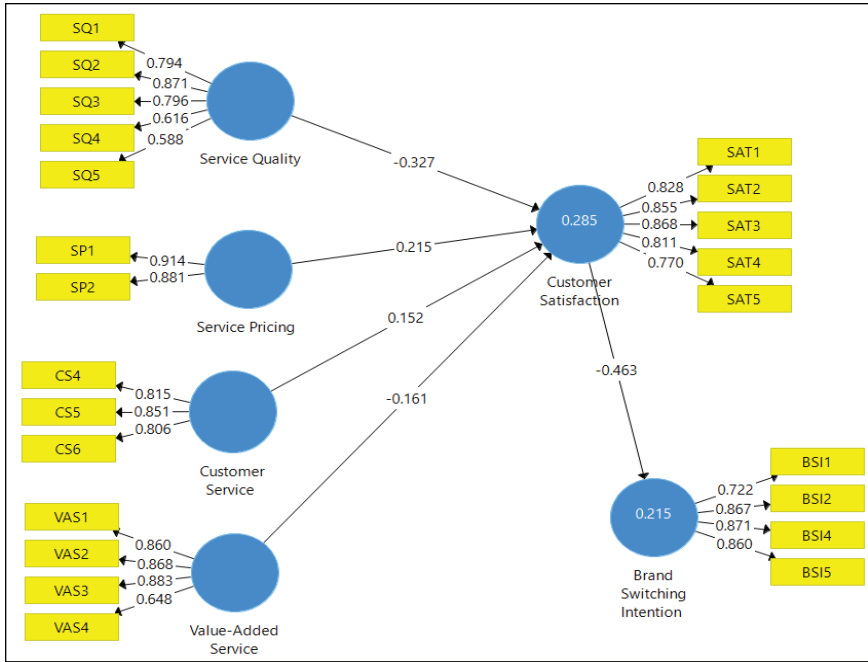


Figure 2: Structural Model

Table 5: Result of Structural Model

Hypothesis	Relationship	Std. Beta	Std. Error	t-value	Decision	R2	f2	Q2	VIF
H1	Customer Service -> Customer Satisfaction	0.152	0.06	2.5**	Supported	0.285	0.029	0.173	1.115
H2	Service Pricing -> Customer Satisfaction	0.215	0.075	2.859**	Supported		0.056		1.159
H3	Service Quality -> Customer Satisfaction	-0.327	0.082	3.968	Not Supported		0.087		1.722
H4	Value-Added Service -> Customer Satisfaction	-0.161	0.095	1.697	Not Supported		0.021		1.768
H5	Customer Satisfaction -> Brand Switching Intention	-0.463	0.069	6.728**	Supported	0.215	0.273	0.133	1

Note: **Significant at p<0.01, * Significant at p <0.05

Structural model was performed using the bootstrapping procedure resample of 5000 as suggested by Hair *et al.* (2017) to examine the relationship between all the variables examined in the model. The results

obtained are shown in Table 5. Customer service ($\beta = 0.152$, t -value = 2.5) and service pricing ($\beta = 0.215$, t -value = 2.859) were found to have a positive influence on customer satisfaction. However, service quality ($\beta = -0.327$, t -value = 0.082) and value-added service ($\beta = -0.161$, t -value = 0.095) were found to have no influence on customer satisfaction. Customer satisfaction ($\beta = -0.463$, t -value = 0.069) was also revealed to have a negative impact on brand switching intention.

The R^2 value obtained for brand switching intention for mobile service provider was 0.215 and customer satisfaction was 0.285. This means 28.5% of the variation in customer satisfaction is explained by all the independent variables and 21.5% of the variation in brand switching intention is explained by the customer satisfaction. According to the Chin (1998), R^2 value of 0.67, 0.33 and 0.19 can be categorised as substantial, moderate and weak respectively. The R^2 value of both customer satisfaction and brand switching are considered weak as suggested by Chin (1998). Besides, the suggested value for the effect sizes (f^2) by Cohen (1988) is 0.02, 0.15 and 0.35, which refers to small, medium and large effects respectively. Based on the Table 10, all the effect sizes (f^2) obtained were greater than the minimum value of 0.02.

The blindfolding procedure was used to check on the predictive relevance for the model. As Hair *et al.* (2017) proposed that the Q^2 for a certain endogenous construct should be more than 0 if it is to show that the model has predictive relevance. The Q^2 as presented in Table 5, is greater than 0 for both customer satisfaction ($Q^2 = 0.173$) and brand switching ($Q^2 = 0.133$), the model thus has adequate predictive relevance.

During the structural model's evaluation process, it is important to make sure that there are no lateral collinearity issues in the inner model or structural model. This issue might occur when two of the variables are hypothesised to create a causal relationship and end with measuring the same construct. Moreover, the issues of predictor-criterion collinearity might mislead the findings, even though it has fulfilled the requirement of discriminant validity. The issue of misleading findings will weaken the causal effect in the structural model. When evaluating the collinearity issues, the value of VIF must be less than 5 (Hair *et al.*, 2017). All the values of VIF as showed in Table 4 are less than 5 which shows no collinearity issue.

DISCUSSION

The findings show that service quality has no significant influence on customer satisfaction. Hence, H1 is not supported. This finding is not consistent with the study by Khan (2010). Khan (2010) has asserted that good service quality is important to satisfy various needs and wants of customers. The possible reasons contributing to such a non-significant result of this relationship could be reflected through the positive perception held by the university students engaged in this study relating to mobile service quality. These perceptions include stable mobile line, good network coverage and little or no distortion in calls. Thus, they perceive they do not have a major issue on service quality and therefore it is not an important factor determining their satisfaction.

Besides, service pricing has showed to have a positive influence on customer satisfaction in this study. H2 hence is supported. This finding is in line with the studies of Low *et al.* (2013) and Jahanshahi, *et al.* (2011). The increase and reduction in price will generate different customers' reaction as the increase in price will generate negative response and price reduction will generate positive response from customers (Low *et al.*, 2013). Hence, it means that university students in this study perceived service pricing as an important determinant of their switching intention towards mobile service providers. They are more likely to switch to other brands if the rate of the calls, data and SMS are not reasonable. Service pricing was also found as the strongest effect on customer satisfaction in this study.

This study has confirmed that customer service has a positive impact on customer satisfaction. Thus, H3 is supported. This finding is in accordance with the study by Chopra, (2014) and Jahanshahi *et al.* (2011). Chopra (2014) has highlighted that behavioural and technical skills of employees in customer services are crucial to customer loyalty, customer satisfaction and company sales. This result implies that a good customer service will gain satisfaction from customers and retain them in the company they subscribed the service. This ultimately will help to increase the profit of mobile service companies. Therefore, mobile service providers need to provide good customer service which includes less waiting time at the counter, more quality and effective solutions to customers and clear information on service quality.

Value-added service was found to have no effect on customer satisfaction, H4 is not supported. This finding is not in line with the study by Hossain and Suchy (2013), however, it is consistent with the finding by Saleh *et al.* (2015) which also found that value-added service has no significant effect on customer satisfaction. This result indicates that university students in this study perceived value-added service of their existing mobile service provider is as good as others which means that the service provider company is able to meet their needs and wants. Thus, this shows that value-added service is viewed as an unimportant factor towards their switching intention.

The finding has demonstrated that customer satisfaction has a negative influence on brand switching intention, Hence, H5 is supported. This finding is similar to the finding of previous studies (Almossawi, 2012; Santouridis & Trivellas, 2010 & Saleh *et al.* 2015). The negative relationship between customer satisfaction and intention to switch of brand implies that the higher the satisfaction levels of customers, the lower the willingness customers will show in switching to other brands of mobile services. Therefore, there is a need for mobile service providers to understand customers' needs and wants in order to attract more customers and successfully retain them.

CONCLUSION

The increasing competition in the mobile service market has required the mobile service packages to be more innovative than before. The mobile service providers must move along with the current market trend and customers' preferences in designing their business strategy to meet constant changes of consumers' behaviour. Customer satisfaction plays a vital role in mobile service and it will impact on brand switching among mobile service users. In this study, customer service and service pricing were found to positively influence customer satisfaction. Meanwhile, customer satisfaction was found to be negatively related to brand switching intention of customers of mobile services.

This study contributes to the body of knowledge in business and marketing with respect to customer satisfaction and mobile services brand switching intention especially in a university context. The work will thus add to the existing literature and enrich the understanding of the subject.

From the outcome of this study, mobile service providers will be able to understand the significance of customer service and service pricing on customers' satisfaction. Understanding market trend and customers' preferences is important to mobile service providers in constructing efficient and effective business strategies especially focusing on the young generation like university students.

This is particularly essential in such a dynamic and competitive mobile service market today. The right features of mobile services offered by firms will guarantee customers' satisfaction and also facilitate firms to generate a new and strong revenue stream. This positivity will next increase firms' profitability and expand their market share. Ultimately, this will result in greater firms' business survival in the long term as compared to their competitors in the market.

REFERENCES

- Abdullah A. M. (2003). Evolution of the Malaysian cellular sector - Business News | The Star Online. Retrieved October 3, 2018, from <https://www.thestar.com.my/business/business-news/2003/03/01/evolution-of-the--malaysian-cellular-sector/>
- Adjei, K., & Denanyoh, R. (2014). Determinants of Customer Loyalty among Mobile Telecom Subscribers in the Brong Ahafo Region of Ghana. *International Journal of Business and Social Research*, 4(1), 82–95.
- Ahn, H., Ahn, J. J., Byun, H. W. & Oh, K. J. (2011). A novel customer scoring model to encourage the use of mobile value added services. *Expert Systems with Applications*, 38(9), 11693–11700.
- Al-Zoubi, M. R. (2013). Service Quality Effects on Customer Loyalty among the Jordanian Telecom Sector “Empirical Study.” *International Journal of Business and Management*, 8(7), 35–45.
- Almossawi, M. M. (2012). Customer Satisfaction in the Mobile Telecom Industry in Bahrain: Antecedents and Consequences. *International Journal of Marketing Studies*, 4(6), 139–156.

- Aslam, W. & Frooghi, R. (2018). Switching Behaviour of Young Adults in Cellular Service Industry: An Empirical Study of Pakistan. *Global Business Review*, 19(3), 1-15.
- Baek, H-S. & Kim, G-G. (2018). A Study on Intention of Customers to Switch Brands under the Brand Crisis of Smart Phone: from the PPM Perspective. *International Journal of Pure and Applied Mathematics*, 120(6), 5853-5873.
- Boohene, R., & Agyapong, G. K. Q. (2011). Analysis of the Antecedents of Customer Loyalty of Telecommunication Industry in Ghana: The Case of Vodafone (Ghana). *International Business Research*, 4(1), 229–240.
- Calvo-Porrall, C., & Lévy-Mangin, J. P. (2015). Switching behavior and customer satisfaction in mobile services: Analyzing virtual and traditional operators. *Computers in Human Behavior*, 49, 532–540.
- Chen, W.-J. & Chen, M.-L. (2014). Factors Affecting the Hotel's Service Quality: Relationship Marketing and Corporate Image. *Journal of Hospitality Marketing & Management*, 23(1), 77–96.
- Chin, W.W. (1998). The partial least squares approach for structural equation modeling. In *Modern Methods for Business Research*, edited by G.A. Marcoulides, 295-336. Mahwah, NJ Lawrence Erlbaum Associates, Publisher.
- Chopra, K. (2014). Empirical Study on Role of Customer Service in Delivering Satisfaction at Branded Retail Outlets in Pune. *Procedia Economics and Finance*, 11(14), 239–246.
- Cohen, J. (1988). *Statistical Power Analysis for the Behaviours Science*, 2nd ed., Laurence Erlbaum Associates, Hillsdale, NJ.
- Deng, Z., Lu, Y., Wei, K. K. & Zhang, J. (2010). Understanding customer satisfaction and loyalty: An empirical study of mobile instant messages in China. *International Journal of Information Management*, 30(4), 289–300.

Digital News Asia. (2015). 83% of consumers in Malaysia may switch telco provider: Frost.

EL-refae, B. A. A. G. A. (2012). The Relationships between Service Quality, Satisfaction, and Behavioral Intentions of Malaysian Spa Center Customers. *International Journal of Business and Social Science*, 3(1), 198–206.

Farah A. (2017). Mobile service revenue to stay flat | New Straits Times | Malaysia General Business Sports and Lifestyle News. Retrieved October 3, 2018, from <https://www.nst.com.my/business/2017/12/318431/mobile-service-revenue-stay-flat>.

Fornell, C. & Larcker, D.F. (1981). Evaluating structural equation models with unobservable variables and measurement error. *Journal of Marketing Research*, 18(1), 39-50.

Gold, A. H., Malhotra, A. & Segars, A. H. (2001). Knowledge management: An organizational capabilities perspective. *Journal of Management and Information Systems*, 18(1), 185–214.

Graciola, A. P., De Toni, D., de Lima, V. Z. & Milan, G. S. (2018). Does price sensitivity and price level influence store price image and repurchase intention in retail markets? *Journal of Retailing and Consumer Services*, 44(July), 201–213.

Grigoriou, N., Majumdar, A. & Lie, L. (2018). Drivers of Brand Switching Behavior in Mobile Telecommunications. *Athens Journal of Mass Media and Communications*, (January), 7–28.

Hair, J. F., Ringle, C. M. & Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *The Journal of Marketing Theory and Practice*, 19(2), 139–152.

Hair, J.F., Hult, G.T.M., Ringle, C. & Sarstedt, M. (2017), *A Primer on Partial Least Squares Structural Equation Modeling (PLS-SEM)*, Sage Publications, Thousand Oaks, CA.

Henseler, J., Ringle, C. M., & Sarstedt, M. (2015). A new criterion for assessing discriminant validity in variance-based structural equation

- modeling. *Journal of the Academy of Marketing Science*, 43(1), 115–135.
- Homburg, C., Hoyer, D. W. & Koschate, N. (2005). Customers' Reaction to Price Increases: Do Customer Satisfaction and Perceived Motive Fairness Matter? *Journal of the Academy of Marketing Science*, 33(1), 36–49.
- Hossain M. M. & Suchy N. J. (2013). Influence of customer satisfaction on loyalty: A study on mobile telecommunication industry. *Journal of Social Sciences*, 9(2), 73-80.
- Jahanshahi, A. A., Gashti, M. A. H., Mirdamadi, S. A., Nawaser, K. & Khaksar, S. M. S. (2011). Study the Effects of Customer Service and Product Quality on Customer Satisfaction and Loyalty. *International Journal of Humanities and Social Science*, 1(7), 253–260.
- Khan, M. A. (2010). An Empirical Assessment of Service Quality of Cellular Mobile Telephone Operators in Pakistan. *Social Science*, 6(10), 164–177.
- Kim, M. K., Park, M. C. & Jeong, D. H. (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korean mobile telecommunication services. *Telecommunications policy*, 28(2), 145-159.
- Kline, R. (2011). *Principles and Practice of Structural Equation Modeling 3rd edition.pdf* (Third). New York London: The Guilford Press.
- Lee, H. S. (2010). Factors influencing customer loyalty of mobile phone service: Empirical evidence from Koreans. *Journal of Internet Banking and Commerce*, 15(2), 1–14.
- Liat, C. B., Mansori, S. & Huei, C. T. (2014). The Associations Between Service Quality, Corporate Image, Customer Satisfaction, and Loyalty: Evidence From the Malaysian Hotel Industry. *Journal of Hospitality Marketing & Management*, 23(3), 314–326.

- Lim, K. B., Yeo, S. F., Goh, M. L. & Koh, W. M. (2018). A study of consumer switchoing behaviour in telecommunication industry. *Journal of Fundamental and Applied Sceinces*, 10(6S), 1143-1153.
- Low, W. S., Lee, J. D. & Cheng, S. M. (2013). The link between customer satisfaction and price sensitivity: An investigation of retailing industry in Taiwan. *Journal of Retailing and Consumer Services*, 20(1), 1–10.
- Malik, S., Mahmood, S. & Rizwan, M. (2014). Examining Customer Switching Behavior in Cellular Industry. *Journal of Public Administration and Governance*, 4(2), 114–128.
- Masud, U. H. M. (2016). Factors Affecting Customers Brand Switching Behavior in Mobile Telecommunication Industry : A Study of Pabna District in Bangladesh, 2613, 125–130.
- Mirza, F., Waheed, N. A., & Ali, S. Y. (2020). Impact of Service Quality and Perceived Value on the Post-purchase Intention with the Moderating Effect of Switching Cost: An Evidence from Pakistan Telecom Industry. *Pakistan Journal of Multidisciplinary Research*, 1(1), 65-83.
- Mosavi, S.M., Sangari, M.S. & Keramati, A. (2018). An Integrative Framework for Customer Switching Behaviour. *The Service Industries Journal*, 38(15-16), 1067-1094.
- Ndubisi, N.O. & Ling, T.Y. (2005), “Complaint behavior of Malaysian consumers”, *Management Research News*, 29(1/2), 65-76.
- Ndubisi, N. O. (2006). Marketplace behaviour of Malaysian consumers. *Management Research News*, 29(1/2), mrn.2006.02129aaa.001. <https://doi.org/10.1108/mrn.2006.02129aaa.001>
- Nikbin, D., Ismail, I. & Marimuthu, M. (2012). Perceived justice in service recovery and switching intention: Evidence from Malaysian mobile telecommunication industry. *Management Research Review*, 35(3/4), 309-325.
- Parasuraman, A., Zeithaml, V. A. & Berry, L. L. (1994). Alternative Scales for Measuring Service Quality - a Comparative-Assessment Based on

- Psychometric and Diagnostic-Criteria. *Journal of Retailing*, 70(3), 201–230.
- Quoquab, F., Mohammad, J., Yasin, M. N., & Abdullah, N. L. (2018). Antecedents of Switching Intention in the Mobile Telecommunications Industry: A Partial Least Square Approach, *Asia Pacific Journal of Marketing and Logistics*, 30, 1-26.
- Razak, I. (2016). The Impact of Product Quality and Price on Customer Satisfaction with the Mediator of Customer Value. *Journal of Marketing and Consumer Research*, 30(1), 59–68.
- Ribeiro S. D. (2002). Customers' expectations factors in restaurants. *International Journal of Quality & Reliability Management*, 19(8/9), 1055–1067.
- Rizwan, M. (2013). Switching intentions in Telecom industry : a case of University students in Bahawalpur, 3(3), 355–374. <https://doi.org/10.5296/jpag.v3i3.6226>
- Rouse, M. (2011). What is Mobile service provider? - Definition from WhatIs.com. Retrieved October 3, 2018, from <https://searchmobilecomputing.techtarget.com/definition/Mobile-service-provider>
- Ruiz D. G. (2017). The influence of satisfaction on customer retention in mobile phone market. *Journal of Retailing and Consumer Services*, 36(January), 75–85.
- Saleh, M. A. H., Althonayan A., Alhabib, A., Alrasheedi, E., & Alqahtani, G. (2015). Customer Satisfaction and Brand Switching Intention: A Study of Mobile Services in Saudi Arabia. *Expert Journal of Marketing*, 3(2), 62–72.
- Santouridis, I., & Trivellas, P. (2010). Investigating the impact of service quality and customer satisfaction on customer loyalty in mobile telephony in Greece. *TQM Journal*, 22(3), 330–343.

- Sekaran, U. & Bougie, R. (2013), *Research Methods for Business: A Skill-Building Approach*, 6th ed., Wiley, New York.
- Shah, M. A. R, Husnain, M. and Zubairshah, A. (2018). Factors affecting brand switching behaviour in telecommunication industry of Pakistan: A Qualitative investigation. *American Journal of Industrial and Business Management*, 8(2018), 359-372.
- Sidhu, B. K. (2018). Competition to bite into telcos' revenue growth - Business News | The Star Online. Retrieved October 1, 2018, from <https://www.thestar.com.my/business/business-news/2018/03/02/competition-to-bite-into-telcos-revenue-growth/>
- Srivastava, S. (2013). International Journal of Management Research and Review Impact of Customer Care Services on Customer Satisfaction-a, 3(1).
- Star online, (2015). Malaysia's mobile telcos need to be more innovative in a saturated market - Business News. Retrieved October 1, 2018, from <https://www.thestar.com.my/business/business-news/2015/12/28telcos-need-to-be-more-innovative-in-a-saturated-market/>
- Statista, (2019). Number of mobile phone internet users in Malaysia from 2017 to 2023 (in millions). Retrieved from: <https://www.statista.com/statistics/558698/number-of-mobile-internet-user-in-malaysia/>
- Wang, K. (2015). Determinants of mobile value-added service continuance: The mediating role of service experience. *Information and Management*, 52(3), 261–274.
- Wu, J. P., & Frantz, T. L. (2012). Largest IM Platform In China - Tencent's QQ. *Journal of Business Case Studies (Online)*, 8(1), 95.