

## **THE MEDIATION EFFECT OF CUSTOMER SATISFACTION ON THE RELATIONSHIP BETWEEN SERVICE QUALITY AND CUSTOMER LOYALTY IN TELECOMMUNICATION INDUSTRY**

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### **ABSTRACT**

Customer loyalty is crucial for companies to remain competitive in business. This statement is also applicable to telecommunication companies. One of the main determinants of customer loyalty is service quality. However, studies have found that a direct relationship between service quality and customer loyalty is not always justified. Therefore, in this study, the mediating role of customer satisfaction is included to overcome the limitation of existing studies in establishing the relationship between service quality and customer loyalty. Based on 225 responses obtained from customers of four major telecommunication companies in Malaysia, the results of the study indicate that customer satisfaction mediates the relationship between some dimensions of service quality; reliability, responsiveness and empathy, and customer loyalty. These findings signify that customers need to be satisfied before they become loyal to the company especially when it involves reliability, responsiveness and empathy. The implications of the study are further discussed in the paper.

Keywords: Customer satisfaction, service quality, customer loyalty, telecommunication industry

### **INTRODUCTION**

Customer loyalty has been widely linked to the organization performance in the telecommunication industry because nowadays customers can easily defect to other service providers and most of the service providers have been competing with each other to provide better services to customer and bring the competition to the next level in attracting new customers and retaining current customers (Irfan, Shamsuddin & Hadi, 2016). Malaysian Communications and Multimedia Commission (MCMC, 2015) reported that as many as 90% users of telecommunication service have stayed with their service providers in the first year. The report also shows that low rates of replacing telecommunication service providers are observed. Of the 10% users who have switched to another service provider, 60.7% of users said they have no qualms in changing if others were to offer cheaper rates or packages. Other than that, poor network or coverage of service providers is the second highest reason for Malaysians to stop their

subscription. It shows an indication that user's preferences are to obtain value for money subscription plans and high speed connectivity.

Customers' expectations today vary and change over time and their expectations become critical, they now expect 24 hours' service interaction between customer-contact employee through any channel of communication and demand for high quality services at the lower price. Al Otaibi and Yasmeen (2014) stated that there is a mutual agreement on the connection between service quality, customer satisfaction, and loyalty but there is no agreement among researchers on the nature of the links between variables on the causal ordering of service quality and customer satisfaction. Customers' ability to make the choice among the various companies has led to more competition in the market. With the heterogeneity of demand from the customers, the concept of customer satisfaction is no longer enough for the companies to sustain in the industry. So, most of the companies today are looking for something that is more valuable than customer satisfaction which is customer loyalty or engagement towards the service organization. Focusing on building long lasting relationships puts the customer-contact employee or service provider on the critical position that is formally or informally intended to engage with customers (Alrubaiee, 2012; Hansen & Riggle, 2009).

According to Payne and Webber (2006), employee satisfaction was positively related to service-oriented organization citizenship behaviour (willingness of employees to help customers that are not in their job scope), customer satisfaction and customer loyalty, but researchers did not thoroughly discuss how customer-contact employee affects customers. According to Yu Sum and Leung Hui (2007), the empathy dimension of service quality is the most important factor for customer loyalty in Hong Kong fashion retail environment but the result was not generalizable. Tangibility dimensions have the lowest impact on loyalty in the telecommunication industry in Jordan, it might have a greater impact on the same service in another country or different industries (Alnsour, Abu Tayeh, & Awwad Alzyadat, 2014). Cronin and Taylor (1992) proposed that customer loyalty is the component of repurchase intention from the same company, willingness spreading the good side of the company to others, presenting a commitment to the company, willingness to pay a higher or premium price to a favourable product or service. In the 21st century, service organizations have dominated businesses and economic industries.

Thus, the primary reason for this study is to examine the relationship between service quality and customer satisfaction and subsequently customer loyalty in the telecommunication companies in Malaysia, specifically in Klang Valley.

## **LITERATURE REVIEW**

Loyalty can be defined as a commitment which is the tendency of current customers to repurchase the preferred products or services again in the future (Kursungluoglu, 2014). Enhancing customer experience to be a loyal customer is becoming the crucial issue nowadays; especially in maintaining the sustainability of an organization. Customers tend to be loyal if there are some factors of service

quality possessed by the customer-contact employees that give them the feeling of satisfaction.

Oliver (1993) defined customer satisfaction as an emotional connection and responses from customers towards service experience with an organization. Oh (1999) pointed out that customer satisfaction is the outcome of the direct comparisons between customer expectations and perceptions when they directly request to provide the evaluation of the comparisons. Based on the result of the study, Kursungluoglu (2014) found that information is the most important factor that drives customer satisfaction. On the other hand, perceived quality and customer expectation are considered as the most important elements that drive customer satisfaction.

The link between customer satisfaction and customer loyalty has been proven by many researchers who found that satisfied customers have higher intention to maintain their purchases' pattern and customer satisfaction is the reason for being a loyal customer that could give the effect on higher profit margin and company's financial performance (Wong & Zhou, 2006; Aktepe, Ersöz, & Toklu, 2015; Chang, 2015). Picón, Castro, and Roldán (2013) mentioned that the positive evaluation of the product or service that the customer acquires is a major reason to continue a long term relationship with the company's products or services, and an important pillar to develop loyalty. Besides, satisfied customers are more likely to repurchase, lower their price sensitivity, engage in positive word-of-mouth recommendations and become loyal customers (Chen & Wang, 2009). Thus, this study proposes that satisfied customers are more likely to increase repurchase regardless of the offerings of competing companies. The first assumption to be tested is:

H1: There is a relationship between customer satisfaction and customer loyalty.

Over the years, in the service marketing research, SERVQUAL model as proposed by Parasuraman, Zeithaml and Berry (1985) has been the model of service quality that is the most prominent and widely used in research. This model is based on customers' perspectives towards services. It is where customers evaluate their expectation with what they experience. The SERVQUAL scale includes the dimension of tangibility, reliability, responsiveness, assurance, and empathy that was developed to measure the service quality, as in this study among customers of telecommunication companies. By focusing on the five dimensions of the service quality which are reliability, tangibility, responsiveness, assurance and empathy, the measure of customer-contact employee is effective but with some modifications to suit the telecommunication companies.

Reliability relates to handling customers' problem; performing services right the first time every time; providing service at the promised time and maintaining the accurate records. Reliability requires accurateness through all the service processes from the start until the end of the service encounter; it includes the accuracy in order fulfilment, record, billing, calculation, and delivery process (Parasuraman, et al., 1985). Responsiveness is the willingness or readiness of the service provider in providing services to customers and involves the timeliness of the service delivery (Parasuraman, et al., 1985). It is about understanding the needs and wants of the customers, convenient operation hours, personalized

attention given by customer-contact employees and the ability to handle customer problems and security in transaction process (Kumar, Batista & Maull, 2009). Empathy refers to how the organization cares and concerns about customers which means feeling what customers are feeling and giving the individualized attention to customers (Parasuraman et al., 1985). Empathy can be defined by the intimacy between service providers and clients via understanding the individuals' feeling and problems. Assurance as proposed by Parasuraman et al. (1985) is knowledge and courtesy of employees and the ability to inspire customers in terms of trust and confidence to the products or services. Assurance is the competencies or skills of the staff in building trust among customers or clients. Tangibility is defined as the appearance of physical facilities, equipment, personnel, and services material (Parasuraman et al., 1985).

The quality of service is dependent on expected service and perceived service and also through customer's own previous experience that might influence the level of customer expectation.

As explained by Parasuraman et al. (1985), service quality is an "abstract and elusive construct because of three unique features to services which are intangibility, heterogeneity, and inseparability of production and consumption. The researchers have simplified service quality as the degree and direction of the services between customer service perceptions and expectations.

Prabhakar and Ram (2013) found that the crucial of maintaining customer satisfaction and customer preference for telecommunication industry. An organization can gain competitive advantage by understanding customers' expectations and preference for achieving the objective of delivering quality services. Other than that, by utilizing SERVQUAL, organization will be better in offering services and post purchase services that influence customer satisfaction. Researchers have suggested telecommunication companies to focus on SERVQUAL dimensions that include tangibility, empathy, assurance, responsiveness and reliability (Prabhakar & Ram, 2013). Gera (2011) found that service quality significantly affects customer satisfaction and value perception from customers through the investigations of the connection between service quality, value, satisfaction and behavioural intentions in a public sector bank in India. Agbor (2011) also proposed that customer satisfaction to be related to service quality in the business relationships. Therefore, the hypotheses to be tested in the relationship between service quality and customer satisfaction are as follows:

- H2: Tangibility positively influences customer satisfaction.
- H3: Reliability positively influences customer satisfaction.
- H4: Responsiveness positively influences customer satisfaction.
- H5: Assurance positively influences customer satisfaction.
- H6: Empathy positively influences customer satisfaction.

Satisfaction and loyalty are broad concepts, while service quality focuses on certain dimensions of the service attributes. The connection between service quality, customer satisfaction and customer loyalty has been extensively studied by previous researchers. In the telecommunication industry, the main condition for protecting the subscriber base is through winning customer loyalty (Aydin, Ozer & Arasil, 2005). The research also mentioned that any service provider needs to

increase subscriber satisfaction by leveraging offered service quality to ensure subscribers' trust in the firm and establish a costly penalty for changing to another provider. Researchers also deduced that there is a significant relationship between customer loyalty and customer satisfaction. Researchers have also found a strong relationship between price reasonability and customer satisfaction in the model of service quality, customer satisfaction and customer retention or loyalty (Aydin et al., 2005; Ali, Rehman, Yilmaz, Safwan & Afzal, 2010). Thus, based on the existing literature and the discussion above, the following hypotheses are proposed:

H7: Customer satisfaction mediates the relationship between empathy and customer loyalty.

H8: Customer satisfaction mediates the relationship between tangibility and customer loyalty.

H9: Customer satisfaction mediates the relationship between reliability and customer loyalty.

H10: Customer satisfaction mediates the relationship between responsiveness and customer loyalty.

H11: Customer satisfaction mediates the relationship between assurance and customer loyalty.

## **METHODOLOGY**

This study utilizes correlational research design in order to examine the mediating effect of customer satisfaction on the link between service quality and customer loyalty. A total of 384 customers of the four major telecommunication companies in Malaysia that comprise Celcom, Maxis, DiGi and UMobile were selected and participated in this study by answering the survey questionnaire. However, only 225 returned questionnaires were usable, recording a response rate of 58.6%. The questionnaires were distributed to the respondents via self-administered approach in nine shopping malls in Klang Valley (Setia City Mall, Aeon Mall, SACC Mall, Plaza Alam Sentral, Nu Sentral Mall, Mid Valley Megamall, Sunway Putra Mall, IOI City Mall and Alamanda). These locations were chosen because they are the most popular malls and have become centre of public attraction. The selection of respondents was systematically made as the 10<sup>th</sup> customers who enter the shopping mall would be selected and given the questionnaire. The respondents were briefly explained on the purpose of the survey and they were informed that their participation is voluntary. The process of data collection took one whole week including weekends.

The instrument for this study was adapted from various established questionnaires. Customer loyalty items were taken from Izago (2017) that contain five items, five customer satisfaction items were sourced from Kursungluoglu (2014), service quality questions that represent the five dimensions of the factor were obtained from Izago (2017) for Assurance and Reliability and Johnson and Sirikit (2002) for Responsiveness, Empathy and Tangibility. All dimensions have four items. The instrument was pilot tested and produced high Cronbach's alphas ranging from .791 to .903.

## Findings and Discussion

**Table 1 : Respondents' Profile**

Variables	Description	Frequencies	Percentages
Gender	Male	94	41.8
	Female	131	58.2
Age	Below 21 years old	31	13.8
	21 – 30 years old	132	58.7
	31 – 40 years old	42	18.7
	41 – 50 years old	13	5.8
	51 years old and above	7	3.1
Race	Malay	160	71.1
	Chinese	34	15.1
	Indian	24	10.7
	Others	7	3.1
Highest Education Level	Sijil Pelajaran Malaysia (SPM)	41	18.2
	Diploma	86	38.2
	Bachelors' Degree	73	32.4
	Masters' Degree	19	8.4
	Others	6	2.7
Occupation	Student	78	34.7
	Self Employed	22	9.8
	Public Sector	40	17.8
	Private Sector	78	34.7
	Others	7	3.1
Variables	Description	Frequencies	Percentages
Type of Network Service Provider	Celcom	62	27.6
	Maxis	64	28.4
	DiGi	55	24.4
	U Mobile	68	30.2
Year Use Network Service Provider	Less than 1 year	38	17.3
	2 – 4 years	79	35.9
	5 – 7 years	59	26.8
	More than 7 years	44	20.0

Table 1 shows that majority of respondents or 131 (58.2%) respondents are female, meanwhile 94 respondents (41.8%) are male. It also shows that 132 (58.7%) respondents were aged between 21 – 30 years old, followed by 42 respondents (18.7%) who were aged between 31 – 40 years old. Another 31 respondents (13.8%) were aged below 21 years old followed by 13 (5.8%) respondents who aged between 41 – 50 years old. The remaining or 7 respondents (3.1%) were 51 years old and above. This indicates that those aged between 21 and 30 years old are the major customers of shopping malls. In terms of race, most of the respondents were Malays which constitute 160 respondents representing 71.1% of the total respondents. Chinese constituted 15.1% (34 respondents) followed by Indians at 10.7% (24 respondents). It reflects the fact that Malays form the largest customers of shopping malls. Most of the respondents

had Diploma for their highest education level at 38.2%, followed by those with Bachelors' Degree (32.4%), 18.2% had Sijil Pelajaran Malaysia (SPM), 8.4% had a Masters' Degree and 2.7% had other education levels. This is consistent with actual qualification levels of Malaysian population. In terms of occupation, 34.7% of the respondents were students, 34.7% were working in the private sector, meanwhile 17.8% were working in public sectors and 9.8% were self-employed. In the context of network service provider, most of the respondents were from U Mobile at 30.2% or 68 respondents, 28.4% (64 respondents) from Maxis, and 27.6% or 62 respondents from Celcom. DiGi had the lowest number of respondents at 24.4% (55 respondents). The findings indicate fair representation of customers of four major telecommunication companies in Malaysia. Therefore, the issue of bias does not become a major concern. Most of the respondents had been using the network service provider between 2 – 4 years (35.9%; 79 respondents), 26.8% between 5 -7 years, 20% had been using the network service provider for more than 7 years and 17.3% for less than 1 year. However, there is no evidence showing that the choice of telecommunication service provider is based on personal preference without the influence of others.

**Table 2 : Result of Factor Analysis for Service Quality Dimensions**

Variables	Component			
	1	2	3	4
RS3: My network service provider tells customers exactly when service will be performed.	.793			
RS4: My network service provider shows a sincere interest in solving problems.	.772			
RS2: My network service provider is willing to help customer.	.696			
RS1: My network service provider always offers prompt services to customers.	.659			
RL3: Network service provider I use is dependable.		.752		
RL2: My network service provider always gives me accurate information regarding its service.		.746		
RL1: My network service provider always keeps to its promises.		.647		
RL4: My network service provider's charges are accurate.		.625		
EM4: My network service provider has my best interest at heart.			.734	
EM2: My network service provider understands the specific needs of customers.			.729	
EM3: My network service provider has convenient operating hours to all customers.			.691	
EM1: My network service provider always gives me individual attention.			.630	
TB3: My network service provider has customer service employees who are neat and well-dressed.				.797
TB4: The environment of the physical facilities of the company is in keeping with the type of telecommunication services.				.751
TB2: My network service provider has physical facilities that are visually appealing.				.702
Variance Explained	19.685	18.692	16.869	14.701
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.				.925
MSA				.900 – .950
Bartlett's Test Of Sphericity	Approx. Chi-Square		1832.727	
	df		105	
	Sig.		.000	

In assessing the validity of service quality dimensions, a Principle Component factor analysis was conducted. There were initially 20 items in the scale for five dimensions (4 items for each dimension). Factor analysis with oblique rotation was used to determine factors' dimensionality. The result of the analysis revealed that only 15 items formed 4 structures different from the original structures. A clear four factor structure was produced explaining 69.95% of the total variance. The Kaiser-Meyer-Olkin (KMO) value of .925 indicates that the correlation matrix is acceptable for factor analysis to be conducted. Bartlett's Test of Sphericity shows a significant value Approx. Chi-Square = 1832.727 ( $p < .001$ ), indicating the significance of the correlation matrix and appropriateness for factor analysis. For individual MSA values, it ranges from .900 – .950, indicating that the data matrix was suitable for factor analysis. The result shows that a total of five items were removed due to high cross loading or the loadings fall under components different from the proposed concepts. The remaining 15 items formed four factors resembling the original conceptualization of the concepts; four items reflect responsiveness explaining 19.685% of the variance, four items represent reliability explaining 18.692% of the variance, four items concern empathy explaining 16.869% of the variance and only three items represent tangibility explaining 14.701% of the variance.

**Table 3 : Result of Factor Analysis for Customer Satisfaction**

Variables		Component
CS1: I am satisfied with the information about service plan offered by my network service provider.		.807
CS2: I am satisfied with the commitment displayed by my service provider.		.832
CS3: I am satisfied with the billings/charges by my network service provider.		.821
CS4: My network service provider offered customer care better than I expected.		.823
CS5: I am generally satisfied with the overall service offered by my network service provider.		.794
Variance Explained		66.502
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
MSA		.816 – .831
Bartlett's Test Of Sphericity	Approx. Chi-Square	534.094
	Df	10
	Sig.	.000

A principle component factor analysis with varimax rotation was conducted to investigate the factor structure of a five-item measure of customer satisfaction. The analysis produced one factor explaining a total variance of 66.50%. The Kaiser-Meyer-Olkin (KMO) value of .843 denotes the suitability of the correlation matrix to conduct the analysis. Bartlett's Test of Sphericity shows a significant value Approx. Chi-Square = 534.094 ( $p < .001$ ), indicating the significance of the correlation matrix and appropriateness for factor analysis. Individual MSA values, which range from .816 - .831 indicates that the data matrix was suitable to be factor analysed. The original name for the variable is retained.

**Table 4 : Result of Factor Analysis for Customer Loyalty**

Variables	Component		
CL1: I am willing to pay a higher price for this telecommunication provider than other providers.	.632		
CL2: I would continue to consider my network service provider to be my first choice for this type of services.	.781		
CL3: I am likely to say positive things about my network service provider to other people.	.824		
CL4: I would recommend to my friends and relatives to use same network service provider.	.827		
CL5: I will continue using my network service provider for a long period of time.	.771		
Variance Explained	59.327		
Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.925		
MSA	.787 - .862		
Bartlett's Test of Sphericity	Approx. Chi-Square	400.831	
	df	10	
	Sig.	.000	

A principle component factor analysis with varimax rotation was conducted to investigate the factor structure of a five-item measure of customer loyalty. The analysis produced one factor explaining a total variance of 59.33%. The Kaiser-Meyer-Olkin (KMO) value of .925 denotes the suitability of the correlation matrix to conduct the analysis. Bartlett's Test of Sphericity shows a significant value Approx. Chi-Square = 400.831, ( $p < .001$ ) indicating the significance of the correlation matrix and appropriateness for factor analysis. The range for individual MSA values are from .787 until .862, indicating that the data matrix was suitable to be factor analysis.

**Table 4 : Results of Correlation and Reliability Analyses**

No	Variables	Mean	SD	1	2	3	4	5	6
1	Tangibility	3.82	.65	(.779)					
2	Reliability	3.57	.72	.595**	(.851)				
3	Responsiveness	3.69	.71	.513**	.696**	(.859)			
4	Empathy	3.57	.70	.556**	.685**	.668**	(.832)		
5	Customer Satisfaction	3.61	.68	.549**	.726**	.703**	.748**	(.880)	
6	Customer Loyalty	3.52	.67	.435**	.602**	.573**	.606**	.696**	(.818)

Note: \*\*Correlation is significant at the 0.01 level (1-tailed); Correlation is significant at the 0.05 level (1-tailed); Cronbach's alphas in the parentheses along the diagonal; N=225.

Reliability, responsiveness and empathy are highly correlated with customer satisfaction ( $r = .726$ ,  $p < .01$ ;  $r = .703$ ,  $p < .01$ ; and  $r = .748$ ,  $p < .01$ ), respectively. All the variables are correlated with customer loyalty with the lowest correlation being tangibility ( $r = .435$ ,  $p < .01$ ) and the highest correlation being customer satisfaction ( $r = .696$ ,  $p < .01$ ). All the items measuring the intended variables have high reliability coefficients indicating acceptable level of internal consistency with the coefficient values in the range between .779 and .880.

**Table 5 : Results of Multiple Regression Analysis (Service Quality and Customer Satisfaction)**

	Dependent Variable
	Customer Satisfaction
Independent Variables	Beta values
Tangibility	.054
Reliability	.328**
Responsiveness	.212**
Empathy	.376**
R	.853
R <sup>2</sup>	.728
Adjusted R <sup>2</sup>	.723
F values	142.118
Sig F values	.000
Sig F Change	.000
Durbin Watson	1.809

Table 5 summarizes the result of multiple regression analyses between independent variables (service quality) and dependent variable (customer satisfaction). Regarding customer satisfaction, the regression model is significant with R<sup>2</sup> of 0.728, indicating that 72.8% of the variance was explained by the service quality variables (F=142.118, p=.000). Durbin Watson value at 1.809 means that it is within the acceptance range (value in between 1.5 – 2.5), indicating that there is no issue of auto-correlation. The results indicate that reliability ( $\beta=.338$ ,  $p<.01$ ), responsiveness ( $\beta=.212$ ,  $p<.01$ ) and empathy ( $\beta=.376$ ,  $p<.01$ ) are the main predictors of customer satisfaction. The exception is for tangibility ( $\beta=.054$ ,  $p<.01$ ). Therefore, H3, H4 and H6 were all supported at the  $p<.01$  significance level. No support was found for H2 at the  $p<.01$  level of significance.

**Table 6 : Results of Multiple Regression Analysis (Service Quality, Customer Satisfaction and Customer Loyalty)**

	Dependent Variable Customer Loyalty		Remarks
	Without Mediator	With Mediator	
	Beta	Beta	
Tangibility	.046	.009	No mediation effect
Reliability	.297**	.168*	Complete mediation effect
Responsiveness	.184*	.078	Complete mediation effect
Empathy	.261**	.082	Complete mediation effect
Customer Satisfaction		.472**	
R	.692	.740	
R <sup>2</sup>	.478	.547	
Adjusted R <sup>2</sup>	.468	.537	
F values	49.257	51.714	
Sig F values	.000	.000	
Sig F Change	.000	.000	
Durbin Watson		1.614	

Table 6 shows the summary of the mediating role of customer satisfaction on the relationship between service quality and customer loyalty.  $R^2$  of 0.547 pointed out that customer satisfaction explains an additional of .069% of the variance in service quality. Durbin Watson value of 1.614 means that it is within the acceptance range, indicating that there is no issue of auto correlation.

This is a statistically significant contribution, as shown by the significance F change ( $F = 51.714$ ,  $p = .000$ ). The results indicate that customer satisfaction was established to significantly mediate the relationship between reliability and customer loyalty ( $\beta = .168$ ,  $p < .01$ ), responsiveness and customer loyalty ( $\beta = .078$ ,  $p < .05$ ) and empathy and customer loyalty ( $\beta = .082$ ,  $p < .01$ ).

As illustrated in Table 6, there was a significance correlation and it showed a significant reduction in beta values for reliability. Therefore, customer satisfaction is a complete mediator for the relationship between reliability and customer loyalty. Besides, the beta value of responsiveness was reduced but still significant, therefore it is summarized that customer satisfaction has complete mediation effect in the relationship between responsiveness and customer loyalty. Similarly, beta value of empathy was also reduced but still significant which indicates that customer satisfaction has a complete mediation effect in the relationship between empathy and customer loyalty. This study found that there was no support for H7. On the other hand, H8, H9 and H10 were supported in the findings. Overall, the result shows that there is significant relationship between customer satisfaction and customer loyalty ( $\beta = .472$ ,  $p < .05$ ). Thus, H1 was supported.

The findings show that reliability, responsiveness, and empathy have strong relationship with customer satisfaction. This study did not find support for tangibility. In contrast, Johnson and Sirikit (2002) had found that in Thai telecommunication industry, tangibility received strong ratings but lower ratings for empathy. In this study, responsiveness has been proven to have a significant relationship with customer satisfaction. Ravinchandran, Mani, Kumar, and Prabhakaran (2010) concluded that responsiveness was found to be significant in predicting overall satisfaction, but in the banking industry. The findings show that responsiveness is the first order of importance to the customers (Pampallis & Bond, 2002), however tangibility did not have any effect on customer satisfaction towards telecommunication companies in Klang Valley.

The second issue pointed out in this study is the role of customer satisfaction as a mediator in the relationship between service quality and customer loyalty. The findings indicate there is a strong relationship between customer satisfaction and customer loyalty in the telecommunication industry in Klang Valley. As explained by Kaura, Prasad and Sharma (2014), customer satisfaction has a significant impact on customer loyalty. It has been reported that customer satisfaction performs a mediating role in the link between service quality and service loyalty and it was found that service quality is an important input to customer satisfaction (Mosahab, Mahamad & Ramayah, 2010). In addition, Mosahab et al. (2010) argued that 43 percent of customer satisfaction change is explained by service quality, thus service quality has a direct relation with loyalty where nearly to 45 percent of loyalty can be explained by service quality.

## CONCLUSION

This study aims to investigate the relationship among service quality, customer satisfaction and customer loyalty in the telecommunication industry in Klang Valley. From the results of Multiple Regression Analysis, only reliability, responsiveness and empathy are the main predictors of customer satisfaction. Tangibility was not found to affect customer satisfaction. Customer satisfaction completely moderates the relationship between all three dimensions of service quality and customer loyalty. The three dimensions are responsiveness, reliability and empathy. These findings contribute to the existing body of knowledge on the importance of these factors in affecting customer satisfaction and loyalty in the telecommunication industry.

The findings of this study show the importance of service quality in order to retain current customer and maintain profitable customers. The management should pay attention to service quality in order to increase customer loyalty to the company, willingness to pay, customer commitment and customer trust. In the business environment, there is a need to emphasize the understanding of multidimensional construct of service quality and its implications in a highly competitive surrounding such as the telecommunication industry in Malaysia. The management should realize that a satisfied customer does not necessarily become loyal otherwise customers may maintain the relationship with the service provider despite just being dissatisfied (Matos Henrique, & Rosa, 2013). The management should focus on the dimensions that give significant effect to customer satisfaction which are reliability, responsiveness, and empathy. Management should ensure that there are always sufficient employees to cope with increasing customer demand by providing personalized services rather than focusing on tangibility factor.

The findings in this study cannot be generalized to other industries, although tangibility has no significant impact in the telecommunication companies in Klang Valley, it might have a greater impact in other regions and also in other industries such as hotels, restaurants, healthcare and so on. Therefore, other researchers could conduct a study in multiple industries to compare the differences between industries in terms of the importance of service quality dimensions on customer satisfaction, customer loyalty. Although this research is developed based on theoretical grounds, its generalizability to the telecommunications industry in Malaysia is of high concern since the study was conducted in the urban areas, which are selected malls in the Klang Valley city centre. Similar studies should be conducted in other service industries and other regions to test its generalizability.

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