

CHAPTER 3
RESEARCH METHODOLOGY

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3.1 Introduction

This chapter illustrates the research methodology on how to conduct the research and survey for this research.

This chapter contains of research framework, hypothesis development, research design, questionnaire design, data collection method and follows by data analysis technique.

3.2 Research Framework

Based on the literature review in Chapter 2, Parasuraman et al. (1988) described that perceived service quality is a global judgment, or attitude, relating to the superiority of the service, whereas satisfaction is related to a specific transaction. Perceived service quality is viewed as the degree and direction of discrepancy between consumers' perceptions and expectations.

Perceived value is related to the customer's overall evaluation on the differences between the benefits they received and the sacrifice they make (Woodruff, 1997). Corporate image is related to the various physical and behavioral attributes of the firm, and to the impression of quality communicated by each person interacting with the firm's clients (Nguyen and Leblanc, 2001).

Oliver (1999) summarized satisfaction as pleasurable fulfillment and satisfaction is the consumer's sense that consumption provides outcome on pleasure versus displeasure. Oliver (1999) also defined loyalty as a deeply held commitment to re-buy or re-patronise a preferred product or service consistently in the future, thereby causing repetitive same-brand-set purchasing, despite situational influences and marketing efforts having the potential to cause switching behavior.

Naeem, Akram and Saif (2009) discovered that service quality is a strong predictor for customer satisfaction. According to Beerli et al. (2004), service quality and customer satisfaction have been conceptualized as a distinct, but closely related constructs.

Customer satisfaction/dissatisfaction needs experience with the service itself, and is influenced by the perceived quality and the value of the service (Anderson et al., 1994). According to Lai et al. (2009), consumers who develop a positive mental schema of a brand will tend toward high customer satisfaction through a halo effect where all things associated with the brand are similarly valenced.

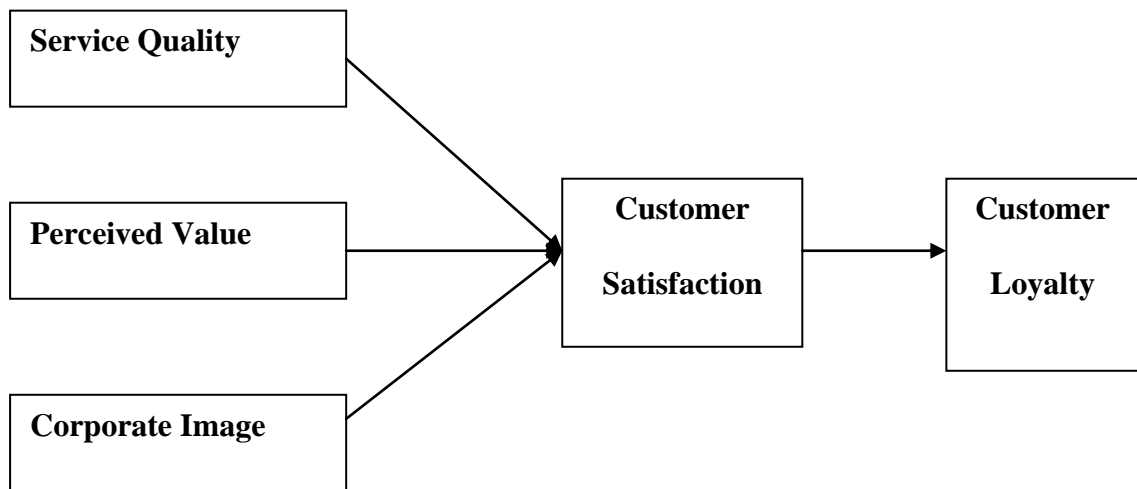
Based on Beerli et al. (2004) in the study on a model of customer loyalty in the retail banking market confirmed that satisfaction has a positive influence on customer loyalty. Increase in service quality of the banks can satisfy and retain customers (Damodar and Mohapatra, 2009). According to Alireza et al. (2011), perceived value only indirectly influences loyalty through satisfaction.

In the study on online corporate image, customer satisfaction and customer loyalty by Da Silva et al. (2006) found that corporate brand image has an indirect effect on loyalty intention via customer satisfaction.

Based on the literature review, the research framework of this study had been presented as in figure 3.1. The theoretical framework consists of three independent variables towards customer loyalty mediated by customer satisfaction. The relationships between the variables have been proven in other industries but not yet in domestic retail banking sector.

Figure 3.1 shows the hypothesized relationships between the constructs included in the study i.e service quality, perceived value, corporate image, customer satisfaction and customer loyalty.

Figure 3.1 Research framework



Seven hypotheses developed based on literature review. The seven hypotheses establish the relationship between the variables which are service quality, perceived value, corporate image, customer satisfaction and customer loyalty.

3.2.1 Hypotheses Development

Cronin and Taylor (1992) discovered that perceived service quality leads to customer satisfaction. Furthermore, there is a study proposes that service quality is an antecedent to customer satisfaction (Anderson and Sullivan, 1993). Therefore, the first hypothesis stated as per below:

Hypothesis 1: Service quality has a positive influence on customer satisfaction in domestic retail banking sector.

According to Fornell et al. (1996), one of the determinants of customer satisfaction is perceived value. Based on the literature review in Chapter 2, both service quality and service value lead to satisfaction (Cronin et al., 2000). Therefore, the second hypothesis presented as per below:

Hypothesis 2: Perceived value has a positive influence on customer satisfaction in domestic retail banking sector.

As stated in Chapter two, past study posits that corporate image impacts customers' satisfaction (Andreassen and Lindestad, 1998). Da Silva and Syed Alwi (2006)

discovered that the direct effect of online corporate image on customer satisfaction. The third hypothesis stated as per below:

Hypothesis 3: Corporate image has a positive influence on customer satisfaction in domestic retail banking sector.

Fornell (1992) viewed that satisfied customers tend to be loyal, customer satisfaction will result in increased loyalty and firm which are able to satisfy the customer is an indication for future wealth. According to Siddiqi (2011) in the study of interrelations between service quality attributes, customer satisfaction and customer loyalty, customer satisfaction is positively related to customer loyalty in the retail banking sector in Bangladesh. Therefore, the fourth hypothesis is as per below:

Hypothesis 4: Customer satisfaction has a positive influence on customer loyalty in domestic retail banking sector.

As stated in chapter two, Caruana (2000) discovered there is a link between service quality and service loyalty via customer satisfaction. According to Alireza et al. (2011), customer satisfaction plays a mediating role between service quality and customer loyalty. The fifth hypothesis is stated as per below:

Hypothesis 5: There is a positive relationship between service quality and customer loyalty, mediated by customer satisfaction.

According to Lai et al. (2009), value has both a direct and indirect (through satisfaction) impact on customer loyalty. Cronin et al. (2000) discovered that there was indirect effect of service value on behavioural intentions through customer satisfaction. Therefore, the sixth hypothesis is presented as below:

Hypothesis 6: There is a positive relationship between perceived value and customer loyalty, mediated by customer satisfaction.

Selnes (1993) experimented that customer satisfaction will have an effect on loyalty and the relationship occurred between corporate brand image, satisfaction and loyalty. The seventh hypothesis is stated as below:

Hypothesis 7: There is a positive relationship between corporate image and customer loyalty, mediated by customer satisfaction.

3.3 Research Design

A structured, self-administered questionnaire was developed to collect responses from domestic retail banking customers. Questionnaire survey is a method of collecting primary data and the research utilized primary data that collected from the customers for further analysis. A questionnaire survey is chosen in this research since it allows the collection of a large amount of data from a sizeable population to be compiled accurately in a highly economical way. The quantitative data collected from the survey allows easy comparison. The analysis of collected data assists to identify the relationships between the variables. Through survey using samples, it is possible to obtain findings that represent the whole population.

The quantitative data obtained through survey can be analyze through quantitative analysis technique that assist to create tables or diagram that show frequency and statistics of the research profiles. Quantitative analysis technique also allow relevant test to be conducted to enable comparisons, through establishing statistical relationships between variables.

3.4 Questionnaire Design

Table 3.1 Measurement items for the variable and the literature based

Variable Measurement Item	Literature based
<p><u>SERVICE QUALITY</u></p> <p><u>Dimension 1: Tangibles</u></p> <p>1) The bank has up-to-date equipment. (e.g., ATM)</p> <p>2) The bank’s employees are well dressed and neat-appearing.</p> <p>3) The bank’s materials associated with the service are visually appealing.</p> <p>4) The bank’s statement is visually clear.</p> <p><u>Dimension 2: Reliability</u></p> <p>1) When I have a problem, the bank shows a sincere interest in solving the problem.</p> <p>2) The bank performs the service right the first time.</p> <p>3) The bank provides its services at the time it promises to do so.</p> <p>4) The bank keeps its records accurately.</p> <p><u>Dimension 3: Responsiveness</u></p> <p>1) The bank’s employees tell me exactly when services will be performed.</p>	<p>Siddiqi(2011); Alireza et al.(2011); Cronin and Taylor(1992)</p>

<i>'Table 3.1 continued'</i>	
Variable Measurement Item	Literature based
<p>2) The bank's employees give me prompt service. 3) The bank's employees are always willing to help me. 4) The bank's employees are never too busy to respond to my requests.</p> <p><u>Dimension 4: Assurance</u></p> <p>1) Behaviour of the bank's employees instills confidence in customers. 2) I feel safe in my transaction with the bank. 3) The bank's employees are consistently courteous with me. 4) The bank's employees have the knowledge to answer my questions.</p> <p><u>Dimension 5: Empathy</u></p> <p>1) The bank gives me individual attention. 2) The bank has my best interest at heart. 3) The bank's employees understand my specific needs. 4) The bank has operating hours convenient to all its customers.</p> <p><u>PERCEIVED VALUE</u></p> <p>1) Overall, the service I receive from the bank is valuable. 2) The service quality I receive from the bank is worth my time, energy and efforts. 3) The product/service of the bank is considered to be good deal/buy.</p> <p><u>CORPORATE IMAGE</u></p> <p>1) The bank overall has a good reputation. 2) The bank's product and services has a good reputation. 3) I believe that the bank has a better image than its competitors.</p> <p><u>CUSTOMER SATISFACTION</u></p> <p>1) I am pleased to be associated with the bank. 2) I am happy to do transaction with the bank. 3) I feel affinity with the bank. 4) I feel good on my decision to do business with the bank.</p> <p><u>CUSTOMER LOYALTY</u></p> <p>1) I consider this bank to be my first choice for banking purpose in the future. 2) I will recommend this bank to a friend. 3) I will say positive things about this bank to other people. 4) I will do more business with this bank within the next 3 months</p>	<p>Alireza et al. (2011); Lin and Wang (2006)</p> <p>Casalo et al. (2008); Alireza et al. (2011); Leblanc and Nguyen (2001)</p> <p>Davies and Chun (2002); Oliver (1997)</p> <p>Zeithaml et al. (1996)</p>

There are seven sections in the questionnaire. The first section is on usage of banking facilities by the respondents. The second section focuses on service quality (20 items). The third and fourth sections focus on perceived value (3 items) and corporate image (3 items) which are the independent variables. The fifth section of the questionnaire focuses on customer satisfaction (4 items) which is the mediating variable. The sixth section focuses on customer loyalty (4 items) which is the dependent variable. The questionnaire is developed in English language. All the variables in this research are used in current research. The measurement items are adapted from previous researchers. However, the measurement items are rephrased so that the items can be applied to the retail banking context.

The respondents were asked to indicate the degree of the agreement or disagreement with each statement by marking (X) in a seven point Likert Scale with 'strongly disagree', 'moderately disagree', 'slightly disagree', 'neither disagree nor agree', 'slightly agree', 'moderately agree' and 'strongly agree' for the second section until the sixth section.

In the first section of the questionnaire, the respondents were asked on whether use any banking facility, the types of banking facility they use, which domestic bank's facility they had used in the past six months and one of the domestic bank which they had used the banking facility most frequently in the past six months. The copy of questionnaire survey is in Appendix D.

Service Quality Measures

The SERVQUAL scale provides a method of measuring service quality between perceptions and expectations. The five dimensions of SERVQUAL included reliability, responsiveness, assurance, empathy, and tangibles.

However, Cronin and Taylor (1992) argued against the Perception-Expectation formulation of SERVQUAL. According to Cronin and Taylor (1992), the service delivery experience to be measure only perceptions rather than perceptions and expectations. They termed their perceptions-only measure as SERVPERF using the SERVQUAL items. They discovered that using SERVPERF to measure on

perceptions of service performance better predicted on overall service quality judgment.

This study uses SERVQUAL five dimensions from Parasuraman et al. (1988) as the measure of service quality but only measure on perceptions of service quality. The measurement items measure the customer's perception of service performance only and do not measure on the expectations-gap score approach. The measurement items of service quality adapted from Siddiqi (2011), Alireza et al. (2011) and Cronin and Taylor (1992).

There are five dimensions of service quality which are tangibles (4 items), reliability (4 items), responsiveness (4 items), assurance (4 items) and empathy (4 items). The tangibles dimension is on the physical facilities, equipment, and appearance of personnel. Reliability dimension is on ability to perform the promised service dependably and accurately. Responsiveness dimension is on willingness to help customers and provide prompt service. Assurance dimension is on the knowledge and courtesy of employees and their ability to inspire trust and confidence. Empathy dimension is on caring, individualized attention the firm provides its customers. Respondents were asked to indicate the degree of agreement or disagreement in a seven point Likert Scale which ranging from 1 which is strongly disagree to 7 which is strongly agree. The measurement items are listed in Table 3.1.

Perceived Value Measures

Perceived value is an overall tradeoff of “get” versus “give-up” (Zeithaml, 1988). Perceived value is defined as consumer's overall assessment of the utility of a product based on perceptions of what is received versus what is given (Zeithaml, 1988). Three items measure perceived value adapted from Alireza et al. (2011) and Lin and Wang (2006). Three items are measure on a seven-point Likert scale, ranging from strongly disagree to strongly agree. The items are presented in Table 3.1.

Corporate Image Measures

Corporate image is a perception of an organization held in consumer memory and works as a filter which influences the perception of the operation of the company

based on Grönroos (1988) and Keller (1993). There are three items measure corporate image which are the organization's overall reputation, brand reputation and comparison of the bank's corporate image with other competitor adapted from Casalo et al. (2008), Alireza et al. (2011) and Leblanc and Nguyen (2001). All items are measure on a seven-point Likert scale which ranging from strongly disagree to strongly agree and stated in Table 3.1. The items used are similar to those used in the study by Casalo et al. (2008), Alireza et al. (2011) and Leblanc and Nguyen (2001).

Customer Satisfaction Measures

Once the service quality, perceived value and corporate image measures were identified, the respondents were asked to indicate the level of satisfaction towards the domestic retail bank.

Four items are chosen to measure the level of customer satisfaction towards domestic retail bank. Oliver (1999) summarized satisfaction as pleasurable fulfillment and satisfaction is the consumer's sense that consumption provides outcome on pleasure versus displeasure. The items measure adapted from Davies and Chun (2002) and Oliver (1997). Respondents were asked to indicate the level of satisfaction towards the domestic retail bank using seven-point Likert scale which ranging from strongly disagree (=1) to strongly agree (=7). The measurement items are listed in Table 3.1.

Customer Loyalty Measures

After indicate the satisfaction level, respondents will need to indicate the loyalty level towards domestic retail bank. According to Beerli et al. (2002), loyalty is repeat purchase of the same-brand. Zeithaml et al. (1996) also measures on whether consumer willing to recommend for loyalty. The items measure adapted from Zeithaml et al. (1996) and similar to those used in the study of the four companies which provides services to end or business customers by Zeithaml et al. (1996). Respondents were asked to indicate the level of loyalty towards the domestic retail bank using seven-point Likert scale which ranging from strongly disagree which is 1 to strongly agree which is 7. All the items are stated in Table 3.1.

The last part of the questionnaire collects demographic data such as:

- (1) gender
- (2) age
- (3) ethnic group
- (4) marital status
- (5) level of education
- (6) occupation
- (7) monthly income

The respondents are also being asked for other relevant information, such as which of the domestic retail bank in Malaysia the respondent thinks provide the best service and which domestic retail bank the respondent will recommend. It is aimed to find out which domestic retail bank in respondent's mind provides the best service and the respondent will recommend to others.

3.5 Data Collection Method

The data collection procedure adopted in this study was convenience sampling through questionnaire survey distribution focus on domestic banking users. As mentioned earlier, survey is chosen since it allows for accurate data collection.

Online questionnaires were sent out to individual and the hard copy of the survey also been distributed to the banking facility users in Klang Valley and undergraduates from University of Malaya to get their response on banking experience according to pre-planned sample size of 350. Messages advertised on the survey were sent via facebook to attract the respondents.

The survey lasted for approximately one month from 1st Oct to 1st November 2011. A total of 293 sets had returned and a cross validation is checked to avoid any missing values. The non banking user will be excluded in the survey since the study is focus on banking user. Only 240 sets of valid questionnaire survey were accepted for further analysis. The returned rate of the survey translates to a percentage of 69% from the total survey which sent out to individual and distributed to Klang Valley banking

facility users and undergraduates from University Malaya. After the data collection, the data was entered into SPSS version 16.0.

3.6 Data Analysis Technique

The data from the questionnaires was coded into Statistical Package for the Social Sciences (SPSS) Version 16.0. The data need to be analyzed through different test after being coded into SPSS.

First, analysis will be conducted to find out the descriptive statistics on the frequency of usage of banking facilities and demographic profiles for the research samples also will be identified.

In this research, preliminary tests are conducted to confirm that there is no violation of normality and regression assumption test. Boxplot were used to identify the outliers since boxplot assist to summarize information on the distribution of scores and extreme scores which are the outliers. After the outliers have been identified and removed, the normality test such as skewness and kurtosis, histogram and boxplot were performed.

In addition, there are several assumptions for regression which are the ratio of cases to independent variables and there should have ideally 20 more cases than predictors. Secondly, the extreme cases which are the outliers have considerable impact on the regression should be deleted or modified to reduce their influence to the research (Coakes, 2010).

The next assumption is multicollinearity that refers to high correlations among the independent variables. Furthermore, another assumption is normality, linearity, homoscedasticity whereby these assumptions can be checked from the scatterplot and normal P-P plot whether the obtained and predicted dependent variable scores normally distributed and whether the residuals have a linear relationship with the predicted dependent variable.

The reliability of a measure indicates the extent to which it is without bias (error free) and hence ensures consistent measurement across time and across the various items in the instrument (Sekaran, 2003). Therefore the reliability test will be performed. The Cronbach Alpha indicates the reliability. Value should be above 0.7 or 0.8 to be considered reliable (Pallant, 2005).

There are several types of validity tests are used to test the goodness of measures. Content validity ensures that the measurement items tap the concept. The measurement items that adapted from the past literatures should be valid.

Construct validity testifies to how well the results obtained from the use of the measure fit the theories around which the test is designed and this is assessed through convergent validity and discriminant validity (Sekaran, 2003). Convergent validity established when the scores obtained with two different instruments measuring the same concept are highly correlated whereas discriminant validity established when two variables are predicted to be uncorrelated and the scores obtained are empirically found to be so (Sekaran, 2003). A correlational analysis will be performed to test for discriminant validity. KMO and Barlett's test will be carried out to check for convergent validity. Factor loadings for each measurement items also will be examined. If the correlation result is not higher than 0.8 (Bagozzi, 1994), this shows that the different variables are not measuring the same thing. If the factor loadings for the measurement items are at least 0.50 (Sanzo et. al., 2003) and significant for Bartlett's test of sphericity ($p < 0.05$) and KMO is at least 0.6 (Pallant, 2001), this shows that the scale has convergent validity.

Furthermore, descriptive statistics such as minimum, maximum, mean, standard deviation and average mean score will be utilized to explore on the research variables. Multiple regression can be used to explore on how well a set of variables is able to predict a particular outcome (Pallant, 2005). Multiple regression analysis will be performed since the result of regression will show the relationship between the predictors and dependent variable and the best predictors to a dependent variable from several independent variables. Therefore, the objective of carrying out multiple regression analysis is to test the hypothesis and to validate the research model.

A correlation analysis will be carried out to test the relationship between the mediator and dependent variable. The acceptable value for Pearson correlation coefficients (r) is from -1 to +1 and the positive or negative sign indicates whether there is a positive correlation or negative correlation (Pallant, 2005).

Sobel test will be performed to test whether the mediator variable significantly carries the influence of an independent variable to a dependent variable and whether the indirect effect of the independent variable on the dependent variable through the mediator variable is significant.

3.7 Chapter Summary

This chapter discussed how the hypothesis derived based on the literature review in Chapter 2 and the research framework.

The research design, questionnaire design, measurement items, data collection method and data analysis method also been illustrated in this chapter.