# Exploring Factors Influencing Customer Loyalty: An Empirical Study on Malaysian Hypermarkets Perspective

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*Authors' contributions*

*This work was carried out in collaboration between both authors. Authors MKR and MAJ designed the study, wrote the protocol, managed the analyses and literature searches of the study and wrote the first draft of the manuscript. Author MKR designed the algorithms, performed the statistical analysis and managed the literature searches of the study. The authors read and approved the final manuscript.*

## ABSTRACT

**Aims:** The main purpose of this paper is to examine the factors that influencing consumers' loyalty in Malaysian hypermarkets context.
**Study Design:** A total of 292 respondents were selected randomly who purchased products from hypermarkets. Data were examined using descriptive frequency, correlations, principal component and exploratory factor analysis (EFA), confirmatory factor analysis (CFA), measurement model, structural model and hypothesized path coefficient.
**Place and Duration of Study:** Data was collected from Malaysian hypermarkets (Giant, Tesco and Carrefour) in federal territory area in Kuala Lumpur, between February and April 2013.
**Methodology:** A self-administered questionnaire was developed to collect information through random sampling method. The study employs structural equation modeling (SEM) approach using confirmatory factor analysis and test the hypothesized positive correlation between exogenous and endogenous constructs to identify the customers' loyalty.

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**Results:** The result showed that service quality, product quality and price strategy both have positive impact on customer' loyalty. The finding also revealed that price strategy was highly significant with consumers' loyalty in Malaysian hypermarkets context.
**Conclusion:** This research is empirically validated the proposed causal relationship between the independent and dependent variable and it also allowed in testing all the correlations concurrently. The main contribution of this study is that it proposes a way to assess customer loyalty in retail marketing strategic plan that influence consumers to repurchase product in Malaysian hypermarkets. The study has proposed a conceptual hypothesized model that is necessary for further exploration and opens the gate for future research.

## 1. INTRODUCTION

The prominent foreign based retailers are attracting Malaysian consumers in different types of retail outlets of different sizes [1,2,3]. Loyal customers are shopping frequently in their chosen hypermarkets [4,5]. In fact, loyal customers repeat and increase their purchase that helps to increase sales revenue of business organizations [6]. Therefore, customer's loyalty is the feedback of a successful retail marketing strategy in a competitive market that creates value for money for customers. In Malaysia, traditional retail stores are always attracting the low and middle level income consumers. Modern retail formats are attracting the upper and middle income shoppers but at present it is fast changing as improved consumer lifestyles, changing consumer's preferences and changing educational level of population [6]. In 1992, grocery retail sectors were operated by many foreign business firms. Now, Malaysia is attracting other foreign names such as United Kingdom's Tesco, France's Carrefour, and Hong Kong based DFI which operates the Giant hypermarkets. Nowadays, retail sectors and grocery sectors are playing an important role in improving service quality and product assortment [7]. Yuen & Chan [8] posited that customers' demands in the grocery sectors are gradually increasing due to the development of customer service in parallel with product quality and diversity. This is similarly reflected in the retailing industry which plays a vital role to the tremendous growth of the service sector. As such, it is necessary for the retailers to understand the customers' wants and needs to increase the level of their satisfaction and loyalty. Finally, effective satisfaction creates a long term relationship between the sellers and the buyers as well as increasing their loyalty through repeat purchase behavior and attitudes [9], all of which help retailers to increase the market share and profit. The customers' decision on shopping behavior as well as customers' wants and needs are sophisticated and important to the effect that retailers seek to build a stable and long-term relationship with their consumers. Thus, retailers are able to improve the customers' satisfaction that later turns into the customers' loyalty and finally customer retention. Customer database is very important for any firm or business organization as proposed by Mauri [10], that business industries can attain privileged information about the consumers' attributes or needs by using customer relationship database management that can help them improve the customers' satisfaction and loyalty in a competitive market[11,12]. Zairi [81] has compared between new customers and existing or satisfied customers, in which he arrogated that a satisfied and loyal customer is not more valuable than attracting a new consumer. However, a business organization should fully concentrate on existing consumers, because existing customers can lead to satisfaction in which the firm stands to achieve market share and profit by creating the customers' satisfaction and loyalty. In addition, Siddiqi [13] asserted

that a company's market share and profit are motivated by the customers' loyalty as it is a direct outcome of the customers' satisfaction. Customer satisfaction is a direct result of service quality found by Naeem, Akram, Jinnah & Saif [14].

Today, the service sector is becoming more and more important in playing a vital role in the retail marketing strategy. It has a significant relationship with the customers in which it helps to foster the growth of the customers' loyalty. According to Hoq & Amin [15], they proposed that service and product quality were the prerequisite factors of the customers' satisfaction and loyalty in any marketing strategy. Kumar, Kee & Manshor [16] added that higher quality of service would lead to increase higher customers' loyalty. It is to be noted further that the service quality is the most successful factor as it has become more critical in the business activities as the customers becoming more sophisticatedly choosy [17]. Furthermore, in recent century, the service sector has contributed over 70% of new jobs [18] and nearly 60% of annual GDP in the United States of America.

This study reviews the factors that influencing Malaysian hypermarkets customers' loyalty which grounded on extant literature. The methodology part, which follows the literature review, design the study, explains the sampling method and subsequent self-administered questionnaires to respondents. The survey questionnaires by using SEM with data analysis, results and discussion precede the concluding remarks.

## 2. LITERATURE REVIEW

### 2.1 Service Quality

Service quality has different shades of meanings and various concepts in terms of different customers. The study by Lewis & Booms [18], Gronoos [19] and Su [20], "Service quality is defined as how well a consumer's needs are met and how well the service delivered meets the customer's expectations". Consumers' perceived values of services are heavily reliant on the customer expectations and outcomes of the evaluation processes. Service quality has a significant relationship with the customers' satisfaction which directly affects the customers' loyalty. Thus, the retail business firm should focus on these factors to increase the customers' relationship with satisfaction and loyalty in a competitive retail market globally. Service quality is the major tool for changing or developing the retail business paradigm [21]. Customers' evaluations of the service quality are quite difficult to be developed in the retail marketing strategy [22]. A business organization can gain profit and competitive advantages by applying an appropriate service quality [23]. Service quality is capable of helping the business firms to realize their envious position in the retail market place [24]. If product prices and other costs are stable, the customers will invariably prefer the service quality as an extra attraction. So the following hypothesis is verified to test based on the above literature.

> H1: Service quality has a positive impact on customer loyalty in Malaysian hypermarkets context.

### 2.2 Product Quality

A major proportion of consumers have strong feelings on superstores or hypermarkets with product brand equity for shopping of goods and services. Business firms had begun to develop the customers' loyalty by offering good quality products and services.The study

Allaway et al. [25] stated that product quality, service level and assortemnt were the basic requirements for achieving high levels of brand equity. He also mentioned that successful brand equity can successfully arouse commitment, shopping behaviour and the most interesting part is to develop familiarity with a person to person interactive communication. Aliawadi & Keller [26] posited that successful retail branding influenced customers' perceptions and loyalty and even to the extent of choosing their favourite retailer stores frequently for shopping of goods. Brand equity creates customers' equity that emphasizes customers' satisfaction and loyalty [27]. Customers' satisfaction and loyalty improves numerous opportunites for product brand equity and it helps to increase marketing tactics [28]. According to Reichheld [29], Zeithaml, Berry, & Parasuraman [30] and Wright & Sparks [31], they stated that loyal customers were willingly interested to purchse more products and pay the right prices of products and services. Bolten, Kennerknecht, & Spiller [32] posited that the main determinants of customer satisfaction and loyalty are the service and product quality. The study Minguela [33] and Minguela et al. [34] pointed out that product quality is a key component through which retailers or busienss firms can differentiate themselves from their competitors and they can gain competitive business advantages. There are two important parameters which are: product attactiveness and users' experinece of product in terms of brand equity and customers' satisfaction [35]. Three factors are most important for improving the customers' relationship and customers' satisfaction which are, namely, i) the right product, ii) the right time and, iii) the right place [36] who also mentioned that product quality, service and value play important roles to develop the customers' satisfaction and loyalty. Based on this we have proposed the hypothesis below:

H2: Product quality has a significant relationship with customer loyalty in Malaysian hypermarkets.

## 2.3 Price Strategy

Customer reward scheme is important in the customer loyalty program as examined by Demoulina & Zidda [37], where cardholders get a satisfaction with the rewards as they become more loyal and less price sensitive. The promised rewards offered by the business companies are not parts of the company's product but it can be obtained by accumulating points when repeat purchases are made. Price promotion is generally a short term price reduction policy in a particular product and service. According to Yoo, Donthu, & Lee [38], they mentioned that price promotion is a short term price reduction strategy and it may also offer in a long term policy. Price promotion comes from the storage, incidental shopping and brand switching [39]. The effect of price promotion happens with the consumers' short term products or brand choices and during the promotion period it increases price sensitivity of general customers [40]. Thus, we have proposed the following hypothesis:

H3: Price strategy has positive impact on customer loyalty in Malaysian hypermarkets setting.

## 2.4 Customer Loyalty

Customers' loyalty means the customers are committed to buying goods or services at a particular retailer's locations [41]. Retailers think that the customers' loyalty is secured by developing brand strategy and creating emotional attitudes towards the purchase behavior of goods and services through loyalty programs. Customers have individual loyalty concept [42] to specific product, stores and companies [43,44]. Customers' loyalty is defined as

customers are committed, either emotionally or sensibly, to repurchase [45] the preferred goods and services in the particular retailer's market [46] which is also considered as a firm's long term survival goal and objectives. It is not only the basis for developing business plan, but it also becomes sustainable in a competitive marketing strategy [47]. Customer loyalty was held by the consumers who frequently did shopping of goods or services at particular outlets. Consumers' attributes on repeat purchase of goods are generated by the degree of enhancement of the service quality and store attributes in the retail business strategy. Customers' frequent buying intentions towards goods or services from the particular outlets are the key dimensions that produce customers' loyalty in the retail strategy. Reynolds & Arnold's [48] posited that customers' loyalty was drived from shopping behavors and loyalty attitudes which were recognized based on the service quality and product quality [49].

In 1980, customers' loyalty used to evaluate product durability and service quality but it changed dramatically in the late 1980 and in 1990, when several retailers identified the customers' needs and wants. Nowadays, in modern competitive target markets, this concept has been shifted by the companies towards the initial target consumers by producing typical product benefits in order to induce the customers' satisfaction and loyalty. Wang, Chen, & Chu [50] added that "customers' loyalty is the forefront area of global research of marketing theory, especially in the mid 1990s of the 20th century, when the research on customers' loyalty became another hot point after the customers' satisfaction". Customers' loyalty or customers' adherence is not a small dimension, as it is broad and difficult to demonstrate. In fact, it exists in the consumers' conscience and attitudes on particular goods or services. Loyal customers were that customers who had positive behavior to service holders. Getty and Thompson [51] examined that customers' loyalty had a significant relationship with the service quality and customers' satisfaction. Based on past studies of customers' loyalty, it was found that the customers' loyalty had a direct bearing on the consumers' precise purchasing power of products [52,53,54,55], a quantity of shopping goods or services [56], post-purchasing attitude and activities of consumers. Many researchers believe that the customers' preferred degree of purchase behavior and actual purchase behavior can reflect the customers' loyalty [57,58]. Consumers have two types of royalty, such as, behavioral loyalty and emotional loyalty on goods or services. Customers' behavioral royalty is referred to frequent shopping in a particular retailer, and emotional loyalty is referred to the customers' concern towards certain retailer on the basis of past buying experience and attitude.

However, grounded on extant literature review, a conceptual framework was developed and tested employing data information gathered throughout research questionnaire survey covering the actual features of customers' loyalty towards retail marketing strategy in Malaysian hypermarkets perspective (Fig.1).
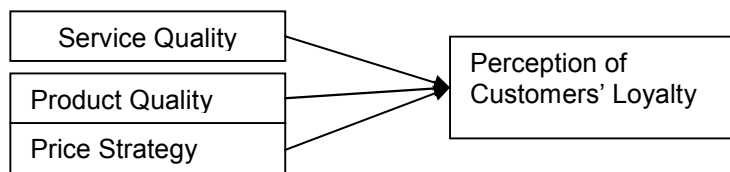


**Fig. 1. Conceptual framework**

## 3. METHODOLOGY

### 3.1 Research Design

Research methodology was grounded on the summary of the systematic investigation, procedure, sample selection and analysis, which were conducted in the research [59]. Since, the main purpose of this study is to investigate the customers' loyalty towards retail marketing strategy in Malaysian hypermarkets context, a self-administered questionnaire was developed to collect respondent's data from the Malaysian hypermarket consumers. The survey questionnaire is consisted with five parts. Primary data was collected by distributing questionnaires. Specially, data was collected from KLCC, Wangsa Maju, Puchong, Putra Jaya and Kota Damansara.

### 3.2 Instrument

Respondents were asked to evaluate the items of different variables such as service quality, product quality, price strategy and customer loyalty in terms of the customers' perceptions based on 5-point scales that ranges from 1 strongly disagree, 2 disagree, 3 slightly agree, 4 agree, and 5 strongly agree.

### 3.3 Pre-test Study

We used a pre-test study with 60 respondents from different Malaysian hypermarket customers. To conduct a pre-test study, we found some mistakes and disarrays. After revising and developing questionnaire, we distributed 350 questionnaires from walk-in consumers and via face to face customers' survey at Malaysian hypermarkets using convenience sampling method, as it is the easiest to conduct with large number of sample sizes [60].

### 3.4 Sample Size

However, a total number of 350 sample sizes, of which 317 questionnaires were received. We found there are some errors or rest incorrectly and incomplete answered questionnaire by respondent. After completed the screening process of the questionnaires, 292 questionnaires were found valid for data analysis, which represented a success rate of 92% (Table 1) that was considered extremely well in view of time, certainty, cost and geographical constraints.

**Table 1. Respondents' response rate**

| Description | Number of respondents |
| --- | --- |
| Sample size | 350 |
| Return questionnaires | 317 |
| Total useable questionnaires | 292 |
| Incomplete or unusable questionnaires | 25 |
| Response rate | 92% |

### 3.5 Statistical Tool

In this study, 21 items were generated from the independent variables (service quality, product quality and price strategy) and dependent variable (Customers' loyalty). Factor

analysis was employed to investigate the customers' loyalty, as it was a meaningful transforming statistical data into linear combination of constructs [61]. The survey research makes use of the fundamental information and Structural Equation Model (SEM) that carried out to investigate the relationship among the constructs which influence the customers' loyalty towards retail marketing strategy in Malaysian hypermarket context.

## 4. RESULTS AND DISCUSSION

### 4.1 Demographic Information

According to descriptive analysis, Table 2 shows demographic information comprised gender, marital status, age, ethnic background, academic qualification and income. Among the 392 valid respondents, 58.6% was male and 41.4% was female, whereas 65.8% was single and 34.2% was married. The classification of samples in terms of their age represents that 89.7% respondents were between 19 to 35 year old, which followed by 7.2% of 36-49 years old and 2.7% of below 18 years old. This survey is mainly reflected by the perception and shopping attitudes of the respondents. In terms of ethnic background, more than 46% respondents were Malay and almost 21% were Chinese. Indian and others were 18.2% and 14.7% respectively. With regard to academic level of the respondents, a highest 55% of respondents were college graduate which followed by 33.2% was SPM, 9% was master degree and 2% was doctoral degree. The highest 59% of the respondents' monthly income was less than RM 2000 followed by 30.5% of RM2001-RM 4000, 6.2% of RM 4001- RM 8000 and 4% of RM 8001- RM 12000.

**Table 2. Demographic information**

| Characteristics | Frequency | Percentage |
|---|---|---|
| **Gender** | | |
| Male | 171 | 54.6 |
| Female | 121 | 41.4 |
| **Marital Status** | | |
| Single | 192 | 65.8 |
| Married | 100 | 34.2 |
| **Age** | | |
| Below 18 years old | 8 | 2.7 |
| 19-35 years old | 262 | 89.7 |
| 36-49 years old | 21 | 7.2 |
| 50-64 years old | 1 | 0.3 |
| **Ethnic Background** | | |
| Malay | 135 | 46.2 |
| Chinese | 61 | 20.9 |
| Indian | 53 | 18.2 |
| Others | 43 | 14.7 |
| **Academic Qualification** | | |
| SPM | 97 | 33.2 |
| College Graduate | 161 | 55.1 |
| Master's Degree | 26 | 8.9 |
| Doctoral Degree | 6 | 2.1 |
| Others | 2 | 0.7 |
| **Monthly Income** | | |
| Less than RM 2000 | 172 | 58.9 |
| RM 2001- RM 4000 | 89 | 30.5 |
| RM 4001- RM 8000 | 18 | 6.2 |
| RM 8001- RM 1200 | 11 | 3.8 |
| RM 12000+ | 2 | 0.7 |

## 4.2 Reliability Coefficient

Reliability coefficient measurement recommended the stability and consistency of the mechanism. Consequently, this method indicates reliability through examining the internal consistency of the research questionnaires, in which cronbach's alpha represented 0.807 (Table 3) that was considered a high reliability coefficient of the data analysis. Nunally & Berstein [62] stated that Cronbach's alpha should be from 0.0 to 1.0, but 0.70 is deemed to be indicative of good scale reliability [63].

### Table 3. Overall reliability of four factors

| Cronbach's Alpha | Cronbach's Alpha based on Standardized Items | Number of Items |
|---|---|---|
| 0.807 | 0.811 | 21 |

The exploratory factor analysis for variable of service quality is used by principle axis factoring extraction with varimax rotation. Exploratory factor analysis for service quality, six items were found for analysis and the result showed that the Kaiser-Mayer-Olkin measure of sampling adequacy was 0.860 (Table 4). The total percentage of variance was explained in Table 5, in which 45.27% was explained for total percentage of variance of service quality. Factor loading of the each item was greater than 0.55. Factor loadings of items are greater than 0.50indicates excellent. Nunally and Bernstein [62,63] stated that a reliability coefficient should be greater than 0.70. Hence, the cronbach's alpha 0.826 is considered as higher reliability of service quality.

### Table 4. KMO and Bartlett's test (Service Quality)

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0.860 |
|---|---|---|
| Barlett's Test of Sphericity | Approx. Chi-Square | 782.859 |
| | Df | 21 |
| | Sig. | 0.000 |

### Table 5. EFA for Service Quality

| | Factor loading | Eigenvalue | Percentage of Variance | C.V | Cronbach's Alpha |
|---|---|---|---|---|---|
| Products display | 0.84 | 3.169 | 45.27 | 45.27 | 0.826 |
| Staff's courteousness | 0.79 | | | | |
| Product warranty/guaranty | 0.76 | | | | |
| Sales personnel's skills | 0.69 | | | | |
| Wider range of products | 0.65 | | | | |
| Price tag on products | 0.58 | | | | |

CFA of service quality for the item SQ1 (product display) is fixed to 1.0, which is a requirement condition for determination of the model (Table 6). According to CFA, service quality was analyzed for the reliability of the dependent relationship between construct and indicators. The measurement model represents that Chi-Square/degree of freedom (df)=3.836 (Chi-Square=34.524, df=9); Root mean square error approximation (RMSEA)=0.099; Comparative fit index (CFI) = 0.963, Goodness of fit index (GFI)=0.962 and adjusted goodness of fit (AGFI) = 0.911. In this measurement model, RMSEA was not achieved the recommended level. RMSEA less than 0.08 indicate very good fit of the model

[64].However, the modification indices (MI) for covariance of measurement errors were 16.548 between SQ1 (product display) and SQ2 (staff's courteousness is important) which indicates item 1 and item 2 were redundant and as a result the measurement errors namely e1 and e2 is highly correlated, since MI is greater than 15 indicates item should be redundant for the best fit of the model [64]. Therefore, this measurement error is logically considered to be correlated. Lastly, the item SQ1 is correlated with SQ2 and the new model is fit well: Chi-Square=2.090, which are considered as the best fit. Chi-square should be less than 5 [65]. For the RMSEA, 0.061 is a best fit of the model because RMSEA less than 0.08 indicates a good fit of the model, CFI=0.987; GFI=0.981, AGFI=0.950 and p-value0.103 (Fig. 2). CFI, GFI and AGFI should be greater than 0.90 [66]. P-value should be greater than 0.05 [65,66].
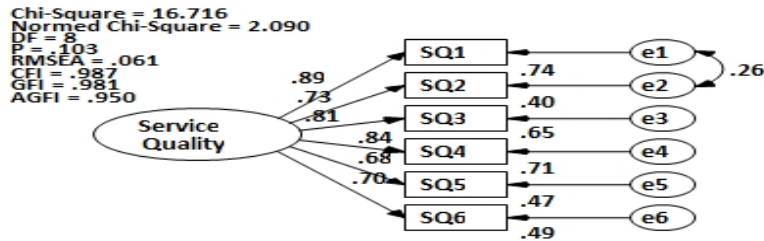


**Fig. 2. CFA for Service Quality**

Table 6 (six) below has summarized the findings of the measurement model for service quality. The confirmatory factor analysis of service quality for the item SQ1 (product display) was fixed to 1.0, which is a requirement condition for determination of the model. Hence, the result found that all standardized factor loading were greater than 0.60 and the entire critical ratio (t-value) is significantly greater than 2.58 at the 0.01 level, which was recommended by Anderson & Gerbing [67]. In terms of construct reliability, the model describes that CR 0.90 was achieved by the recommended value 0.60 [68]. The individual item reliability (R²) values of all indicators were achieved greater than 0.50. The Cronbach's alpha was 0.852, which indicates the higher reliability. The Cronbach's alpha minimum 0.70 is the recommended level.The goodness-of-fit indices recommended that the measurement model demonstrates satisfactory fit to the data and the results of all fit indices were achieved as good fit. In fact, measurement model 1 for service quality explained good evidence of convergent validity, reliability and unidimensionality.

**Table 6. Summarized Results of Measurement Model: Service Quality**

| Item | Factor Loading | R² | Cronbach's Alpha | CR | AVE | t-value |
|------|--------|-----|------------|-----|-----|---------|
| Service Quality | | | 0.852 | 0.90 | 0.61 | |
| SQ1 | 0.89 | 0.74 | | | | fix |
| SQ2 | 0.73 | 0.40 | | | | 8.359 |
| SQ3 | 0.81 | 0.65 | | | | 8.055 |
| SQ4 | 0.84 | 0.71 | | | | 8.173 |
| SQ5 | 0.68 | 0.47 | | | | 7.521 |
| SQ6 | 0.70 | 0.49 | | | | 7.614 |

EFA for product quality, six items were generated for analysis and the findings revealed that the Kaiser-Mayer-Olkin (KMO) measure of sampling adequacy was 0.884 (Table 7). Total

variance was explained 54.38% of product quality (Table 8). All items of product quality showed that the factor loadings were greater than 0.55 which was suggested by Hair et al. (69). In terms of reliability coefficient, the Cronbach's alpha was achieved 0.863, which was greater than 0.70. Hence, the exploratory factor analysis was employed in principle axis factory extraction with varimax rotation that identified that all items were loaded properly on the expected constructs.

**Table 7. KMO and Bartlett's test (Product Quality)**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | **0.884** |
|---|---|---|
| Barlett's Test of Sphericity | Approx. Chi-Square | 811.432 |
| | Df | 15 |
| | Sig. | 0.000 |

**Table 8. EFA for Product Quality**

| | Factor loading | Eig. value | P. of Variance | C.V | Cronbach's Alpha |
|---|---|---|---|---|---|
| Different qualities product offer | 0.63 | 3.623 | 54.38 | 54.38 | 0.863 |
| Product durability is important | 0.78 | | | | |
| High quality food product offer | 0.87 | | | | |
| Accurate product information | 0.80 | | | | |
| Wider range of products offer | 0.70 | | | | |
| Innovative product is important | 0.62 | | | | |

Turning to the assessment of CFA, the items of product quality factor are analyzed for the viability of dependence relationship between the dimensions and indicators, using covariance matrix of both indicators. The measurement model is fit well and all the fit indices are achieved the recommended level. The measurement model fit indices represented that Chi-square/df= 2.804 (Chi-Square=25,238, df =9); RMSEA=0.079; CFI=0.980; GFI=0.971 and AGFI=0.932 and p value was 0.103 (Fig. 3). The summarized result of measurement model for product quality was determined as convergent validity, discriminant validity and unidimensionality. The measurement model examined that all indicators were statistically significant and the entire critical ratio were significantly greater than 2.58 at the 0.01 level. All standardized factor loadings were greater than 0.60, which indicates a very good fit of the model [70]. Reliability coefficient (Cronbach's alpha) is greater than 0.70 identified the unidimensionality of the model.
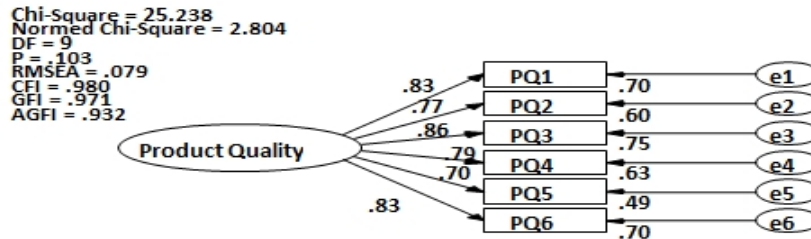


**Fig. 3. CFA for Product Quality**

In terms of the assessment of the reliabilty, it was excuted in Table 9 and illutrated that most of the individual item reliabilty ($R^2$) value was greater than 0.50. This was implied that all indicators were achieved the recommended level [71] and its construct validity was 0.91. Construct validity should be greater than 0.60. The average extracted (AVE) value was 0.64. AVE should be greater than 0.50 [72]. In addition, the Cronbach's alpha value was 0.863, which achieved the acceptable threshold value of 0.70 as recommended by Anderson and Gerbing.

**Table 9. Summarized Results of Measurement Model: Product Quality**

| Item | Factor Loading | $R^2$ | Cronbach's Alpha | CR | AVE | t-value |
|------|---------|----|-----------|----|-----|---------|
| Product Quality | | | 0.863 | 0.91 | 0.64 | |
| PQ1 | 0.83 | 0.70 | | | | fix |
| PQ2 | 0.77 | 0.60 | | | | 10.797 |
| PQ3 | 0.86 | 0.75 | | | | 11.638 |
| PQ4 | 0.79 | 0.63 | | | | 11.021 |
| PQ5 | 0.70 | 0.49 | | | | 10.048 |
| PQ6 | 0.83 | 0.70 | | | | 9.208 |

EFA is conducted for price strategy on all five items. The results found that the Kaiser-Mayer-Olkin statistic of sampling adequacy was 0.886 (Table 10). The bartlett's test of sphericity test defined that the correlation among the constructs were statistically significant. Hence, exploratory factor was conducted and one factor was extracted with 63.190% of total variance. All factor loadings of the variables were greater than 0.60 which illustrated in Table 11. In terms of correlation reliability, the Cronbach's alpha was 0.879 which achieved the requirement value of 0.70 as suggested by Anderson and Gerbing. However, the exploratory factor analysis used principle component extraction with varimax rotation for iterations.

**Table 10. KMO and Bartlett's test (Price Strategy)**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0.886 |
|--------------------------------------------------|-----|-------|
| Bartlett's Test of Sphericity | Approx. Chi-Square | 855.297 |
| | Df | 15 |
| | Sig. | 0.000 |

**Table 11. EFA for Price Strategy**

| | Factor loading | Eigen value | Per. of Variance | C.V | Cronbach's Alpha |
|---|--------|-------|----------|--------|-----------|
| Reasonable price | 0.74 | 3.791 | 63.190 | 63.190 | 0.879 |
| Price discount | 0.83 | | | | |
| Promotional price | 0.85 | | | | |
| Product offer at different prices | 0.84 | | | | |
| Quantity discount on product purchase | 0.72 | | | | |

After performing the exploratory factor analysis, confirmatory factor analysis was conducted with items of the constructs for price strategy. The measurement model test was achieved the acceptable values and model was fit well: Chi-Square/df= 2.041 (Chi-square=10.206 and df=5); RMSEA= 0.060; CFI=0.992; GFI=0.986; AGFI=0.959, p value=0.052 (Fig. 4). The

results revealed that all criteria were achieved significantly and the measurement model was established appropriately.
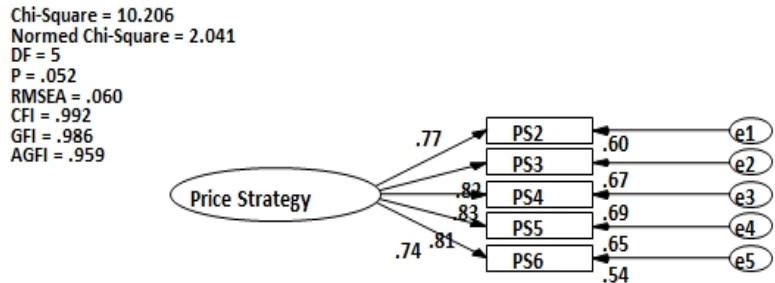


**Fig. 4. CFA for Price Strategy**

Table 12 shows the summarized results of measurement model for price strategy. All factor loadings of the variables were significantly greater than 0.60 which was recommended by Anderson and Gerbing [70]. They stated that convergent validity was accomplished by the achieved acceptable criterion. The critical ratio was greater than 2.58 at the 0.01 level and the reliability in individual items ($R^2$) values was greater than 0.60, which achieved the recommended level of 0.50 as suggested by Bollen [71]. In terms of average variance extracted, the variance value 0.65 achieved by the value 0.50 [72]. In addition, the construct reliability (0.65) achieved the recommended value. The Cronbach's alpha(0.868) exceeded the recommended value. Furthermore, the goodness-of-fit indices recommended that the measurement model employed a satisfactory fit to data. Therefore, the finding of the result shows the strong evidence of unidimensionality, convergent validity and reliability.

**Table 12. Summarized Results of Measurement Model: Price Strategy**

| Item | Factor Loading | $R^2$ | Cronbach's Alpha | CR | AVE | t-value |
|---|---|---|---|---|---|---|
| Price Strategy | | | 0.868 | 0.89 | 0.65 | |
| PS2 | 0.77 | 0.60 | | | | fix |
| PS3 | 0.82 | 0.67 | | | | 14.196 |
| PS4 | 0.83 | 0.69 | | | | 14.349 |
| PS5 | 0.81 | 0.65 | | | | 11.005 |
| PS6 | 0.74 | 0.54 | | | | 12.658 |

Table 13 illustrated the measurement model of customer loyalty which consisted of six items as adopted by Tu et al. [73]. Turning to the KMO and Bartlett's Test, Kaiser-Meyer-Olkin Measure of Sampling Adequacy was 0.850, which indicated very good andBarlett's Test of Sphericity was statistically significant.

**Table 13. KMO and Bartlett's test (Customer Loyalty)**

| Kaiser-Meyer-Olkin Measure of Sampling Adequacy | | 0.850 |
|---|---|---|
| Barlett's Test of Sphericity | Approx. Chi-Square | 583.186 |
| | Df | 15 |
| | Sig. | .000 |

Table 14 illustrated the exploratory factor analysis of customer loyalty and one factor was extracted with 53.86% of total variance explained. The standardized factor loadings were statistically significant with greater than 0.55. The Cronbach's alpha was 0.811 which significantly achieved the requirement of 0.70.

**Table 14. EFA for Customer Loyalty**

|  | Factor loading | Eigen value | Percentage of Variance | C.V | Cronbach's Alpha |
|---|---|---|---|---|---|
| Continue shop at hypermarket | 0.64 | 3.23 | 53.86 | 53.86 | 0.811 |
| Influence others to shop | 0.78 |  |  |  |  |
| I am a loyal customer | 0.83 |  |  |  |  |
| Hypermarket is first choice | 0.78 |  |  |  |  |
| Willing to buy more products | 0.73 |  |  |  |  |
| I will not go other stores | 0.60 |  |  |  |  |

In this study, Fig. 5 illustrated the confirmatory factor analysis of the customer loyalty. Six items were predominantly conducted to determine the viability of dependence correlations between the variables and indicators using a covariance matrix. In this measurement model RMSEA is 0.090 which was achieved the recommended level, since, RMSEA should be less than 0.08. P-value should be greater than 0.05. The item CL1 (I will continue to shop at hypermarket) and CL6 (If hypermarket raise price even then I will not switch to other stores) were removed, since low factor loading can be deleted for appropriate model fit. Lastly the final revised model in Fig. 6 was fit well: Chi-Square/df=2.254 (Chi-Square=4.509; df= 2); RMSEA= 0.066; CFI= 0.994; GFI= 0.992, AGFI= 0.960 and p- value was 0.051. It was a revised and acceptable fit measurement model of customer loyalty.
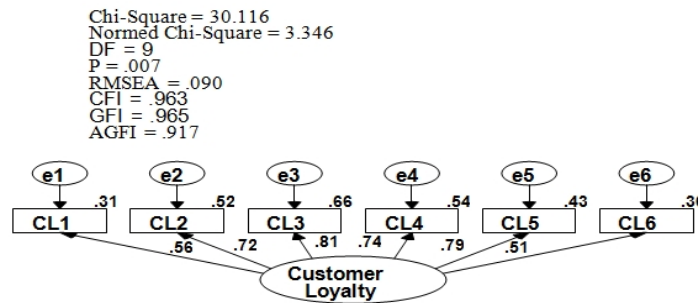


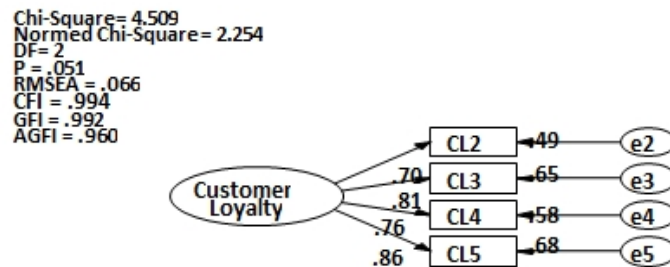**Fig. 5. CFA for Customer Loyalty**



**Fig. 6. Revised Model of CFA for Customer Loyalty**

Table 15 the summarized results of measurement model of customer loyalty a factor loadings of the construct were significantly greater than 0.60, which proves that the convergent validity was significant. The Cronbach's alpha was 0.821, which achieved the unidimensionality, since Cronbach's alpha greater than 0.70. In terms of reliability, the model finds that most of the individual item reliability ($R^2$) was larger than 0.50, which determines the acceptable threshold. Turning to assess the construct reliability, it was performed with 0.86 in its requirement as it was greater than 0.60. Furthermore, average variance extracted (AVE) is exceeded with 0.62, which was greater than the recommended value of 0.50 [72]. The critical ratios (t-value) were significantly greater than 2.58 at the 0.01 level. Critical ratio (t-value) should be greater than 2.58. In terms of factor loading, all standardized factor loadings were statistically significant and greater than 0.60.

**Table 15. Summarized Results of Measurement Model: Customer Loyalty**

| Item | Factor Loading | R² | Cronbach's Alpha | CR | AVE | t-value |
|---|---|---|---|---|---|---|
| Customer Loyalty | | | 0.821 | 0.86 | 0.62 | |
| CL2 | 0.70 | 0.49 | | | | fix |
| CL3 | 0.81 | 0.65 | | | | 11.318 |
| CL4 | 0.76 | 0.58 | | | | 10.956 |
| CL5 | 0.86 | 0.68 | | | | 9.818 |

## 4.3 Structural main Model

Finally, the structural equation model was developed and tested to examine the correlation between the three latent constructs (Fig. 7). In the model, the arrows supportedthat price strategy was highly significant to customer's loyalty ($\beta$ = 0.57) which followed by product quality ($\beta$ = 0.35) and service quality ($\beta$ = 0.31). The probabilities of getting all critical ratios were 2.456, 2.234 and 4.293 (Table 16). This model confirms that factor weights of all items were greater than 0.60 which indicated a very good fit of the model. The model also confirms that normed chi-square was 3.469 and p-value 0.053. A discrepancy should be less than 5. Hair et al. P-value should be greater than 0.05. For RMSEA, we find 0.072 which indicated a close fit [74]. CFI (0.948), GFI (0.990) and NFI (0.901) proved a very good fit of the model. Kline [74], Jalil et al. [75] postulated that CFI, GFI and NFI value should be greater than 0.90.
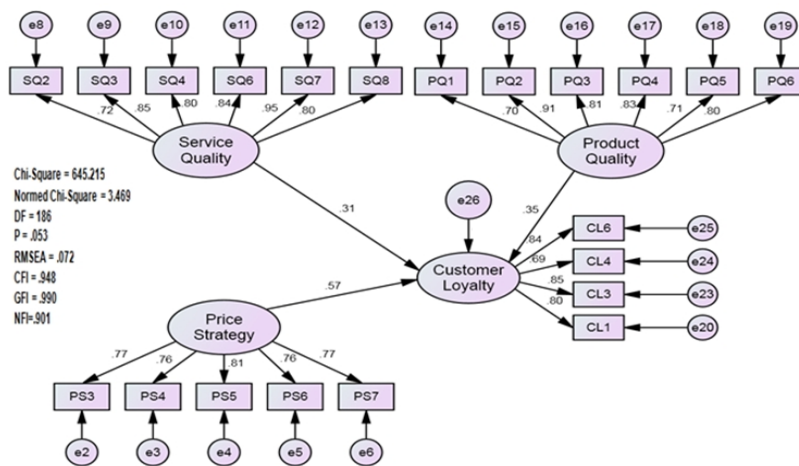


**Fig. 7. Structural model**

**Table 16. Standard estimation of the structural model**

| Standardized regression weights | | | | Estimate | S.E | C.R | P-value | Result |
|---|---|---|---|---|---|---|---|---|
| H1 | CL | <--- | SQ | 0.312 | 0.127 | 2.456 | 0.00 | Significant |
| H2 | CL | <--- | PQ | 0.353 | 0.158 | 2.234 | 0.02 | Significant |
| H3 | CL | <--- | PS | 0.571 | 0.133 | 4.293 | 0.00 | Significant |

## 5. CONCLUSION

This exploratory study provides evidence that service quality, product quality and price strategy have significant relationship with customers' loyalty towards retail outlets in Malaysian hypermarket context. This study used SEM to empirically validate the proposed causal relationship between the constructs and it also allowed in testing all the correlations concurrently. The findings also help us in understanding the essential inter-relationships among the constructs and enhancing the knowledge for the hypermarkets policy to determine where they should concentrate to accomplish their business goals. In this research, consumer's perception towards loyalty in Malaysian hypermarkets can contribute continuous growth in Malaysia's economy by developing and implementing customers' actual needs. The results of the study can also contribute to corporate policy and managerial implications for developing and implementing customers' perception towards loyalty in Malaysian hypermarket setting. Failing to meet consumer's loyalty is not an essential option for any hypermarket companies. Therefore, developing a measure that systematically considers hypermarket policy could significantly contribute towards customers' loyalty improvement of service quality, product quality and price strategy in Malaysian hypermarkets context.

## LIMITATIONS AND FUTURE STUDY

In the academic era, no study is exactly perfect all over the world. So, this study is also not beyond those limitations. The proposed research conceptual model was validated by collecting primary data from only a federal territory area of Kuala Lumpur in Malaysia due to time constraints. Furthermore, due to this small sample size and the convenient sample of data collection, there is a probability of biasness in the outcome of the study. Therefore, further study is necessary to be conducted with a large sample size to obtain excellent result. However, this paper offers support for the proposed conceptual model and exploratory investigation for comparison in future research.

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## COMPETING INTERESTS

Authors declared that there are no competing interests exist.

## REFERENCES

1. Abu NK, Roslin RM. Indentifying Service Quality Dimensions by Understanding Consumer Preferences in the Malaysian Grocery Retail Sector. Unitar E-Journal. 2008;4(2):57-67.
2. Abdullah RB. The Relationship between Store Band and Customer Loyalty in Retailing in Malaysia. A sian Social Science. 2012;8(2):117-185.
3. Hassan H, Sade AB, Rahman MS. Malaysian hypermarket retailing development and expansion. International Journal of Retail & Distribution Management. 2013;41(8):584-595. Doi: 10.1108/IJRDM-09-2012-0085.
4. Yeng LC. The Antecedents of Customer Loyalty in Malaysian Retail-shopping Setting. in Partial Fulfillment of the Requirement for the Degree of Doctor of Business Administration. 2012;1-218.
5. Yeng LC, Mat NK. The Antecedents of Customer Loyalty in Malaysian Retailing: Capitalizing the Strategic Tool. Proceedings of 3rd Asia-Pacific Business Research Conference 25-26. Kuala Lumpur, Malaysia. 2013;1-17. ISBN: 978-1-922069-19-1,
6. Li ML, Green RD. (2010). A Mediating Influence on Customer Loyalty: The Role of Perceived Value. Journal of Management and Marketing Research. 2010;1-12.
7. Chamhuri N, Battb PJ. Exploring the Factors Influencing Consumers' Choice of Retail Store When Purchasing Fresh Meat in Malaysia. International Food and Agribusiness Management Review. 2013;16(3):99-122.
8. Yuen F, Chan S. The Effect of Retail Service Quality and Product Euality on Customer Loyalty. Journal of Sata Base Marketing and Customer Strategy Management. 2010;17:222-240.
9. Yeng LC. The Antecedents of Customer Loyalty in Malaysian Retail-shopping Setting. in Partial Fulfillment of the Requirement for the Degree of Doctor of Business Administration. 2012;1-218.
10. Mauri C. Card loyalty. A new emerging issue in grocery retailing. Journal of Retailing Consumer Service. 2003;10(1):13-25.
11. Ihtiyar A, Ahmad FS, Baroto MB. Impact of Intercultural Competence on Service Reliability and Customer Satisfaction in the Grocery Retailing. Procedia - Social and Behavioral Sciences. 2013;99(6):373–381.
12. Hassan H, Sade AB, Rahman MS. Malaysian hypermarket retailing development and expansion.International Journal of Retail & Distribution Management. 2013;41(8)584-595; Doi: 10.1108/IJRDM-09-2012-0085.
13. Siddiqi KO. Interrelations Between Service Quality Attributes, Customer Satisfaction a Customer Loyalty in the Retail Banking Sector in Bangladesh. International Journal of Business and Management. 2011;6(3):13-36.
14. Naeem H, Akram A, Jinnah F, Saif MI. Service Quality and its Impact on Customer Satisfaction: An Empirical Evidence from the Pakistani Banking Sector. International Business & Economics Research Journal. 2009;18(12):99-104.
15. Hoq MZ, Amin M. The Role of Customer Satisfaction to Enhance Customer Loyalty. African Journal of Business Management. 2010;4(12):2385-2392.
16. Kumar M, Kee F, Manshor A. Determining the Relative Importance of Critical Factors in Delivering Service Quality of Banks: An Application of Dominance Analysis in SERVQUAL Model. Managing Servicce Qualit. 2009;19(2):211-228.
17. Tu YT, Li ML, Chih HC. The Effect of Service Quality, Customer Perceived Value and Satisfaction on Loyalty. Journal of Economics and Behavioral Studies. 2011;3(3):198-212.
18. Lewis M. The influence of loyalty programs and short-term promotions on customer retention. Journal of Marketing and Research. 2004;41(3):281-292.

19. Grönroos CA Service Quality Model and its Marketing Implications. European Journal of Marketing. 1984;18(4):36-44.
20. Su AY. Customer Satisfaction Measurement Practice in Taiwan Hotels. Hospitality Management. 2004;23:397-408.
21. Taylor S, Baker T. An Assessment of the Relationship Between Service Quality and Customer Satisfaction in the Formation of Consumers' Purchase Intentions. Journal of Retailing. 1994;70(2):163-78.
22. Jain SK, Gupta G. Measuring Service Quality: SERVQUAL vs. SERVPERF Scales. VIKALPA. 2004;29(2):25-37.
23. Boshoff C, Gray B. The Relationships between Service Quality, Customer Satisfaction and Buying Intentions in the Private Hospital Industry. South African Journal of Business Management. 2004;35(4):27-37.
24. Khan M. An Empirical Assessment of Service Quality of Cellular Mobile Telephone Operators in Pakistan. Asian Social science. 2010;6(10):164-177.
25. Allaway AW, Huddleston P, Whipple J, Ellinger AE. Customer-based brand equity, equity drivers, and customer loyalty in the supermarket industry. Journal of Product & Brand Management. 2011;20(3):190-204.
26. Ailawadi K, Keller K. Understanding Retail Branding: Conceptual Insights and Research Priorities.Journal of Retailing. 2004;80:331-342.
27. Leone R, Rao V, Keller K, Luo A, McAlister L, Srivasta R. Linking Brand Equity to Customer Equity. Journal of Service Research. 2006;9(2):125-138.
28. Jacoby J, Chestnut R. Brand Loyalty Management and Measurement. New York, NY: John Wiley & Sons; 1978.
29. Reichheld F. Loyalty-Based Management. Harvard Business Review. 1993;71(2):64-73.
30. Zeithaml V, Berry L, Parasuraman A. The Behavioral Consequences of Service Quality. Journal of Marketing. 1996;60:31-46.
31. Wright C, Sparks L. Loyalty Saturation in Retailing: Exploring the End of Retail Loyalty Cards? International Journal of Retail & Distribution Management. 1999;27(10):429-40.
32. Bolten J, Kennerknecht R, Spiller A. Perspectives of Small Retailers in the Organic Market: Customer Satisfaction and Customer Enthusiasm. Paper at: 98. Seminar of the European Association of Agricultural Economists: Marketing Dynamics within the Global Trading System: New Perspectives; 2006.
33. Minguela-Rata B. Product innovation: An Empirical Study into the Impact of Simultaneous Engineering on New Product Quality. Revista Journal. 2011;5(3):80-101.
34. Minguela-Rata B, Sandulli F, López-Sánchez J, Rodríguez-Duarte A. Effects of Multifunctional New Product Development Teams and Overlapping Approach on Development time: An Empirical Study. International Journal of Business Environment. 2006;1:234-252.
35. Chan S, Ip W, Cho V. A Model for Predicting Customer Value from Perspectives of Product Attractiveness and Marketing Strategy. Expert Systems with Applications. 2010;37:1207–1215.
36. Yourdon E. CRM: An introduction. Cutter IT Journal. 2000;13(10):1-3.
37. Demoulina NT, Zidda P. On the Impact of Loyalty Cards on Store Loyalty: Does the Customers' Satisfaction with the Reward Scheme Matter? Journal of Retailing andConsumer Services. 2008;15:386-398.
38. Yoo BH, Donthu N, Lee SH. An Examination of Selected Marketing Mix Elements and Brand Equity. Journal of the Academy of Marketing Science. 2000;28(2):195-211.

39. Heerde HJ, Gupta S, Wittink DR. Is 75% of the Sales Promotion Bump due to Brand Switching? No, only 33% is. Journal of Marketing Research. 2003;40(4):481-491.
40. Mela CF, Gupta S, Lehmann DR. The Long-term Impact of Promotion and Advertising on Consumer Brand Choice. Journal of Marketing Research. 1997;34(2):248-261.
41. Berman B, Evans JR. Retail Management: A Strategic Approach (10 th Edition ed.). Upper Saddle River, NJ: Prentice Hall; 2006.
42. Saili T, Mingli Z, Zhichao C. The Effects of Loyalty Programs on Customer Loyalty: The Mediating Role of Customer Value and the Moderating Role of Relationship Benefits. African Journal of Business Management. 2012;6(11):4295-4309.
43. Kotler P, Keller KL, Ang SH, Leong SM, Tan CT. Marketing Management (fifth edition ed.). 23/25 First Lok Yang Road, Jurong, Singapore: Pearson Education South Asia Pte Ltd; 2009.
44. Omar NA, Wel CA, Aziz NA, Alam SS. Investigating the structural relationship between loyalty programme service quality, satisfaction and loyalty for retail loyalty programmes: evidence from Malaysia. Measuring Business Excellence. 2013;17(1):33-50.
45. Szwarc P. Researching customer satisfaction and loyalty: How to find out what people really think.Great Britain and United States: Kogan Page Limited; 2005.
46. Levy M, Weitz BA. Retailing Management. New York: McGraw-Hill Education; 2004.
47. Dick A, Basu K. Customer Loyalty: Toward an Integrated Conceptual Framework. Journal of theAcademy of Marketing science. 1994;22(2):99-113.
48. Reynolds K, Arnold M. Customer Loyalty to the Salesperson and the Store: Examining Relationship Customers in an Upscale Retail Context. Journal of Personal Selling and Sales Management. 2000;20(2):89-98.
49. Gonring M. Customer Loyalty and Employee Engagement: An Alignment for Value. Journal of Business Strategy. 2008;29(4):29-40.
50. Wang WC, Chen YC, Chu YC. A Study of Customer Loyalty Management in Chinese Retail Supermarket. International Journal of Busieness and Management. 2009;4(11):85-95.
51. Getty J, Thompson K. The Relationship Between Quality, Satisfaction and Recommending Behavior in Lodging Decision. Journal of Hospitallity and LeisureMarketing. 1994;2(3):3-22.
52. Mägi A. Share of Wallet in Retailing: The Effects of Custome Satisfaction, Loyalty Cards and Shopper Characteristic. Journal of Retail. 2003;109(2):1-11.
53. Leenheer J, Heerde HJ, Bijmolt TH, Smidts A. Do loyalty Programs Really Enhance Behavioral Loyalty? An Emperical Analysis Accounting for Self-Selecting Members. International Journal of Research in Marketing. 2007;24:31-47.
54. Morrisson O, Huppertz JW. External Equity, Loyalty Program Membership, and Service Recovery. Journal of Service Marketing. 2010;24(3):244-254.
55. McNeilla LS. Sales promotion in the supermarket industry: a four country case comparison. The International Review of Retail, Distribution and Consumer Research. 2012;22(3). Doi:10.1080/09593969. 2012. 682599.
56. Baloglu S. Dimensions of Customer Loyalty: Separating Friends from Well Wishers. The Cornell Hotel and Restaurant Administration Quarterly. 2002;43(1):47-59.
57. Davis D, Cosenza R. Busienss Research for Decision Making.Belmont: Wadsworth Publishing; 1993.
58. Gomez MI, McLaughlinb EW, Wittinkc DR. Customer Satisfaction and Retail Sales Performance: An Empirical Investigation. Journal of Retailing. 2004;80:265–278.
59. Martin CS, Guerin DA. Using Research to Inform Design Solutions. Journal of Facilities Management. 2006;4(3):167-180.

60. Hong W, Thong JY, Tam KY. The Effects of Information format and Shopping task on Consumers' Online Shopping Behavior: A cognitive Fit Pespective. Journal of Management Information Systems. 2005;149-184.
61. Hair J, Bush RP, Ortinan DJ. Marketing Research Within a Changing Information. Environment (3rd ed.). New York: McGraw-Hill/Irwin; 2006.
62. Nor A. Statistical Methods in Research. Petaling Jaya: Pearson Malaysia Sdn. Bhd; 2009.
63. Nunnally JC, Bernstein IH. Psychometric Theory (3rd ed.). New Delhi: Tata McGraw-Hill Education; 2010.
64. Awang ZH. A Handbook on SEM: Structural Equation Modeling (4th ed.). Kualalumpur: Centre For Graduate Studies, University Teknologi MARA Kelantan; 2012.
65. Hair J, Anderson R, Tatha MR, Black W. Multivariate Data Analysis: A Global Perspective (7th ed.). Upper Saddle River, NJ: Pearson Prentice-Hall; 2010.
66. Haque A, Sarwar AA, Yasmin F, Anwar A, Nuruzzaman. The Impact of Customer Perceived Service Quality on Customer Satisfaction for Private Health Centre in Malaysia: A Structural Equation Modeling Approach. Information Management and Business Review. 2012;4(5);257-267.
67. Anderson J, Gerbing D. Some Methods for Re-specifying Measurement Models to Obtain Unidimensional Construct Measurement. Journal of Marketing Research. 1998;19(4):453-460.
68. Bagozzi RP, Yi Y. On the Evaluation of Structural Equation Models. Journal of the Academy of Marketing Science. 1988;16(1):74-94.
69. Hair JF, Anderson RE, Tatham RL, Black WC. Multivariate Data Analoysis (3rd ed.). Macmillan. New York; 1992.
70. Anderson JC, Gerbing DW. Some methods for respectifying measurement models to obtain unidimensional construct measurement. Journal of Marketing Research. 1982;19(4):453-460.
71. Bollen KA. A new incremental fit index for general structural equation models. Scociological Methods and Research. 1989;17:303-316.
72. Fornell C, Larcker D. Evaluating Structural Equation Models with Unobserable Variables and Measurement Error. Journal of Marketing Research.1981;18(1):39-50.
73. Tenenhaus M, Vinzi VE, Chatelin Y, Lauro C. PLS Path Modeling. Computational Statistics and Data Analysis. 2005;48:159-205.
74. Jalil MA, Razak DA, Azam SF. Exploring Factors Influencing Financial Planning after Retireemnt: Structural Equation Modeling Approach. American Journal of Applied Sciences. 2013;10(3):270-279.
75. Kline R. Principles and Practice of Structural Equation Modeling. New York: Guilford Press; 2005.

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