A Study on the Impact of Service Quality on Customer Loyalty A case of Sri Lankan Supermarkets

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Abstract: *In Sri lanka, Supermarket sector has experienced a remarkable growth specially in the last ten years. It demonstrated supermarket sector as one of the fast growing industries in Sri Lanka. Therefore, service quality has become major determinant for the supermarkets in order to create customer satisfaction which further help to gain customer loyalty. The main purpose of this study was to understand the impact of service quality on customer loyalty in the context of supermarket sector of Sri Lanka. This study has chosen convenience sampling as the sampling method and a questionnaire to gather data from 384 respondents. SERVQUAL model has selected to measure the variables of this study and regression has chosen to analyse data through SPSS (Statistical package for the social sciences) software.The study findings revealed that there was a significant impact on service quality dimensions towards customer satisfaction and customer loyalty. The results further indicated that the assurance has a more impact on customer satisfaction and tangibles has a more impact on customer loyalty.*

Key words:
Service quality
Service quality dimensions
Customer satisfaction
Customer loyalty

I.   Introduction

1.1 Background of the study

The importance of the service sector is increasing as the global economy is transforming to a service based economy at a rapid rate. Countries such as India and Sri Lanka have even broken the traditional pattern and moved from agricultural to service based economies without largely relying on manufacturing (Buckley & Majumdar, 2018). In Sri Lanka the services sector is the largest contributor for the economy at 57.7% (Central Bank, 2018).

A market analysis report has stated that when compared with regional peers with similar socio economic attributes supermarket penetration in Sri Lanka appears to be at a lower level (20%). Therefore, the supermarket sector is expected growth in the mid-twenties. (Fitch, 2017). Additionally the report states that due to the increasing income levels the Sri Lankan consumers will give more importance to quality and convenient shopping experience over prices (Fitch, 2017).

According to the latest industry annual reports (as at 31st march 2019) there are more than 500 supermarket outlets operating by the three main supermarket chains within the country. And this number is set to increase in the coming years where all chains are looking to expand their market. In 2018 Cargills (Ceylon) PLC had 315 outlets and as of 2019 they have expanded to 380 outlets island wide. The Keells supermarket chain is also planning to add 35 to 40 outlets in the western province by 2020. Furthermore, the article further discussed that both of the retail giants are giving their main focus to increase the quality and product variety(Dailymirror, 2018).

Since competing supermarkets sell similar products they have to provide better quality services to differentiate themselves from the competition (Jamal & Anastasiadou, 2009). Moreover it has been found that customer satisfaction will positively impact loyalty (Kitapci, et al., 2013).

This research uses the SERVQUAL model which was developed to measure the quality of service by the scholar Parasuraman in 1988. This model explains service quality in five dimensions namely reliability, tangibility, empathy, assurance and responsiveness (Parasuraman, et al., 1988). SERVQUAL model is widely used by many studies conducted in different fields.

Even though the topic service quality and customer loyalty has been fairly discussed in studies it is very few researches have been done regarding to the supermarket sector in the context of Sri Lanka. Since the services sector is the largest contributor for Sri Lanka's GDP and the supermarket sector is expected rapid growth this research aims to understand how service quality will affect customer loyalty in Sri Lankan supermarkets. The information required for this research were mainly gathered from Colombo district since Colombo district represent the highest amount of supermarket outlets compared to other districts in Sri lanka.

1.2 Problem statement

The supermarket concept has been popular in Sri Lanka because of the convenience of shopping ever since it was introduced in 1983. But still short comings of the service have caused customer dissatisfaction. A past study has identified that supermarkets in Sri lanka has had persistent complaints on topics as inadequate customer care and attitudes of service providers towards customers (Weerasiri, 2015).

A more recent observation was done by the research team to analyze customer complaints and found out that there are reoccurring customer complaints on customer review websites and social media. The complaints were mainly about slow processes, insufficient employees, and lack of professionalism from employees. also there were complaints regarding insufficient parking facilities and old buildings (Yamu.lk, 2014) and reoccurring (Arpico Facebook Reviews, 2017)

Hence based on these real world observations it is clear that the quality of the services offered by supermarkets have failed to satisfy the customers. Therefore, this study aims to give a better understanding on how service quality dimensions will affect the customer satisfaction in supermarkets.

1.3 Significance of the study

Most of the Sri Lankan customer specially regions like Colombo district prefer supermarkets rather than grocery stores because of its convenience and customers can have many shopping needs under one roof. Customers' needs and wants changing rapidly with the ever changing global competitiveness. Therefore, managers or the service providers need to ensure that the satisfaction of each customer in order to sustain in the competiveness and it has become a difficult task since the customer tastes and preferences may vary from each other. therefore, organizations need to identify the actual needs and wants of the customer in order to fulfill their expectations.

Also keeping loyal customer base has beneficial for any organization in order to compete in the market place. Retention of existing customers are cheaper than attracting new customers is mentioned by many scholars (Kitapci, et al., 2013) This confirms the importance of building customer loyalty through long-term customer relationships (Lenninkumar.V, 2016). since the super market sector of Sri lanka is expected to grow in the future better understanding on service quality will be beneficial for them as well as the customers to get an overall idea of the service offerings.

1.4 Objectives of the study
1. To investigate how service quality dimensions' impact on customer satisfaction
2. To measure the impact of service quality dimensions towards customer loyalty

1.5 Hypothesis
H1. The reliability has a significant impact on customer satisfaction
H2. The assurance has a significant impact on customer satisfaction
H3. The tangibility has a significant impact on customer satisfaction
H4. The empathy has a significant impact on customer satisfaction
H5. The responsiveness has a significant impact on customer satisfaction
H6. The reliability has a significant impact on customer loyalty
H7. The assurance has a significant impact on customer loyalty
H8. The tangibility has a significant impact on customer loyalty
H9. The empathy has a significant impact on customer loyalty
H10. The responsiveness has a significant impact on customer loyalty

II. Literature review
2.1 Overview of literature related Service quality
Before early 1980s the priority was only given to the product quality and it was After ten years' firms began to prioritize the service quality(Kitapci, et al., 2013).In earlier stages there were no sufficient definitions to explain the concept of service quality therefore service quality was explained according to its characteristics such as its heterogeneity, tangibility and inseparability (Parasuraman, et al., 1985). Authors further mentioned

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that defining the product quality was lot more easier than service quality because products hold many tangible characteristics rather than services (Parasuraman, et al., 1985).

However, in the past literature authors mentioned that service quality is a gap or a difference between customer expectation and actual service they received (Parasuraman, et al., 1985) and (Gronroos, 1984). Also researches argued that the customers will be satisfied when the actual service offer was qualify enough to fulfill or exceed their expectations , and when the more the actual service was failed to meet or exceed their expectations the customers will be dissatisfied (Parasuraman, et al., 1985)(Gronroos, 1984).

Some researches argued that service quality has three dimensions namely functional dimension, technical dimension and organization's mental picture (Gronroos, 1984). Also another researcher has mentioned that service quality has three main components which are also called as 3 "PS" such as physical facility, process and procedures (Haywood-farmer, 1988).

However, Parasuraman, et al., 1988 introduced a model called 'SERVQUAL model' to measure service quality (Parasuraman, et al., 1988). Parasuraman and his team recommended ten service quality with 22 Likert- type item scale which are later categorized in to five service quality dimensions namely Reliability, Assurance, tangibles, empathy and Responsiveness (Othman & Owen, 2001).

The dimensions were further explained by reliability as dependability of the service, Assurance as trustworthiness and the employee knowledgeableness of the service, tangibles as physical appearance of the service , empathy as carefulness and the understandability of the employees and responsiveness as helpfulness of the employees (Parasuraman, et al., 1985).

The SERVQUAL model can be identified as one of the important instrument that was developed in the field of service quality and it is also known as one of the most successful measurement for the service quality in the twenty-first century (Kassim & Abdullah, 2010).

2.2 Customer satisfaction

Many researches have given different definitions for customer satisfaction and most of them defined Customer satisfaction as a complex concept (Arokiasamy, n.d.). some scholars defined customer satisfaction as a response of a customer with regard to their service experience and also, customer satisfaction viewed as a strong asset which benefit to gain global competitive advantage (Ueltschy, et al., 2009).

Therefore Customer satisfaction has become the most essential and important thing in any organization (AGBOR, 2011). Researches further mentioned that customer satisfaction can be viewed as a cognitive or affective response towards a particular purchase experience (AGBOR, 2011). Some scholars explained customer satisfaction under two conceptualizations such as transaction specific and cumulative specific (Boulding, et al., 1993).

Customer satisfaction provide many advantages to the business organizations such as help organizations to increase profitability (Kitapci, et al., 2013) ,act as a influencer for customer repurchase intention (Kitapci, et al., 2013) ,help to achieve marketing accomplishment, and competitiveness for any organization (Kant & Jaiswal, 2017)

1.5.1 Service quality and customer satisfaction

Many earlier studies found that there was a significant relationship between service quality and customer satisfaction and that the satisfaction leads quality(Bolton & Drew, 1991 ; Spreng &Mackoy, 1996 ; Woodside, et al., 1989) therefore, those experimental evidence conclude that higher quality will proceed higher satisfaction.

Scholars defined Customer satisfaction as a complicated concept (Arokiasamy, n.d.). Today sustainable advantage of any organization is depend on how well it delivers a quality product or service to the customer (Hua, et al., 2009). Many earliest researches has demonstrated by different authors has identified that there was a significant relationship between service quality and customer satisfaction and also conclude that higher service quality resulted higher satisfaction (Spreng & Mackoy, 1996) (Woodside, et al., 1989).

A research conducted related to retail industry to analyze gaps between customer perceptions and expectations has found that there was a positive impact between service offering of the retail service sector and customer satisfaction and the it was significant in building customer satisfaction(Naik, et al., 2010) .

An important study conducted in Sri lanka in supermarket sector to determine the service quality and its impact on customer satisfaction (Weerasiri, 2015). They have used five dimensions namely reliability, responsiveness, assurance, empathy and customer care which are similar to SERVQUAL model to measure the service quality. The study have found that all five dimensions were significant predictors for customer satisfaction and that there was a strong relationship between service quality and customer satisfaction (Weerasiri, 2015).

Another research carried to compare supermarkets to wet markets by using SERVQUAL model. The study found that customers were more satisfied with supermarkets. The reasons for this were the greater

customized service and responsiveness, reliability and tangibles dimensions made customers more satisfied (Bougoure & Lee, 2009).

Many authors mentioned that service quality and customer satisfaction concepts are exchangeable factors (Islam, et al., 2016 , Caruana, 2002). therefore, by improving service quality dimensions organizations can improve service quality which in turn will improve satisfaction (Caruana, 2002) .it can be further conclude that service quality is strong interpreter for customer satisfaction (Ganguli & Roy, 2011).

Additionally, a study conducted in Nairobi county in Kenya related to supermarket sector. the study has been using the SERVQAL model and has found that customers hold highest perception on reliability and lowest perception for reliability. However overall perceptions of the customers of supermarkets were at a higher level. (TOILI, 2017).

1.6 Customer loyalty

Today customer loyalty is seen as a major competitive advantage for firms. Maintaining a loyal customer base has become a main corporate goal since a loyal customer base will result in maximized profits for the organization. Customer loyalty is the intention to purchase a preferred product or service over and over again in the future. A loyal customer will repurchase products from the same brand regardless of any marketing or situational influences (oliver,1999) and (Yi & Jeon, 2003).

A study done on service quality and customer loyalty identified three advantages of customer loyalty. First advantage is that serving a loyal customer is more cost effective and time saving than to serving a new customer(Ha, et al., 2015). Secondly the study states a loyal customer is more likely to pay price premium for the services. The third advantage is that a loyal customer base will reduce marketing costs for the firm by word of mouth communication (ha et al)and (Olorunniwo, et al., 2006). word of mouth is considered to be a behavior of recommendation from satisfied customers. Hence it is an indication of customer loyalty (Gronroos, 1984). Furthermore word of mouth communication has been found to be nine times effective than traditional advertising(Kitapci, et al., 2013).

Additionally, another study concluded that in a normal organization 65% of business will be from its loyal customers. Moreover, it mentions that customer retention is cheaper than to attract new customers(Rosenberg & Czepiel, 1984). Therefore loyal customers should be treated as an important source for a sustainable competitive advantage (Sivapalan & Jebarajakirthy, 2017).

On the other hand, there are two major reasons which can end the relationship between customer and the business organization. First reason is the natural causes. In other words, it is when the customer demand is extinct. Second is the artificial causes which is due to insufficient product specification or inadequate quality of service (Rahman, 2015).Accordingly it is vital for any organization to remove these two reasons to gain customer loyalty(Rahman, 2015).

1.6.1 Service quality and customer loyalty

An important study which has many similarities with the present study was conducted to determine the relationship between service quality and customer loyalty among supermarket customers in Nairobi county, Kenya (Peter, 2014). The study used the SERVQUAL model for the purpose of measuring the service quality. The results revealed that there was a positive relationship between service quality and customer loyalty. Upon analyzing the five dimensions independently they found reliability to be the most significant predictor and responsiveness as the least significant predictor to loyalty(Peter, 2014).

Another study carried out in Australia related to the retail sector. Where the SERVQUAL model was used related to a large chain store in Victoria. Their findings indicated that there was a positive association among service quality and customer loyalty and that relationship was found stronger in company level. According to their results tangibles was the most significant predictor for customer loyalty.

In addition to these another study was conducted in Sri Lanka to empirically investigate a comprehensive mechanism to enhance the customer loyalty in retail stores via service quality practices. They have used a different model called retail service quality model (RSQ) as the research technique. The study found that providing service quality at a level which satisfies the customer will help organization to retain customers. Furthermore, its findings indicated that there is a positive effect from physical aspect, personal interaction and policy dimensions to customer loyalty and there was no significant influence from reliability to customer loyalty (Sivathaasan, et al., 2014).

Furthermore, a study conducted in turkey to determine the paths between service quality, customer satisfaction and loyalty has identified that the five SERVQUAL dimensions to be important determinants of satisfaction which would impact customer loyalty in terms of repurchase of goods and services and positive word-of mouth. The results further explained that the SERVQUAL dimensions except reliability had a significant influence on customer loyalty (Kitapci, et al., 2013).

Another study done in Jaffna Sri Lanka to determine the impact on customer satisfaction and customer loyalty in leading supermarkets in Jaffna. The results revealed a 40% link between satisfaction and loyalty. The authors suggested that improving parking facilities, employee training and a pleasant environment will increase the customer satisfaction which will in turn affect customer loyalty.

Similar results were seen in a study done on Malaysian hypermarkets to measure customer loyalty through satisfaction(Rahman, 2015).further the study explained that product and service quality will positively impact satisfaction and satisfaction had a direct relationship with loyalty (Rahman, 2015).

There is empirical evidence to suggest that service quality will affect customer satisfaction and satisfaction precedes customer loyalty.
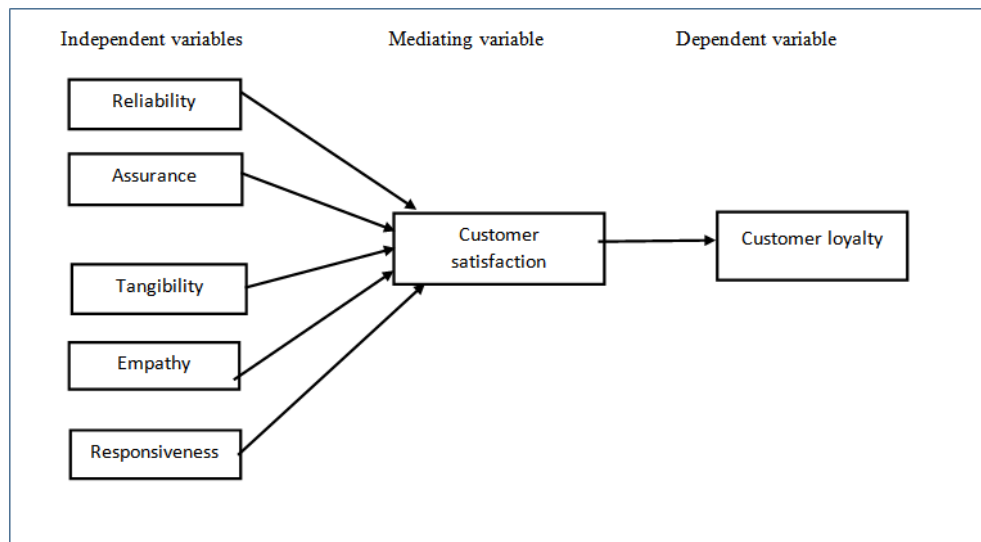
Conceptual frame work

Figure 2.1: Conceptual framework

Source: Authors Illustration

III. Methodology

Deductive reasoning approach has used in this study with applying the five dimensions of service quality namely 'Reliability', 'Assurance', 'Tangibles', 'Empathy' and 'Responsiveness' under SERVQUAL model which is developed by Parasuraman. The primary data were gathered through a survey by conducting a questionnaire for the respondents. Only open ended questions were included in the questionnaire and relevant questions about the impact on service quality on customer loyalty, impact of satisfaction on customer loyalty and to understand the impact of service quality dimensions (reliability, assurance, tangibility, empathy and responsiveness) on customer loyalty were included to the questionnaire. All the questions assessed through five point Likert scale by ranging customer opinions by one to five.

The study population consisted of all supermarket customers mainly selected under three supermarket chains namely Keells super, Cargills food city and Arpico in Colombo district. A sample of 384 supermarket customers were chosen as 124 customers from Keells super, 218 customers from Cargills food city and 42 customers from Arpico super center (as at March 2019) by using convenience sampling method. composition of the study sample as follows

Table 3.1: composition of the study sample

Supermarket Name	Number of outlets	Number of participants
Cargills Food City	93	218
Keells Super	53	124
Arpico Super center	18	42
Total	164	384

Source: Industry websites

Descriptive statistics such as mean, standard deviation and regression was used to identify the impact of the dependent variable and the independent variables for the study. Statistical Package for Social Sciences (SPSS) software was chosen for the purpose of analyzing the data as used in many related past researches.

IV. Results and discussion

1.7 Reliability of the total sample

Cronbach's alpha reliability test results showed alpha value of 0.925 which is above 0.7. therefore, considered the questionnaire was reliable.

Figure 4.1: Reliability output for total sample

Cronbach's alpha	Cronbach's alpha based on standardized items	N of items
0.925	0.925	21

Source: survey data

1.8 : Demographic profile for Total sample

Table 4.1: Demographic profile for total sample

Demographic Factor	Variable	Number of respondents	Percentage (%)
Gender	Male	172	44.8
	Female	212	55.2
	Total	384	100
Age	20-30 years	120	31.3
	31-40 years	128	33.3
	41-50 years	86	22.4
	51 and above	50	13
	Total	384	100
Occupation	Private sector	64	16.7
	Government sector	101	26.3
	Self-employment	114	29.7
	Other	105	27.3
	Total	384	100
Monthly income	Below Rs.50,000	21	5.5
	Rs.50,000- 100,000	33	8.6
	Rs.100,000-150,000	87	22.7
	Rs.150,000-200,000	135	35.2
	Above Rs.200,000	108	28.1
	Total	384	100

Source: survey data

The sample of customers represent morefemales (55.2%) than females (44.8%). Highest age category of the respondents was at 31-40 age group which is followed by 20-30 age group (31.3 percent) and 41-50 age group (22.4 %) and 51 and above (13%). Most of the respondents were belonged to self-employed category (29.7 %) and most of the participants' incomes at Rs. 150,000- 200,000 category (35.2%) followed by above Rs. 200,000 (28.1%), Rs. 100,000- 150,000 (22.7%), Rs. 50,000-100,000 (8.6%) and below Rs.50, 000 (5.5%).

Table 4.1: summarized mean and standard deviations

Variables	Mean	Std. Deviation
Reliability		
The supermarket provides its services without making mistakes	3.62	1.002
Promises given to customers are fulfilled within agreed time	3.82	0.864
Employees in the supermarket show sincere effort to solve customers' problems	3.76	0.967
Assurance		
Employees' behavior raises your confidence as the customer	3.79	0.941
you feel safe and secure in the supermarket	4.07	0.964
Employees in the supermarket are polite to their customers	3.92	0.982
Employees in the supermarket are polite to their customers	3.86	0.921
Tangibles		
The supermarket uses modern equipment to offer its services. (Payments, weighing etc.)	4.16	0.874
Employees in the supermarket have a professional look	3.89	0.903
Interior of the supermarket is attractive	3.93	1.016
Materials such as informative signs regarding supermarket are visually appealing and easy to stand	3.94	0.981
Empathy		
Employees in the supermarket understand particular needs of their customers (disabled. Elderly and en)	3.72	1.013
Employees give individualized attention to customers	3.30	1.067
The supermarket leaves an impression that what is best for a customer is always the supermarket's ty	3.78	1.010
Responsiveness		
Employees in the supermarket provide quick and actual service to customer	3.88	0.957
Employees in the supermarket are ready to assist clients at any moment	3.76	0.893
Employees in the supermarket provide customers with all necessary information	3.78	0.930
Customer satisfaction		
I am happy about my shopping experience in this supermarket	4.05	0.917

Services provided by the supermarket is better than my expectations	3.58	0.969
Customer loyalty		
I would like to revisit this supermarket for my shopping needs	4.05	0.978
I recommend others to visit this supermarket for their shopping needs	3.84	1.075

Source: survey data

The table shows summarized mean values and standard deviations.It indicates that customers placed highest marks for the statement of The supermarket uses modern equipment to offer its services. (Payments, weighing etc.) (4.16). standard deviations of individual statements range from 0.864 to 1.075. however, two variables namely reliability and empathy do not show an adequate level of reliability (Cronbach's a values were higher than 0.7) when other three dimensions are showing a notable adequate level of reliability (Cronbach's a values were higher than 0.7).

1.9 Multiple Regression
1.9.1 Service quality dimensions and customer satisfaction

Table 4.2: model summery

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.760[a]	.577	.572	.553

Source: survey data
a. Predictors: (Constant) ,Responsiveness, Tangibles, Empathy, Reliability, Assurance
b. Dependent Variable: Customer satisfaction
Model summery table shows that R Square = 0.577 (Adjusted R Square = 0.572) which explains that 57.7% of the variance in customer satisfaction is explained by the five predictor variables which are reliability, assurance, tangibles, empathy and responsiveness.

Table 4.3: ANOVA.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	157.695	5	31.539	101.239	.000[b]
Residual	115.476	378	.305		
Total	273.171	383			

a. Dependent Variable: customer satisfaction
b. Predictors: (Constant), Responsiveness, Tangibles, Empathy, Reliability, Assurance

The ANOVA table (table no) represents whether the predictor variables of the study have a significant variance in the dependent variable. However, the significant value is 0.000 which is less than 0.05 and it concludes that there is a significant variance between predictors (five service quality dimensions) and the dependent variable (customer satisfaction). this further explains that customer satisfaction is depending on the five service quality dimensions.

Table 4.4 : Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.324	.186		-1.738	.083
Reliability	.152	.054	.134	2.812	.005***
Assurance	.365	.057	.310	6.416	.000***
Tangibles	.309	.053	.258	5.864	.000***
Empathy	.148	.048	.139	3.070	.002***
Responsiveness	.101	.055	.088	1.843	.066*

a. Dependent Variable: customer satisfaction

Note: *** significant at the 0.01 level, ** significant at the 0.05 level and * significant at the 0.1level.

The above Table shows the coefficient of predictor variables, reliability, assurance, tangibles, empathy and responsiveness. hypothesizes one tofifth (*H1-H5*) of the study was to test whether each service quality dimensions have a significant impact on customer satisfaction. significant value for reliability is 0.005(Sig = 0.005<0.01),significant value for assurance is 0.000 (Sig = 0.000<0.01), significant value for tangibles is 0.000(Sig = 0.000<0.01),significant value for empathy is 0.002(Sig = 0.002<0.01),significant value for responsiveness is 0.066 (Sig = 0.066>0.1). all the values are less than 0.01 or 0.1 alpha level therefore accepting the hypothesizes reliability has a significant impact on customer satisfaction*(H1),*assurance has a significant impact on customer satisfaction*(H2),* tangibles have a significant impact on customer satisfaction*(H3)*, empathy has a significant impact on customer satisfaction *(H4)*and responsiveness has a significant impact on customer satisfaction*(H5).*

According to the coefficient table the results   has been considered as the data has taken from a common scale and resulted in beta for reliability, assurance, tangibles, empathy and responsiveness are 0.152, 0.365, 0.309, 0.148 and 0.101 accordingly. This explains that when the reliability increases by one unit, customer satisfaction expected to increase by 0.152 units, with no change in other four dimensions. when the assurance increases by one unit, customer satisfaction expected to increase by 0.365 units, with no change in other four dimensions. when the tangibles increase by one unit, customer satisfaction expected to increase by 0.309 units, with no change in other four dimensions. when the empathy increases by one unit, customer satisfaction expected to increase by 0.148 units, with no change in other four dimensions. when the responsiveness increases by one unit, customer satisfaction expected to increase by 0.101 units, with no change in other four dimensions. since assurance has a higher beta value of 0.365 it can be concluded that, assurance has a more impact on customer satisfaction though it will be used in the regression equation.

$$Y \text{ (Customer satisfaction)} = - 0.324 + 0.152(\text{Reliability}) + 0.365 \text{ (Assurance)} + 0.309(\text{Tangibles}) + 0.148 \text{ (Empathy)} + 0.101(\text{Responsiveness})$$

Five hypothesizes were built to investigate how service quality dimensions' impact on customer satisfaction as the second objective for the study. Since all the hypothesizes were accepted through the regression analysis, the first study objective has been fulfilled.

1.9.2   Service quality dimensions and customer loyalty

Table 4.5: .Model Summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.659[a]	.435	.427	.727

a. Predictors: (Constant) ,Responsiveness, Tangibles, Empathy, Reliability, Assurance
b. Dependent Variable: Customer loyalty

Model summery table shows that R Square = 0.435 (Adjusted R Square = 0.427) which explains that 43.5% of the variance in customer loyalty is explained by the five predictor variables namely reliability, assurance, tangibles, empathy and responsiveness.

Table 4.6: ANOVA.

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	153.518	5	30.704	58.135	.000[b]
Residual	199.637	378	.528		
Total	353.156	383			

a. Dependent Variable: customer loyalty
b. Predictors: (Constant), Responsiveness, Tangibles, Empathy, Reliability, Assurance

The ANOVA table (table no) represents whether the predictor variables of the study have a significant variance in the dependent variable. However, the significant value is 0.000 which is less than 0.05 and it concludes that there is a significant variance between predictors (five service quality dimensions) and the dependent variable (customer loyalty). this further explains that customer loyalty is depending on the five service quality dimensions.

Table 4.7: Coefficients.

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	-.175	.245		-0.714	.0476
Reliability	.192	.071	.148	2.690	.007 ***
Assurance	.265	.075	.198	3.538	.000***
Tangibles	.423	.069	.311	6.103	.000***
Empathy	.036	.063	.029	.563	.574*
Responsiveness	.146	.072	.112	2.038	.042**

a.   Dependent Variable: customer loyalty
Note: *** significant at the 0.01 level, ** significant at the 0.05 level and * significant at the 0.1 level.

The above Table shows the coefficient of predictor variables, reliability, assurance, tangibles, empathy and responsiveness. hypothesizes sixth to tenth (*H6-H10*) of the study was to test whether each service quality

dimensions have a significant impact on customer loyalty. significant value for reliability is 0.007 (Sig = 0.007<0.01),significant value for assurance is 0.000 (Sig = 0.000<0.01), significant value for tangibles is 0.000(Sig = 0.000<0.01),significant value for empathy is 0.574(Sig = 0.574>0.1),significant value for responsiveness is 0.042 (Sig = 0.042>0.05). Therefore, accepting the hypothesizes reliability has a significant impact on customer loyalty*(H6)*, assurance has a significant impact on customer loyalty*(H7)*, tangibles have a significant impact on customer loyalty*(H8)*, empathy has a significant impact on customer loyalty*(H9)* and responsiveness has a significant impact on customer loyalty *(H10)*.

According to the coefficient table the results   has been considered as the data has taken from a common scale and resulted in beta for reliability, assurance, tangibles, empathy and responsiveness are 0.192, 0.265, 0.423, 0.036 and 0.146 accordingly. This explains that when the reliability increases by one unit, customer loyalty expected to increase by 0.192 units, with no change in other four dimensions. when the assurance increases by one unit, customer loyalty expected to increase by 0.265 units, with no change in other four dimensions. when the tangibles increase by one unit, customer loyalty expected to increase by 0.423 units, with no change in other four dimensions. when the empathy increases by one unit, customer loyalty expected to increase by 0.036 units, with no change in other four dimensions. when the responsiveness increases by one unit, customer loyalty expected to increase by 0.146 units, with no change in other four dimensions. since tangibles has a higher beta value of 0.423 it can be concluded that tangibles have a more impact on customer loyalty. though it will be used in the regression equation.

 Y (customer loyalty) = - 0.175+ 0.192(Reliability) + 0.265 (Assurance) + 0.423(Tangibles) + 0.036 (Empathy) + 0.146(Responsiveness)

Five hypothesizes were built to measure the impact of service quality dimensions towards customer loyalty as the fourth objective for the study. Since all the hypothesizes were accepted through the regression analysis, the secondstudy objective has been fulfilled.

However, there has been similar studies conducted in different countries related to the supermarket sector and some of their findings were different than the current study. The reasons for these differences can be identified as regional and socio economic nature in the Sri Lankan supermarket context.

V. Conclusion and Recommendation

Although the main purpose of the current study was to understand the impact of service quality on customer loyalty in the context of Sri Lankan supermarket sector this study also focused on to measure the relationship between service quality dimensions with customer loyalty, to investigate how service quality impact on customer satisfaction, to investigate how customer satisfaction impact towards customer loyalty and to investigate how the service quality dimensions' impact on customer loyalty. The research has applied SERVQUAL model to measure the service quality for these purposes.Therefore, the study believes that it will be applicable for any wide-ranging company who is seeking to keep customer loyalty while enhancing their satisfaction.

This study discusses five main dimensions namely reliability, assurance, tangibles, empathy and responsiveness under the SERVQUAL model.Correlation analysis was done to investigate whether there is a relationship between service quality dimensions and customer loyalty and the results indicated that the all five service quality dimensions (independent variables) have a positivemoderate relationship between customer loyalty (dependent variable).

The second objective of the study was to investigate how service quality dimensions' impact on customer satisfaction. multiple regression was done to test whether the five service quality dimensions have a significant impact on customer satisfaction under the significant level of 0.1. the study found that all five dimensions have significant impact on customer satisfaction and assurance and tangibles are found to be the most significant predictors for customer loyalty. The third objective of the study was to investigate how customer satisfaction impact towards customerloyalty. theresults showed that that there was a significant and strong impact on customer satisfaction towards customer loyalty. And the last objective of the study was to investigate how service quality dimensions' impact on customer loyalty. Therefore, it was found that there was a significant impact on each fivedimensions on customer loyalty under 0.1 significant level. assurance and tangibles are found to be the most significant predictors for customer loyalty.

However, the tangibles dimension has a stronger relationship with the customer loyalty (The correlation coefficient value, (r) .578) and the lowest   relationship was found in empathy dimension (The correlation coefficient value, (r) .446). further the tangibles and the assurance dimensions' e have the strongest significant impact for customer satisfaction as well as customer loyalty. It can be concluding that supermarkets already have focused on improving these areas under these two dimensions. however ,further to gain more customer loyalty through customer satisfaction the priority of the supermarket managers or the policy makers should be more in to improvement of the areas such as using modern equipment's, professional look of the employees, attractiveness of the interior and layout of the supermarket, use of informative signs etc under

tangibles dimension as well as areas such as train employees in order to improve their behavior in when dealing with customers, improve safety inside the supermarkets etc. additionally the management can provide the resources to improve the weakest areas to reduce customer unhappiness and dissatisfaction.

Limitations and future research

The current study was carried out only for the Colombo district due to limited time, budget etc. Therefore, it is important to expand this study to other districts in the Sri Lanka as well with a larger sample. It will benefit to gather a broader picture how service quality will affect customer loyalty in overall Sri Lankan supermarket context. Furthermore, the future studies can be also focused on what are the other factors that affect customer loyalty other than the service quality dimensions.

References

[1]. AGBOR, J., 2011. The Relationship between Customer Satisfaction and Service Quality : a study of three service sector in Umea. *unpublised research project , Umea school of business , Master thesis.*

[2]. Al-Shammari, M. & Kanina, A., 2014. Service Quality and its Relationship with Customer Satisfaction and Loyalty in a Saudi Arabian Automobile Company. *Global Journal of Management and Business Research: E Marketing ,* 14(8).

[3]. Arokiasamy, A., n.d. THE IMPACT OF CUSTOMER SATISFACTION ON CUSTOMER LOYALTY AND INTENTIONS TO SWITCH IN THE BANKING SECTOR IN MALAYSIA. *The Journal of Commerce,* Volume 5.

[4]. Arpico Facebook Reviews, 2017. *Arpico Supercenter Customer Reviews.* [Online] Available at: https://www.facebook.com/ pg/arpicosupercentre/reviews/?ref=page_internal[Accessed 17 03 2019].

[5]. Badri, M., 2001. A combined AHP-GP model for quality control systems. *International Journal of Production Economics,* 72(1), pp. 27-40.

[6]. Banahene, S., Ahudey, E. & Asamoah, A., 2017. Analysis of SERVQUAL Application to Service Quality Measurement and Its Impact on Loyalty in Ghanaian Private Universities. *Journal of Management and Strategy,* Volume 8.

[7]. Bougoure, U. & Lee, B., 2009. Service quality in Hong Kong: wet markets vs supermarkets. *British food journal,* 111(1), pp. 70-9.

[8]. Boulding, et al., 1993. A Dynamic process model of service quality : from expectations to behaviour intentions. *Journal of Marketing and Research,* Volume 30, pp. 7-27.

[9]. Buckley, P. & Majumdar, R., 2018. The services powerhouse: Increasingly vital to world economic growth.

[10]. Caruana, A., 2002. Service loyalty : The effects of Service quality and the mediating role of customer satisfaction. *European Journal of Marketing,* Volume 36, pp. 811-828.

[11]. Dabestani, R., Shahin, A. & Saljoughian, M., 2013. Evaluation and prioritization of service quality dimensions based on gap analysis with analatic network process. *International journal of quality and reliability,* Volume 36, pp. 239-255.

[12]. Dabholkar, P., Thorpe, D. & Rentz, J., 1995. A measure of service quality for retail stores ; scale development and validation. *Journal of the Academy of Marketing science,* Volume 24, pp. 3-16.

[13]. Dailymirror, 2018. *Will new entrants fire up SL's modern retail market?.*[Online] Available at: http://www.dailymirror.lk/article/Will-new-entrants-fire-up-SL-s-modern-retail-market--148280.html
[Accessed 16 07 2019].

[14]. Datta, K. & Vardhan, J., 2017. A SERVQUAL-Based Framework for Assessing Quality of International Branch Campuses in UAE: A Management Students' Perspective. *journals.sagepub.com/home/sgo.*

[15]. Fitch, 2017. *Modern grocery retail sector in Lanka to expand,* s.l.: Daily news.

[16]. Ganguli, S. & Roy, S., 2011. Generic technology-based service quality dimensions in banking Impact on customer satisfaction and loyalty. *International Journal of Bank Marketing,* 29(2), pp. 168-189.

[17]. Gronroos, C., 1984. A Service Quality Model and its Marketing Implications. *European Journal of Marketing.*

[18]. Guesalaga, R. & Pitta, D., 2014. The importance and formalization of service quality dimensions: a comparison of Chile and the USA. *Journal of Consumer Marketin,* 31(2), pp. 145-151.

[19]. Hanaysha, J., Kumar, D., Abdullah, O. & Hilman, H., 2012. SERVICE QUALITY AND SATISFACTION: STUDY OF INTERNATIONAL STUDENTS IN UNIVERSITIES OF NORTH MALAYSIA. *International Journal of Research in Management ,* 3(2).

[20]. Ha, N., Minh, N., Anh, P. & Matsui, Y., 2015. Retailer Service Quality and Customer Loyalty: Empirical Evidence in Vietnam. *Asian social science,* Volume 11.

[21]. Haywood-farmer, J., 1988. A conceptual model of service quality. *International journal of operations & product management,* Volume 8, pp. 19-29.

[22]. Hua, H., Kandampully, J. & Juwaheer, T., 2009. Relationships and impacts of service quality, perceived value, customer satisfaction, and image: an empirical study. *The Service Industries Journal,* Volume 29, pp. 111-125.

[23]. Jamal, A. & Anastasiadou, K., 2009. Invetigating the effects of service quality dimensions and expertise on loyalty. *European Journal of Marketing,* 43(3/4), pp. 398-420.

[24]. Kant, R. & Jaiswal, D., 2017. The impact of perceived service quality dimensions on customer satisfaction: An empirical study on public sector banks in India. *International Journal of Bank Marketing,* 35(3), pp. 411-430.

[25]. Kashif, M., Shukran S, S., Rehman, M. & Sarifuddin, S., 2015. Customer satisfaction and loyalty in Malasian islamic banks : A PAKSERVE investigation. *International Journal of Bank Marketing,* 33(1), pp. 23-40.

[26]. Kassim, A. & Abdullah, N., 2010. The effect of perceived service quality dimensions on customer satisfaction, trust, and loyalty in e-commerce settings. *Asia Pacific Journal of Marketing,* 22(3), pp. 351-71.

[27]. Kitapci, O., Dortyol, I., Yaman, Z. & Gulmez, M., 2013. The paths from service quality dimensions to customer loyalty-An application on supermarket customers. *Management Research Review,* 36(3), pp. 239-255.

[28]. Ladhari, R., Ladhari, I. & Morales, M., 2011. Bank service quality- comparing Canadian and Tusnisian customer perception. *International Journal of Bank Marketing,* 29(3), pp. 224-246.

[29]. Lenninkumar.V, 2016. The Effect of Service Quality on Customer Loyalty. *European Journal of Business and Management,* Volume 8.

[30]. Naik, C., Gantasala, S. & Prabhakar, G., 2010. Service Quality (Servqual) and its Effect on Customer Satisfaction in Retailing. *European Journal of Social Sciences,* Volume 16.

[31]. Olorunniwo, F., Hsu, M. & Udo, G., 2006. Service quality and Customer Satisfaction, and behavioural intentions in the service factory. *Journal of Service Marketing,* Volume 20/1, pp. 59-72.
[32]. Othman, A. & Owen, L., 2001. Adopting and measuring customer service quality (SQ) in islamic banks: a case study in kuwait finance house. *International journal of islamic financial services,* Volume 3.
[33]. Parasuraman, A., Zeithaml, V. & Berry, L., 1985. A conceptual model of service quality and its implications for future research. *Journal of Marketing,* Volume 49, pp. 41-50.
[34]. Parasuraman, A., Zeithaml, V. & Berry, L., 1988. SERVQUAL- A multiple- item scale for measuring A consumer perception of service quality. *Journal of retailing,* Volume 64, pp. 12-40.
[35]. Peter, K., 2014. SERVICE QUALITY AND CUSTOMER LOYALTY AMONG SUPERMARKETS. *Unpublished research project, University of Nairobi.*
[36]. Rahman, M., 2015. Customer Satisfaction and Loyalty in Retailing - Empirical Investigation in Malaysian Hypermarkets. *Lambert Academic Publishing.*
[37]. Rosenberg, L. & Czepiel, J., 1984. Amarketing approach for customer retention. *Journal of Consumer marketing,* pp. 45-51.
[38]. Sivapalan, A. & Jebarajakirthy, C., 2017. An application of retailing service quality practices influencing customer loyalty toward retailers. *Marketing Intelligence and Planning,* 35(7), pp. 842-857.
[39]. Sivathaasan, N., Ushantha, R. & Achchuthan, S., 2014. Dimensions of supermarket service quality: A Sri Lankan perspective. *Asian Journal of Empirical Research,,* 4(7), pp. 381-396.
[40]. Spreng, R. & Mackoy, R., 1996. An empirical examination of a model of perceived service quality and satisfaction. *Journal of Retailing,* 72(2), pp. 201-14.
[41]. TOILI, R., 2017. PERCEIVED SERVICE QUALITY AND CUSTOMER SATISFACTION. *University of Nairobi Research Archive.*
[42]. Ueltschy, I. et al., 2009. Is there really an Asian connection? professional service quality perceptions and customer satisfaction. *Journal of Business Research ,* Volume 62.
[43]. Weerasiri, R., 2015. A Study on Service Quality and Customer Satisfaction of Supermarkets in Sri Lanka. *Sri Lanka Journal of Marketing,* Volume 01, pp. 36-46.
[44]. Wong, A. & Sohal, A., 2003. Service quality and customer loyalty perspectives on two levels of retail relationship. *Journal of Service Marketing,* 17(5), pp. 295-513.
[45]. Woodside, A., Frey, L. & Daly, R., 1989. Linking service quality, customer satisfaction, and abehavioral intention. *Journal of health and care marketing,* Volume 9, pp. 5-17.
[46]. Yamu.lk, 2014. *customer reviews keels super.* [Online] Available at: www.yamu.lk/plae/crescat-keels-super/review-21523#[Accessed 18 03 2019].
[47]. Yi, Y. & Jeon, H., 2003. Effects of Loyalty Programs on Value Perception, Program Loyalty, and Brand Loyalty. *Journal of the Academy of Marketing Science,* Volume 31, pp. 230-240.