# **An Empirical Investigation on Retail Service Quality and Its Impact on Customer Loyalty in the Supermarkets in Jaffna District, Sri Lanka.**

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**Abstract**

Over the past year there were no unique model to measure Retail Service Quality (RSQ) with related to Customer loyalty (CL). Therefore, This Study presents a new model of RSQ & CL and examines the impact of retail service quality on customer loyalty. Causal research approach under the conclusive research design was used in this study by the quantitative way to find out the influence of Retail service quality on customer loyalty. This empirical study indicated that, Retail service quality contributes significantly to Customer loyalty (F= 68.194; P < 0.05) and predicts 48.2 percent of the variation found. Further, Problem Solving, Personal Interaction and Policy contribute significantly to customer loyalty. This may probably be the first study that explores the impact of retail service quality on customer loyalty, using the most recent data set of Jaffna.

***Key words:*** Customer Loyalty, Retail Service Quality, Supermarkets

# **1. Introduction**

The concept of Retail Service Quality (RSQ) is viewed as one of the most interesting and most discussed concepts in the retail service marketing paradigm. Therefore, numerous studies have been investigating the influence of retail service quality on customer loyalty. While, in developed countries more consideration has been given on retail service quality ([Amorim & Saghezchi, 2015](#_ENREF_2); [Du Plooy, De Jager, & Van Zyl, 2012](#_ENREF_18); [Siu & Tak-Hing Cheung, 2001](#_ENREF_50); [Yuen & Chan, 2010](#_ENREF_63)). The concept of loyalty has evolved a crucial construct in marketing paradigm over the past decade, and particularly in the growing field of customer relationship management ([Armstrong, Kotler, Harker, & Brennan, 2015](#_ENREF_3); [Ball, Simões Coelho, & Machás, 2004](#_ENREF_6); [Söderlund, 2006](#_ENREF_55)) (Ball et al., 2004; Soderlund, 2006). However, the studies relevant to these topics are rarely examined in emerging country like Sri Lanka.

The retail environment is changing very rapidly and the customers also have more concern with retail service and product quality ([Yuen & Chan, 2010](#_ENREF_63)), thus it effect on customer loyalty. Therefore, the retail firms are willing to improve the quality and services with the aim of creating more loyal among customers ([Bowen & Chen McCain, 2015](#_ENREF_10)). As stated by [Gopalan and Satpathy (2013)](#_ENREF_21), delivering of high retail service quality is considered a basic retailing strategy for creating competitive advantage in this retail industry. Besides, a consensus has emerged that customer loyalty is vital to service business performance. Because, a loyal customer base generate a positive word-of-mouth, that enhance the sales, cash flow and profit with defecting their competitors ([Ho et al., 2009](#_ENREF_29)). At this end, enhancing the retail service quality is perceived as the best strategic tool to generate customers loyal to the retail outlets ([Dabholkar, Thorpe, & Rentz, 1996](#_ENREF_14); [Ivanauskiene & Volungenaite, 2014](#_ENREF_31); [Peker et al., 2017](#_ENREF_45); [Sivapalan & Jebarajakirthy, 2017](#_ENREF_52); [Wong & Sohal, 2003](#_ENREF_62)).

However, scant research has investigated the influences of retail service quality on customer loyalty particularly in the post war context. In order to fill this gap, this study intended to make a significant contribution to the field of retail service quality and customer loyalty in Sri Lankan perspective. After the civil war, the northern part of Sri Lanka, especially Jaffna has been given top-priority with essential infrastructure facilities to restore economic status. Thus, this study purely focuses on customers, who approach supermarkets only. Recently, Cargills food city, TCT Trade center and Annai Naaga food city are the well-established super markets in Jaffna town. Thus the aim of this study is threefold: first is to investigate the impact retail service quality on customer loyalty. Second is to identify the significant impact of sub dimensions of the retail service quality (physical aspect, reliability, personal interaction, problem solving & policy) on customer loyalty. Finally to suggest the retail super markets to frame the marketing strategies which will enhance the retail service quality and customer loyalty in the developing country like Sri Lanka.

# **2. Literature review and Hypothesis development**

# ***2.1 Retail Service Quality (RSQ)***

SERVQUAL and SERVPERF have been empirically tested in a number of studies involving “pure” service setting, it has not been successfully adapted to and validated in a retail store environment ([Dabholkar et al., 1996](#_ENREF_14); [Feinberg, 1995](#_ENREF_19); [Finn, 1991](#_ENREF_20); [Ivanauskiene & Volungenaite, 2014](#_ENREF_31); [Mehta, Lalwani, & Li Han, 2000](#_ENREF_40)). Because, service quality in retailing is different from any other product/service environment ([Bishop Gagliano & Hathcote, 1994](#_ENREF_8); [Carman, 1990](#_ENREF_11); [Dabholkar et al., 1996](#_ENREF_14); [Finn, 1991](#_ENREF_20)), it is a mix of product and service, retailer are likely to have impact on service quality more than on product quality ([Dabholkar et al., 1996](#_ENREF_14)). For this purpose, [Dabholkar et al. (1996)](#_ENREF_14) developed the Retail Service Quality Scale (RSQS) for measuring retail service quality. Marketing scholars suggest, concept of retail service quality scale might be an appropriate measure in the service quality perceptions of supermarkets ([Finn, 1991](#_ENREF_20); [Mehta et al., 2000](#_ENREF_40); [Sin & Cheung, 2002](#_ENREF_48); [Thenmozhi & Dhanapal, 2011](#_ENREF_58); [Wong & Sohal, 2003](#_ENREF_62)). Further this concept might be used as a basic retailing strategy for enhancing customer value, satisfaction, retention and loyalty relating to retail stores ([Arun, Manjunath, & Shivashankar, 2012](#_ENREF_4); [Demirci-Orel & Kara, 2015](#_ENREF_15); [Ha, Minh, Anh, & Matsui, 2015](#_ENREF_23); [Sivapalan & Jebarajakirthy, 2017](#_ENREF_52); [Ushantha, Wijeratne, & Achchuthan, 2014](#_ENREF_59)). Therefore, present study evaluates the applicability of the RSQS scale developed by [Dabholkar et al. (1996)](#_ENREF_14) for measuring retail service quality in Jaffna specially in supermarket context.

# ***2.2 Customer Loyalty***

Consumer loyalty is considered as a pivotal to organizational success and long term sustainability ([Divett, Crittenden, & Henderson, 2003](#_ENREF_17)). The concept of customer loyalty has been largely treated by researchers as either repurchase behavior ([Loveman, 1998](#_ENREF_39); [Molinari, Abratt, & Dion, 2008](#_ENREF_41); [Rust, Zahorik, & Keiningham, 1995](#_ENREF_46); [Söderlund, 1998](#_ENREF_54)), or repurchase behavior combined with an attitudinal component ([Dick & Basu, 1994](#_ENREF_16); [Divett et al., 2003](#_ENREF_17); [Griffin, 1995](#_ENREF_22); [Oliver, 1999](#_ENREF_43); [Wallin Andreassen & Lindestad, 1998](#_ENREF_61)). From the behavioral, or re-purchase perspective, loyalty consisted of repeated purchases of particular products, whereas attitudinal perspective loyalty included a degree of dispositional commitment, in terms of some unique value associated with the brand ([Chaudhuri & Holbrook, 2001](#_ENREF_13); [Lin & Wang, 2006](#_ENREF_38)). Thus, customer loyalty here was considered bi-dimensional, including both attitudinal commitment and behavioral re-purchase intention ([Auka, Bosire, & Matern, 2013](#_ENREF_5); [Karjaluoto, Jayawardhena, Pihlström, & Leppäniemi, 2015](#_ENREF_33); [Lin & Wang, 2006](#_ENREF_38); [Oliver, 1999](#_ENREF_43)).

# ***2.3 The influence of retail service quality on customer loyalty***

In the competitive business world, many firms are focusing on their efforts on maintaining a loyal customer base ([Auka et al., 2013](#_ENREF_5); [Siddiqi, 2011](#_ENREF_47)). Therefore, most of the retail sectors established their strategies towards enhancing satisfaction and loyalty of customers through service quality of service ([Levesque & McDougall, 1996](#_ENREF_37); [Sivadas & Baker-Prewitt, 2000](#_ENREF_51)). In support of this view, [Dick and Basu (1994)](#_ENREF_16), [Bloemer, De Ruyter, and Peeters (1998)](#_ENREF_9), and [Siddiqi (2011)](#_ENREF_47) stated that most research has focused on enhancing the service quality of the store for managing customer loyalty. Thus, a better service quality leads to customer loyalty, as it enriches customer trust towards and satisfaction with the retail sector ([Demirci-Orel & Kara, 2015](#_ENREF_15); [Ivanauskiene & Volungenaite, 2014](#_ENREF_31); [Karjaluoto et al., 2015](#_ENREF_33); [Yuen & Chan, 2010](#_ENREF_63)). In line with above fact, retail service quality might is been found to have a direct effect on customer loyalty. As a consequence, we formulate the following hypothesis:

***H1***: There is a significant impact of retail service quality on customer Loyalty

Moreover, [Dabholkar et al. (1996)](#_ENREF_14) acknowledged five basic dimensions as physical aspect, reliability, personal interaction, problem solving and policy to evaluate retail service quality. Thus, the retail service quality is the result of an aggregated assessment of dimensions.

The detail explanations of the dimensions are:

***Physical aspects*** – includes functional elements like layout, comfort and privacy and also aesthetic elements such as the architecture, color, materials and style of the store.

***Reliability*** – a combination of keeping promises and performing services right.

***Personal interaction*** – the service personnel being courteous, helpful, inspiring confidence and trust in customers.

***Problem solving*** – the handling of returns and exchanges as well as complaints.

***Policy*** – a set of strategies, procedures and guiding principles which the store operates under such rules as high quality merchandise, convenient operating hours, availability of parking spaces and payment options.

The influence of sub dimensions of the retail service quality on customer loyalty have been demonstrated by several previous studies. ([Arun et al., 2012](#_ENREF_4); [Beneke, Hayworth, Hobson, & Mia, 2012](#_ENREF_7); [Ha et al., 2015](#_ENREF_23); [S. Kim & Jin, 2002](#_ENREF_35); [Kitapci, Taylan Dortyol, Yaman, & Gulmez, 2013](#_ENREF_36); [Sivapalan & Jebarajakirthy, 2017](#_ENREF_52); [Sivathaasan, Chanaka, & Achchuthan, 2014](#_ENREF_53); [Wong & Sohal, 2003](#_ENREF_62)). The foregoing discussion indicates a strong linkage between dimensions of retail service quality and customer loyalty to retail outlets. Thus, in this study, the role dimension of retail service quality is expected to have positive and significant influence on customer loyalty. Therefore, the following hypotheses are formulated:

***H1a***: There is a significant impact of physical aspects in the retail service quality on customer loyalty

***H1b***: There is a significant impact of reliability in the retail service quality on customer loyalty

***H1c***: There is a significant impact of personal interaction in the retail service quality on customer loyalty

***H1d***: There is a significant impact of problem solving in the retail service quality on customer loyalty

***H1e***: There is a significant impact of policy in retail service quality on customer loyalty

# ***2.4 Conceptual Framework***

The aforementioned hypothesized relationships are depicted in Figure 1 and 2.

Physical Aspect

Reliability

H1

Personal Interaction

Problem Solving

Physical Aspect

Customer

Loyalty

Retail Service

Quality

Figure 1: Conceptual Model I

Customer

Loyalty

Personal Interaction

Reliability

Physical Aspect

Policy

Problem Solving

H1a

H1b

H1c

H1d

H1e

Figure 2: Conceptual Model II

# **3. Methodology**

# ***3.1 The Study Sample & Survey implementation***

Causal research approach under the conclusive research design was used in this study by the quantitative way to find out the influence of Retail service quality on customer loyalty. The population of the study is the consumers of supermarkets in the Jaffna. The most leading three supermarket brands in Jaffna were selected for the study, [which are Thiyahie Charitable Trust (TCT) Trade Center, Annai Naga Food City (ANFC) and](https://www.google.lk/url?sa=t&rct=j&q=&esrc=s&source=web&cd=5&ved=0ahUKEwi38MKWoM7WAhVCOI8KHWcaBMwQFghBMAQ&url=https%3A%2F%2Fwww.facebook.com%2FThiyahieCharitableTrust%2F&usg=AOvVaw1zO_b-KYydIZ56FJiwcXuk) Cargills supermarket outlets in Jaffna. Systematic quasi-random sampling method was used to select the respondents of the study. This sampling method was chosen because it permits analysis of possible selection bias or error ([Oly Ndubisi, 2007](#_ENREF_44)). A survey was used to collect the data from the sample customers. Participants were the customers of above 3 leading supermarkets operating in Jaffna, Sri Lanka. Participants were approached within the premises of supermarkets. They received information about the purpose of the survey, and they were assured of their anonymity. Paper-based surveys were distributed to 500 customers. Of these, 427 customers responded to the surveys and returned them. Of these, 54 surveys had missing data, and so were discarded. Table I, presents the demographic profiles of the respondents.

# ***3.2 Measures and instrument development***

Self-administered questionnaire was used to collect the data. This survey instrument has previously validated scales, however, these scales were modified to suit the retailing and supermarket context, where appropriate. The scales of RSQ included 30 items under the five dimensions. These five dimensions of RSQ – physical aspect, reliability, personal interaction, problem solving and policy were measured by 6, 6, 10, 3 and 5 items, respectively. Of this 30 items, 28 items were adopted from [Dabholkar et al. (1996)](#_ENREF_14) and two from [Verma and Duggal (2015)](#_ENREF_60). The measures of customer loyalty comprise 10 items under attitudinal loyalty, behavioural loyalty, recommendation behaviours and price loyalty (2both attitudinal and behavioral aspects. This loyalty measures were adapted from ([H. Kim & Niehm, 2009](#_ENREF_34)). The items operationalizing all the constructs were measured with seven-point Likert type scale ranging from 1 for “Strongly disagree” to 7 for “Strongly agree”.

To ensure content validity, the survey instrument was vetted by four academics who are experts in marketing and consultancy and three store managers from each brand of supermarket chains. The survey instrument, originally written in English, was translated into Tamil, the respondents’ first language. The survey instrument was translated back into English and was cross-checked by two other bilingual researchers to ensure the reliability and validity of translation. The respondents had the option of responding to either the English or Tamil language survey based on their language proficiency.

Table I: Demographic profile of the respondents

|  |  |  |
| --- | --- | --- |
| Category | *n* | *%* |
| *Name of the supermarket* |  |  |
| TCT Trade Centre | 84 | 22.5 |
| Annai Naaga Food City | 40 | 10.7 |
| Cargills Food City | 249 | 66.8 |
| *Gender* |  |  |
| Male | 172 | 46.1 |
| Female | 201 | 53.9 |
| *Age* |  |  |
| Below 17 | 2 | 0.5 |
| 18 – 30 | 257 | 68.9 |
| 31 – 40 | 75 | 20.1 |
| 41 – 50 | 24 | 6.4 |
| 51 and Above | 15 | 4.0 |
| *Educational Qualification* |  |  |
| GCE (O/L)s and Below | 20 | 5.4 |
| GCE (A/L)s | 159 | 42.6 |
| Graduate | 99 | 26.5 |
| Post Graduate | 31 | 8.3 |
| Professionals | 24 | 6.4 |
| Other | 40 | 10.7 |
| *Occupation* |  |  |
| Government | 136 | 36.5 |
| Private | 118 | 31.6 |
| Business | 22 | 5.9 |
| Self-employed | 15 | 4.0 |
| Other | 82 | 22.0 |
| *Monthly income of household* |  |  |
| Below LKR. 25,000 | 126 | 33.8 |
| LKR. 25,000 to LKR. 50,000 | 159 | 42.6 |
| LKR. 50,000 to LKR. 75,000 | 58 | 15.5 |
| LKR. 75,000 to LKR. 100,000 | 16 | 4.3 |
| Above LKR. 100,000 | 14 | 3.8 |
| Note: *n*= 373 |  |  |

Further, before the researcher finalized the research instrument, researcher conducted the pilot study to reduce the language biasness. In the pilot study, nine questionnaires were issued to final year management students, Faculty of Management Studies and Commerce, University of Jaffna and seven questionnaires were issued to the customers of the supermarket. During the pilot study, some inconvenience words to the respondents were changed by the researcher with the help of the respondents of the pilot study. Furthermore Pearson Correlation analysis and Multiple Regression analysis were conducted as a data analysis technique and the data analysis for this study conducted through Statistical Package for Social Science (SPSS) version 23.0 was used to analyze the data.

# ***3.3 Research model***

Quantitative study has been focused to answerer the research question as what extent, retail service quality influences on the customer satisfaction. In which, retail service quality is viewed as an independent variable and customer satisfaction is considered as the dependent variable. In line with above fact, researcher developed the following model for this study.

**CL = βo + β1 PA+ β2 RE + β3 PI + β4 PS+ β5 PO + εi**

**Where:**

|  |  |
| --- | --- |
| **CL =** Dependent Variable **(**Customer Loyalty) | **PI =** Independent variable (Personal Interaction) |
| **Β0 =** Intercept | **PS =** Independent variable (Problem Solving) |
| **β1, β2, β3, β4, & β5 =** Population slope | **PO =** Independent variable (Policy) |
| **PA =** Independent variable (Physical Aspects) | **εi** = Random Error |
| **RE =** Independent variable **(**Reliability) |  |

# **4. Analysis and Result**

# ***4.1 Test of Reliability and Validity***

The first step in this analysis part is to examine the measures’ reliability and validity according to certain criteria. The reliability analysis tool will be used to determine the “goodness” of collected data ([Joe F Hair, Ringle, & Sarstedt, 2011](#_ENREF_26)). According to [Oly Ndubisi (2007)](#_ENREF_44), the internal consistency of the research instrument should be tested by reliability analysis and the Cronbach’s alpha is considered an adequate measure of internal consistency. [Nunnally and Bernstein (1994)](#_ENREF_42), proposed a criterion of 0.70-0.90 as a measure of good internal consistency. The respective Cronbach Alphas are reflected in Table II.

The Table II, has revealed, that the internal reliability of each construct has ranged from 0.853 to 0.884. Physical Aspect had the highest alpha coefficient (0.884) while Personal interaction had the lowest alpha coefficient (0.853). Therefore, the Cronbach’s Alpha in this study was much with the range of 0.7 to 0.9, it indicates the good internal consistency among the items within each dimension and each variable. Further, the overall Cronbach alpha value was 0.888 which indicates a very high correlations among the items in the scale.

Table II: Convergence Validity and Reliability Analysis

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
|  | | | Convergence Validity | | | Reliability |
| Variable | KMO  Statistics | Bartlett’s Test Statistics  (p-value) | AVE  (To be >0.5) | Min Loading | Max Loading | Cronbach’s Alpha  (to be >0.7) |
| Physical Aspect | 0.829 | 546.029 (<0.001) | 0.6156 | 0.588 | 0.767 | 0.884 |
| Reliability | 0.839 | 639.167 (<0.001) | 0.5191 | 0.699 | 0.752 | 0.857 |
| Personal Interaction | 0.936 | 1820.952 (<0.001) | 0.5462 | 0.582 | 0.854 | 0.853 |
| Problem Solving | 0.683 | 470.095  (<0.001) | 0.7533 | 0.826 | 0.913 | 0.872 |
| Policy | 0.787 | 341.630  (<0.001) | 0.5643 | 0.632 | 0.765 | 0.870 |
| Customer Loyalty | 0.864 | 1852.333  (<0.001) | 0.6311 | 0.568 | 0.826 | 0.872 |

Besides, Validity test is use to accurately assess the construct for this research study. Meanwhile, convergent validity and discriminant validity were used to establish construct validity. According to [Heppner and Heppner (2004)](#_ENREF_28), if the two instruments that are intended to measure is highly correlated then it is convergent validity but if the two instruments that are intended to measure is not correlated or small correlation then it is discriminant validity. The table II, shows the Kaiser-Meyer-Olkin measure of sampling adequacy and Bartlett's test of sphericity. ([Kaiser (1974)](#_ENREF_32)), recommends that, the acceptable value is greater than 0.5 (values below this should lead you to either collect more data or rethink which variables to include). Furthermore, values between 0.5 and 0.7 are mediocre, values between 0.7 and 0.8 are good, values between 0.8 and 0.9 are great and values above 0.9 are superb ([Hutcheson & Sofroniou, 1999](#_ENREF_30)).

Thus the statistical result proved, the value of Kaiser-Meyer-Olkin (KMO) of all the variable above 0.5 and the statistical test for Barlett test of sphericity was significant (P=0.000) for all the correlations within a correlation matrix and the Average Variance Extracted (AVE) values of all the constructs were also above 0.5, thus in line with [J.F. Hair and Anderson (2010)](#_ENREF_24), both of which are indicative of the convergent validity of measures.

# ***4.2 Descriptive statistics and Correlation Analysis***

Table III, presents the mean, standard deviation and correlations for the study constructs. According to this table, physical aspect has the highest mean of 6.2904 whereas problem solving has the lowest mean of 5.9312. Even though mean & standard deviation are in the same level among all the constructs approximately. Base on the mean value all the respondents perceived the retail service quality and customer loyalty favorable. Moreover, Skewness and kurtosis values of a data distribution are widely applied to determine normality of a dataset. In this method, normality of a data distribution is assumed, if statistical values of skewness or kurtosis are within the value ± 2.56 ([Hair Jr, Black, Babin, Anderson, & Tatham, 2010](#_ENREF_27); [Tabachnick & Fidell, 2007](#_ENREF_56)). Therefore Skewness and kurtosis values of each construct are an additional evidence of normal distribution and we can come to the conclusion that the data among all the constructs are normally distributed.

Table III: Descriptive statistics and correlation matrix for study variables.

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| |  | | --- | | ***Construct*** | | |  | | --- | | ***M*** | | |  | | --- | | ***SD*** | | |  | | --- | | ***SKE*** | | |  | | --- | | ***KUR*** | | 1 | 2 | 3 | 4 | 5 | 6 | 7 |
| 1. Physical Aspect | 6.29 | 0.57 | -0.90 | 1.47 | 1 |  |  |  |  |  |  |
| 2. Reliability | 6.10 | 0.67 | -0.85 | 0.85 | .673\*\* | 1 |  |  |  |  |  |
| 3. Personal  Interaction | 6.19 | 0.67 | -1.07 | 1.65 | .552\*\* | .734\*\* | 1 |  |  |  |  |
| 4. Problem Solving | 5.93 | 0.97 | -1.42 | 2.16 | .427\*\* | .617\*\* | .701\*\* | 1 |  |  |  |
| 5. Policy | 6.22 | 0.69 | -1.39 | 2.48 | .488\*\* | .605\*\* | .613\*\* | .581\*\* | 1 |  |  |
| 6. Retail Service  Quality | 6.14 | 0.59 | -0.94 | 0.92 | .727\*\* | .868\*\* | .874\*\* | .845\*\* | .796\*\* | 1 |  |
| 7. Customer  Loyalty | 5.90 | 0.80 | -0.88 | 1.14 | **.434\*\*** | **.566\*\*** | **.625\*\*** | **.615\*\*** | **.553\*\*** | **.685\*\*** | **1** |
| *Note:* \*\*. Correlation is significant at the 0.01 level (2-tailed). | | | | | | | | | | | |
| |  |  |  | | --- | --- | --- | | *M= Mean, SD= Std. Deviation,* | *SKE= Skewness and* | *KUR= Kurtosis* | | | | | | | | | | | | |

According to the Table III, retail service quality is positively associated with customer loyalty, moreover moderate positive association has been found that r= 0.685 which is also significant at 0.01 level (P < 0.05). Next, it was followed by Personal Interaction with r= 0.625, Problem Solving with r= 0.615, Reliability with r= 0.566 and Policy with r= 0.553. All correlations were significant at 0.01 levels and had the moderate positive relationship with customer loyalty. Meanwhile Physical Aspect is positively associated with customer loyalty, in addition weak positive relationship has been established that r= 0.434 which is also significant at 0.01 level. Thus, the result has shown that there is a significant positive relationship between independent variables (retail service quality and its sub dimensions as physical aspect, reliability personal interaction, problem solving and policy), and dependent variable (customer loyalty).

# ***4.3 Test of Multi-Collinearity***

Generally, Tolerance test and Variance Inflation Factor (VIF), are the two major methods used in order to determine the presence of multi-collinearity among independent variables ([Ahsan, Abdullah, Fie, & Alam, 2009](#_ENREF_1)). The maximum acceptable VIF value would be less than 5.0, thus if VIF value higher than 5.0 would indicate a problem with multicollinearity ([Joseph F Hair, Celsi, Ortinau, & Bush, 2008](#_ENREF_25)).

Table: IV: Test of Collinearity

|  |  |  |
| --- | --- | --- |
| *Construct* | Collinearity Statistics | |
| ***Tolerance*** | ***VIF*** |
| Physical Aspect | 0.531 | 1.882 |
| Reliability | 0.333 | 2.999 |
| Personal Interaction | 0.346 | 2.893 |
| Problem Solving | 0.460 | 2.174 |
| Policy | 0.536 | 1.866 |

Base on the output of the Table IV, VIF values are perfectly below 5. It can be seen clearly that VIF range between 1.866 and 2.999 values which are well-below five. On the other hand the tolerance values range between 0.333 and 0.536 which are above 0.2, which indicates that there is no evidence of multicollinearity problem in the regression model.

# ***4.4 Multiple Regression Analysis***

The purpose of regression analysis is to find out the significant impact or influence of independent variable on dependent variable ([Oly Ndubisi, 2007](#_ENREF_44)).In this study, Retail service quality is considered as independent variable or predictor variable, and the Customer loyalty is considered as dependent variable.

In terms of the Multiple Regression analysis, researcher can come to the conclusion that the predictor power of the customer loyalty is in the moderate level. The results of the regression analysis summarized in above tables show that Retail Service Quality contributes significantly to customer loyalty (F= 68.194; P < 0.05) and predicts 48.2 percent of the variation has been found, therefore our major hypotheses H1 was accepted. Further, beta value between customer loyalty and other predictor variables as personal interaction, problem Solving, and Policy is 0.237, 0.275 and 0.172 respectively. These are in significant at 0.05 levels (P < 0.05), thus the hypotheses H1c, H1d, and H1e were accepted. Whilst, the beta value between customer loyalty and physical aspect is 0.041 and customer loyalty and reliability is 0.091. These are not within the significant level. The P values of these dimensions are greater than the 0.05 levels (P > 0.05), hence the hypotheses H1a, and H1b were not supported. Additionally, Durbin-Watson test shows that value 1.727, which is between the acceptable limit which shows that there were no auto correlation problems in the data used in this research.

Table V: Regression Analysis and Hypotheses Testing

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| *Construct* | *Coefficients*  *(β)* | *t-value* | *Sig.* | *Conclusion* |
| (Constant) | 0.577 | 1.603 | 0.110 |  |
| Physical Aspect | 0.041 | 0.789 | 0.431ns | H1a: Not Accepted |
| Reliability | 0.091 | 1.404 | 0.161ns | H1b: Not Accepted |
| Personal Interaction | 0.237 | 3.702 | 0.000\*\*\* | H1c: Accepted |
| Problem Solving | 0.275 | 4.964 | 0.000\*\*\* | H1d: Accepted |
| Policy | 0.172 | 3.357 | 0.001\*\*\* | H1e: Accepted |
|  |  |  |  |  |
| R = 0.694 |  |  |  |  |
| R2 = 0.482 |  |  |  |  |
| Adjusted R2 = 0.475 |  |  |  |  |
| Durbin-Watson = 1.727 |  |  |  |  |
| F value = 68.194 |  |  |  |  |
| Sig. F = 0.000 |  |  |  |  |

Notes: \*\*\* p < 0.001; \*\* p < 0.01; \* p < 0.05; ns = not significant

The overall regression model of this study is explaining via a following equation:

***Customer Loyalty*** = 0.577 + 0.056 β1 (Physical Aspect) + 0.108 β2 (Reliability) + 0.280 β3

(Personal Interaction) + 0.227 β4 (Problem Solving) + 0.197 β5 (Policy)

# ***5. Discussion and conclusion***

The main purpose of this research study is to empirically investigate the influence of retail service quality and its sub-dimensions on customer loyalty in Jaffna district, Sri Lanka. The results of analysis showed, that retail service quality contributes significantly to customer loyalty with are indicated significant at 0.05 levels (F= 68.194; P < 0.05). This finding indicates that maintaining higher level of retail service quality in supermarkets enhances customer loyalty. In other words, customers’ favorable assessment about the retailer’s service quality provisions encourages the customers to stay longer with supermarkets. This finding is consistent with the literature ([Demirci-Orel & Kara, 2015](#_ENREF_15); [Dick & Basu, 1994](#_ENREF_16); [Oliver, 1999](#_ENREF_43); [Singh, 2012](#_ENREF_49); [Thenmozhi, 2014](#_ENREF_57); [Ushantha et al., 2014](#_ENREF_59); [Wong & Sohal, 2003](#_ENREF_62); [Yuen & Chan, 2010](#_ENREF_63)).

This study also investigate the influence of the dimensions of retail service quality on customer loyalty to supermarkets. Of the dimensions, three dimensions, namely personal interaction (β = 0.280, p < 0.05), problem solving (β = 0.227, p < 0.05), and Policy (β = 0.197, p < 0.05), were significant positive effect to customer loyalty to supermarkets. Further, personal interaction has the strongest power to predict customer loyalty, which ensure the staff of the supermarkets perform better or give more personal attention to customers. Thus, it encourage the chance of repurchasing. Problem Solving of retail service quality were another influential factors that affected customer loyalty. Once customers need help, it means that they cannot solve the problems themselves and need professional staff to tackle the problem. When professional staff can help them to solve a problem, they are satisfied and are more likely to spread positive word-of-mouth. In addition, in this study, it is revealed policy impact on customer loyalty in the supermarkets. Thus the study proved, customers have positive opinion about high quality merchandise and convenient services which are provided by supermarkets. This empirical evidence has provided significant support for the e-banking literature ([Beneke et al., 2012](#_ENREF_7); [Ivanauskiene & Volungenaite, 2014](#_ENREF_31); [Kitapci et al., 2013](#_ENREF_36); [Ushantha et al., 2014](#_ENREF_59); [Yuen & Chan, 2010](#_ENREF_63)).

In contrast, this study revealed that, customer loyalty was not statistically influenced by personal interaction (β = 0.056, p > 0.05) to supermarkets. This is possible because in the supermarket context, generally has a good physical layout and facilities, i.e. which has modern and fashionable equipment and fixtures, that makes it easy for customers to find what the need. Therefore customers perceive that, supermarket might be clean, attractive and located in convenient public areas, which normal course of business in the supermarkets. In this end, reliability (β = 0.091, p > 0.05) in the retail service quality was not significant in predicting customer loyalty. This ensures that, the selected supermarkets have the ability to deliver the services promised to customers accurately and without any error. Thus, this not so impressive incentive on customer loyalty. As a result, supermarkets have to better focus beyond their reliability to ensure customers are loyal to their store outlets.

# **5.1 Recommendations**

This present study proved that, customer loyalty to supermarket was affected by the retail services quality. Based on that fact, researchers developed recommendations to the managers of supermarkets, customers, employees of supermarkets, and government policy makers.

# ***Practical recommendations to supermarket managers***

Based on the study findings researchers recommend the suggestions to supermarket managers in Jaffna through the dimensions of retail service quality scale, as physical aspect, reliability, personal interaction, problem solving and policy, which might influence in customer loyalty. So in which researchers can make the following recommendations to enhance the retail service quality of the supermarkets.

Enhance the physical appearance of salespeople through providing comprehensive personal empowerment programmes (i.e. Soft skill & hard skill developments, personality developments, arrange motivation & awareness training campaigns and ethical behaviour training programs in a continuous manner). Supermarkets should keep a pay standard, to the sales people. If needed can have different grading/categories in sales people with difference in payments. This leads to minimize the pay discrimination to maintain the moral of the sales people, which in turn improve their enthusiasm in their day-to-day life. Organize and celebrate an ‘*Employee Day/Week*’, which include cultural programs, entertainments, competitions, etc. Loyal customers affect the profitability of the supermarkets. So should enhance the loyal customers for their survival. For example, introducing effective loyalty card system, providing conducive parking facilities with the assistance of a security officer, organize & celebrate *the ‘Members Day’*with dinner and some entertainments, like cultural programs, kids programs, entertainments, competitions, etc., in this customers might get a change to interact with high officials of the supermarket. Further, in order to reduce the waiting time in queues, increase the number of counters and promote express counters, for less number of items buying customers. Provide enough internal space to move around the supermarkets. Create a pleasant welcoming environment and maintain high degree of cleanliness at all time. Example washrooms, lobby, etc.

# ***Practical recommendations to supermarket employees***

Besides, researchers would like to give some recommendations to the employees of the supermarkets in order to improve the service quality. Returns of the supermarkets also depend on employees of the salespeople, thus they work hard with full of commitment. Therefore, they always be vigilant, fully aware the supermarket structure and have the adequate knowledge about the products. So it is the responsibility of the employees to participate, when the supermarket conducting a training programs. Further, employees should maintain ethical behavior with the customers and co-workers. For example, avoid close behavior with opposite sex people, touching etc., and wearing the uniform, name batch/cord number etc., that provides the identity about the employee of the supermarket to the customers.

# ***Practical recommendations to supermarket customers***

Customers of the supermarkets should obey the rules and regulations, which are written and followed in the supermarket premises. They have to maintain decency in and around the supermarket premises and the do not make any public nuisance inside the supermarket; for example, do not block the moving passage, talking loudly, etc.

# ***Practical recommendations to the government policy markers***

According to Central Bank of Sri Lanka ([CBSL, 2016](#_ENREF_12)), service sector is the largest sector in Sri Lanka, which contributes 56.5% to the total GDP in 2016. Where, financial services, transportation activities and wholesale and retail trade contributed the most to services sector growth. In addition, the growth in wholesale and retail trade contributed positively towards expansion in Services activities. Thus, the government of Sri Lanka makes some positive attitude towards the wholesale& retail sector. For example, provide special allowances for supermarket operations, grant Subsidy to reduce the prices of the good and services to help to reduce the cost of living and provide tax free/concessions, especially on imports goods.

# **5.2 Limitations of the study**

There are some limitations have been identified and important to be pointed out in order for the researcher to learn and acknowledge. The geographic bias also contributes as a limitation to the research. Researchers only distribute survey question to Jaffna district in Sri Lanka. Every district in Sri Lanka has own different culture. So, respondent may have different attitude toward retail service quality on customer loyalty among the districts in Sri Lanka. In addition, researches just focus on the customers’ of selected supermarkets, which are Cargills food city, TCT Trade center and Annai Naaga food city. This studies could not consider the consumers of other small and medium supermarket outlets, if did so which lead to more sound and comprehensive findings. However, our study providing new evidence in customer loyalty due to the influence of retail service quality in Jaffna, Sri Lanka.

# **5.3 Directions for future research**

Researcher can recommend the future researcher to use this model, which is original and unique construct the concept on retail service quality and customer loyalty, which is in the porosity level among the recent empirical world in the globalization level. Additionally, we recommend the potential researcher to focus on retail service quality and customer loyalty in all island level and as well as the south Asian continent to come the general conclusion on in what extend retail service quality influence on customer loyalty. Furthermore, we can suggest the researchers, in the statistical point of view to conduct the factor analysis to explore the factors, which are influencing on customer loyalty beyond retail service quality. Because only we found 48% variance influence on customer loyalty via retail service quality. Due to the 52% of the influence should be found through exploratory factor analysis, which might be the better pathway to construct the customer loyalty in better way. In addition, as the data of this study were collected from customers of a specific sector of the retail industry, so conduct a study on service retail industries like electronic equipment, furniture retailer, hotel, banking sector, etc. Moreover, researchers can examine the influence of mediator (i.e. customer satisfaction) and moderator (respondents’ demographical factors) variables, which may create the comprehensive model.

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