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THE UNIQUE ANTECEDENTS OF CUSTOMER LOYALTY

TOWARDS MOBILE SERVICE

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ABSTRACT

Customer loyalty has been highly sought topic to enable growth and competitiveness enhancement in current market situation. The increase of telecommunication sector in the country had influence mobile service providers competing with each other to become a major service provider. Specifically, there is an issue when the number of mobile cellular subscriptions and penetration rate in Malaysia had declined in the first quarter of 2017 compared to 2016. Customer loyalty is important in increasing profitability and continued survival in competitive market. There are limited studies conducted in Malaysia on customer loyalty towards mobile service providers. This study tries to fill the contextual gap by investigating the effects of independent variables and the mediating effects of satisfaction. Additionally, this study intends to investigate perceived quality, corporate image, perceived value, satisfaction that influence customer loyalty and perceived quality, corporate image, perceived value that influence satisfaction. It also aims to examine the influence of satisfaction as a mediator between perceived quality, corporate image, perceived value and customer loyalty. A total of 531 questionnaires were distributed and 431 questionnaires were obtained and usable. Partial Least Squares 2.0 (PLS) was used to analyze the data. The findings indicate that perceived quality does not influence customer loyalty, whereby corporate image, perceived value and satisfaction influence customer loyalty. Meanwhile, perceived quality, corporate image and perceived value also have strong relationship on satisfaction. Satisfaction also mediates the relationship between perceived quality, corporate image, perceived value and customer loyalty. The outcome of this study can be used by service providers to enhance and improve customer loyalty in the context of mobile service providers. The findings extend researchers' understanding of predictors that influence customer loyalty in mobile service providers in Malaysia.

Keywords: customer loyalty, mobile service providers, perceived quality, corporate image, perceived value and satisfaction.

ABSTRAK

Kesetiaan pelanggan menjadi topik perhatian yang hangat dalam usaha meningkatkan pertumbuhan dan daya saing dalam keadaan pasaran semasa. Peningkatan sektor telekomunikasi di negara ini telah mempengaruhi persaingan antara pembekal perkhidmatan mudah alih untuk menjadi penyedia perkhidmatan utama. Secara khusus, terdapat masalah apabila bilangan langganan dan kadar penembusan selular mudah alih di Malaysia menurun pada suku pertama 2017 berbanding tahun 2016. Kesetiaan pelanggan penting dalam meningkatkan keuntungan dan meneruskan kewujudan dalam pasaran bersaingan. Terdapat kajian yang terhad dijalankan di Malaysia mengenai kesetiaan pelanggan terhadap penyedia perkhidmatan mudah alih. Kajian ini cuba untuk mengisi jurang konteks dengan menyelidik kesan pembolehubah dan kesan pengantara terhadap kepuasan. Tambahan pula, kajian ini bertujuan mengkaji tanggapan kualiti, imej korporat, tanggapan nilai, kepuasan yang mempengaruhi kesetiaan pelanggan dan tanggapan kualiti, imej korporat, tanggapan nilai yang mempengaruhi kepuasan. Ia juga bertujuan mengkaji pengaruh kepuasan sebagai pengantara bagi tanggapan kualiti, imej korporat, tanggapan nilai dan kesetiaan pelanggan. Sebanyak 531 soal selidik telah diedarkan dan 431 soal selidik telah diperolehi dan boleh digunakan. Partial Least Squares 2.0 (PLS) digunakan untuk menganalisis data. Penemuan menunjukkan bahawa tanggapan kualiti tidak mempengaruhi kesetiaan pelanggan, di mana imej korporat, tanggapan nilai dan kepuasan mempengaruhi kesetiaan pelanggan. Sementara itu, tanggapan kualiti, imej korporat, dan tanggapan nilai juga mempunyai hubungan yang kuat dengan kepuasan. Kepuasan juga menjadi perantara hubungan bagi tanggapan kualiti, imej korporat, tanggapan nilai dan kesetiaan pelanggan. Hasil kajian ini dapat digunakan oleh penyedia perkhidmatan untuk meningkatkan dan memperbaiki kesetiaan pelanggan dalam bidang penyediaan perkhidmatan mudah alih. Penemuan ini menambah kefahaman penyelidik mengenai peramal-peramal yang mempengaruhi kesetiaan pelanggan kepada penyedia perkhidmatan mudah alih di Malaysia.

Kata kunci: kesetiaan pelanggan, penyedia perkhidmatan mudah alih, tanggapan kualiti, imej korporat, tanggapan nilai dan kepuasan.

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LIST OF ABBREVIATIONS

Abbreviation	Descriptions of Abbreviation
AVE	Average Variance Extracted
CFA	Confirmatory Factor Analysis
CI	Corporate Image
CL	Customer Loyalty
CR	Composite Reliability
EDT	Expectancy Disconfirmation Theory
IT	Information Technology
MCMC	Malaysian Communications and Multimedia Commission
N	Population Size
PLS	Partial Least Squares
PQ	Perceived Quality
PV	Perceived Value
S	Sample Size
SAT	Satisfaction
SPSS	Statistical Package for the Social Sciences
STM	Syarikat Telekom Malaysia Berhad
TMB	Telekom Malaysia Berhad
UUM	Universiti Utara Malaysia

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CHAPTER ONE

INTRODUCTION

1.1   Introduction

Customer loyalty has received attention from previous scholars in different context, for example, banking industry, hotel industry, hospitality industry and retail industry. However, not much study has been done to examine the customer loyalty in the telecommunications industry. This study discussed the significance and influence of perceived quality, corporate image, perceived value, and satisfaction towards customer loyalty in mobile service providers. This chapter provides an overview of the background of the study, problem statement, research questions, research objectives, significance of the study, scope of research and definition terms used in the study.

1.2   Background of the Study

For the past fifteen years, telecommunication sector in Malaysia has undergone structural and physical changes. In the year between 1985 and 2000, telephone penetration rate increased by 540%. Meanwhile, in the starting year from 1987, fixed line penetration ratio has increased after telecommunications reforms. On the other hand, cellular phone subscriptions increased rapidly in the early of 1990. In addition, mobile phone subscribers in Malaysia had increased to 5.1 million subscribers in the year 2000 (Cassey, 2001).

According to Cassey (2001), telecommunications sector in Malaysia was established in January 1, 1987 by Syarikat Telekom Malaysia Berhad (STM) as the first telecommunication provider and in 1990, STM was renamed to Telekom Malaysia Berhad (TMB). The advancement of mobile service provides lower investment costs compared to fixed-line services. Particularly, greater opportunities in market would increase new entrants in the market.

Currently, there are four major mobile service providers in Malaysia, namely Maxis Bhd (Maxis), Celcom Axiata Berhad (Celcom), Digi. Com Bhd (Digi) and U Mobile Sdn. Bhd (U Mobile). Maxis is the largest telecommunication company (telco) in Malaysia and started its business in 1995. Meanwhile, the second largest telco in Malaysia is Celcom which rebranded the company in 2009. Celcom is part of Axiata group that was established in 1988. Celcom is the oldest telco in Malaysia (Macropolis, 2015).

Digi is the third player in telecommunication industry in Malaysia. It is the top mobile service provider which is owned by Norwegian company Telenor ASA. In 1995, Digi became the first company that operated full digital network. U Mobile formerly known as MiTV was launched in 1998 and wholly owned by U Television Holdings Group. U Mobile can be largely attributed to non-listed fourth player in telecommunication industry (Macropolis, 2015). Telecommunications sector in Malaysia had grew tremendously in last decades and the primary telecommunications regulator in Malaysia is the Malaysian Communications and Multimedia Commission (MCMC).

Customer loyalty plays an important role in service sector, especially telecommunication sector. There are limited studies conducted by previous scholars in the context of mobile service providers. This study tries to fill the contextual gap by identifying factors that influence customer loyalty in mobile service. Particularly, customer loyalty is essential for service providers in achieving long term success. Service provided is intangibles and thus it is vital for mobile service providers to engage with customers and maintaining customer relationship. For example, in the context of this study, customer loyalty occurred when subscribers choose to use a particular brand of mobile service providers such as Digi, rather than the other mobile service providers.

Figure 1.1 showed the market share of mobile service providers in 2016. Specifically, there are four main mobile service providers in Malaysia namely, Digi, Maxis, Celcom and U Mobile. Among the four mobile service providers, Digi has the largest market share of 28% and followed by Maxis with the market share of 26% in 2016. Celcom gained 24% of market share in mobile service providers, while U Mobile has been competing in telecommunication sector with 12% of market share and the remaining 10% of market shares gained by other in 2016 (MVN service provider).
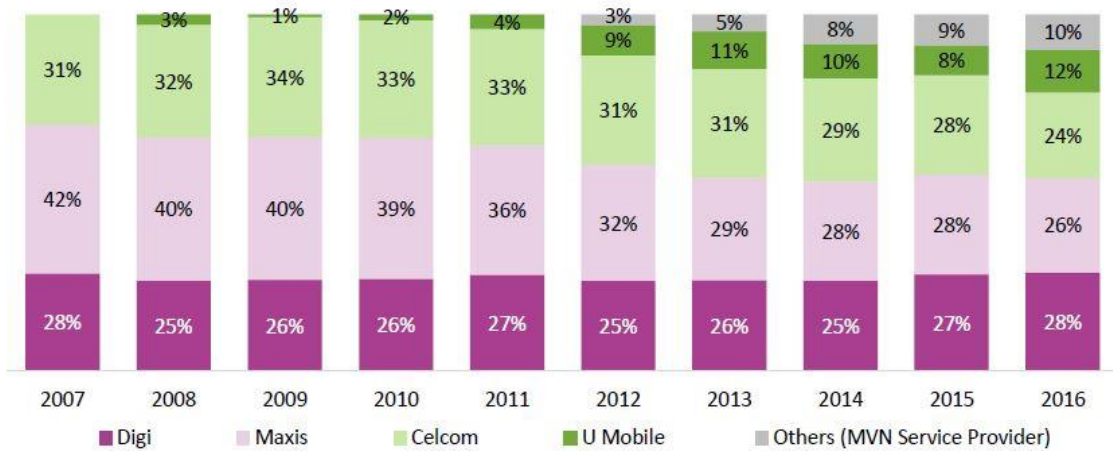
Figure 1.1
Market Share of Mobile Service Providers in 2016.
Source: Industry, Malaysian Communications and Multimedia Commission (MCMC),
(2016).

1.3   Problem Statement

Customer loyalty can be defined as the commitment to rebuy a product or service in future visit. Customer shows repeat purchasing behavior towards favorable product or service of the same brand (Pearson, 1996). Mobile service providers are growing rapidly and telecommunication sector in Malaysia have been in strong demand. The existence of different mobile service providers would lead to a strong competition in telecommunication sector. The increase of fixed line service providers such as TM and TIME would increase the choices of service providers and higher contribution from broadband take up. However, it is believed that customers would stay loyal in the current mobile service provider if the service provider provides good value and services to the customers (Chang and Wang, 2011). In order to increase subscriptions and penetration rate of mobile service providers, customer loyalty plays an important role in maintaining existing customers and increasing sales.

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However, there is an issue when the number of mobile cellular subscriptions and penetration rate in 2016 are 141.3 million and it declined to 134.0 million in 2017. Thus, it showed a decreased of 7.5 million, which equivalent to 5.17% in number of mobile cellular subscriptions and penetration rate.

Figure 1.2 represents mobile cellular subscriptions and penetration rate in the first quarter of 2017. According to the report conducted by Malaysian Communications and Multimedia Commission (MCMC) in first quarter of 2017, total mobile-cellular subscriptions in 2017 are 42.8 million subscribers compared to 43.9 million subscribers in 2016, which indicates a decrease of 1.1 million subscribers. In 2016, postpaid subscriptions were 9.6 million and declined to 9.4 million postpaid subscriptions in 2017. It showed the decrease of 0.2 million of postpaid subscription. Meanwhile, prepaid subscriptions in 2016 were 34.3 and have dropped to 33.4 million in 2017. As a result, prepaid subscriptions declined by 0.9 million of by 2017. Specifically, problem arises when mobile subscriptions and penetration rate declined in two consecutive years from 2015 to 2017. It shows that customers were affected by product or service provided by mobile service providers.

Figure 1.2
Mobile Subscriptions and Penetration Rate in First Quarter of 2017.
Source: Facts and Figures, Malaysian Communications and Multimedia Commission
(MCMC), 2017.

According to Ram and Wu (2016), customer loyalty is the key drivers to customer

retention and maintaining leadership in competitive markets. It is important in increasing

company's profitability and can helps company to achieve long term success. Clemes,

Shu and Gan (2013) stated that customer loyalty contributes in future success of the

company and remain in the competitive market. Positive word of mouth is a key driver in

maintaining customer loyalty. Particularly, customer loyalty represents the willingness of

customers to recommend the product or service of the mobile service providers to others

(Kaura, Prasad and Sharma, 2015). However, it is difficult for service providers to

achieve customer loyalty because the services are intangible and there are many mobile

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service providers competing with each other in the competitive market. Specifically, it is difficult for customer to differentiate the service because the services offered are similar among mobile service providers. Therefore, the only method to increase customer loyalty is to build and maintaining good relationship with customers.

Additionally, there are many inconsistent factors that influence customer loyalty in the context of mobile service providers. The factors include switching costs (Lee, Lee and Feick, 2001; Aydin and Ozer, 2005; Aydin, Ozer and Arasil, 2005), trust (Zhou, Li and Liu, 2010; Aydin and Ozer, 2005; Aydin et al., 2005) and commitment (Izogo, 2017). However, there are limited studies conducted by researchers to investigate the relationship between perceived quality (Santouridis and Trivellas, 2010), corporate image (Aydin and Ozer, 2005), perceived value (Jayawardhena, 2010), satisfaction (Lin and Wang, 2006 and; Santouridis and Trivellas, 2010) and customer loyalty (Ram and Wu, 2016). Thus, perceived quality, corporate image, perceived value, satisfaction and customer loyalty should be study in the context of mobile service providers.

According to Alnsour, Tayeh and Alzyadat (2014), perceived quality is important predictors of customer loyalty to the mobile service providers. This is because the increased of demand in telecommunication industry and the increased of educated customers that need for excellent product or service. Mobile service providers that fail to provide excellent quality will have no place to stay in competitive environment. Santouridis and Trivellas (2010) stated that perceived quality is important in attaining customer loyalty. Moreover, perceived quality is important because it will sustain

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customer patronage and mobile service providers should focus in providing excellent quality of product or service to increase customer loyalty.

Aydin and Ozer (2005) pointed out that corporate image plays a significant role in developing strategies for customer loyalty in mobile service providers. Corporate image is a crucial predictors to establish loyal customer and build a positive corporate image in the mind of customers. Likewise, Agyei and Kilika (2014) mentioned that corporate image is an important factor in telecommunication industry because it has the potential to influence customer's evaluation of the company and maintaining long term customer.

Next, Jayawardhena (2010) expressed that perceived value is important in marketplace due to the involvement of customer in decision making process. Lin and Wang (2006) highlighted perceived value as a strategic key to help organization in increase repurchase behavior, loyalty and commitment. Most importantly, excellent value provided by service providers will encourage customer to stay loyal with their existing mobile service providers.

Furthermore, satisfaction is a strong predictor for customer loyalty (Lin and Wang, 2006 and Santouridis and Trivellas, 2010). In other words, customer satisfaction occurs before customer loyalty. According to Gorondutse and Haim (2013), customer satisfaction is important in influencing customers' repurchase behavior, which in turn leads to future business income and returns. Beneke, Hayworth, Hobson and Mia (2012) mentioned that critical success of a company depends on customer satisfaction.

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Specifically, customer satisfaction is essential to influence word of mouth, increase profit in long term and enhance customer loyalty.

Moreover, previous studies on telecommunication sector have been conducted in many countries, including Turkey (Aydin et al., 2005; Aydin and Ozer, 2005); China (Yang, Wu, Zhang, Zuo and Yu, 2009; Clemes et al., 2013; Ram and Wu, 2016); France (Lee et al., 2001; Caruana, 2004); Denmark (Martensen, 2007); Greece (Santouridis and Trivellas, 2010); Nigeria (Izogo, 2017); Jordan (Alnsour et al., 2014) and Korea (Kim and Lee, 2010). However, there are limited studies conducted in Malaysia on mobile service providers and therefore this study tries to fill the contextual gap by identifying the factors that influence customer loyalty towards mobile service providers. It is believed that mobile service providers should be studied in Malaysia to predict the factors that influence customer loyalty.

1.4 Research Questions

Based on the problem statement, this study seeks to answer the following questions:

1. Does perceived quality, corporate image, perceived value and satisfaction influence customer loyalty towards mobile service providers?

2. Does perceived quality, corporate image and perceived value influence satisfaction towards mobile service providers?

3. Can satisfaction act as a mediator between perceived quality and customer loyalty, corporate image and customer loyalty, and perceived value and customer loyalty?

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1.5   Research Objectives

The research objectives of this study are:

1.   To examine the influence of perceived quality, corporate image, perceived value, satisfaction and customer loyalty towards mobile service providers.

2.   To examine the influence of perceived quality, corporate image, perceived value and satisfaction towards mobile service providers.

3.   To examine whether satisfaction can mediate the relationship between perceived quality and customer loyalty, corporate image and customer loyalty, and perceived value and customer loyalty.

1.6   Significance of the Study

This study will explore the factors that influence customer loyalty towards mobile service providers among UUM students. The outcome for the study will be beneficial for researchers and service providers. Service providers may find the information useful in planning the best mobile service plans for the users.

Through the analysis of customers in UUM, this study can provide service providers with a better understanding on customer expectation from mobile service providers. In addition, the results of this study may help service providers to predict the factors that affect customer loyalty towards their company as well as helping them to retain the numbers subscribers in future. All in all, the outcome of the study would provide some key insights for researchers in determining factors that enhance customer loyalty in future.

1.7   Scope of the Research

This study is limited to respondents in UUM who use mobile service providers in Malaysia such as Maxis, Digi, Celcom and U Mobile. This study aims to identify factors, such as perceived quality, corporate image, perceived value and satisfaction that influence customer loyalty in telecommunication industry.

1.8   Definition of Terms

Customer loyalty is the repurchase behavior, willingness to stay loyal with existing product or service and the ability to recommend the product or service to friends and associates (Aydin and Ozer, 2005).

Perceived quality is the overall quality evaluation of product and service by customer (Beerli, Martin and Quintana, 2004).

Corporate image is the overall impression of the organization in customers' mind (Clemes et al., 2013).

Perceived value is the assessment of customers based on what is right or deserved for the cost provided by the organization (Jayawardhena, 2010).

Satisfaction is the comparison of expected performance with actual performance made by customer (Aydin et al., 2005).

1.9   Organization of Chapters

This study is intended to examine the factors that influence customer loyalty in the context of mobile service providers. Chapter one provides the background of the study, issue of the topic research, literature gaps, research questions and research objectives, significance of the study, followed by scope of research and definition of terms.

Chapter two provides literature review of mobile service providers followed by conceptual definition of customer loyalty, perceived quality, corporate image, perceived value and satisfaction. Research framework was presented in this chapter. Furthermore, previous studies and hypotheses development were discussed, including the direct effect and indirect effect of this study and lastly underpinning theory were discussed in this chapter.

Chapter three discussed on research design, discussions on sample, sampling method and questionnaire designs. Measurement of each variables, pre-testing and pilot testing were discussed in this chapter and followed by data analysis method.

In addition, chapter four displayed the findings of the research. Response rate of and profile of respondents were discussed in this chapter. Measurement model, including convergent validity, discriminant validity and reliability were discussed followed by structural model, including hypotheses testing and test for mediator. The findings are accompanied with tables and figures to provide an understanding of this study. The fifth

chapter further discussed the results, theoretical and practical contributions, limitation and conclusion were provided to summarize the whole study.

<center>**CHAPTER TWO**</center>

<center>**LITERATURE REVIEW**</center>

2.1 Introduction

This chapter provides the conceptual definition of all the variables used in this study, including customer loyalty, perceived quality, corporate image, perceived value and satisfaction were discussed. Research framework and hypotheses development were explained. This chapter also explained the underpinning theories used this study, which are expectancy of disconfirmation theory and social exchange theory.
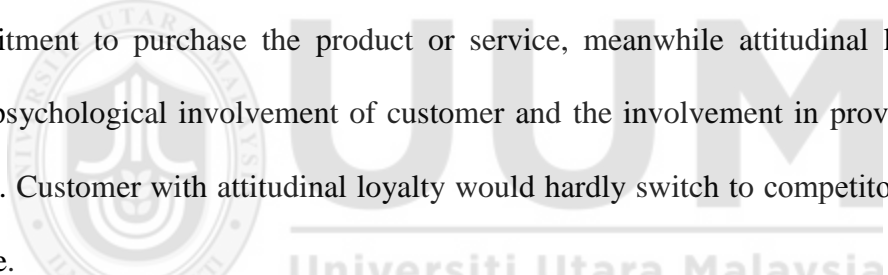
According to Malaysian Communications and Multimedia Commission (MCMC) (2016), telecommunications sector revenue in Malaysia generated RM34.66 billion in 2016. Particularly, revenue contributed in telecommunications sector continues to attract investors to penetrate in this sector. Mobile service providers in Malaysia, namely Celcom, Maxis and Digi contributed 63% of total telecommunications sector revenue in 2016. In addition, mobile service providers has the opportunities in gaining subscriptions by upgrading 2G to 3G and 4G LTE services for users. However, mobile subscriptions and penetration rate had decreased in 2017 (as shown in Figure 1.2) to 134.0 million (Malaysian Communications and Multimedia Commission, 2017). Thus, it is important for mobile service providers to tap the opportunities in increasing customer loyalty by identifying the factors towards mobile service providers in Malaysia.

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2.2   Conceptual Definition

2.2.1   Customer Loyalty

According to Oliver (1999), loyalty is customer commitment to repurchase a product or service in future. Likewise, customer loyalty is the willingness of customer to stay loyal with the company and the ability to recommend the product or service to friends (Aydin and Ozer, 2005). Oliver (1999) stated that customer loyalty is a process that focuses on behavior and attitude.

According to Dick and Basu (1994), there are two perspectives of loyalty, which are behavioral loyalty and attitudinal loyalty. Behavioral loyalty is based on customer commitment to purchase the product or service, meanwhile attitudinal loyalty comes from psychological involvement of customer and the involvement in providing word of mouth. Customer with attitudinal loyalty would hardly switch to competitor's product or service.

In addition, Dick and Basu (1994) explained that there are four conditions related to relative attitude and loyalty, namely no loyalty, spurious loyalty, latent loyalty and loyalty. Conceptually, relative attitude is the positive or negative attitude of customer. No loyalty is the absence of loyalty and low repeat patronage with a low involvement attitude. It indicates that the inability of customer to communicate the advantages of the product or service. Specifically, no loyalty relates to changes of marketplace where many competitors offering similar product or service.

Secondly, spurious loyalty is a non-attitudinal influence of a behavior. Similarly, customer perceived little differentiation among brands in the market in a low relative attitude with low repurchase. Spurious loyalty involved in low involvement when repurchase the product or service such as familiarity of product or service. Dick and Basu (1994) explained that latent loyalty reflects high relative attitude towards particular product or service with low repeat purchase. Latent loyalty involved a serious concern for marketers to increase customer purchase behavior. Moreover, loyalty is the most preferred conditions. Loyalty demonstrates that customer favorable of the product or service with high relative attitude and repeat behavior. In particular, customers are able to differentiate competing brands in the marketplace and tend to increase repurchase behavior.

Customer loyalty is crucial in the service organization such as mobile service provider because it involves organization's long term goals and sustainability in the marketplace. Besides, companies should retain existing customers by increasing customer's loyalty and value. One of the factors to achieve long term success is customer loyalty (Kim, Park and Jeong, 2004). Izogo (2017) expressed that a nurturing relationship with customers is vital in creating loyal customer and involves in maintaining long term relationship with customers. In addition, organization should enhance customer loyalty in the competitive market by engaging in word of mouth and offering best product or service to customers.

2.2.2 Perceived Quality

Perceived quality is the evaluation of customer on the overall quality of product or service provided by organization (Zeithaml, 1988). Similarly, Beerli et al. (2004) mentioned that perceived quality is an overall evaluation of product or service quality made by customer. In particular, one of the critical elements in perceived quality is customer decision making.

According to Alhaddad (2015), perceived quality is the actual experience of customer on a product or service provided by an organization. Moreover, perceived quality provides a value to a particular product or service. High quality of product or service allows customer to differentiate among the competing brands. The presence of performance and reliability of a product or service increased customer's judgment on perceived quality.

Beerli et al. (2004) defined perceived quality as a component of customer satisfaction and customer satisfaction is depending on perceived quality. There are three measures of perceived quality, which includes the overall quality, reliability, and customer's expectation. Furthermore, perceived quality is based on customer recent consumption experience. It measures the customization and reliability of a product or service. The product or service that meets customer's requirements is customization, while reliability is the consistency of product or service offered by organization. Zahir, Liana and Ratna (2015) explained that perceived quality of a product or service is

essential for organization to gain competitive advantage and providing excellent product or service in the marketplace is the basic requirement for an organization.

2.2.3   Corporate Image

Corporate image is an overall evaluation of the product or service towards an organization (Gronroos, 1984). Similarly, Clemes et al. (2013) stated that corporate image is the overall impression of the organization in customers' mind. In addition, physical and behavioral attributes of the organization is an indicator of corporate image (Nguyen and LeBlanc, 2001) such as organization's name, and variety of products or services offered by the organization. Particularly, corporate image acts as an indicator to the brand name and type of association customers received from the product or service (Aydin and Ozer, 2005).

According to MacInnis and Price (1987), services provided by organization can be used to measure corporate image. Specifically, it is an instrument that influenced customers' perceptions and satisfaction. There are processes in generating corporate image, including ideas, feelings, consumption experiences which regained from memory and changed into mental images. Therefore, corporate image is an assessment from customer towards an organization (Aydin and Ozer, 2005).

Gorondutse, Hilman and Nasidi (2014) mentioned that organization's image represents previous and current behaviors. Organization with good reputation would link to positive attitude towards an organization, which in turn leads to higher customer

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loyalty, greater competitive advantage and positive word of mouth. Besides, corporate image also increased customer's trust and customer loyalty.

As a result, word of mouth gained from customers towards an organization would provide positive corporate image in customer's mind. Functional image and emotional image are the dimensions of corporate image. Functional image is the image of the company itself, which is tangible characteristics of the company, while emotional image is the attitude and feeling of customer towards the company. High service quality received by customers during service delivery would create a favorable corporate image (Ram and Wu, 2016).

2.2.4 Perceived Value

Perceived value is the overall evaluation made by customers based on the perception of what is received and what is given by an organization (Zeithmal, 1988). In particular, when customers are satisfied with the overall experience, value would be defined by the customer (Vandermerwe, 2003). According to Chen and Chen (2001), customer perceived value indicates a trade-off between the quality that customer perceive from a product or service with the paying price.

Jayawardhena (2010) further explained that perceived value as the customer assessments of what is right or deserved for the cost offering by organization. Customer makes comparisons between competitors that provide the same services. Lin and Wang (2006) stated that perceived value as the benefits received from sellers, or known as "get"

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component and customer's costs of acquiring from the offering, known as "give" component.

According to Sweeney and Soutar (2001), perceived value has four dimensions such as emotional, social, functional and epistemic value. According to Dovaline, Masiulyte and Piligrimiene (2015), emotional value of the product or service creates appropriate feelings for customer, including pleasure, fun and excitement. Social value is the ability of the product or services to provide relational benefits such as responsiveness, personal interaction, and developing trust and commitment. Functional value measures the performance of quality, desired functions, reliability and effectiveness of the service provided, while epistemic value is the curiosity of customer in launching new product or service, such as finding out new contents and testing new services provided by organization. Moreover, economic value is the benefits received by customers and emotional value comes from feelings of the product or service generates. Economic, emotional and social values are closely related to mobile service providers.

According to Rahi and Mazuri (2016), perceived value should be equal to what is paid by customer and the returns by organization. Customer perceived value is determined by the perception of customers and it involves two measurements in measuring perceived value, including overall price given quality and overall quality given price. Customer who receives higher value for money is more satisfied than customer who receives less value for money.

2.2.5 Satisfaction

Satisfaction is the emotional reaction of customers towards a specific product or service experience. Specifically, emotional reactions resulting from customer's perceived performance of product or service with his or her expectation (Oliver, 1981). Aydin et al. (2005) mentioned that customer satisfaction is the comparison between expected performances and actual performance. According to Lin and Wang (2006) satisfaction is customer's overall evaluation of product or service in post- purchase response. Satisfaction also conceptualized as a person's feelings, such as pleasure or disappointment, results from comparing product or service performance with their own expectation.

Furthermore, customer satisfaction is higher when the gap between customer expectation and actual performance of product or service is narrow. Customer expectation is closely related with customer satisfaction. In addition, organization with value-added services would increase customer satisfaction, positive word of mouth and the increase in revenue (Santouridis and Trivellas, 2010).

In particular, Aydin et al. (2005) stated that there are two conceptualization of satisfaction, which includes transaction-specific satisfaction and cumulative satisfaction. Transaction-specific satisfaction is the evaluation of customer based on specific purchase occasion, while cumulative satisfaction is the overall evaluation of customer based on total purchase and consumption experience. Transaction-specific satisfaction may encounter information about particular product or service by customer. Organization's

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past, current, and future performance is an indicator of cumulative satisfaction. Cumulative satisfaction is vital than transaction-specific satisfaction.

According to Santouridis and Trivellas (2010), customer satisfaction is an essential element of customer loyalty. Satisfied customer would stay with their current organization rather than switch to competitors' brand. Clemes et al. (2013) described that positive affect of disconfirmation results when perceived performance exceeds expectation, such as pleasure. However, negative affect of disconfirmation occurs when perceived performance falls below expectation. As a consequence, customer with negative affect of disconfirmation would search for an alternative to satisfy their expectation of performance.

2.3   Underpinning Theories

Underpinning theories of this study are Expectancy Disconfirmation Theory (EDT) and social exchange theory.

2.3.1   Expectancy Disconfirmation Theory (EDT)

The first underpinning theory of this study is EDT. Expectation and experience are the variables of EDT, which defined in different time periods. Customer initial expectation, such as quality of products or services in pre-purchase time period is known as expectation or desire. Meanwhile, customer experience after perceiving real performance in after-purchase is known as experience or perceived performance. Disconfirmation of

expectation or desire is the difference between initial expectation and perceived experience (Elkhani and Aryati, 2013).

In particular, there are four elements of EDT, including expectations, perceived performance, disconfirmation and satisfaction. Customer's anticipates about the performance of products or services known as expectations. Specifically, there are two types of customer's expectation in the purchasing process. Firstly, customer's initial expectation is based on their previous experience. Secondly, new customer does not have any experience about the performance of the product or service (Oliver, 1999). For instance, an individual become new customer when he or she switched from one service provider to another new service provider. The existence of word of mouth and advertising are vital in developing customer expectation of a product or service. By having marketing efforts in promoting service provider, customer has the confidence and trust in switching new service provider.

Additionally, perceived performance is customer expectation after using product or service. In the context of this study, perceived performance is customer perception towards the performance of mobile service provider during their usage experience. Disconfirmation occurs when the difference between customer expectation and actual performance. Specifically, there are three types of disconfirmation, including positive disconfirmation, negative disconfirmation and simple disconfirmation. Perceived performance of product or service offered exceed customer satisfaction, which in turn leads to positive disconfirmation. The actual performance of product or service that does

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not meet customer expectation is negative disconfirmation. Simple disconfirmation occurs when there is no difference between customer's expectation and actual performance of a product or service (Elkhani and Aryati, 2013).

EDT has been applied in different fields to understand the customer expectations and satisfaction. Studies conducted by Abubakar (2016) in Nigeria and Cudjoe, Anim and George (2015) in Ghana implemented EDT in telecommunication industry. Meanwhile, EDT also applied in other industries such as Elkhani and Aryati (2013) in e-commerce industry and; Lankton and McKnight (2012) in information technology (IT) industry. Furthermore, EDT were used to measure perceived quality, perceived value and customer satisfaction in the context of this study. Specifally, EDT would be used in supporting this study for understanding customer satisfaction. Perceived quality is used to measure overall quality of product or service offered by mobile service providers, while perceived value refers to customer's overall assessment based on what is received by customer.

Moreover, customer satisfaction would increase if there is more value provided by mobile service provider such as efficiency, effectiveness, value for money and differentiation of product or service. Particularly, perceived value measured through overall price given quality and overall quality given price. It is important in the context of mobile service provider because customer will satisfy, if the product or service that they received value for money. Customer shows dissatisfaction when the product or service that they received is not worth with their paying price. Both perceived quality and perceived value that meet customer satisfaction will lead to customer loyalty and positive

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word of mouth which could influence potential customer to use the mobile service providers.

2.3.2 Social Exchange Theory

The second underpinning theory in this study is social exchange theory. The concept of social exchange theory explains the relationship between corporate image and customer loyalty. In particular, Homans (1958) mentioned that social exchange theory is the foundation for analyzing human behavior, while Blau (1964) stated that social exchange theory was used to understand the organization behavior. According to Blau (1964), social exchange theory refers to action of an individual that are motivated by return or rewards. Similarly, it indicates that two parties that mutually involved in an exchange or transaction from reciprocity norms. Homans (1958) further explained that individuals maintaining existing providers because they expect something from organization or they will be rewarded. Reward is a stimulus that leads to increase response frequency.

Lambe, Wittmann and Spekman (2001) suggests that social exchange involved economic and social outcome. Specifically, there are four development of social exchange theory. Firstly, an exchange interaction which involves an economic and social outcomes, secondly the outcomes compared over time to determine the exchange relationship. In addition, positive outcome of social and economic increase trading partner's commitment and trust of each other in maintaining exchange relationship. Postive exchange in long term leads to relational exchange that directs the exchange of partners' interactions and communciation.

Previous studies conducted by Stefanou, Sarmaniotis and Stafyla (2003) and; Shiau and Luo (2012) adapted social exchange theory in Greece business markets and Taiwan e-commerce industry respectively. In this study, social exchange involved customers and service providers in the context of mobile service providers. Communication process between both customers and service providers is an example of reciprocal process, as suggested by Bagozzi (1995).

In the context of mobile service providers, social exchange theory was used to measure corporate image and customer loyalty. Customer tends to stay loyal with their current service provider because by doing so, they expect reward or something in return from the mobile service providers. Particularly, word of mouth exist when customer received rewards from the service providers and indirectly, corporate image were built in customer's mind. Moreover, mobile service provider giving rewards to their loyal customers and the reciprocal process between service provider and customers were occured. Similarly, customers are motivated by the rewards given by mobile service providers and rewards increase customer's stimulus in response frequency. Therefore, social exchange theory occurs between customer and mobile service provider and results in both mutually rewarding and exchange process. In other words, win-win situation occurs between mobile service providers and customers.

2.4   Research Framework
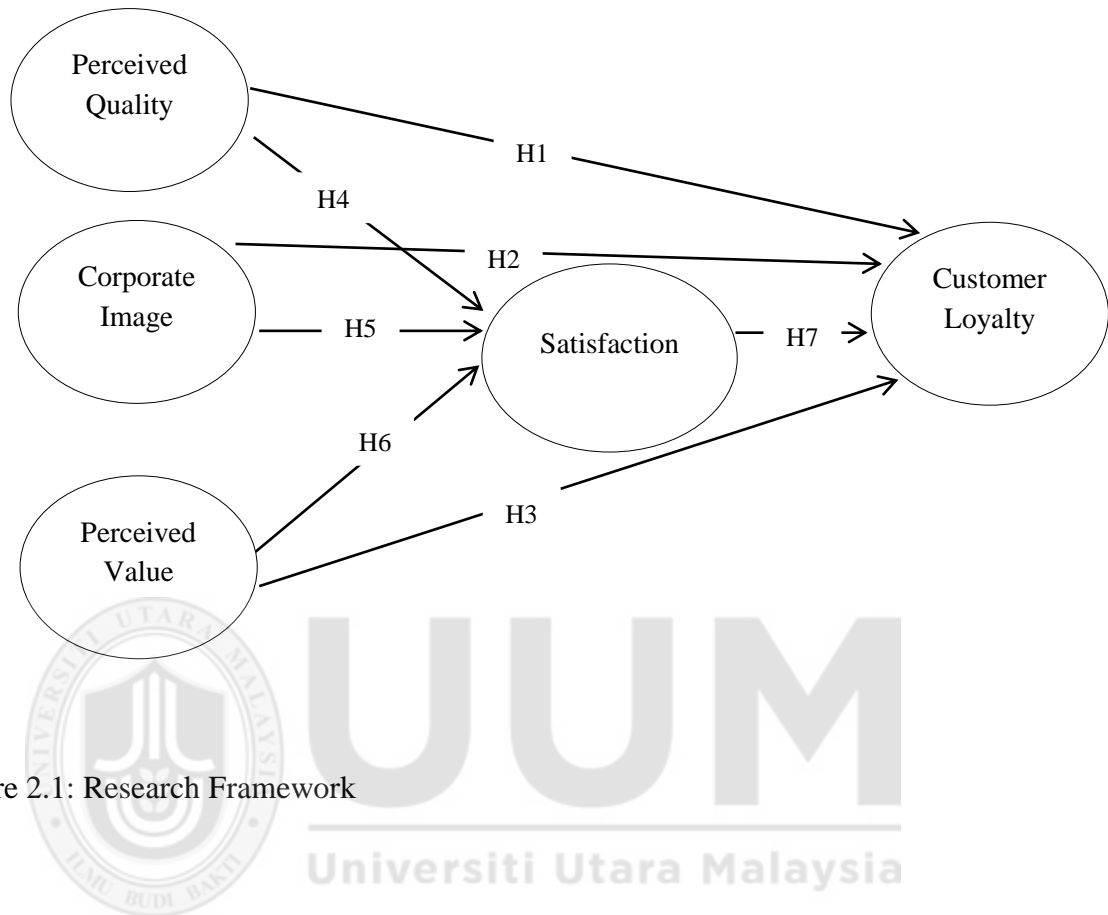
Figure 2.1: Research Framework

2.5   Previous Studies and Hypotheses Development

2.5.1   Relationship between Perceived Quality and Customer Loyalty

Research in different industries showed positive relationship between perceived quality and customer loyalty. Perceived quality showed to be a great influence, where it is positively and significantly related to customer loyalty. Previous studies conducted in banking industry by Zahir et al. (2015) in Malaysia; Minh and Huu (2016) in Vietnamese; Magasi (2016) in African and; Najafi, Rahmani and Safari (2015) in Parsian found that perceived quality influenced customer loyalty.

There are several researchers conducted studies in hotel industry, such as Olorunniwo, Hsu and Udo (2006) and Liang (2008) in United States found that perceived quality is an important predictor of customer loyalty. In addition, studies conducted in retail industry by Alhaddad (2015) in Syria also proved that perceived quality plays an important role and has a positive relationship on customer loyalty. In the case of automobile industry studied by Yu, Wu, Chiao and Tai (2005) in Taiwan showed that perceived quality also influence on customer loyalty. Based on the above discussion, it can be assumed that perceived quality would enhance customer loyalty. Therefore, the hypothesis is proposed as:

H1: There is positive relationship between perceived quality and customer loyalty.

2.5.2 Relationship between Corporate Image and Customer Loyalty

Many studies in various fields have shown positive relationship between corporate image and customer loyalty. Previous studies conducted in telecommunication industry by Agyei and Kilika (2014) in Kenya; Ram and Wu (2016); Egblopeali and Aimin (2011) in China and; Kim and Lee (2010) in Korea found that corporate image significantly influence customer loyalty. In addition, these finding were similar to studies conducted in banking industry. This was proved by Zahir et al. (2015) in Malaysia and Setyono, Kusumawati and Mawardi (2015) in Indonesia found that corporate image influence customer loyalty.

Moreover, retail industry also concluded that corporate image has significant effect on customer loyalty by Hart and Rosenberger (2004) in Australia. This was also supported by a study on hospitality industry in Taiwan by Tu, Wang and Chang (2012) which showed the same relationship. Study on automobile industry also proved same positive relationship between corporate image and customer loyalty by Huang (2016) in Taiwan. Based on the above discussion, it can be assumed that corporate image would enhance customer loyalty. Therefore, the hypothesis is proposed as:

H2: There is positive relationship between corporate image and customer loyalty.

2.5.3   Relationship between Perceived Value and Customer Loyalty

Previous studies in various fields showed positive relationship between perceived value and customer loyalty. According to Lin and Wang (2005) in their study in mobile commerce industry in Taiwan found that perceived value influence customer loyalty. Studies conducted by Chang and Wang (2011) in Taiwan to measure online shopping behavior has shown the same finding which indicated that perceived value plays an important role on customer loyalty.

These finding were similar to studies conducted in hotel industry. This was proved by Gumussoy and Koseoglu (2016) in Turkey and Krasna (2008) in Slovenian found that perceived value determined customer loyalty. Besides, Li (2013) in retail industry reported the same positive result, which is perceived value enhance customer loyalty in China.

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Study on internet banking also demonstrated positive relationship between perceived value and customer loyalty by Rahi and Mazuri (2016) in Malaysia. Moreover, Haslinda, Kiong and Raja (2014) in their study on banking industry in Malaysia stated that perceived value is an important indicator in enhancing customer loyalty. Based on the above discussion, it can be assumed that perceived value would enhance customer loyalty. Therefore, the hypothesis is proposed as:

H3: There is positive relationship between perceived value and customer loyalty.

2.5.4 Relationship between Perceived Quality and Satisfaction

Previous studies conducted in banking industry by Beerli et al. (2004) in Spain; Ushanta, Wijeratne and Samantha (2014) in Sri Lanka; Quyet, Vinh and Chang (2015) in Vietnam and; Ogunnaike and Olaleke (2010) in Nigeria found that perceived quality is positively related to satisfaction.

According to Iglesias and Guillen (2004) in their study on hospitality industry in Spain found that perceived quality influence customer satisfaction. Similarly, Ho, Olsen and Duong (2006) conducted a study in Vietnam hospitality industry reported the same positive relationship between perceived quality and satisfaction. Similarly, Zaibaf, Taherikia and Fakharian (2013) in Iran also demonstrated that perceived quality influence satisfaction in hospitality industry.

In addition to banking and hospitality industry, telecommunication industry also reported that perceived quality has significant impact on satisfaction (Aydin and Ozer, 2005) in Turkey. Besides, Lai and Chou (2010) conducted a study in Taiwan leisure industry found that there is a significant and positive relationship between perceived quality and satisfaction. Based on the above discussion, it can be assumed that perceived quality would enhance satisfaction. Therefore, the hypothesis is proposed as:

H4: There is positive relationship between perceived quality and satisfaction.

2.5.5   Relationship between Corporate Image and Satisfaction

Previous studies on corporate image indicated that corporate image plays an important role in determining satisfaction of customer. Hu and Huang (2011) in their study in Taiwan air cargo industry and a study conducted by Kuo and Tang (2011) in Taiwan transportation industry found that corporate image influence customer satisfaction. Other studies also showed the same positive relationship between corporate image and satisfaction were conducted by Ene and Ozakaya (2014) in Turkey retail industry.

In addition, Agricultural Bank of China found that corporate image plays an important role in influencing customer satisfaction (Wang and Chaipoopirutana, 2014). Huang (2016) conducted a study on automobile industry in Taiwan found that corporate image has positive impact on satisfaction. The study conducted by Esmaeilpour and Barjoei (2016) in Iran and Tu et al. (2012) in Taiwan hospitality industry found that there is a positive relationship between corporate image and satisfaction. Setiawan and Sayuti

(2017) conducted a study in Indonesia travel industry has concluded that corporate image has a positive and significant relationship on satisfaction. Based on the above discussion, it can be assumed that corporate image would enhance satisfaction. Therefore, the hypothesis is proposed as:

H5: There is positive relationship between corporate image and satisfaction.

2.5.6   Relationship between Perceived Value and Satisfaction

There are several previous studies conducted in banking industry showed positive relationship between perceived value and satisfaction, such as Faryabi, Kaviani and Yasrebdoost (2012) in Iran banking industry and Wang and Chaipoopirutana (2014) in China banking industry. Study on business to business context in Germany also proved the same positive relationship between perceived value and customer satisfaction conducted by Eggert and Ulaga (2002) and Jayawardhena (2010).

According to Gumussoy and Koseoglu (2016) in their study in Turkey hotel industry also found that perceived value influence customer satisfaction. Other industry also showed the same positive relationship in their study conducted by Chen and Chen (2010) in Taiwan and Gallarza and Saura (2006) in Spain travel industry. According to study conducted by Dovaline et al. (2015) on mobile application in United States has concluded that perceived value has a positive and significant influence on customer satisfaction. Based on the above discussion, it can be assumed that perceived value would enhance satisfaction. Therefore, the hypothesis is proposed as:

H6: There is positive relationship between perceived value and satisfaction.

2.5.7 Relationship between Satisfaction and Customer Loyalty

Satisfaction is found to be a strong predictor of customer loyalty. Many studies have been conducted on telecommunication industry to examine the positive relationship between satisfaction and customer loyalty. The study conducted by Aydin et al. (2005) in Turkey; Clemes et al. (2013); Ram and Wu (2016) in China; Egblopeali and Aimin (2011) in Togo and; Santouridis and Trivellas (2010) in Greece telecommunication industry showed positive relationship between satisfaction and customer loyalty. Moreover, Lin and Wang (2006) conducted study in mobile commerce in Taiwan also revealed that customer satisfaction influence customer loyalty.

Study on retail industry by Beneke et al. (2012) in South Africa also indicated that positive relationship between customer satisfaction and customer loyalty. These were similar to those studies conducted in banking industry. This was proved by Zahir et al. (2015) in Malaysia and Kaura et al. (2015) in India banking industry found that satisfaction determined customer loyalty. Based on the above discussion, it can be assumed that satisfaction would enhance customer loyalty. Therefore, the hypothesis is proposed as:

H7: There is positive relationship between satisfaction and customer loyalty.

2.5.8 Satisfaction as a Mediator between Perceived Quality and Customer Loyalty, Corporate Image and Customer Loyalty and Perceived Value and Customer Loyalty

There were various previous studies conducted on examining the mediating roles of satisfaction. However, there are few studies conducted regarding satisfaction as a mediator between perceived quality and customer loyalty. Study conducted by Bloemer, Rutyer and Peeters (1998) and Caruana (2002) in banking industry showed that perceived quality is a predictor of customer loyalty through mediating role of satisfaction. Previous studies in banking industry proved that satisfaction mediates the relationship between perceived quality and customer loyalty. A study conducted by Chumpitaz and Paparoidmais (2004) in business to business context also found that satisfaction mediates the relationship between perceived quality and customer loyalty. In the telecommunication industry, Aydin and Ozer (2005) found that perceived quality has a significant impact on satisfaction. Table 2.1 indicates the previous studies on satisfaction as a mediator between perceived quality and customer loyalty.

Table 2.1

Previous Studies on Satisfaction as a Mediator between Perceived Quality and Customer Loyalty.

Authors	Context	Independent variables	Dependent variable	Results
Bloemer et al. (1998).	Banking	Quality Mediator Satisfaction	Loyalty	Supported
Caruana (2002).	Banking	Service quality Mediator Satisfaction	Service loyalty	Supported
Chumpitaz and Paparoidmais (2004).	Business-to-business	Service quality Mediator Satisfaction	Loyalty	Supported

Previous studies revealed that corporate image plays an important role in determining satisfaction. However, there are limited studies conducted by researchers on the mediating roles of satisfaction between corporate image and customer loyalty. Based on the study conducted by Bloemer and Rutyer (1998) and Martensen (2007), satisfaction plays an essential role in mediating the relationship between corporate image and customer loyalty in retailing industry. However, study conducted by Bloemer et al. (1998) in banking industry showed that satisfaction does not mediates the relationship between corporate image and customer loyalty. Table 2.2 demonstrates the previous studies on satisfaction as a mediator between corporate image and customer loyalty.

Table 2.2
Previous Studies on Satisfaction as a Mediator between Corporate Image and Customer Loyalty.

Authors	Context	Independent variable	Dependent variable	Results
Bloemer and Rutyer (1998).	Retailing	Image Mediator Satisfaction	Loyalty	Supported
Bloemer et al. (1998).	Banking	Image Mediator Satisfaction	Loyalty	Not supported
Martensen (2007).	Retailing	Corporate image Mediator Satisfaction	Loyalty	Supported

Many studies in various fields have showed relationship between perceived value and satisfaction. Previous studies conducted in banking showed positive relationship between perceived value and satisfaction such as study conducted by Faryabi et al. (2012) and Wang and Chaipoopirutana (2014). The result is similar to the study conducted by Eggert and Ulaga (2002) and Jayawardhena (2010) in business to business industry. According to Dovaline et al. (2015) in their study on mobile application found that perceived value influence customer satisfaction. However, there are limited studies conducted on satisfaction as a mediator between perceived value and customer loyalty.

Furthermore, satisfaction found to be a strong influence of customer loyalty. Previous studies conducted by Aydin et al. (2005); Santouridis and Trivellas (2010); Clemes et al. (2013) and; Ram and Wu (2016) in telecommunication industry found that

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satisfaction plays an essential role in influencing customer loyalty. Thus, the following hypotheses were proposed:

H8: Satisfaction mediates the relationship between perceived quality and customer loyalty.

H9: Satisfaction mediates the relationship between corporate image and customer loyalty.

H10: Satisfaction mediates the relationship between perceived value and customer loyalty.

2.6 Summary

This chapter discussed relevant literatures on perceived quality, corporate image, perceived value, satisfaction and customer loyalty. Research framework was developed and it shows direct and indirect effect of this study. Specifically, direct effect involved perceived quality, corporate image, perceived value, satisfaction and customer loyalty, and perceived quality, corporate image, perceived value and satisfaction. Meanwhile, indirect effect involved satisfaction as a mediator between perceived quality, corporate image, perceived value and customer loyalty. Discussion on previous studies and hypotheses development were presented. Moreover, underpinning theories were presented to explain that EDT was used to measure perceived quality, perceived value and customer satisfaction and social exchange theory was used to measure corporate image and customer loyalty to support the research model.

CHAPTER THREE

METHODOLOGY

3.1 **Introduction**

This chapter discussed the research design and methodology used for this study. The key objective of this study is to investigate the relationship between perceived quality, corporate image, perceived value, satisfaction and customer loyalty. Specifically, it addressed the population and sample of the study, sampling method, questionnaire design, measurement of variables, pre testing and pilot study. Finally, this chapter discussed on method used to analyze data.

3.2 **Research Design**

Critical success of a research project is an appropriate research methodology (Sekaran, 2003). This research was conducted to investigate the relationship between perceived quality, corporate image, perceived value, satisfaction and customer loyalty. In this study, quantitative method was used as the main technique of data collection which involving distribution of questionnaire. Cross-sectional study or known as one shot was used to measure all variables at one point of time using a field of survey (Sekaran and Bougie, 2009). According to Sekaran (2003), descriptive study was conducted to describe the characteristics of the respondents. Dependent variable of this study is customer loyalty and the independent variables are perceived quality, corporate image, perceived value and satisfaction. In addition, satisfaction as a mediator between perceived quality and

customer loyalty, corporate image and customer loyalty and perceived value and customer loyalty.

3.3 Population and Sample of Study

3.3.1 Sample Size

According to Sekaran and Bougie (2009), population is the entire group of people that researchers investigate, while sample is a subset of the population. Population of this study is Malaysian students, which between the age of 20 years old and above. It is essential to choose the suitable sample size when conducting a research. As a result, sample size will directly influence the reliability for the analysis (Hair, Black, Babin, Anderson and Tatham, 2006).

Sample size for this study is UUM students and students should be between the age of 20 years old and above attending higher institution. It involved undergraduate and postgraduate students that studying in UUM. Additionally, they must be active students in UUM and users of mobile service providers for more than one year.

Table 3.1 shows the table for determining sample size from a given population. The sample size of this study is 379, while Table 3.2 shows the total number of UUM students which is 30,297. The minimum sample requirement for this study is 379. The proportion of UUM students for undergraduate is 78.25%, while 21.75% is postgraduate students. According to Salkind (2012), this study increasing the sample by 40% to account for unusable questionnaires. All in all, after added the extra 40% from the sample

size, the total sample size in this study is 531. 431 questionnaires were found usable and 100 questionnaires were unusable.

Table 3.1
Table for Determining Sample Size from a given Population

Population size (N)	Sample size (S)	Population size (N)	Sample size (S)
5000	357	10000	370
6000	361	15000	375
7000	364	20000	377
8000	367	30000	379
9000	368	40000	380

Source: Krejcie and Morgan (1970)

Table 3.2
Total Number of UUM Students

Students	Total number of UUM students	Proportion (%)	Minimum number
Undergraduate	23,706	78.25%	297
Postgraduate	6,591	21.75%	82
Total	30,297	100%	379

Source: Department of Academic Affairs of UUM (2017)

3.3.2   Sampling Method

Type of sampling used in this study was probability sampling. It represents that respondents of the sample have an equal chance to be selected (Sekaran and Bougie, 2009). In particular, stratified random sampling was used when the population contains different groups (Salkind, 2012). The sample of this study is 30,297 and divided into two groups, which are undergraduate and postgraduate students in UUM. As shown in Table 3.2, the proportion of undergraduate students is 78.25% and 21.75% for postgraduate students. Therefore, questionnaire was distributed according to the proportion of

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undergraduate and postgraduate students. Nevertheless, systematic sampling technique was used in this study and respondents were chosen based on every odd number in the sample size. The indicated total sample size in this study is 431, it represents that 316 is undergraduate students and 115 is postgraduate students. The starting point of the sample is (#1) and it shows that each UUM students in the sample has the equal chance to be selected. Specifically, the sample was chosen based on every odd number, for instance every 1, 3, 5, 7, 9, 11, 13, 15 to 431 respondents.

3.4   Questionnaire Design

The measurement of this study is nominal and ordinal scale. Nominal scale represents certain categories or groups such as gender and preference. Nominal scale refers to its own category in each observation. Besides, ordinal scale described as rank-orders of the categories. Ordinal scale is used when the variables of the categories are to be ordered according to some preferences (Sekaran and Bougie, 2009).

In this study, questionnaire design was divided into two sections. Section A consists of the respondents' demographic information such as gender, age, level of education, current mobile service provider that used by respondents as well as the duration, and type of connection used. The nominal scale was used in section A. Meanwhile, section B contains the information regarding factors that influencing customer loyalty in mobile service provider such as perceived quality, corporate image, perceived value, satisfaction and customer loyalty. Thus, the measurement for the Likert-

scale is an ordinal scale. Cover page was included in the page first page of the questionnaire to provide an overview objective of this study.

3.5 Measurement of Variables

3.5.1 Customer Loyalty

Customer loyalty was defined by Izogo (2017) as continuous repurchase behavior towards preferred product or service. It is important for organization in nurturing relationships with customers to create a number of customer loyalty. Operational definition of customer loyalty defined as the commitment given by customer over a period of time without switching to another mobile service provider. Customer loyalty is the dependent variable in this study which measured by using 5 point Likert-scale. The range of the measure is from "1" (strongly disagree) to "5" (strongly agree). Items to measure customer loyalty were adapted from the study by Aydin and Ozer (2005) and Izogo (2017) and all items are reflective items. Table 3.3 shows the items for customer loyalty, which was coded as CL.

Table 3.3
Items for Customer Loyalty (CL)

Code	Items
CL1	If I bought a new mobile service provider, I would prefer the same brand as my current mobile service provider.
CL2	I will encourage friends who plan to buy a new mobile service provider to use my current mobile service provider.
CL3	Even if the other mobile service providers' billing was cheaper, I would go on using my current mobile service provider.

Code	Items
CL4	When topic on my current mobile service provider comes up in conversation, I will go out of my way to recommend my current mobile service provider.
CL5	I will continue using my current mobile service provider for a long period of time.

Source: Aydin and Ozer (2005) and Izogo (2017)

3.5.2 Perceived Quality

Perceived quality is the overall consumption experience of the customer based on product and service provided by organization (Beerli et al., 2004). The operational definition of perceived quality defined is the overall quality evaluation of product or service provided by the mobile service provider. Perceived quality is the independent variable in this study which measured by using 5 point Likert-scale. The range of the measure is from "1" (strongly disagree) to "5" (strongly agree). Items to measure perceived quality were adapted from the study by Beerli et al. (2004) and all items are reflective items. Table 3.4 shows the items for perceived quality, which was coded as PQ.

Table 3.4
Items for Perceived Quality (PQ)

Code	Items
PQ1	When you have a problem, your current mobile service provider shows a sincere interest in solving it.
PQ2	Employees of your current mobile service provider solve your problems when they promise to do so.
PQ3	Employees of your current mobile service provider give you prompt service.

Code	Items
PQ4	Employees of your current mobile service provider are always willing to help you.
PQ5	Employees of your current mobile service provider are constantly courteous to you.
PQ6	Employees of your current mobile service provider have the knowledge to answer your questions.

Source: Beerli et al. (2004)

3.5.3 Corporate Image

According to Aydin and Ozer (2005), corporate image refers to the overall impression of the organization in the mind of customers. Corporate image was operationalized as the customer's overall impression towards mobile service providers such as Maxis, Digi, Celcom and U Mobile. Corporate image is the independent variable in this study which was measured using 5 point Likert-scale. The range of the measure is from "1" (strongly disagree) to "5" (strongly agree). Corporate image was adapted from the study by Aydin and Ozer, (2005) and Clemes et al. (2013) and all items are reflective items. Table 3.5 shows the items for corporate image, which was coded as CI.

Table 3.5
Items for Corporate Image (CI)

Code	Items
CI1	My current mobile service provider is stable and firmly established.
CI2	My current mobile service provider is innovative and forward-looking.
CI3	My current mobile service provider has social contribution for

Code	Items
	society.
CI4	I always have a good impression on my current mobile service provider.
CI5	In my opinion, my current mobile service provider has a good image in the minds of consumers.
CI6	Overall, I consider that my current mobile service provider has a positive image in the marketplace.

Source: Aydin and Ozer (2005) and Clemes et al. (2013)

3.5.4 Perceived Value

Perceived value is customer overall assessment of products and services based on what is given and what is received from the organization (Clemes et al., 2013). The operational definition for perceived value is the overall judgment based on the money paid and the value received by customers towards the mobile service provider. Perceived value is the independent variable in this study which was measured using 5 point Likert-scale. The range of the measure is from "1" (strongly disagree) to "5" (strongly agree). Items for perceived value were adapted from the study by Clemes et al. (2013) and Jayawardhena, (2010) and all items are reflective items. Table 3.6 shows the items for perceived value, which was coded as PV.

Table 3.6
Items for Perceived Value (PV)

Code	Items
PV1	The services that I receive from my current mobile service provider provide value for money.
PV2	Compared to what I have to give up, such as money, time, energy, and effort, the services that I receive from my current mobile

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	service provider are excellent.
PV3	Compared to what I have to give up, such as money, time, energy, and effort, the services that I receive from my current mobile service provider are excellent.
PV4	My current mobile service provider's products are an excellent value.
PV5	What I get from my current mobile service provider, and its cost, makes it a great value.

Source: Jayawardhena (2010) and Clemes et al. (2013)

3.5.5 Satisfaction

Aydin et al. (2005) defined satisfaction as the customer's comparison between the expected performance with the actual performance of the product or service. The operational definition for satisfaction is the overall evaluation of customer towards mobile service providers based on expected performance with actual performance provided by the service providers. Satisfaction is the independent variable in this study which measured by using 5 point Likert-scale. The range of the measure is from "1" (strongly disagree) to "5" (strongly agree). Satisfaction adapted from the study by Aydin et al. (2005) and Clemes et al. (2013) and all items are reflective items. Table 3.7 shows the items for satisfaction, which was coded as SAT.

Table 3.7
Items for Satisfaction (SAT)

Code	Items
SAT1	My current mobile service provider completely meets expectations from other mobile service providers.
SAT2	I am satisfied with my current mobile service provider.
SAT3	My current mobile service provider meets my pre-purchase expectations.
SAT4	My choice to be a subscriber of my current mobile service provider is a wise one.
SAT5	I feel delighted with services and goods delivered by my current mobile service provider.
SAT6	Overall, my current mobile service provider provides a very satisfying experience.

Source: Aydin et al. (2005) and Clemes et al. (2017)

Refer to Appendix A for the adapted items and original items of this study.

3.6   Pre-Testing and Pilot Study

3.6.1   Pre-Testing

Pre-testing was conducted in this study and reflected as an experimental process for testing new instructional model or techniques before conducting large-scale research design (Lanphear, 2001). Pre-test is important to ensure the questions are fully understood by the respondents and making sure no wording and measurements error. In a pre-test a small group of respondents was selected in answering the questionnaires to test the appropriateness of the questions. Moreover, pre-test was used to rectify the error before distributing questionnaire to respondents and reduces bias (Sekaran and Bougie, 2009). In this study, pre-testing involved an academician and five UUM students in

answering the questions. Respondents took 10 to 15 minutes to complete the questionnaire. Table 3.8 represents the actual and amended version of questions in the questionnaire. After the necessary amendments, the questionnaire is attached in Appendix B.

Table 3.8
The Actual and Amended Version of Questions

Actual questions	Modified questions
How many times have you been switched to another mobile service provider?	How many times have you switched to another mobile service provider?
Where did you get the information about mobile service providers?	Where did you get the information about mobile service providers? Can be more than one answer.
Please circle how strongly you agree or disagree with each of the following statement based on the Likert-scale below.	Please tick (√) how strongly you agree or disagree with each of the following statement based on Likert-scale below.
What I get from my current mobile service provider, and it's cost, makes it a great value.	What I get from my current mobile service provider, and its cost, makes it a great value.

3.6.2   Pilot Study

According to Copper and Schindler (2006), pilot study used to explore the weaknesses in design and instruments which provides a proxy data on the effectiveness of the sample. Pilot study usually conducted on a small scale with a reasonable number of respondents which reflects the target population. Moreover, conducting pilot study enable researcher

to rectify inadequacies of the instrument before conducting data collection (Sekaran, 2003).

Pilot study was conducted in this study. Among UUM students, a total of 40 respondents were selected for the pilot study and questionnaire were distributed. However, 30 usable questionnaires were taken into account in pilot study which omitted users' uses mobile service providers for less than one year. Reliability indicates the stability and consistency of the items and assesses the "goodness" of a measure (Sekaran and Bougie, 2009). According to Hayes (1993), reliability test was used to test reliability of the dependent variable and independent variables. The reliability of variables is indicated by cronbach's alpha. Coefficient alpha range from 0 indicates no reliability to 1 indicates perfect reliability (Hair, Anderson, Tatham and Black, 1995). Table 3.9 shows the cronbach's alpha for each variable in the study. The cronbach's alpha for customer loyalty was 0.733, 0.848 for perceived quality, followed by 0.850, 0.741 and 0.738 for corporate image, perceived value and satisfaction, respectively.

Table 3.9
Cronbach's Alpha for Each Variable

Variables	Cronbach's Alpha
Customer loyalty	0.733
Perceived quality	0.848
Corporate image	0.850
Perceived value	0.741
Satisfaction	0.738

3.7   Data Analysis

The method used to analyze the data is Statistical Package for the Social Sciences 22.0 (SPSS) and Partial Least Squares 2.0 (PLS). SPSS was used to analyze the descriptive data which described the characteristics of respondents. PLS was used to test the hypotheses between independent variables and dependent variable. Diagrams were used to display the hypotheses and variable relationship in path model. According to Hair, Ringle and Sarstedt (2011), the objective of PLS is to describe the variance of the endogenous latent variable through evaluating and estimating partial model relationship.

Furthermore, Hair et al. (2011) explained two stages of analyzing the research model. At the first stage, the analysis was performed to estimate the measurement of the model, while the second stage of the structural model was used to test the proposed hypotheses in the research model. The first step in conducting confirmatory factor analysis (CFA) is to evaluate measurement model, while the second step is to assess the structural model. Measurement model enables researchers to evaluate reliability and validity of a construct measures, namely composite reliability (CR), convergent validity and discriminant validity. Structural model was used after the established of measurement model and it described the relationship between the constructs (Hair, Hult, Ringle and Sarstedt, 2017).

In addition, descriptive analysis was used to summarize the characteristics of respondents. There are five items used to construct customer loyalty (CL), six items were used to construct perceived quality (PQ), six items were used to construct corporate

image (CI), five items were used to construct perceived value (PV) and six items were used to construct satisfaction (SAT).

3.8   Summary

This chapter discussed the research design of quantitative approach using questionnaire. The chapter also discussed the population and sample size method used in this study. Pre testing and pilot study was conducted to assess the items' validity. The statistical techniques employed for analyzing the data were explained.

CHAPTER FOUR

DATA ANALYSIS AND RESULTS

4.1   Introduction

This chapter reports the statistical findings of analysis in this study. It commences with

an overview of response rate to the research survey, followed by respondents' profile,

results of measurement model and results of structural model.

4.2   Response Rate

For data collection purposes, 531 questionnaires were distributed to undergraduate and

postgraduate students in UUM. A total of 431 or 81.17% questionnaires were

successfully returned and usable. 100 or 18.83% sets of questionnaires were not usable

because the duration of mobile service providers used by respondents were less than one

year. Table 4.1 indicates the response rate of this study.

Table 4.1
Response Rate

Questionnaires Distribution	No. of Questionnaires	Percentage (%)
Usable	431	81.17%
Not usable	100	18.83%
Total	531	100%

4.3   Profile of Respondents

This section describes the background of the respondents in this study. Specifically, it provides demographic information about respondents' gender, age, level of education, and relevant information, such as current mobile service provider, how long using the mobile service provider, how many times switched to another mobile service provider, where did respondents get the information about mobile service provider and type of mobile connection use by respondents. Table 4.2 presents the profile of the respondents in details.

Table 4.2
Respondents' Profile

Characteristics	No. of Respondents	Percentage (%)
Gender		
Male	133	31%
Female	298	69%
Age		
20	124	28.8%
21-30	289	67.0%
31-40	10	2.3%
41-50	5	1.2%
Above 51	3	0.7%
Level of education		
Undergraduate	316	73.3%
Master	88	20.4%
PhD	27	6.3%
Current mobile service provider		
Maxis	128	28.3%
Digi	105	23.2%
Celcom	114	25.2%
U Mobile	87	19.2%
Others:		
Redone	8	1.8%
Tunetalk	1	0.2%

Characteristics	No. of Respondents	Percentage (%)
Webe	4	0.9%
XOX	6	1.3%
Number of times switched to another mobile service provider.		
Never	159	36.9%
1-3 times	250	58.0%
4-6 times	14	3.2%
More than 6 times	8	1.9%
Information obtained from:		
TV /Radio	96	15.3%
Family/ Friends	281	44.9%
Magazines/ Newspaper	43	6.9%
Internet	206	32.9%
Other	0	0%
Type of mobile connection.		
Prepaid	310	71.9%
Postpaid	121	28.1%

As shown in Table 4.2, among 431 respondents, there were more female students (69%) than male students (31%). In terms of respondents' age, majority were in the age bracket of 21-30 years old (67%), followed by the age of 20 years old (28.8%). In addition, 2.3% were in the age bracket of 31-40 years old, 1.2% were in the age bracket of 41-50 years old and the remaining 0.7% were 51 years old and above.

Thereafter, majority of the respondents were undergraduate students (73.3%) and only 26.7% were postgraduate students, such as Master and PhD. In terms of current mobile service provider, the highest were Maxis (28.3%) followed with Celcom (25.2%) and the third highest were Digi (23.2%). 19.2% respondents were using U Mobile, 1.8%

were Redone users and 1.3% were XOX users. Only 0.9% and 0.2% of the respondents were using Webe and Tunetalk.

Furthermore, most of the respondents switched to another service provider for 1-3 times (58%), followed with the respondents of never switched (36.9%). Only 3.2% of the respondents switched 4-6 times and 1.9% respondents answered more than 6 times. Majority of the respondents obtained the information from family or friends (44.9%) and followed by internet (32.9%). 15.3% respondents obtained information from television or radio and the remaining 6.9% were magazines or newspaper. Lastly, 71.9% respondents were prepaid users, whilst 28.1% respondents were postpaid users.

4.4 Data Analysis

4.4.1 Measurement Model

CFA was used to evaluate the measurement model and it represents the outer model in PLS. Measurement model of the construct demonstrated the relationship between the constructs and the indicator variables (Hair et al., 2017). Maria and Yusniza (2016) demonstrated the purpose of evaluating measurement model, which is to assess the reliability and validity of the variables.

In particular, there are two types of measurement model namely exogenous latent variables and endogenous variables. Exogenous model is the constructs that described other constructs in the model, while endogenous model explained the constructs that mentioned in the model. The direction of the arrows from the construct to indicator

variables is the reflective of indicators. Reflective measurement was used in this study to assume that the construct causes the measurement of the indicator variables (Hair et al., 2017). All items in this study were using reflective measurement. Measurement model indicates the convergent validity, discriminant validity and the reliability (cronbach's alpha). Figure 4.1 demonstrated measurement model diagram.
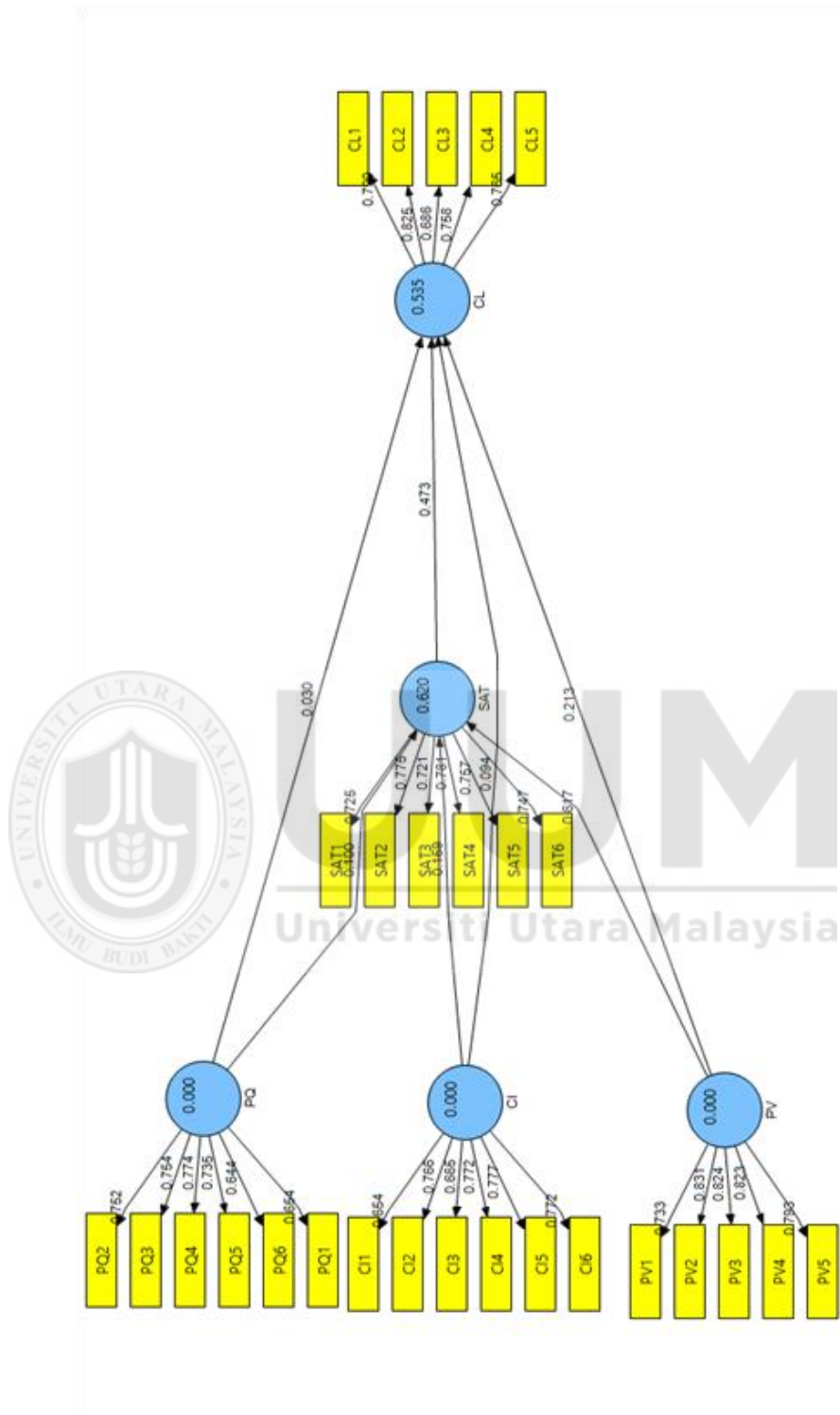
Figure 4.1
Measurement Model Diagram

4.4.2   Convergent Validity

Hair et al. (2017) stated that convergence validity measuring the same construct. Similarly, convergence validity is used to ensure the items are measuring the same concept. Factors loadings of the indicators, average variance extracted (AVE) and composite reliability were used to measure the convergent validity of reflective constructs (Maria and Yusniza, 2016).

A shown in Table 4.3, loadings of all items should more than suggested value which is 0.5 (> 0.5) (Hair et al., 2006). Factor loadings in this study met the specification of recommended value of 0.5 which ranged from 0.644 to 0.831. According to Hair et al. (2017), AVE value that exceed 0.5 explained that more than half of the variance happened because of its indicators, while an AVE less than 0.50 indicates there is error of the items. The rule of thumb for evaluating reflective measurement model is that an AVE should be higher than 0.5 (> 0.5). Results show that AVE value is between 0.519 and 0.642. Composite Reliability (CR) estimates the reliability of the observed indicator variables. Fornell and Larcker (1981) proposed the value of CR should exceed 0.7 (> 0.7). The CR values are 0.866 and 0.9.

Reliability indicates the stability and consistency of the instrument. It helps to assess the "goodness" of a measure (Sekaran and Bougie, 2009). According to Zikmund, Babin, Carr and Griffin (2013), cronbach's alpha ranged from the value of 0 to 1. Value 0 displayed no consistency and value 1 displayed consistency, which means all items are yield to corresponding values. Specifically, cronbach's alpha between 0.80 and 0.95

represents good reliability and the value between 0.70 and 0.80 indicates good reliability. Cronbach's alpha value with less than 0.60 indicates poor reliability. Nunnally and Bernstein (1994) suggested that alpha values should be above 0.60. All variables in this study represents as very good reliability with the cronbach's alpha between 0.813 and 0.860. Thus, all items fulfilled the requirement of reliability and convergent validity.

Table 4.3
Results of Reliability and Convergent Validity Analysis

Constructs	Items	Loadings	AVE	CR	Cronbach's alpha
Customer loyalty	CL1	0.799	0.590	0.878	0.826
	CL2	0.825			
	CL3	0.686			
	CL4	0.758			
	CL5	0.765			
Perceived quality	PQ1	0.654	0.519	0.866	0.813
	PQ2	0.752			
	PQ3	0.754			
	PQ4	0.774			
	PQ5	0.735			
	PQ6	0.644			
Corporate image	CI1	0.654	0.542	0.876	0.830
	CI2	0.766			
	CI3	0.665			
	CI4	0.772			
	CI5	0.777			
	CI6	0.772			
Perceived value	PV1	0.733	0.642	0.900	0.860
	PV2	0.831			
	PV3	0.824			
	PV4	0.823			
	PV5	0.793			
Satisfaction	SAT1	0.725	0.565	0.886	0.846
	SAT2	0.775			
	SAT3	0.721			
	SAT4	0.781			
	SAT5	0.757			
	SAT6	0.747			

Note:
a. Composite reliability (CR) = (square of the summation of the factor loadings) / (square of the summation of the factor loadings) + (square of the summation of the error variances)
b. Average variance extracted (AVE) = (summation of the square of the factor loadings) / (summation of the square of the factor loadings) + (summation of the error variances)

4.4.3 Discriminant Validity

According to Hair et al. (2017), discriminant validity refers to a constructs that differ from other constructs. In other words, items were measuring different concept (Maria and Yusniza, 2006). There are two approach of discriminant validity, which is cross loadings

and Forner-Larcker criterion. The first approach of discriminant validity explained that outer loading of an indicator should be greater than the cross-loading on the other constructs. Specifically, the second approach is to compare the square root of AVE value for each constructs. An AVE is larger than squared correlation with any other construct is to determine the results of Fornell-Larcker criterion (Fornell and Larcker, 1981). Table 4.4 indicated the results of discriminant validity. It shows that square root of each AVE value exceed the correlation which presented in off-diagonal.

Table 4.4
Results of Discriminant Validity Analysis

Constructs	CI	CL	PQ	PV	SAT
CI	**0.736**				
CL	0.520	**0.768**			
PQ	0.524	0.441	**0.720**		
PV	0.616	0.651	0.546	**0.801**	
SAT	0.591	0.708	0.520	0.769	**0.751**

Note: The value in the diagonal (in bold) is the square root of AVE
CI=Corporate Image, CL=Customer Loyalty, PQ=Perceived Quality, PV=Perceived Value, SAT=Satisfaction

4.5   Structural Model

Structural model is the second approach used in conducting CFA. Hair et al. (2017) mentioned that structural model described the relationship between the constructs. In the context of PLS, structural model also called as inner model. According to Maria and Yusniza (2016), the purpose of structural model is to test the hypotheses by using bootstrapping procedure. The value between constructs was indicated by beta value (β) and t-statistics (t-value).

Moreover, Hair et al. (2017) stated that there are two primary issues should be considered in developing structural model which are the sequence of the constructs and the relationship between the constructs. The first issue is the sequence of the constructs, which presented from the left to right, where independent constructs placed on the left and dependent construct placed on the right. The second issue showed the relationship between constructs by drawing arrow, which demonstrated that the constructs on the left are the predictors of construct on the right.

In addition, the evaluation of structural model is important to determine the significance of structural path coefficient (Hair et al., 2017). The strength association between two latent variables indicates by path coefficient. Path coefficient was examined through bootstrapping procedure (Hair et al., 2017). Information obtained from bootstrapping analysis was used to determine the significance of path model relationship (Henseler, Ringle and Sinkovics, 2009). Figure 4.2 exhibited structural model diagram.
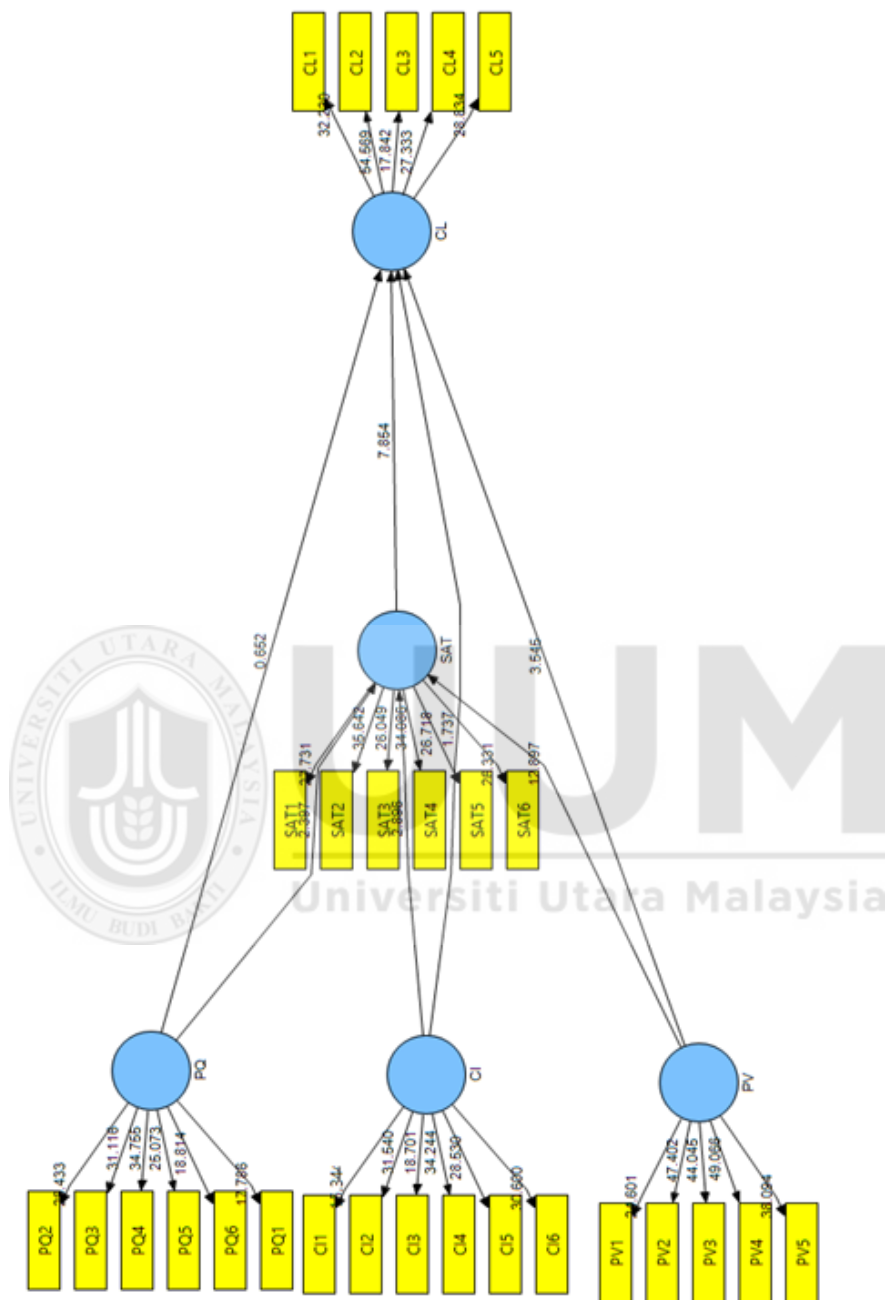
Figure 4.2
Structural Model Diagram

4.5.1 Relationship between Perceived Quality, Corporate Image, Perceived Value, Satisfaction and Customer Loyalty

Table 4.5
Results of Structural Model

Hypothesis	Relationships	Standard beta	Standard error	T-value	Decision
H1	PQ-CL	0.030	0.046	0.637	Not Supported
H2	CI-CL	0.094	0.052	1.798	Supported*
H3	PV-CL	0.213	0.062	3.431	Supported*
H4	PQ-SAT	0.100	0.040	2.503	Supported*
H5	CI-SAT	0.159	0.055	2.860	Supported*
H6	PV-SAT	0.617	0.049	12.527	Supported*
H7	SAT-CL	0.473	0.056	8.470	Supported*

*p<0.05

Table 4.5 indicated the results of structural model that displayed the relationship between variables. Based on the hypothesis above, perceived quality does not have direct relationship on customer loyalty. It showed the beta value of 0.03, t-value 0.637 and p value is more than 0.05 (β = 0.03, t-value = 0.637, p > 0.05). Therefore, H1 is not supported in this study, in which perceived quality does not influence customer loyalty. Meanwhile, corporate image showed significant relationship on customer loyalty with beta value of 0.094, t-value 1.798 and p value is less than 0.05 (β = 0.094, t-value = 1.798 and p < 0.05). Perceived value also demonstrated significant relationship on customer loyalty with beta value of 0.213, t-value 3.431 and p value is less than 0.05 (β = 0.213, t-value = 3.431 and p < 0.05). Thus, H2 and H3 are supported, in which corporate image and perceived value influence customer loyalty. Satisfaction also influence customer loyalty with beta value of 0.473, t-value 8.470 and p value is less than 0.05 (β = 0.473, t-value = 8.470 and p < 0.05). Thus, H7 is supported, in which satisfaction influence customer loyalty.

4.5.2 Relationship between Perceived Quality, Corporate Image, Perceived Value and Satisfaction

In addition, perceived quality has direct influence on satisfaction with the beta value of 0.100, t-value 2.503 and p value is less than 0.05 (β = 0.100, t-value = 2.503 and p < 0.05). Corporate image exhibited a significant relationship on satisfaction with beta value of 0.159, t-value 2.860 and p value is less than 0.05 (β = 0.159, t-value = 2.860 and p < 0.05). Thus, H4 and H5 are supported, in which perceived quality and corporate image influence satisfaction. Based on the above hypothesis, perceived value directly influence satisfaction with beta value of 0.617, t-value 12.527 and p value is less than 0.05 (β = 0.617, t-value = 12.527, p < 0.05). Thus, H6 are supported, in which perceived value influence satisfaction.

4.5.3   Tests for Mediator

In testing the three mediating effect of satisfaction between perceived quality and customer loyalty, corporate image and customer loyalty and perceived value and customer loyalty, the steps recommended by Preacher and Hayes (2004) were followed. Bootstrapping procedure was used in conducting an estimation of indirect effect of a and b, the standard error and both indirect effects interval at 95% confidence interval. Confidence interval (CI) estimated 95% considered significant when the range does not include zero "0".

Specifically, β values represented by path a and b of the relationship between perceived quality and satisfaction (a1), corporate image and satisfaction (a2), perceived value and satisfaction (a3) and satisfaction and customer loyalty (b1). According to MacKinnon, Fairchild and Fritz (2007), the mediated pathway can be estimated by multiplying the regression coefficients of both (a*b). Secondly, to determine the significant of mediation pathway a*b is divided by the standard error. Figure 4.1 illustrates the paths between perceived quality and satisfaction (path a1), corporate image and satisfaction (path a2), perceived value and satisfaction (path a3) and satisfaction and customer loyalty (path b1). These paths will be used to measure the indirect effect of independent variables and dependent variable. It can be summarized that path a indicates path a1, a2 and a3.
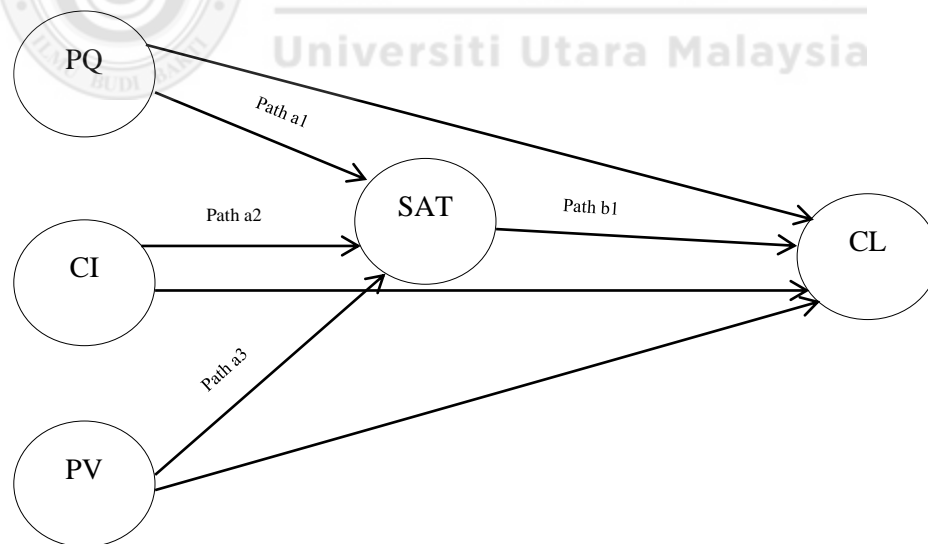
Figure 4.3
The Paths between Perceived Quality and Satisfaction (path a1), Corporate Image and Satisfaction (path a2), Perceived Value and Satisfaction (path a3) and Satisfaction and Customer Loyalty (path b1).

Table 4.6 illustrates the results of mediation effect of satisfaction. Based on the hypothesis below, H8 is supported, in which approximation to lie between 0.008 and 0.087 with 95% confidence interval. It showed that zero is not lie in 95% of confidence interval. Therefore, satisfaction mediates the relationship between perceived quality and customer loyalty. Meanwhile, H9 is estimate to lie between 0.022 and 0.128 and it indicates the zero is not lie in 95% confidence interval. It can be concluded H9 is supported. Thus, satisfaction mediates the relationship between corporate image and customer loyalty. Furthermore, the indirect effect of H10 is estimated to lie between 0.199 and 0.384 with 95% confidence interval because zero is not in the 95% confidence interval. It shows that H10 is supported, in which satisfaction mediates the relationship between perceived value and customer loyalty.

Table 4.6
Results of Mediation Effect of Satisfaction

Hypothesis	Relationship	Path					Standard error	T-value	Bootstrapped confidence interval		Decision
		a			b1	a*b1			95% Lower limit	95% Upper limit	
H8	PQ-SAT-CL	a1- PQ-SAT	0.100	SAT-CL	0.473	0.047	0.020	2.344	0.008	0.087	Supported*
H9	CI-SAT-CL	a2- CI-SAT	0.159	SAT-CL	0.473	0.075	0.027	2.752	0.022	0.128	Supported*
H10	PV-SAT-CL	a3- PV-SAT	0.617	SAT-CL	0.473	0.292	0.047	6.185	0.199	0.384	Supported*

*p<0.05

4.6   Summary

This chapter presents the findings of research after the data analysis through PLS. In particular, the response rate, respondents' profile, assessment of measurement model, including convergent validity, discriminant validity and cronbach's alpha were discussed followed by the assessment of structural model to test the direct and indirect effect of the hypotheses.

CHAPTER FIVE

DISCUSSIONS AND RECOMMENDATIONS

5.1   Introduction

This chapter discusses the research objective based on the findings presented in the previous chapter on the relationship between perceived quality, corporate image, perceived value, satisfaction and customer loyalty, and the mediating effect of satisfaction between perceived quality and customer loyalty, corporate image and customer loyalty and perceived value and customer loyalty. This chapter also provides theoretical and practical contribution in the context of mobile service providers. Lastly, the limitation and the overall conclusions are described.

5.2   Discussion of the Findings

This study summarized ten hypotheses in which one hypothesis was not supported and nine hypotheses were supported and the overall research findings were discussed. In particular, the objectives of this research were to examine the influence of perceived quality, corporate image, perceived value, satisfaction and customer loyalty and to examine the influence of perceived quality, corporate image, perceived value and satisfaction. This study also examine the influence of satisfaction as a mediator between perceived quality and customer loyalty, corporate image and customer loyalty, and perceived value and customer loyalty.

5.2.1 The Difference of Respondents' Demographic

Data were gathered from undergraduate and postgraduate students in UUM. 531 questionnaires were distributed and 431 were returned and usable, representing 81.17% participation (as shown in Table 4.1). Results of the respondents' demographic (as shown in Table 4.2) displayed that 69% of the respondents were female and 31% were male. The number of female respondents were higher compared to male respondents because female students presence higher than male students in UUM. Specifically, majority of the respondents were in the age bracket of 21-30 years old (67%). Most of the respondents switched to another service provider for 1-3 times (58%) and followed by 36.9% respondents never switched to another service provider. Results showed that most of the respondents were teenagers and 36.9% of the respondents were found loyal to their mobile service provider.

5.2.2 Perceived Quality, Corporate Image, Perceived Value, Satisfaction and Customer Loyalty

The research questions deals with the relationships between the independent variables and dependent variable. Four hypotheses to identify the influence of perceived quality and customer loyalty, corporate image and customer loyalty, perceived value and customer loyalty, and satisfaction and customer loyalty were formulated. As shown in Table 4.5, H1 was not supported, in which perceived quality does not influence customer loyalty in mobile service providers. Findings by Rutyer, Wetzels and Bloemer (1998); Caruana (2002); Gorondutse and Haim (2013) and; Marakanon and Panjakajornsak (2017) were showed that perceived quality does not influence customer loyalty. According to

Marakanon and Panjakajornsak (2017), perceived quality is a perception of customer based on product or service offered by the company. In other words, perceptions of customer towards product or service were different without definite standards. Customer perception is based on experience and personal sense. Rutyer et al. (1998) mentioned that perceived quality has no relationship with customer loyalty. It was found that the influence of perceived quality and customer loyalty were varies in every industry and findings from one industry unable to generalized to other industries.

Additionally, corporate image was found to be a predictor of customer loyalty, thus H2 was supported. Perceived value was found to be the strong predictor that influences customer loyalty in mobile service providers and it showed that H3 was supported. H7 was supported in this study, in which satisfaction influence customer loyalty.

Moreover, results demonstrated that perceived quality does not influence customer loyalty, while corporate image, perceived value, and satisfaction significantly influence customer loyalty in the context of mobile service providers. In addition, this result also implies that a good reputation of the mobile service providers will influence customers to have a positive mind towards the company. Service providers that provide good values of products or services would increase customer engagement with the mobile service providers. Previous studies conducted by Agyei and Kilika (2014) and Ram and Wu (2016) found positive relationship between corporate image and customer loyalty in telecommunication context. Customers would loyal with their current mobile service

providers when their service providers is innovative in providing best product or service and well established image in marketplace.

Furthermore, these finding were similar and proved by Lin and Wang (2005); Chang and Wang (2011) and; Gumussoy and Koseoglu (2016) stated that perceived value has positive relationship with customer loyalty. Perceived value was found to be the strong predictor on customer loyalty. Thus, it is important for service providers to provide product or service that value for money and provide excellent value to customers. The results were consistent with the previous study, which stated that corporate image and perceived value influence customer loyalty. Satisfaction found to be a predictor of customer loyalty. Previous studies conducted by Aydin et al. (2005); Santouridis and Trivellas (2011); Egblopeali and Aimin (2011); Clemes et al. (2013) and; Ram and Wu (2016) displayed that satisfaction influence and customer loyalty. It is vital for company to provide excellence services and products to increase customer satisfaction and customer loyalty.

5.2.3   Perceived Quality, Corporate Image, Perceived Value and Satisfaction

Perceived quality, corporate image and perceived value displayed positive relationship on satisfaction as shown in Table 4.5. Hence, H4, H5 and H6 were supported in this study. Perceived quality, corporate image and perceived value were the drivers that influence customer satisfaction. Previous studies conducted by Beerli et al. (2004); Aydin and Ozer (2005); Lai and Chou (2010) and; Ushanta et al. (2014) were found that perceived quality influence satisfaction.

Meanwhile, Martensen (2007); Hu and Huang (2011); Kuo and Tang (2011) and; Ene and Ozakaya (2014) further explained that corporate image plays an important role in determining customer satisfaction. Studies conducted by Eggert and Ulaga (2002); Jayawardhena (2010); Faryabi et al. (2012) and; Wang and Chaipoopirutana (2014) showed positive relationship between perceived value and satisfaction. Service providers that provide excellent service, including willingness to help, employees' courtesy towards customers and strong coverage area would increase customer satisfaction. Customer satisfaction occurred when customer feels that the value provided by mobile service provider is above customer expectation. In other words, the money pay by customer is worth with the product and service provided by mobile service providers.

5.2.4 Satisfaction as a Mediator between Perceived Quality and Customer Loyalty, Corporate Image and Customer Loyalty and Perceived Value and Customer Loyalty

In addition, there are three hypotheses presented in this study to examine the influence of satisfaction as a mediator between perceived quality and customer loyalty, corporate image and customer loyalty and perceived value and customer loyalty. In addition, satisfaction as a mediator between perceived quality and customer loyalty, corporate image and customer loyalty and perceived value and customer loyalty were found to have significant positive relationships. The results were consistent with previous studies conducted by Bloemer et al. (1998); Caruana (2002) and; Chumpitaz and Paparoidmais (2004) stated that satisfaction mediates the relationship between perceived quality and customer loyalty. Customer measured overall services provided by mobile service

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providers, satisfaction presence when performance of the service providers fall above customer expectation and which in turn leads to customer loyalty towards mobile service providers.

Study showed that satisfaction mediates the relationship between corporate image and customer loyalty. The result was aligned with the previous studies conducted by Bloemer and Rutyer (1998) and Martensen (2007), which mentioned that satisfaction mediates the relationship between corporate image and customer loyalty. In the context of mobile service providers, it is vital for service providers to build a positive image in customer's mind by providing product or service that above their expectations, which could turn them to become loyal customers. In addition to that, word of mouth is a powerful marketing tool to increase brand awareness and customer loyalty in the context of mobile service providers.

In this study, satisfaction act as an important factor in mediating the relationship between perceived value and customer loyalty. Previous studies conducted by Eggert and Ulaga, (2002); Jayawardhena (2010) and; Dovaline et al. (2015) found that perceived value influence customer satisfaction. Furthermore, satisfaction also found to be the predictor of customer loyalty. Previous studies conducted by Aydin et al. (2005); Santouridis and Trivellas (2010); Clemes et al. (2013) and; Ram and Wu (2016) found that satisfaction plays an important role in influencing customer loyalty. Customer tends to feel satisfied with the mobile service providers when they perceived that the values provided are worth with the money pay and this directly influence their loyalty towards

mobile service providers. Therefore, H8, H9 and H10 were supported in this study as shown in Table 4.6.

5.3   Contribution of the Study

5.3.1   Theoretical Contribution

The outcome of this study improves researcher's knowledge on customer loyalty, while highlighting corporate image, perceived value and satisfaction as the predictors that influence customer loyalty. This study also showed that perceived quality, corporate image, perceived value influence satisfaction. Moreover, satisfaction act as the key indicator in mediating the relationship between perceived quality, corporate image and perceived value and customer loyalty in mobile service providers. From the theoretical point of view, the results gained from this study were best explained by the two theories. The empirical evidence from this study contributes to the body of knowledge in the context of mobile service providers in Malaysia.

In addition, this study has undertaken two underpinning theories which are expectancy disconfirmation theory (EDT) and social exchange theory. Specifically, EDT was developed to explain perceived quality, perceived value and customer satisfaction in the context of mobile service providers. Perceived quality and perceived value were found to be the variables that can increase customer satisfaction in telecommunication industry. Studied conducted by Cudjoe et al. (2015) in Ghana and Abubakar (2016) in Nigeria proved that EDT was used in telecommunication industry. It further discussed

that perceived quality concerned on overall satisfaction of the service providers and thus, it leads to customer satisfaction.

Besides, EDT also contributes to measure perceived value, where customer concerned with the overall value received and given by the service providers. Perceived value indicates the benefits of product or service offered by mobile service providers and the feeling of pleasure, which in turns to customer satisfaction. Additionally, the feeling of delighted on the mobile service providers would lead to customer satisfaction and repurchase behavior. Thus, the underpinning theory of EDT was able to validate perceived quality, perceived value and satisfaction in the context of this study.

Furthermore, from a theoretical point of view, this study was consistent with previous studies and supported social exchange theory. In particular, social exchange theory was developed to explain corporate image and customer loyalty in mobile service providers. This was proved by Stefanou et al. (2003) in Greece and Shiau and Luo (2012) in Taiwan adapted social exchange theory in their study. Social exchange theory involved reciprocity between customer and service providers.

Additionally, corporate image was found to be the predictor that contributes to customer loyalty and explained in the context of mobile service providers. An expectation of gaining reward from the mobile service providers motivates customer to stay loyal with the service providers. Specifically, customer would spread positive word of mouth when rewards received were above their expectation, for instance unlimited

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calls and unlimited data for social networking. Word of mouth is effective for customer to generate and positioned the image of mobile service providers in the mind of customer.

Most importantly, a positive image of service providers would influence customer to stay with the mobile service providers. In other words, customer would stay loyal with the service providers when rewards were given by mobile service providers and enhancing service providers to achieve long term success. Thus, the underpinning theory of social exchange theory was able to validate corporate image and customer loyalty in the context of this study. This study was undertaken two underpinning theories, including EDT and social exchange theory. Therefore, this study contributes each of these theories by supporting the variables in the context of mobile service providers in UUM.

Moreover, telecommunication industry has been studied in others' countries such as Turkey (Aydin et al., 2005 and; Aydin and Ozer, 2005), China (Yang et al., 2009; Clemes et al., 2013 and; Ram and Wu, 2016), Greece (Santouridis and Trivellas, 2010) and Nigeria (Izogo, 2017). However, there are limited studies conducted in Malaysia in the context of mobile service providers. Thus, this study contributes to fill the contextual gap on predictors of customer loyalty in the context of mobile service providers in Malaysia.

In addition, perceived value has not been studied in the context of mobile service providers in Malaysia. This study contributes towards researcher's knowledge by examining the importance of perceived value in the context of mobile service providers.

This study also combined the predictors of customer loyalty in one single framework, while previous studies were conducted separately in different framework on the factors that influence customer loyalty. Thus, this study contributes to the direct and indirect predictors that influence customer loyalty in the context of mobile service providers.

5.3.2   Practical Contribution

The outcome of this study showed the predictors of customer loyalty and the influence of satisfaction as a mediator in the context of mobile service providers. The findings can be used by service providers to improve and enhance customer loyalty in the context of mobile service providers, especially Maxis, Digi, Celcom and U Mobile. The outcomes of this study were found to be informative for service providers in Malaysia. Moreover, corporate image, perceived value and satisfaction were significantly influence customer loyalty. Perceived quality, corporate image and perceived value were also influence satisfaction in the context of this study. Meanwhile, satisfaction as a mediator between perceived quality, corporate image and perceived value were significantly influence customer loyalty. It describes that these predictors are the driving force in achieving customer loyalty.

Additionally, perceived value in this study contributes to the body of knowledge of service providers. Customer evaluates the value provided by mobile service providers. In order to gain customer perceived value, mobile service providers should provide after sales service and valuable service in total in the competitive market. It is crucial for service providers to understand the presence of perceived value in determining customer

loyalty in the context of mobile service providers. All in all, perceived value was the strongest predictor of customer loyalty in the context of this study. It acknowledged service providers on the importance of providing value to customers and it showed that perceived value is the most concerned factor that determined customer loyalty towards mobile service providers.

As shown in Figure 1.2, penetration rate in 2016 was 141.3% and dropped to 134.0% in the first quarter of 2017. Service providers are able to formulate strategies and planning in improving quality, providing more value to customers and build corporate image to increase the mobile subscriptions and penetration by using the findings of this study. An understanding of customers leads to a better understanding of customer loyalty in the context of mobile service providers. Service providers should focus on customer's need by providing product or service that meets customer expectation. In particular, the outcome of this study would increase service providers' knowledge on the factors that contributes customers to stay loyal with the mobile service providers. As shown in Table 4.2, 58% users switched to another service provider for more than 1-3 times. It indicates that service providers should create brand awareness and create valuable product or service in promoting mobile service providers to retain customer loyalty.

Moreover, majority of users are teenagers at the age bracket between 21-30 years old. The findings of this study enable service providers to understand customer's need such as, rewards of free data or free talk time credit to attract customer. It is believed that teenagers are easily switched to competitor's brand, if their current service provider does

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not meet their expectation. Moreover, Agyei and Kilika (2014) mentioned that corporate image has the possibility to influence customer's evaluation of the company and maintaining long term customer. According to Lin and Wang (2006), excellent value would encourage customer to stay with the mobile service providers. Mobile service providers should focus on all the predictors in this study and used the outcome of this study to predict customer loyalty.

5.4   Limitation

There are several limitations in this study. Firstly, this study was limited to UUM students. Specifically, it is difficult to predict the actual behavior of users in whole Malaysia. Each of the users may behave and engaged differently towards the mobile service providers. Therefore, further research may examine on different universities or the combination two or three universities in a research to determine the factors that influence customer loyalty. This will enhance the opportunities in gaining an accurate outcome on customer loyalty in the context of mobile service providers.

The second limitation is restriction of time in collecting data. Sample of this study were at least 379 usable questionnaires and it took two months in collecting data. Time was limited within a huge sample size using stratified and systematic sampling method. Thus, future research may provide longer time in data collection process in understanding behavior and preferences of mobile service providers.

The third limitation in this study is limited predictors. Predictors that used in this study were perceived quality, corporate image, perceived value and satisfaction. Due to limitation of time, this research is limited to four predictors in measuring factor that influence customer loyalty. It is believed that there are others significant predictors that influence customer loyalty towards mobile service providers. Therefore, future research may investigate others factors that influence customer loyalty in the context of mobile service providers such as perceived price, commitment and word of mouth. Specifically, price is an important indicator for customers to purchase product or service. In the context of mobile service providers, it is important to understand the level of commitment contributed by customers to increase customer engagement towards the company. Word of mouth is important in service sector because mobile service providers provide intangibles service, which difficult for customers to measure. Thus word of mouth would be an effective tool to increase customer's confidence towards the brand.

5.5   Conclusion

In sum, this research investigated the factors that influencing mobile service providers in UUM. In particular, nine hypotheses were supported in this study and one hypothesis was not supported. Firstly, there were direct significant relationships between corporate image, perceived value, satisfaction and customer loyalty. Secondly, there were direct significant relationships between perceived quality, corporate image, perceived value and satisfaction. Thirdly, there were indirect significant relationships on satisfaction as a mediator between perceived quality and customer loyalty, corporate image and customer loyalty and perceived value and customer loyalty.

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As a conclusion, the findings of this study supported EDT and social exchange theory and provided empirical support for the model. By examining all these relationship, it is hoped that these findings may benefits to both researchers and service providers in enhancing customer loyalty towards mobile service providers in UUM.

References

Abubakar, A. (2016). Impact of perceived service quality by mobile telecommunication industry on customer satisfaction in Nigeria. *International Journal of Advanced Research, 4*(4), 845-852.

Agyei, P. M. and Kilika, J. M. (2014). The relationship between corporate image and customer loyalty in the mobile telecommunication market in Kenya. *Management Studies, 2*(5), 299-308.

Alhaddad, A. (2015). Perceived quality, brand image, and brand trust as determinants of brand loyalty. *Journal of Research in Business and Management, 3*(4), 1-8.

Alnsour, M. S., Tayeh, B. A. and Alzyadat, M. A. (2014). Using SERQUAL to assess the quality of service provided by Jordanian telecommunications sector. *International Journal of Commerce and Management, 24*(3), 209-218.

Aydin, S. and Ozer, G. (2005). The analysis of antecedents of customer loyalty in the Turkish mobile telecommunications. *European Journal of Marketing, 39*(7/8), 910-925.

Aydin, S., Ozer, G. and Arasil, O. (2005). Customer loyalty and the effect of switching costs as a moderator variable. *Marketing Intelligence and Planning, 23*(1), 89-103.

Bagozzi, R. P. (1995). Reflections on relationship marketing in consumer markets. *Journal of the Academy of Marketing Science, 23*(4), 272-277.

Beerli, A., Martin, J. D. and Quintana, A. (2004). A model of customer loyalty in the retail banking market. *European Journal of Marketing, 38*(1/2), 253-275.

Beneke, J., Hayworth, C., Hobson, R. and Mia, Z. (2012). Examining the effect of retail service quality dimensions on customer satisfaction and loyalty: The case of supermarket shopper. *Acta Commercii, 12*(1), 27-43.

Blau, P. M. (1964). Exchange and power in social life. New York: John Wiley.

Bloemer, J. and Rutyer, K. D. (1998). On the relationship between store image, store satisfaction and store loyalty. *European Journal of Marketing, 32*(5/6), 499-513.

Bloemer, J., Rutyer, K. D. and Peeters, P. (1998). Investigating drivers of bank loyalty: The complex relationship between image, service quality and satisfaction. *International Journal of Bank Marketing, 16*(7), 276-286.

Caruana, A. (2002). Service loyalty: The effects of service quality and the mediating role of customer satisfaction. *European Journal of Marketing, 36*(7/8), 811-828.

Caruana, A. (2004). The impact of switching costs on customer loyalty: A study among corporate customers of mobile telephony. *Journal of Targeting, Measurement and Analysis for Marketing, 12*(3), 256-268.

Cassey, L. (2001). Telecommunications reforms in Malaysia. *Annals of Public and Cooperative Economics, 73*(4), 521-540.

Chang, H. H. and Wang, H. W. (2011).The moderating effect of customer perceived value on online shopping behavior. *Online Information Review, 35*(3), 333-359.

Chen, C. F. and Chen, F. S. (2010). Experience quality, perceived value, satisfaction and behavioral intention for heritage tourists. *Tourism Management, 31*, 29-35.

Chumpitaz, R. and Paparoidamis, N. G. (2004). Service quality and marketing performance in business-to-business markets: Exploring the mediating role ofclient satisfaction. *Managing Service Quality: An International Journal, 14*(2/3), 235 248.

Clemes, M, D., Shu, X. and Gan, C. (2013). Mobile communications: A comprehensive hierarchical modeling approach. *Asia Pacific Journal of Marketing and Logistics, 26*(1), 114-146.

Cooper, D. and Schindler, P. (2006). *Business Research Methods* (9th ed). McGraw Hill.

Cudjoe, A. G., Anim, P. A. and George, A. A. (2015). Effect of customer's satisfaction of service delivery on customers' retention of Tigo telecommunication network. *The International Journal of Business and Management, 3*(1), 146-162.

Dick, A. and Basu, K. (1994). Customer loyalty: Toward an integrated conceptual framework. *Journal of the Academy of Marketing Science, 22*(2), 99-113.

Dovaline, A., Masiulyte, A. and Piligrimiene, Z. (2015). The relations between customer engagement, perceived value and satisfaction: The case of mobile application. *Procedia-Social and Behavioral Sciences, 213*, 659-664.

Egblopeali, A. Y. and Aimin, W. (2011). *Reoseurly on effects of corporate image, customer satisfaction and switching cost on customer loyalty in Togolese telecommunication companies.* In Proceedings of the 7th International Conference on Innovation & Management, 1014-1017.

Eggert, A. and Ulaga, W. (2002). Customer perceived value: A substitute for satisfaction in business markets? *Journal of Business and Industrial Marketing, 12*(2/3), 107 118.

Elkhani, N. and Aryati, B. (2013). Review on expectancy disconfirmation theory (EDT) model in b2c e-commerce. *Journal of Research and Innovation in Information Systems, 2*, 1-13.

Ene, S. and Ozkaya, B. (2014). A study of corporate image, customer satisfaction and brand loyalty in the context of retail stores. *Asian Social Science, 10*(14), 52-66.

Esmaeilpour, M. and Barjoei, S. (2016). The effect of corporate image on customer satisfaction through brand equity. *Advances in Management and Applied Economics, 6*(4), 95-109.

Faryabi, M., Kaviani, F. and Yasrebdoost, H. (2012). The relationship between perceived value and customer satisfaction the banking industry in Iran. *Australian Journal of Basic and Applied Sciences, 6*(12), 76-85.

Fornell, C. and Larcker, D. F. (1981). Evaluating Structural Equation Models with Unobservable Variables and Measurement Error. *Journal of Marketing Research, 18*(1), 39-50.

Gallarza, M. G. and Saura, I. G. (2006). Value dimensions, perceived value, satisfaction and loyalty: An investigation of university students' travel behavior. *Tourism Management, 27*, 437-452.

Gorondutse, A. H. and Haim, H. (2013). Mediation effect of customer satisfaction on the relationship between service quality and customer loyalty in the Nigerian foods and beverages: Sobel test approach. *International Journal of Management Science and Engineering Management, 9*(1), 1-8.

Gorondutse, A. H., Hilman, H. and Nasidi, M. (2014). Relationship between corporate and customer loyalty on Nigerian food and beverages industry: PLS approach. *International Journal Management Business Research, 4*(2), 125-136.

Gronroos, C. (1984). A service quality model and its marketing implications. *European Journal of Marketing, 18*(4),36-44.

Gumussoy, C. A. and Koseoglu, B. (2016). The effects of service quality, perceived value and price fairness on hotel customer's satisfaction and loyalty. *Journal of Economics, Business and Management, 4*(9), 523-527.

Hair, J., Anderson, R., Tatham, R. and Black, W. (1995). *Multivariate data analysis with readings* (4th ed). Englewood Cliffs: Prentice-Hall international.

Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. L. (2006). *Multivariate Data Analysis* (Vol. 6). New Jersey: Prentice Hall.

Hair, J. F., Ringle, C. M. and Sarstedt, M. (2011). PLS-SEM: Indeed a Silver Bullet. *Journal of Marketing Theory and Practice, 19*(2), 139–151.

Hair, J. F., Hult, G. T. M, Ringle, C. M. and Sarstedt, M. (2017). *A Primer On Partial Least Squares Structural Equation Modeling (PLS-SEM)* (2nd ed). USA: Sage Publication, Inc.

Hart, A. E. and Rosenberger, P. J. (2004). The effect of corporate image in the formation of customer loyalty: An Australian Replication. *Australasian Marketing Journal, 12*(3), 88-96.

Haslinda, H., Kiong, T. P. and Raja, A. A. (2014). Effects of perceived value and trust on customer loyalty towards foreign banks in Sabah, Malaysia. *Global Journal of Emerging Trends in e-business, Marketing and Consumer Psychology, 1*(2), 137 153.

Hayes, B. (1993). *Measuring customer satisfaction: Survey design, use and statistical analysis methods*. Milwaukee: ASQ quality Press.

Henseler, J. R., Ringle, C. M. and Sinkovics, R. R. (2009). The use of partial least square modeling in international marketing. *Advances in International Marketing, 20*, 277-319.

Ho, T. H., Olsen, S. O. and Duong, T. T. (2006). The relationship among perceived quality, consumer satisfaction and loyalty in the Vietnamese market for seafood. *IIFET,* 1-9.

Homans, G. C. (1958). Social behavior as exchange. *American Journal of Sociology, 63*(6), 597-606.

Huang, C. L. (2016). Relationship among corporate image, service quality, switching costs, customer satisfaction and loyalty: An example of Toyota's distributors in Taiwan. *International Journal of Information Technology and Business Management, 51*(1), 10-33.

Hu, K. C. and Huang, M. C. (2011). Effects of service quality, innovation and corporate image on customer's satisfaction and loyalty of air cargo terminal. *International Journal of Operations Research, 8*(4), 36-47.

Isaac, S. and Michael, W. B. (1990). *Handbook in Research and Evaluation*. San Diego, CA: Edits Publisher.

Iglesias, M. P. and Guillen, M. J. Y. (2004). Perceived quality and price: Their impact on the satisfaction of restaurant customers. *International Journal of Contemporary Hospitality Management, 16*(6), 373-379.

Izogo, E. E. (2017). Customer loyalty in telcom service sector: The role of service quality and customer commitment. *The TQM Journal, 29*(1), 19-36.

Jayawardhena, C. (2010). The impact if service encounter quality in service evaluation: Evidence from business-to-business context. *Journal of Business and Industrial Marketing, 25*(5), 338-348.

Kaura, V., Prasad, C. S. D. and Sharma, S. (2015). Service quality, service convenience, price and fairness, customer loyalty, and the mediating role of customer satisfaction. *International Journal of Bank Marketing, 33*(4), 404-422.

Kim, M. K., Park, M. C. and Jeong, D. H. (2004). The effects of customer satisfaction and switching barrier on customer loyalty in Korea mobile telecommunication services. *Telecommunication Policy, 28*(2), 145-159.

Kim, Y. E. and Lee, J. W. (2010). Relationship between corporate image and customer loyalty in mobile telecommunications service markets. *Africa Journal of Business Management, 4*(18), 4035-4041.

Krasna, T. (2008). The influence of perceived value on customer loyalty in Slovenian hotel industry. *Turizam, 12*, 12-15.

Krejcie, R. V. and Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 20*, 607-610.

Kuo, C. W. and Tang, M. L. (2011). Relationships among service quality, corporate image, customer satisfaction, and behavioral intention for the elderly in high speed rail services. *Journal of Advanced Transportation, 47*(5), 512-525.

Lai, M. C. and Chou, F. S. (2010). The effect of experiential value, perceived quality and customer satisfaction on customer lifetime value: An example using star cruises. *Chinese Business Review, 9*(11), 55-60.

Lambe, C. J., Wittmann, C. M. and Spekman, R. E. (2001). Social exchange theory theory and research on business-to-business relational exchange. *Journal of Business-to-Business Marketing, 8*(3), 1-36.

Lankton, N. K. and McKnight, H. D. Examining two expectation disconfirmation theory models: Assimilation and asymmetry effects. *Journal of Association for Information Systems, 13*(2), 88-115.

Lanphear, J. H. (2001). Commentary: Pilot studies. *Education for Health, 14*(1), 33-35.

Lee, J., Lee, J. and Feick, L. (2001). The impact of switching costs on the customer satisfaction-loyalty link: Mobile phone service in France. *Journal of Service Marketing, 15*(1), 35-48.

Li, J. (2013). Factors affecting customer satisfaction and customer loyalty towards Belle footwear company in Lanzhou City, Gansu province of the people's republic of China. *IOSR Journal of Business and Management, 14*(2), 41-48.

Liang, D. (2008). The determining factors of customer loyalty for luxury hotels in US. *The Journal of International Management Studies, 3*(2), 167-175.

Lin, H. H. and Wang, Y. S. (2006). An examination of the determinants of customer loyalty in mobile commerce contexts. *Journal of Information and Management, 3*, 271-282.

MacInnis, D. J. and Price, L. L. (1987). The role of imagery in information processing: Review and extensions. *Journal of Consumer Research, 13*(4), 473–491.

MacKinnon, D. P., Fairchild, A. J. and Fritz, M. S. (2007). Mediation analysis. *Annual Review of Psychology, 58*, 593-614.

Macropolis. (2015). *Top telecom in Malaysia: Malaysia's largest telecoms*. Retrieved from, http://www.marcopolis.net/top-telecoms-in-malaysia-malaysia-s-largest telecoms.htm.

Magasi, C. (2016). Determinants of customer loyalty in Sub-Saharan African banking industry: An empirical review. *International Journal of Economics, Commerce and Management, 4*(2), 574-588.

Malaysian Communications and Multimedia Commission. (MCMC). (2016). *Digital Connectivity: Industry performance report 2016.* Retrieved from https://www.mcmc.gov.my/skmmgovmy/media/General/pdf/IPR-2016-Digital Connectivity.pdf

Malaysian Communications and Multimedia Commission. (MCMC). (2017). *Communication and multimedia: Pocket book of statistics*. Cyberjaya: Adspert Sendirian Berhad.

Marakanon, L. and Panjakajornsak, V. (2017). Perceived quality, perceived risk and customer trust affecting customer loyalty of environmentally friendly electronics products. *Kasetsart Journal of Social Science, 38*, 24-30.

Maria, A. R. and Yusniza, K. (2016). Predictors of customer Loyalty in the Malaysian hotel's outsourcing relationships. *International Review of Management and Marketing, 6*(S8), 205-211.

Martensen, A. (2007). Tweens' satisfaction and brand loyalty in the mobile phone market. *Young Consumers*, 8(2), 108-116.

Minh, N. V. and Huu, N. H. (2016). The relationship between service quality, customer satisfaction and customer loyalty: An investigation in Vietnamese retail banking sector. *Journal of Competitiveness, 8*(2), 103-116.

Najafi, H., Rahmani, F. and Safari, M. (2015). Evaluation of effect of brand on customer loyalty in the banking industry. *MAGNT Research Report, 3*(2), 908-914.

Nguyen, N. and LeBlanc, G. (2001). Corporate image and corporate reputation is customers' retention decisions in services. *Journal of Retailing and Customer Services, 8*, 227-236.

Nunnally, J. C. and Bernstein, I. H. (1994). Psychometric Theory. New York: McGraw Hill.

Ogunnaike, O. O. and Olaleke, O. (2010). Assessing the relationship between service quality and customer satisfaction: Evidence from Nigerian banking industry. *Global Journal of Management and Business Research*, *10*(3), 2-5.

Oliver, R. L. (1981). Measurement and evaluation of satisfaction processes in retail settings. *Journal of Retailing, 57*(3), 25–48.

Oliver, R. L. (1999). Whence consumer loyalty? *Journal of Marketing, 63*(special issue October), 33-44.

Olorunniwo, F., Hsu, M. K. and Udo, G. J. (2006). Service quality, customer satisfaction, and behavioral intentions in the service factory. *Journal of Service Marketing, 20*(1), 59-72.

Pearson, N. (1996). Building brands directly: Creating business value from customer relationships. *Macmillan Business, 20*(6), 68-82.

Preacher, K. J. and Hayes, A. F. (2004). SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behaviors Research Methods, Instruments, and Computers, 36*(4), 717-731.

Quyet, T. V., Vinh, N. Q. and Chang, T. (2015). Service quality effects on customer satisfaction in banking industry. *International Journal of u- and e- Service, Science and Technology, 8*(8), 199-206.

Rahi, S. and Mazuri, A. G. (2016). Internet banking, customer perceived value and loyalty: The role of switching costs. *Journal of Accounting and Marketing, 5*(4), 1 -7.

Ram, J. and Wu, M. L. (2016). A fresh look at the role of switching cost in influencing customer loyalty. *Asia Pacific Journal of Marketing and Logistics, 28*(4), 616-633.

Rutyer, K. D., Wetzels, M. and Bloemer, J. (1998). On the relationship between perceived service quality, service loyalty and switching costs. *International Journal of Science Industry Management, 9*(5), 436-453.

Salkind, N. J (2012). *Exploring Research* (8th ed). Upper Saddle River, New Jersey: Pearson Education, Inc.

Santouridis, I. and Trivellas, P. (2010). Investigating the impact of service quality and customer satisfaction on customer loyalty in mobile telephony in Greece. *The TQM Journal, 22*(3), 330-343.

Sekaran, U. (2003). *Research Method for Business* (4th ed). New York: John Wiley and Sons, Inc.

Sekaran, U. and Bougie, R. (2009). *Research Methods for Business*: *A Skill Building Approach* (5th ed). United Kingdom: John Wiley and Sons Ltd.

Setiawan, H. and Sayuti, A. J. (2017). Effects of service quality, customer trust and corporate image on customer satisfaction and loyalty: An assessment of travel agencies customer in South Sumatra Indonesia. *IOSR Journal of Business and Management, 19*(5), 31-40.

Setyono, L., Kusumawati, A. and Mawardi, M. K. (2015). The effect of Islamic marketing and corporate image on customer satisfaction and customer loyalty. *Journal of Administration Business, 27*, 1-10.

Shiau, W. L. and Luo, M. M. (2012). Factors affecting online group buying intention and satisfaction: A social exchange theory perspective. *Computers in Human Behavior*, *28*(6), 2431-2444.

Stefanou, C. J., Sarmaniotis, C. and Stafyla, A. (2003). CRM and customer-centric knowledge management: An empirical research. *Business Process Management Journal*, *9*(5), 617-634.

Sweeney, J. C. and Soutar, G. N. (2001). Consumer perceived value: The development of a multiple item scale. *Journal of Retailing, 77*(2), 203-220.

Tu, Y. T., Wang, C. M. and Chang, H. C. (2012). Corporate brand image and customer satisfaction on loyalty: An empirical study of Starbucks coffee in Taiwan. *Journal of Social and Development Sciences, 3*(1), 24-32.

Ushantha, R. A. C., Wijeratne, A. W. and Samantha, P. A. P. (2014). Customer's perception on service quality towards satisfaction: An application of SERVPERF in state sector banks in Sri Lanka. *European Journal of Business and Management, 6*(4), 72-81.

Vandermerwe, S. (2003). Customer-minded growth through services. *Managing Service Quality, 13*(4), 262–266.

Wang, L. and Chaipoopirutana, S. (2014*). The influence of perceived service quality, corporate image, customer satisfaction and value on customer loyalty of agriculture bank of China in Kunming, China.* International Conference on Trends in Economics, Humanities and Management, 172-176.

Yang, X., Wu, J., Zhang, X., Zuo, F. and Yu, Q. (2009). Switching costs between customer satisfaction and loyalty-empirical evidence from broadband services in Mainland China. *International Joint Conference on Computational Science and Optimization, 1*, 768-772.

Yu, C. M. J., Wu, L. Y., Chiao, Y. C. and Tai, H. S. (2005). Perceived quality, customer satisfaction, and customer loyalty: The case of Lexus in Taiwan. *Total Quality Management, 16*(6), 709-719.

Zaibaf, M., Taherikia, F. and Fakharian, M. (2013). Effect of perceived service quality on customer satisfaction in hospiyality industry: Gronroos' service quality model development. *Journal of Hospitality Marketing and Management, 22*, (490-504).

Zahir, O., Liana, M. and Ratna, K. M. (2015). An empirical study of direct relationship of service quality, customer satisfaction and bank image on customer loyalty in Malaysian commercial banking industry. *American Journal of Economics, 5*(2), 168-176.

Zeithaml, V. A. (1988). Consumer perceptions of price, quality, and value: A means ends model and synthesis of evidence. *Journal of Marketing, 52*, 2-22.

Zhou, T., Li, H. and Liu, Y. (2010). The effect of flow experience on mobile SNS users' loyalty. *Industrial Management and Data Systems, 110*(6), 930-946.

Zikmund, W. G., Babin, B. J., Carr, J. C., and Griffin, M. (2013). *Business Research Methods* (9th ed). Canada: South-Western Cengage Learning.

Appendix A: Adapted Items and Original Items

i)   Customer Loyalty

Adapted Items	Original Items	Source
1. If I bought a new GSM line, I would prefer this GSM operator.	1. If I bought a new mobile service provider, I would prefer the same brand as my current mobile service provider.	Aydin and Ozer (2005)
2. I encourage friends who plan to buy a GSM line.	2. I will encourage friends who plan to buy a new mobile service provider to use my current mobile service provider.	
3. Even if the other operators' billing was cheaper, I would go on using this GSM line.	3. Even if the other mobile service providers' billing was cheaper, I would go on using my current mobile service provider.	
4. When topic on my network service provider comes up in conversation, I will go out of my way to recommend my network service provider.	4. When topic on my current mobile service provider comes up in conversation, I will go out of my way to recommend my current mobile service provider.	Izogo (2017)
5. I will continue using my network service provider for a long period of time.	5. I will continue using my current mobile service provider for a long period of time.	

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ii)   Perceived Quality

Adapted Items	Original Items	Source
1. When you have a problem, X shows a sincere interest in solving it.	1. When you have a problem, your current mobile service provider shows a sincere interest in solving it.	Beerli et al. (2004)
2. Employees of X solve your problems when they promise to do so.	2. Employees of your current mobile service provider solve your problems when they promise to do so.	
3. Employees of X give you prompt service.	3. Employees of your current mobile service provider give you prompt service.	
4. Employees of X are always willing to help you.	4. Employees of your current mobile service provider are always willing to help you.	
5. Employees of X are constantly courteous to you.	5. Employees of your current mobile service provider are constantly courteous to you.	
6. Employees of X have the knowledge to answer your questions.	6. Employees of your current mobile service provider have the knowledge to answer your questions.	

Appendix A: Adapted Items and Original Items (Continued)

iii)   Corporate Image

Adapted Items	Original Items	Source
1. This company is stable and firmly established.	1. My current mobile service provider is stable and firmly established.	Aydin and Ozer (2005)
2. This company is innovative and forward-looking.	2. My current mobile service provider is innovative and forward-looking.	
3. This company has social contribution for society.	3. My current mobile service provider has social contribution for society.	
4. I have always had a good impression of the service provider.	4. I always have a good impression on my current mobile service provider.	Clemes et al. (2013)
5. In my opinion, the service provider has a good image in the minds of consumers.	5. In my opinion, my current mobile service provider has a good image in the minds of consumers.	
6. Overall, I consider that the service provider has a positive image in the marketplace.	6. Overall, I consider that my current mobile service provider has a positive image in the marketplace.	

iv)   Perceived Value

Adapted Items	Original Items	Source
1. The services that I receive from the service provider provide value for money.	1. The services that I receive from my current mobile service provider provide value for money.	Clemes et al. (2013)
2. Compared to what I have to give up, such as money, time, energy, and effort, the services that I receive from the service provider are excellent.	2. Compared to what I have to give up, such as money, time, energy, and effort, the services that I receive from my current mobile service provider are excellent.	
3. Overall, I feel the service provider's services and goods are valuable.	3. Compared to what I have to give up, such as money, time, energy, and effort, the services that I receive from my current mobile service provider are excellent.	
4. XYZ service products are an excellent value.	4. My current mobile service provider's products are an excellent value.	Jayawardhena (2010)
5. What we get from XYZ, and it's cost, makes it a great value.	5. What I get from my current mobile service provider, and its cost, makes it a great value.	

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v)   Satisfaction

Adapted Items	Original Items	Source
1. This GSM line completely meets expectations from any GSM line.	1. My current mobile service provider completely meets expectations from other mobile service providers.	Aydin et al. (2005)
2. I am satisfied with this GSM line.	2. I am satisfied with my current mobile service provider.	
3. This GSM line meets my pre-purchase expectations.	3. My current mobile service provider meets my pre-purchase expectations.	
4. My choice to be a subscriber of other service provider is a wise one.	4. My choice to be a subscriber of my current mobile service provider is a wise one	Clemes et al. (2013)
5. I feel delighted with the services and goods delivered by the service provider.	5. I feel delighted with services and goods delivered by my current mobile service provider.	
6. Overall, the service provider provides a very satisfying experience.	6. Overall, my current mobile service provider provides a very satisfying experience.	

Appendix B: Questionnaire

The Unique Antecedents of Customer Loyalty Towards Mobile Service.

Dear Respondents,

You are invited to participate in a survey that constitutes part of my Master thesis at Universiti Utara Malaysia (UUM). This survey is to investigate the predictors of customer loyalty towards mobile service providers in UUM. This questionnaire will take approximately 10-15 minutes to complete. Information provided will be kept confidential and will be used purely for academic purpose. I do hope that you will complete all the questions. I would therefore value your kind assistance and valuable time in completing the attached questionnaire and please return the questionnaire back to me. Your participation in making this research a success is greatly appreciated. Should you have any queries or if you are interested to know the outcomes of the research kindly contact me.

Yours Sincerely,

Mah Pei Yew   Dr. Maria Abdul Rahman
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Universiti Utara Malaysia.   Department of Marketing
Contact number: 016-5948123   School of Business Management
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Section A: Personal Information

Instruction: Please tick (√) or fill in appropriate space.

1. Gender:

Male	
Female	

2. Age:

20 years	
21-30 years	
31-40 years	
41-50 years	
Above 51 years	

3. Level of Education:

Undergraduate	
Master	
PhD	

4. Current mobile service provider:

Maxis	
Digi	
Celcom	
Umobile	
Others: (please specify)	

5. How long have you been using this mobile service providers:

Less than 1 year	
More than 1 year	

6. How many times have you switched to another mobile service provider?

Never	
1-3 times	
4-6 times	
More than 6 times	

7. Where did you get the information about mobile service providers? Can be more than one answer.

TV/Radio	
Family/Friends	
Magazines/ Newspaper	
Internet	
Other: (please specify)	

8. Type of mobile connection that you use?

Prepaid	
Postpaid	

Section B: Please tick (√) how strongly you agree or disagree with each of the following statement based on the Likert-scale below:

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

		1	2	3	4	5
PQ1	When you have a problem, your current mobile service provider shows a sincere interest in solving it.					
PQ2	Employees of your current mobile service provider solve your problems when they promise to do so.					
PQ3	Employees of your current mobile service provider give you prompt service.					
PQ4	Employees of your current mobile service provider are always willing to help you.					
PQ5	Employees of your current mobile service provider are constantly courteous to you.					
PQ6	Employees of your current mobile service provider have the knowledge to answer your questions.					
CI1	My current mobile service provider is stable and firmly established.					
CI2	My current mobile service provider is innovative and forward-looking.					
CI3	My current mobile service provider has social contribution for society.					
CI4	I always have a good impression on my current mobile service provider.					
CI5	In my opinion, my current mobile service provider has a good image in the minds of consumers.					
CI6	Overall, I consider that my current mobile service provider has a positive image in the marketplace.					
PV1	The services that I receive from my current mobile service provider provide value for money.					
PV2	Compared to what I have to give up, such as money, time, energy, and effort, the services that I receive from my current mobile service provider are excellent.					
PV3	Overall, I feel my current mobile service provider's service and goods are valuable.					

		1	2	3	4	5
PV4	My current mobile service provider's products are an excellent value.					
PV5	What I get from my current mobile service provider, and its cost, makes it a great value.					
SAT1	My current mobile service provider completely meets expectations from other mobile service providers.					
SAT2	I am satisfied with my current mobile service provider.					
SAT3	My current mobile service provider meets my pre-purchase expectations.					
SAT4	My choice to be a subscriber of my current mobile service provider is a wise one.					
SAT5	I feel delighted with services and goods delivered by my current mobile service provider.					
SAT6	Overall, my current mobile service provider provides a very satisfying experience.					
CL1	If I bought a new mobile service provider, I would prefer the same brand as my current mobile service provider.					
CL2	I will encourage friends who plan to buy a new mobile service provider to use my current mobile service provider.					
CL3	Even if the other mobile service providers' billing was cheaper, I would go on using my current mobile service provider.					
CL4	When topic on my current mobile service provider comes up in conversation, I will go out of my way to recommend my current mobile service provider.					
CL5	I will continue using my current mobile service provider for a long period of time.					

End of questions. Thank you for your cooperation.