



# Impact of Customer Satisfaction and Service Quality on Membership Renewal: A Study on Malaysian Credit Card Holders

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**Abstract:** With the aim of finding out the antecedents of credit card renewal among the customers of the private banks in Malaysia. This study is specifically targeted to sort out the impact of five mostly practiced dimensions of service quality and customer satisfaction on credit card renewals. With a deductive approach, 384 observations as primary data were collected through an online survey by utilizing a self-administered, fully structured questionnaire, and the data has been analyzed with the help of SPSS and SmartPLS. There is a well-rounded and productive connection between the satisfaction of the customer and the tangible dimension. The link between customer satisfaction and empathy shows a positive connection and relationship between variables, for example, empathy and customer satisfaction. A significant relationship between satisfaction and renewal of credit card membership has been observed when independent variables are service quality, empathy, reliability, tangible assurance, and responsiveness. The area and premises of customer satisfaction are extremely diverse, and even when much research could be done, all the aspects of psychology, sociology, or behaviors have been covered and are beneficial for both authors and practitioners. Limitations can be highlighted as the gaps, restraints, and occurrences that could emerge while doing the research work, and they partially affect the end result and outcomes of the research.

**Keywords:** Behavior, Credit card, Financial, Membership, Performance, Renewal, Service quality.

## 1 | BACKGROUND

A credit card is a short-term financing tool that helps customers purchase items on credit and pay interest for the service. These plastic cards have pre-set borrowing limits as per the credit ratings of the cardholder and do charge interest after a month of borrowing. Deviranjitha and Thamilarasam (2014) consider credit cards as a modern-day offering of credit extension by commercial banks for their customers residing both in urban and rural areas.

Quality service by banks to beat the heat of competition is discussed by Tan, Chew, and Hamid (2016) and Razak, Faris, Shariff, and Azam (2019). The research stated that customers are not likely to renew their membership cards or purchase their goods and services from a bank if they fail to provide high-quality service. "Five dimensions of service quality" are considered effective too to satisfy customers and cultivate the service quality component, as stated by Selvakumar (2015) and Jamshidi and Kazemi (2020). Studying and understanding consumer behaviors is believed to be connected with the satisfaction of the customer in the current marketing environment. The researchers have also evaluated the determinants of purchasing and post-purchase behaviour of customers in selection of goods and services.

Currently, majority of adults own credit cards due to their range of benefits and elements of service that provide satisfaction to people. Some of the prominent determinants responsible for customer satisfaction with the use of credit cards include service quality assurance, empathy, approachability, and reliability. Business Dictionary defines the customer satisfaction as the measure of satisfaction a financial company's goods and services provide to its customers on a repetitive basis. The study of the satisfaction level of customers with respect to credit cards is significant in current research. Hence the satisfaction regarding credit cards among customers from Selangor, Malaysia.

### 1.1 | Credit Cards in Global Environment

Since its first introduction in 1946, credit cards have been enthusiastically accepted by customers, have become one of the most profitable banking services, and are considered the second most widely used payment tool after checks. Hence, we hear the phrase 'Charge it' on sales points millions of times daily. Before the inception of credit cards, there were no credit-offering plans available by banks, even in stable economies and developed world countries. Ahmed, Najmi, Faizan, and Ahmed (2018) stated that credit cards have become a common and highly owned financial product in almost all levels of economies since their origins in 1950 as a modest financial product for the settlement of cash free of transaction in department stores and restaurants.

Over the last 100 years, the mechanisms used by customers and merchandise for payments have shown major changes. Sienkiewicz (2001) stated that back in the day, all purchases and business disbursements were either in real cash or in checks. However, there is a drastic change in these payment methods. In the modern business world, financial purchases are most often carried out using credit cards. In early 1900, proprietary credit cards were available, which were the first of their kind, and that in the 1950's; they were accompanied by "travel and entertainment" cards. One of such cards includes the paper-made card with no revolving credit issued by oil companies to car owners for a time period of three to six months, commonly known as "Courtesy" cards in the 1920s.

However, the very first credit card for general-purpose transactions was introduced in 1966 and quickly turned out to be the most common and preferred payment method for various consumers for travel, entertainment, retail purchases, and bill payments. The use of credit cards showed a significant increase from 1970 to 1995, when 65% of households had at least one card, compared with 16% of households in 1970. In 1999, consumers made over \$1 trillion worth of transactions using credit cards, while as of now there are more than 14 million credit cards around the globe, as per recent accessible statistics and figures (Johan, Hussain, Mohd, & Kamaruddin, 2020; Sienkiewicz, 2001).

## 1.2 | Credit Cards in Malaysian Financial Markets

Today, credit cards have become an inevitable truth for most customers and are important for purchaser culture. As indicated by Bank Negara Malaysia, “there are a total of 26 credit card guarantors in Malaysia, including bankers and non-bankers. Other than that, there are approximately a total of 32 million of people in Malaysia, and approximately 9.766 million of them are using credit cards as of October 2017” (Limbu & Sato, 2019). However, “in the total of 9.766 million credit card users, around 8.719 million of them are the principal card users, while around 1.047 million of them are the supplementary users.” (Azma, Rahman, Adeyemi, & Rahman, 2019) details are summarized in Table 1. Furthermore, “from the year 2006 to year 2017 October, a total of 43.353 million applicants applied for the credit cards, with only 20.515 million approved. It also found that an applicant has only 47.32% of chances would be approved by the banks.” Moreover, “there are a total of 3.675 million volumes of credit cards used by users during the transaction” (Limbu & Sato, 2019).

**Table 1:** Credit card statistics in Malaysia

Description	Credit card Users (%)
Banks	92
Non-Bank	8
Population	77
Users	23
Supplementary	11
Principal	89
Application Accepted	47
Application Rejected	53

In OEC.org (2022), the Market Behaviour and Financial Empowerment Report states that credit cards are steadily acquiring prevalence in Malaysia, with a total of 10.8 million credit cards towards the end of 2008. This is a gigantic number, significant in light of the fact that credit cards have become so essential nowadays and an indispensable piece of our lives. Moreover, the quantity of cardholders has expanded, yet the complete number of credit card offers has additionally expanded, just as industry-explicit cards, for instance, retail locations and administration stations (Altounjy, Alaeddin, Hussain, & Sebastian, 2020).

## 1.3 | Current Situation

Central Bank of Malaysia implied some new regulations to solve the previous year's credit issues and to control the use of credit cards for people with credit card debt and whose income is lower than or equal to RM36000, as stated by Ismail, Amin, Shayeri, and Hashim (2014). The regulations so formulated include the credit limit, where credit should be within double monthly income, for those income brackets that cannot exceed double monthly income. These rules were laid out in the assessment of household debt issues raised by credit cards, as per the studies of Azman, Shari, Gazali, Abdullah, and Khalil (2015) and Altounjy et al. (2020). These studies highlight that the credit risk has increased. Credit cards as well as debit cards have replaced the use of cash for routine purchases and the issuance of checks worth millions. This trend has made difficult and almost impossible transactions simple and easy to proceed with. Similar trends of credit card use have been observed in Malaysia (Soman & Cheema, 2002).

Modifications in technology are impacting credit card fraud, and currently, these fraud cases have kept on increasing (Zareapoor & Shamsolmoali, 2015). In addition to technology, the globalization of high-speed communication is another source impacting the credit card fraud. There have been immense losses worth a billion dollars every year due to credit card losses. As fraudster's updates strategies and new rules to attack systems, they impact financial institutes and consumers, and consumers have lost trust in these institutes. Banks do have fraud detection systems that have been a critical component, as credit card fraud can be evaded or their losses can be minimized through the fraud detection systems of banks. Some significant fraud protection techniques include internal control, password protection, and bank reconciliation, as stated (Chun & Johnson, 2021; Rahman & Anwar, 2014).

Conclusively, there is immense competition among public sector banks, as stated by Goh, Kow, Lee, Loh, and Sam (2013) and Zaimah (2019). Kelman (2018) and banks are competing for the customers' trust, their loyalty, and their desire to commit consumers to themselves by making offerings of improved services with better quality. To inquire about service quality and its impact on improving customer satisfaction is vital, as it is considered a reliable competitive tool in the banking industry and can impact card renewal by consumers.

Keeping in view the current situation the objectives of the study are, as; to study the association between Empathy of Service Quality and Credit Card Membership Renewal among Malaysian credit card users, to investigate the relationship between Reliability of Service Quality and Credit Card Membership Renewal among Malaysian credit card users, to determine the association between Responsiveness of Service Quality and Credit Card Membership Renewal among Malaysian credit card users, to explore the relationship between Assurance of Service Quality and Credit Card Membership Renewal among Malaysian credit card users, to examine whether customer satisfaction mediate the relationship between service quality and credit card membership renewals among Malaysian credit card users.

## 2 | LITERATURE REVIEW

In the course of recent years, scholastic specialists have broadly examined consumer loyalty or disappointment (Raza, Umer, Qureshi, & Dahri, 2020; Westbrook, 1987). It is key to the advertising idea and is one of the "most examined and applied builds in promoting" (Peterson & Wilson, 1992). Hypotheses of consumer loyalty are verifiably founded on observational and social brain research. These examinations have investigated the premise of the affirm/no confirmation model, which assists with recognizing fulfilment builds that are seen as getting away from any communication wherein execution is seen to be approved. emphatically or adversely to client assumptions (Oliver, 1980) to clarify the connection between fulfilment after some time and trust.

It is then critical to comprehend the development of associations with the market and ideas, for example, trust and steadfastness, dependent on the experience of fulfilments collected over a period of time. 'The Expectation Confirmation/Rejection Model' (Oliver, 1980) 1, depicts the cycle by which clients create to frame sensations of fulfilment or disappointment (Raza et al., 2020). It accepts that fulfilment or disappointment is a component of assumptions, and the approval of those assumptions. Assumptions are shaped prior to a purchase and are utilized as a norm by

which to assess an item or administration. The assessment returns bring about a cycle, from positive statements (for example, performing surprisingly well) to negative declarations (for example, performing more regrettable than anticipated), and statements address the evaluation that functions admirably true to form.

In light of the five components of our autonomous variable, including: dependability, responsiveness, security, compassion, and unmistakable connections, specialists Chun Wang and Zheng Wang fostered the scale. Administration quality estimation, including 22 things, has been summed up in part three. Figure 1 represents the proposed theoretical structure created to fill in as an exploration establishment. The hypothetical structure plans to assist specialists with deciding the connection among autonomous and subordinate factors because of consumer loyalty to credit card recharging and participation. This examination practice is research in the scale components of 22 classes of the elements of administration quality, like 5 physical assets, sympathy, dependability, responsiveness, and endorsing buying choices of buyers. It is expected to estimate that the substantial variables, compassion, unwavering quality, capacity to meet security, and positive relationship essentially correlate with the level of purchaser fulfilment. The proposed structure comprises eleven direct speculations and five backhanded theories that will be tried by inspecting the connection between factors. The subtleties of every speculation will be talked about in the following segment.

As per Bilika, Safari, and Mansori (2016), “service quality can affect customer satisfaction.” Further; Shahzad, Raju, Farrukh, Kanwal, and Ikram (2018) and Zandi, Shahzad, Farrukh, and Kot (2020) found that “there is a positive relationship between customer satisfaction and service quality. Service quality can affect customer satisfaction, as it is an important factor. There are several categories to achieve service quality, such as security, empathy, reliability, responsiveness, and tangibility.” Fida, Ahmed, Al-Balushi, and Singh (2020) found that “researchers have used several of these categories to examine the relationship between customer satisfaction and service quality. Employees must be responsive and flexible, and employees must be well prepared to deal with customer questions, problems, and requests. Tangibility will also affect customer satisfaction. When a customer walks into a bank, first impressions are crucial (Bello, Jusoh, & Md Nor, 2021; Mohd Dali, 2014).

In addition, “there will be a significant influence between customer satisfaction and tangibles.” Yulisetiari (2014) and Bharwana, Bashir, and Mohsin (2013) found that “tangible size has an important relationship with customer satisfaction.” According to the study by Goh et al. (2013), “tangibles and customer satisfaction have a positive relationship.” According to Ismail et al. (2013), “correlation between tangible and customer satisfaction is not significant. Based on past results, it leads us to develop our first hypothesis.”

Saad, AbuKhalifeh, Slamet, and TengkuYacob (2020) show that tangibility is related but not affected by customer satisfaction. Selvakumar (2015) “Tangibles have a significant influence on customer satisfaction. This is due to a modern and fashionable look or sophisticated equipment. Where an attractive and visually appealing environment is seen as a positive influence of tangibles on customer satisfaction in the banking industry,” “Tangibility has a significant relationship with service quality and customer satisfaction” (Agbor, 2011). Based on Arokiasamy and Huam (2014), the tangible relationship and customer satisfaction have a stronger and more positive relationship ( $R\text{-squared} = 0.364$ ,  $n = 380$ ,  $p < 0.05$ ). Meaning that 37% of customer satisfaction is defined by tangibles.

Vanishreepabalkar, Kanwal, Kushwaha, and Thakur (2016) found that “private banks are more reliable banks because service quality” reliability of banks private higher regional banks, leading to credit rating use is higher than satisfaction of card users. The level of customer satisfaction using credit cards is also shown to have a strong relationship with reliability (Quan, 2014). A coefficient of 0.124 was found in their study, and this shows a significant positive relationship between credit card reliability and customer satisfaction” (Alzoubi, Alshurideh, Kurdi, & Inairat, 2020; Goh et al., 2013). These results will help us get to the first hypothesis.

Bilika et al. (2016) found that, “we have a positive relationship because responsiveness is under the quality aspect of the service, which can affect customer satisfaction. There is a significant impact between responsiveness and customer satisfaction, as service quality for customers will be related to customer satisfaction.” Furthermore, De Bruin, Roberts-Lombard, and De Meyer-Heydenrych (2021) found that “the relationship between responsiveness and customer satisfaction is significant.” When customers need help, customer responsiveness is very important (Saghier & Nathan, 2013; Shahzad, Farrukh, Ahmed, Lin, & Kanwal, 2018; Shahzad, Farrukh, & Yasmin, 2020). However, employee responsiveness to customers’ increases, which means employees are more willing to help and provide more services to customers when they need it, which will also increase customer satisfaction (Othman, Harun, De Almeida, & Sadq, 2020; Selvakumar, 2015).

According to Bilika et al. (2016) and Kamarudin and Kassim (2020), based on the results of their research, they discovered that security has a strong influence on the satisfaction of the customer due to the sensitivity of visitors, as well as the ability to perform the service of the bank. In addition, Shanka (2012) notes that “there is a significant relationship between assurance and customer satisfaction, since the  $p$ -value is 0.039, less than 0.05. The study not only shows that assurance and customer satisfaction have a significant relationship, but also shows that they are highly correlated with a  $p$ -value of 0.796.” Rahman, Hasan, and Mia (2017) and Gopi and Samat (2020) found that “safety has a negative relationship with customer satisfaction expressed by a coefficient value of -0.081 with a significance level of 0.355 in their research.” Taking into account all the literature, the following hypotheses have been developed:

## 2.1 | Theoretical Model

Figure 1 shows the connection between consumer loyalty, enrolment recharging and five elements of administration quality factors.

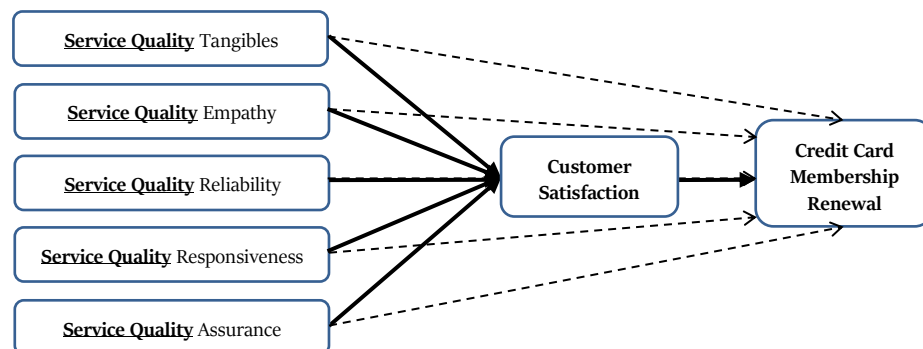


Figure 1: Theoretical framework

**H1:** Service Quality-Tangible (SQT) has significant positive effect on Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H2:** Service Quality-Empathy (SQE) has significant positive effect on Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H3:** Service Quality-Reliability (SQR) has significant positive effect on Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H4:** Service Quality-Responsiveness (SQR) has significant positive effect on the membership renewal among credit card users in Malaysia.

**H5:** Service Quality-Assurance (SQA) has significant positive effect on Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H6:** Customer Satisfaction (CS) has significant positive effect on Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H7:** Customer Satisfaction (CS) mediates the relationship between Tangibles and Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H8:** Customer Satisfaction (CS) mediates the relationship between empathy and Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H9:** Customer satisfaction mediates the relationship between reliability and Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H10:** Customer Satisfaction (CS) mediates the relationship between responsiveness and Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

**H11:** Customer Satisfaction (CS) mediates the relationship between Assurance and Credit Card Membership Renewal (CCMR) among Malaysian credit card users.

### 3 | METHOD

This study used the quantitative research method with a deductive research approach, as the research design was to look at customer satisfaction with credit cards and related service quality. Moreover, numerical data was collected through a survey questionnaire that was distributed in Selangor, Malaysia, for this study. Selangor has the most population as compared to other Malaysian states, and it is 6.57 million. As the current study is about the satisfaction level of consumers that are using credit cards, credit card users who are citizens of Selangor, Malaysia, are selected as the target population. The study used an online survey questionnaire to collect data from a target population comprised of Selangor citizens who own credit cards and use these cards for making purchases or to clear their payments. The main target population of the study is the residents of Selangor, and there are about 6.57 million citizens living in the region, as per statistics provided by the Department of Statistics Malaysia.

The stratified judgment sampling technique is used to select the sample size, as this technique provides a reasonable representation of various cardholders who have a prominent presence in the Selangor region. Maybank, Public Bank, RHB, Hong Leong Bank, and CIMB have the majority of credit cardholders as their customers are supposed to be in Selangor, as the Selangor is the main economically developed area in Malaysia. As indicated by Krejcie and Morgan (1970), the sample size for their investigation was 384 respondents. Therefore, it was concluded that a total of 540 questionnaires will be shared with expected respondents in Selangor, Malaysia (as some researchers suggested distributing 30-40% more questionnaires than the number of responses required). There were a series of preliminary steps for instances; transcription, coding, and editing. Response rate is given in the Table 2.

**Table 2:** Response rate

Credit Card issuers	Sample Size required	40% extra	Total distribution	Returned	Rejected	Qualified
Maybank	77	31	108	85	7	78
Commerce International Merchant Bankers Berhad (CIMB)	77	31	108	91	8	83
Public bank	77	31	108	77	4	73
Rashid Hussain Bank (RHB)	77	31	108	92	9	83
Hong Leong Bank	77	31	108	101	11	90
Total	385	155	540	446	39	407
Responses used for this study						384
Responses kept for other future research projects						23

### 4 | RESULTS

As per the details given in Table 3, total observations were 384; all of the respondents are from Selangor, Malaysia. Majority of the respondents were male (67%), and 33% were females. The age of the majority of respondents was between 26-35 years, comprising over 53%.

Most of the respondents were graduates. Total graduates were 55% of the entire sample. 27% of the respondents were working in the private sector, followed by 24% who were self-employed. 28 percent of the respondents have an income level of RM 1501-3000, followed by 24 percent of the respondents having an income level of RM 5001-7500.

#### 4.1 | Construct Validity

Content was checked by experts and found to be correct and representative of the study variables. Usually, “the picking of the measurement items relies on commonly accepted recommendations and procedures designed to achieve content validity” (Straub, 1989). Table 2 presents the stacking and cross-stacking of the lists in the particular designs of this investigation. All pointers are stacked in their separate developments, from the lower furthest reaches of 0.590 to the maximum furthest reaches of 0.852. Moreover, all lists are more stacked in their individual constructions than some others.

**Table 3:** Demographical results of the respondents

Description		No.	%
Gender			
1	Male	258	67.19
0	Female	126	32.81
Total		384	100
Marital Status			
2	Married	301	78.39
1	Single	69	17.97
0	Others	14	3.65
Total		384	100
Race			
1	Malay	211	54.95
2	Chinese	99	25.78
3	Indian	57	14.84
4	Others	17	4.43
Total		384	100
Occupation			
1	Student	29	7.55
2	Self-employed	93	24.22
3	Private Sector	105	27.34
4	Government Sector	97	25.26
5	Others	60	15.63
Total		384	100
Age			
1	less than 25	13	3.39
2	26-35	205	53.39
3	36-45	112	29.17
4	46-55	26	6.77
5	56 and above	28	7.29
Total		384	100
Education			
1	Metric to undergraduate	29	7.55
2	Graduate	211	54.95
3	Post Graduate	78	20.31
4	Doctorate	25	6.51
5	Vocational Qualification	41	10.68
Total		384	100
Income level			
1	Less than 1500	88	22.92
2	1501-3000	109	28.39
3	3001-5000	85	22.14
4	5001 to 7500	92	23.96
5	7501 and above	10	2.6
Total		384	100

## 4.2 | Reliability of Internal Items

In this examination, the unwavering quality of individual things is assessed by checking the heap of estimation markers for every development. Thusly, the PLS model has improved total unwavering quality, and the normal change is removed, which will likewise be utilized in the further assessment. In this way, all components are protected as they have loads somewhere in the range of 0.607 and 0.868, as demonstrated in [Table 4](#).

**Table 4:** Values of reflective construct (CR, AVE and Loading)

Construct	Items	Loading	CR	AVE	Alpha
Service Quality Tangible (SQT)	SQT1	0.713	0.746	0.581	0.81
	SQT2	0.728			
	SQT3	0.837			
	SQT4	0.809			
Service Quality Empathy (SQE)	SQE1	0.642	0.782	0.611	0.79
	SQE2	0.758			
	SQE3	0.811			
	SQE4	0.687			
Service Quality Reliability (SQR)	SQE5	0.736	0.719	0.64	0.83
	SQR1	0.848			
	SQR2	0.753			
	SQR3	0.844			
Service Quality Responsiveness (SQRes)	SQR4	0.825	0.669	0.591	0.841
	SQR5	0.812			
	SQRes1	0.807			
	SQRes2	0.646			
Service Quality Assurance (SQA)	SQRes3	0.704	0.794	0.711	0.786
	SQRes4	0.811			
	SQRes5	0.587			
	SQA1	0.736			

Construct	Items	Loading	CR	AVE	Alpha
Customer Satisfaction (CS)	SQA2	0.848	0.848	0.611	0.876
	SQA3	0.611			
	SQA4	0.787			
	SQA5	0.758			
	CS1	0.811			
	CS2	0.687			
	CS3	0.736			
	CS4	0.848			
Credit Card Membership Renewal (CCMR)	CS5	0.753	0.811	0.631	0.841
	CS6	0.736			
	CCMR1	0.848			

Table 4 shows the consequences of factor stacking, Average Variance Extracted (AVE) and Composite Reliability (CR). The factorial heap of all components changes somewhere in the range of 0.587 and 0.848. The CR esteem is somewhere in the range of 0.669 and 0.848, and the AVE esteem is more noteworthy than 0.50. Discriminant legitimacy.

**Table 5:** Discriminant validity (Fornell-Larcker Criterion)

Latent Variable	1	2	3	4	5	6	7
SQT	0.0.90						
SQE	0.213	0.888					
SQR	0.165	0.167	0.911				
SQRes	0.163	0.364	0.147	0.917			
SQA	0.268	0.206	0.177	0.367	0.886		
CS	0.306	0.171	0.028	0.231	0.214	0.935	
CCMR	0.289	0.111	0.121	0.231	0.242	0.224	0.917

To be legitimate, these AVE gauges should be bigger than the quadratic connections between the builds. Table 5 clarifies that the AVE values of all designs are more noteworthy than their quadratic connection between constructions. This shows that the develops have a fitting discriminant esteem.

**Table 6:** Results of main effects hypotheses

Hypothesis	Relationship	Beta	P-Values	Std Error	t-Value	Decision
H1	SQT → CCMR	0.444	0*	0.093	5.901	Supported
H2	SQE → CCMR	0.319	0*	0.1	3.793	Supported
H3	SQR → CCMR	0.166	0*	0.078	3.282	Supported
H4	SQRes → CCMR	0.215	0.001*	0.063	3.19	Supported
H5	SQA → CCMR	0.234	0*	0.075	5.305	Supported
H6	CS → CCMR	0.267	0*	0.072	5.817	Supported

Note: \* $p < 0.05$ .

For H1, H2, H3, H4, H5, and H6, results indicated a positive effect as  $\beta = 0.444$  and  $t = 5.901$ ;  $\beta = 0.319$  and  $t = 3.793$ ;  $\beta = 0.166$  and  $t = 3.282$ ;  $\beta = 0.215$  and  $t = 3.19$ ;  $\beta = 0.234$  and  $t = 5.305$  and  $\beta = 0.267$  and  $t = 5.817$ , since coefficients are found to be positive and  $t$  values are above the threshold of 1.96, thus, supporting Hypothesis one, two, three, four, five, and six. Table 6 presents the R-squared value of the endogenous latent variable.

**Table 7:** Variance

Latent Variable	Variance Explained
Customer Satisfaction	48%
Credit card membership renewal	52%

As indicated in Table 7, all studies found that exogenous latent variables collectively explained 52% of the variance in credit card membership renewal. Rest of the 48% variation in credit card membership renewal is because of some other factors that are not under the scope of this study. Similarly, in the second construct, all studies found that exogenous latent variables collectively explained 48% of the variance in customer satisfaction.

**Table 8:** Construct cross-validated redundancy in the endogenous latent variable

Hypotheses		Direct effect		Indirect effect		Decision
		B	t-value	B	t-value	
H7	SQT->CS->CCMR	0.44	5.901	0.46	9.16*	Supported
H8	SQE->CS->CCMR	0.32	3.793	0.33	22.71**	Supported
H9	SQR->CS->CCMR	0.17	3.282	0.3	13.35**	Supported
H10	SQRes->CS->CCMR	0.22	3.19	0.21	6.421**	Supported
H11	SQA->CS->CCMR	0.23	5.305	0.34	9.544**	Supported

Note: \*\* $p < 0.01$ , \* $p < 0.05$ .

As given in Table 8 for H7, H8, and H11 relationships are stronger when customer satisfaction is nominated or added as mediating variable. As expected, the results established significant interaction terms representing service quality (tangibility, empathy, assurance & and credit card membership renewal). Therefore, hypothesis seven, eight, and eleven were supported. For H9, and H10 relationships are weaker when customer satisfaction is nominated as a mediating variable. Therefore, results established a significant interaction terms representing service quality, reliability, and responsibility, and credit card membership renewal. Therefore, hypothesis nine and ten were supported.



## 5 | DISCUSSION

There is a well-rounded and productive connection between the satisfaction of the customer and the dimension of tangibles, as stated by the results mentioned in Chapter 4. There is a constant link between these two, as many past researchers have claimed in their work, for example, [Yulisetiari \(2014\)](#) and [Goh et al. \(2013\)](#).

Hence, it could be concluded that when it comes to credit card users, they could be affected by tangible, as being an important independent variable, it has great effects on the satisfaction levels of the customer. In addition to this, the  $t$ -value is found to be above the threshold value and also positive, which shows that tangibility also has a positive influence on the renewal membership of credit card users. This highlighted that a change of 0.444 units in the renewal of membership in credit cards could be generated by one unit change in service quality tangibility.

The link between satisfaction of the customer and empathy has  $t$ -value. It has been mentioned that when the  $t$ -value is higher than 1.96, there is a positive connection and relationship between variables, for example, empathy and customer satisfaction in this regard. However, with a rise in empathy, there will be a decrease of 0.391 in customer satisfaction, keeping all the other variables stagnant when the beta of empathy is -0.391 and the empathy and customer satisfaction have a negative connection with each other.

In this research, the relationship between reliability and customer satisfaction has a  $t$ -value of 2.937. As mentioned earlier, the  $t$ -value greater than 1.96 shows that there is a significant relationship between the studied variables in this case, customer satisfaction and reliability. The results show that "reliability positively affects customer satisfaction with credit cards. It was also showed that customer satisfaction level of credit card has a strong relationship with reliability" ([Quan, 2014](#)). Other than that, the research shows that the result for reliability has a 0.306 correlation. "It also has a coefficient of 0.319 in their research, which showed a positive relationship between reliability and customer satisfaction on credit cards" ([Goh et al., 2013](#)). Same way, service quality reliability showed a significant positive relationship with membership renewal, as the coefficient value was found to be positive and  $t$ -value was above the threshold value. It showed that a one-unit positive change in service quality reliability can generate 0.166-unit change in credit card membership renewal.

## 6 | IMPLICATIONS

There has been a significant relationship between user satisfaction and renewal of credit card membership when the independent variables are service quality (empathy), service quality (reliability), service quality (tangible), service quality (assurance) and service quality (responsiveness). A contrast has been made between the above-mentioned five service qualities and customer satisfaction, keeping in view the findings. The aim of this research work is to make the banks aware of the needs and wants of their customers and then assists them in fulfilling them. Thus, banks have taken a great advantage of these five service qualities and raised the standard of customer satisfaction to a great level, which has made them more reliable and efficient. In addition, this study will be favorable for many parties who will inculcate the provided information and knowledge in real life.

## 7 | LIMITATIONS

In simpler words, limitations can be highlighted as the gaps, restraints, and occurrences that could emerge while doing the research work, and it partially affect the end result and outcomes of the research. This leads to a fact that it is impossible for any research work to be free from limitations and gaps. There are few limitations that have been observed from the start until the final result of the research. Firstly, only incorporating the people of Selangor, Malaysia, in the research study; the population of this area varies between 3 and 5 million, but other states like Kedah, Perak, and Penang should also have been included in the research to avoid bias. This study has taken less than half of Malaysia's population into account for research, which has resulted in the presence of bias in the end results as the sample size has fewer people on board and does not cover the entire population of Malaysia.

## 8 | RECOMMENDATION

For those who are interested in doing research on similar subjects, it is suggested that they keep these recommendations in mind in order to restrict their limitations as much as possible. This research study has shown that the relationship between empathy and customer satisfaction is negative, while on the other hand, the research done by [Bilika et al. \(2016\)](#) and [Shanka \(2012\)](#) proved that there is a positive link between empathy and customer satisfaction. Hence, it is suggested that variables like empathy could cause problems and confusion while discussing customer satisfaction, and it is better to check past research and studies for better results by consulting as well as conducting research, keeping in view the business literature of earlier studies of similar nature.

## 9 | CONCLUSIONS

There have been many examinations done to check the relationship between the independent variables, which include empathy, responsiveness, reliability, assurance, and tangibles, and the dependent variable, which is customer satisfaction, after entailing a survey and taking the responses from 384 respondents. Summing up, the results have shown that the greater the tangibles, the greater will be the satisfaction level of the users. This is because the clean, air-conditioned, and spacious bank with comfortable seats, the bank employees dressed in a professional manner, equipment like ATM machines, and great beneficial facilities all attract consumers. In contrast to this, the results have shown that empathy has a negative impact on the consumer satisfaction; the greater the empathy, the lower the consumer satisfaction. The reason behind this is that the consumer never gets a sufficient amount of empathy from the bank employees and always asks for more, so when the empathy decreases, customer satisfaction rises. Hence, it is a study that has discussed renewals and non-renewals. In addition, it is a study about different types of factors that enhance or decrease the service quality, there is a connection between the factors and the outcomes. This means that when the banks focus on their performance ([Shahzad & Bhatti, 2008](#); [Shahzad, Bhatti, & Khalid, 2007](#)) or make their productivity better, a large number of people will be attracted to them and, hence, will renew their credit cards. The study has also shown that the number of non-renewals has been lower than that of credit card renewals. The area and premises of customer satisfaction are extremely diverse, and even when many studies could be done or all the aspects of psychology, sociology, or behaviour have been covered, no one study or research could be able to cover all the important features and points.

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**Transparency:**

The authors state that the manuscript is honest, truthful, and transparent, that no key aspects of the investigation have been omitted, and that any differences from the study as planned have been clarified. This study followed all writing ethics.

**Competing Interests:**

The authors declare that they have no competing interests.

**Authors' Contributions:**

All authors contributed equally to the conception and design of the study. All authors have read and agreed to the published version of the manuscript.

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