



## **Factors Affecting the Consumer's Branded Tea Purchase Decision: A Case Study in the Western Province, Sri Lanka**

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### **Authors' contributions**

*This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.*

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### **ABSTRACT**

**Aims:** The purpose of this paper is to identify the factors influencing on consumers' purchasing decisions for branded tea in Sri Lanka. This study investigated the relationship between the factors influencing a consumer's purchase decision on branded tea and the consumer's loyalty behavior. The study concentrated primarily on the socioeconomic factors that influence consumer brand loyalty for tea.

**Study Design:** Multi-stage quota sampling.

**Place and Duration of Study:** The study was carried out in the Western province, the most densely populated province, and the main administrative and commercial center of Sri Lanka in 2016 - 2017.

**Methodology:** Both primary and secondary data were used in the study. Primary data were mainly collected from a survey using a pre-tested, structured questionnaire. Descriptive analytical techniques, factor analysis, and binary logistic regression analysis were used for data analysis. Statistical analysis was performed using both SPSS and SAS software.

**Results:** According to the factor analysis, three main factors were recognized, such as product,

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marketing, and lifestyle. The product factor contributes 31 percent to the total variation that implies the prominence of product-oriented variables over the other variables considered. Among the related variables of the product, the highest factor loading (0,963) was received by the taste of the product, while the price (0,946) was the next. The results of the binary logistic regression revealed that both the level of education (ED) and the level of income (IL) had a significant impact on tea brand loyalty.

**Conclusion:** The study concludes that both income and education have a significant impact on brand loyalty for tea, while product, marketing, and life-style attributes are the main factors influencing the purchase decision of the branded tea by the consumer. As product-related attributes contribute more to the purchase decision of branded tea, firms can increase their market share by planning their marketing strategies, focusing mainly on product-related aspects.

**Keywords:** *Binary logistic regression; brand loyalty; factor analysis; quota sampling; odds ratio.*

## 1. INTRODUCTION

Sri Lanka is the world's fourth largest tea producer [1]. The tea industry in Sri Lanka is one of the country's most important revenue generators, with a vast network of tea producers, retailers, distributors, auctioneers, and exporters. Over time, the tea industry has grown, and many tea brands have been introduced to the market by nationally and locally recognized companies. This enables customers to choose a premium tea brand based on their preferences. The retail market's diversity increases the access to different tea brands. Especially, the expansion of the supermarket channel in Sri Lanka has enabled consumers to compare and select required tea brands. Supermarkets account for nearly a quarter of Sri Lanka's total tea retail sales [2]. Sri Lanka has a number of well-known supermarket chains, the majority of which are concentrated in the Western province. Furthermore, as a result of retail companies implementing various marketing strategies, Sri Lanka's current local tea market is dynamic and competitive. Hence, the existing companies are trying to increase their loyal customer base while decreasing the number of customers who switch to another brand in order to remain competitive.

Consumer satisfaction [3] is a necessity for any company seeking to increase market share and market power. The primary goal of a company's marketing activities involves developing, maintaining, or improving customer loyalty to their products or services. Brand loyalty is the consistent repurchase of a preferred brand by a consumer, and it is the dominant attribute that governs the consumer's decision-making when selecting a specific tea brand [4]. Therefore, consumer loyalty management [5] is critical for consumer retention in marketing [6,7,8].

Tea companies should understand and implement strategies to increase brand loyalty and reduce the tendency to switch to other brands. Thus, the companies must identify the factors that are important in fostering consumer loyalty as well as those that may lead to a brand switch. Since consumer behavioral patterns change over time, there is an increasing need to comprehend changes in consumer purchasing decisions. Several research studies have been carried out to investigate the factors that can influence consumers' purchasing decisions for various commodities. According to Kotler et al. [9] factors like size, quantity, quality, and price influence customer purchasing decisions. Porter [10] has shown that company's value can be increased by offering lower prices and differentiating itself from competitors. However, only few studies have been conducted to identify the factors influencing on the branded tea purchase decisions in the Sri Lankan context. Hence, the purpose of this paper is to identify the factors influencing the consumers' purchasing decisions for branded tea in Sri Lanka. This study investigated the relationship between the factors influencing a consumer's purchase decision on branded tea and the consumer's loyalty behavior. Moreover, the study concentrated primarily on the socioeconomic factors that influence consumer brand loyalty for tea. These findings would allow businesses to develop and implement appropriate marketing strategies in order to increase the pool of loyal customers and, as a result, the firm's overall performance.

## 2. METHODOLOGY

### 2.1 Study Area and Sampling

The study was carried out in the Western province, the most densely populated province,

and the main administrative and commercial center of Sri Lanka. The three administrative districts of the western province, Colombo, Gampaha, and Kaluthara were selected for the study. Four (04) types of supermarkets were selected from each district considering the arrangement of the local super market structure. The selected supermarkets are Arpico, Cargills, Keells super, and Co-opcity. Sampling was carried out in several phases and 40 market outlets: 14 from Colombo and 13 from each of the other districts, were selected in the first phase. In the second stage, 1,200 consumers were selected using a quota sampling method by selecting 30 consumers from each outlet.

## 2.2 Data Collection

Both primary and secondary data were used in the study. Primary data were mainly collected from a survey using a pre-tested, structured questionnaire. Besides, key personnel interviews were conducted to obtain comprehensive information on the measured aspects. The secondary data required for the study have been extracted from published and unpublished related sources.

## 2.3 Data Analysis

Descriptive analytical techniques, factor analysis, and binary logistic regression analysis were used for data analysis. Statistical analysis was performed using both SPSS and SAS software. Socio-demographic variables such as age, educational level, and income were summarized using descriptive methods. During the data processing educational level (ED) was divided into four classes: primary level (up to grade 5, ED1), secondary level (up to grade 11, ED2), tertiary level (up to A/L, ED3), and Master's or Ph.D. level (ED4). In addition, consumers' monthly income levels were divided into five classes: <25.000 (IL1), 25.000 – 39.000 (IL2), 40.000 – 54.000 (IL3) 55.000 – 69.000 (IL4) and 70.000 and above (IL5) LKR.

Factor analysis was carried out to realize the main factors or groups of variables considered by consumers in the purchase of branded tea. Factor analysis [11,12,13] is an analytical technique used to reveal the underlying relationships behind a wide range of variables. It allows the grouping of variables that correlate to a small set of factors and thus reduces the dimensionality of the space of the variable. Each factor is generated as a linear combination of the original variables. The present study satisfies the basic criterion for applying factor analysis, by

maintaining a satisfactory proportion between number of variables and number of observations in the sample. The variables: promotions, product education, advertising, brand awareness, packaging, dignity, lifestyle, friend recommendation, affordability, availability, need base, price, size, color, taste, aroma were used in the factor analysis.

Binary logistic regression was used to examine the brand loyalty in buying tea. Many studies [14,15,16] have utilized binary logistic regression to find the relationship between binary response with predictor variables [17]. The response variable, brand loyalty status consisted of two categories as "brand loyal" and "non-brand loyal". Here, the variable "brand loyalty status" followed the Bernoulli distribution for every single observation. The following model describes the status of brand loyalty using logistic regression.

$$\text{logit}(Y) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_n X_n \quad (1)$$

Where;

$(Y)$ = Dependent variable (Brand loyalty status)

1 represents the consumers who were brand loyal (Purchase the same brand regularly)

0 represents the consumers who were not brand loyal (Do not purchase the same brand regularly)

$\beta_0$  = Intercept

$\beta_1, \beta_2$  to  $\beta_n$  = Estimated coefficients

$X_1, X_2$  to  $X_n$  = Independent variables

## 3. RESULTS AND DISCUSSION

### 3.1 Results of the Factor Analysis

Three main factors were recognized from the factor analysis. Those are product, marketing, and lifestyle factors. The product factor explained 31 percent to the total variation indicating the prominence of product-oriented variables over the other variables considered. Sumi & Kabir [18] has also found, from a study on organic tea in Bangladesh, the product attributes have a high positive effect on perceived quality and perceived value, which subsequently influences the purchase intention of the consumer.

**Table 1. Maximum likelihood estimates for the model**

Parameter	Estimate	Standard Error	Wald Chi-Square	Pr>Chi-Square
Intercept 1	9.2231	1.9532	22.2980	<.0001
ED 1	-0.5656	4.6303	0.0149	0.9028
ED2	1.4923	2.1310	1.3678	0.2422
ED3	1.7385	0.9709	3.2063	0.0374
IL1	-2.0271	1.4154	2.0510	0.1521
IL2	-1.6027	1.4037	1.3035	0.2536
IL3	1.4702	1.3430	1.3485	0.0245
IL4	1.5595	1.2324	1.4012	0.0397

The highest factor loading (0.963) was for the variable, the taste of the product, while the price (0.946) was the next. Many studies [4,9] have shown a significant influence of taste and price [19] on consumer choices and purchases. Porter [10] also has stressed that the company builds on its value by offering lower prices as well as having a differentiated character to compete with its competitors. Ghosh [4] has also pointed out from a study about the green tea industry, the quality of the product (a blend of taste and flavor) is the second important factor that affects the purchasing decision of the consumer. Besides, Shams [20] has identified the product attributes, such as the color of the final tea, and the aroma are important to satisfy the consumer's desire, in addition to the taste and price of the product. Thus, the above findings highlight the necessity for companies to focus more on product-related variables than other categories of variable. Hence the knowledge from these findings can be used to develop and improve the quality of branded tea by offering more new flavors in response to consumer needs. Shams [20] pointed out that the companies need to consider injecting product attributes that ensure the superiority of the brand, to build a loyal customer base.

The marketing factor explained 17 percent of the total variation. The most important variable in the marketing factor was advertising [21] with highest loading (0.706). Other important variables loaded for marketing factor were brand awareness (0.669) and promotion (0.650) respectively. Buil et al., [22] showed the impact of advertising and sales promotions on the creation of brand equity. This authors have highlighted that companies can develop higher brand awareness and positive perception of their brands by using original, creative and different advertising strategies. Buil et al., [22] also reveals that perceived advertising spending has a positive effect on brand awareness. However, as suggested in the literature, investment in

advertising does not necessarily enhance perceived quality, whilst the individual attitudes towards advertising only play a key role in influencing perceived quality.

Promotional activities can be described as a set of tools for businesses to benefit from effective communication for their product or service to consumers [10,23,24]. The study also looked at consumer preference for different promotion schemes. Free sample (100 percent) is the most popular sales promotion among consumers and people have less recognition of coupons (8 percent) as a sales promotion technique. Consumers prefer bonus packs (56 percent) to coupons, but they will not appeal to customers who do not purchase the product and will not result in product testing. However, the study found that promotional activities have no significant impact ( $p$ -value >0.1) on customer loyalty to the brand loyalty, although companies allocate more money to different sales promotion schemes as an important element in commercial marketing. Moreover, study found that the sales promotion has only a short-term effect on consumer purchasing behavior and it is hard to use sales promotion to build loyal customers. The majority (80 percent) of consumers consume tea products purchased from sales promotion up to one year. The main aim of using this marketing tool is to increase short-term sales. As a result, it leads to frequent brand switchers rather than brand-loyal customers. Buil et al., [22] also revealed that the effect of sales promotions on brand equity differs depending on the type of promotional tool used. Monetary promotions (i.e. price discounts) harm perceived quality, while non-monetary promotions (i.e. gifts) have a positive impact on perceived quality and brand associations.

The important variables in the lifestyle factor were the lifestyle (0.616) of the consumer, availability (0.601), and need base (0.536). This factor expressed an eight percent of the total

variation. The literature [25] also found that the purchase intention of branded tea by consumers is influenced by the search for a pleasant and relaxing effect, the pursuit of novel experience by consumers and the health concern [26]. Shams, S. [20] has shown from a study on a branded tea in Bangladesh, that the availability in nearby shops, the facility to return the product whenever necessary, and the proper complaint management system work together in the consumer's mind to regard the brand as superior. Then consumer tend to think of a brand as a good one and suggest others to try this specific brand. Hence the consumer tends to remember a brand as a favorite one and encourage others to try the particular brand.

### **3.2 Socio-economic Factors Affecting Brand Loyalty for Tea**

The results of the binary logistic regression revealed that both the level of education (ED) and the level of income (IL) had a significant impact on tea brand loyalty. As per the results the consumers with tertiary education (ED3) were more loyal to the brand (Odds ratio/OR = 1.74) compared to those with postgraduate qualifications (Table 1). Results further revealed that consumers belong to income levels of LKR 40,000 – 54,000 (IL3) and LKR 55,000 – 69,000 (IL4) were more loyal to the brand (OR = 1.47 and 1.56) compared to those earning more than LKR 70,000 per month (Table 1). These findings are supported by the literature. Moorthy et al. [27] has argued that consumers would consider their income before making a purchase decision. Similarly, Bhuvaneshwari, and Kanchana [28] have identified a significant difference in the purchase decision of a brand based on the highest educational qualifications and family income from a study on branded beverages in Tirupur, India. Conversely, in a separate study on coffee and tea beverages in Tirupur, India, the same authors noted that brand loyalty does not differ significantly based on the highest educational qualifications and family income [4]. In general, customers tend to stick to relatively less expensive brands when their income levels are low. However, consumers belong to higher income groups rotate between different options. Further, professionals assuming belong to higher income level group and they get maximum satisfaction by switching to different brands of tea rather than sticking to a particular brand. This explanation is partly supported by Bhuvaneshwari and Kanchana [28], who found that the brand loyalty for beverages in Tirupur,

India, varies significantly based on the respondents' occupational status.

Many studies [29,30,31] have found that consumer satisfaction has a positive and significant impact on brand loyalty in the food and beverage industries. This implies that when customer satisfaction is achieved, there is a greater likelihood of brand loyalty [32]. Literature shows that, in addition to income and education level, customers' gender and age have moderating effects on customer satisfaction [33] and brand loyalty. For instance, while the gender of the respondent had no significant effect on tea brand loyalty in this study, Shams. S. [20] discovered that male consumers are more loyal in nature than female consumers in a study on selected tea brands in Bangladesh. Therefore, a greater emphasis on customer satisfaction for branded tea could generate interesting results that take into account more of the consumers' related socioeconomic factors.

### **4. CONCLUSION AND RECOMMENDATIONS**

The study concludes that both income and education have a significant impact on brand loyalty for tea. The product, marketing, and lifestyle attributes are the main factors influencing the purchase decision of the branded tea by the consumer. The product-related attributes contribute more to the purchase decision of branded tea. Thus firms can increase their market share by planning their marketing strategies, focusing mainly on product-related aspects. To build a loyal customer base, companies should consider injecting differentiated product attributes in terms of the blend of flavor, taste, color, and aroma of the final tea that ensure the superiority of the brand. This study provides further insight into marketing research and can also be used as a guideline for business planning and an efficient marketing strategy.

### **COMPETING INTERESTS**

Authors have declared that no competing interests exist.

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