

Research Article

Impact of Green Branding on Brand Preference: With the Moderating Effect of Customer Perceived Value

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Abstract

The environment plays a significant role in the lives of humanity. With rapid increase in consumers getting environmental conscious, numerous organizations worldwide have changed their whole business activities to be eco-productive going past ecological consistence and to increase the competitive edge over its rivals. „Green“ has been utilized to portray a great deal of brand activation methodologies namely energy efficient, organic and ecologically inviting. However, understanding the consumer behavior towards the green concept is one of the least considered areas of research in Asian countries thus far. Hence, this study is carried out with the purpose of identifying how the green branding influences the customers' brand preference in purchasing eco-friendly fast moving consumer goods (FMCGs). Four (04) main variables related to green branding were considered for the study, namely, Green brand image, trust, satisfaction and awareness, while a sample of 385 FMCG consumers from the Colombo District was surveyed for the purpose of data collection. Descriptive statistics, hypotheses testing as well as hierarchical multiple regression were used in combination with various statistical tools, such as correlations, independent sample t-test and one way ANOVA, in order to analyze and interpret the results. The study has empirically proven that there are positive relationships between brand preference and each independent variable, while customer perceived value significantly moderating the relationship between green branding and consumers' brand preference. Moreover, demographic factors, such as gender, age and income have both significant and insignificant relationships with the influencing variables. In this regard, creating more awareness, introducing green improvements, developing emotional links with consumers, and focusing on a layered strategy in branding are some of the recommendations made in the research. Based on the results, the study provides important insights to the FMCG players, thereby contributing to improve and encourage green concept in Sri Lanka. Further, customers who are attracted to buy green products are also benefited by the derived results, through which they are able to make more informed purchasing decisions. Equally, FMCG Companies can draw on the findings of the study in formulating more effective green branding, marketing and development strategies, and thereby enhance their performance in future.

Keywords: Brand Preference; Consumer Perceived Value; FMCG Sector; Green Branding; Sri Lanka.

1. Introduction

Lot of companies worldwide are adapting a green marketing strategy for many reasons such as, securing themselves against regulations that may be applied, and responding to green consumer demands and to compete with other green offerings or changing their whole business philosophy [1, 2]. Green 'has also been used as a symbol that represents a lot of brand positioning strategies such as organic, energy efficient and environmentally friendly [3].

Growing concerns of the organizations as well as the customers regarding the green concept are clearly visible in the Sri Lankan context, where there are increasing number of studies / articles been published, while having frequent and ongoing discussions about the possible improvements on the same. Sri Lanka has tremendous potential to be recognized

as a hub for green industry and a model for sustainability [4]. More and more Sri Lankan companies are taking grasp of the dire need to integrate sustainability and environmental consciousness in their day-to-day operations [5].

At the same time, brand preference is important for diffusion of innovation in any context as it provides a lot of benefits such as having strong competitive power and unique position in the market [6]. This is also valid for green innovation in terms of consumer goods, industrial goods and services [2, 7]. With the intense competition prevailing in the FMCG sector in Sri Lanka, it becomes essential for an organization to provide better customer services, spread more awareness and emphasis on need based innovative products at reasonable prices when promoting the green attributes and positioning their respective brands.

In general, green attributes are positively related with brand preference of the consumers and brand credibility (brand trust, brand expertise and brand attractiveness [8]. In fact, green branding, brand heritage and corporate values enable organizations to gain consumers 'trust and achieve market differentiation [9-11]. Despite the environmental concern and positive attitude of customers towards sustainability and green products, some studies reveal that the market share of green products remain confined, thus consumers 'environmental attitudes' do not always lead to actual purchase behavior [12-14]. Therefore it is an important research issue to integrate the perspectives of both green and brand from consumer perspectives. There is a lack of research examining the effects of consumer perceptions of green branding strategies towards green behaviour [15]. The majority research works on environmental issues are from the USA and Western Europe, thus these researchers are unclear if the findings could transferable to other countries [16]. Available literature in Sri Lanka have tested the relationship between green attributes of businesses in general on customer loyalty, customer value proposition and customers purchase intention, but hardly any evidence available, testing the impact of green branding on the brand preference [12, 17].

However, empirical evidence prove that a positive relationship exist between consumers perception of the brand and brand preference, emphasizing the fact that results can be differ from one industry to another as well as based on the tangibility of the product thus the framework could be tested in other countries in order to be able to generalize the results [18, 19].

Further, many scholars have argued that brands gain increased value when communicating their sustainability efforts to various stakeholders, provided they perceive positive values (social, emotional and quality) about the offering [20, 21]. In view of all the arguments, this research focuses on analyzing the relationship between green branding and the brand preference among the consumers of the FMCG sector in Sri Lanka, with the moderating effect of customer perceived values. Therefore, the research problem addressed here is; what are the factors influencing the brand preference of the FMCG consumers and how the perceived value of consumers affects the relationship between green branding and brand preference? While analyzing the main research problem, the study will answer the research questions; (a) what is the impact of green branding on brand preference of the consumers of FMCG sector in Sri Lanka, (b) How the perceived values of customers affect the relationship between green branding and brand preference and (c) how the green branding dimensions get affected from the demographic factors of the FMCG consumers in Sri Lanka?

Adoption of Go-Green is one of the patterns on the rise in current business context. Utilizing green traits in their routine activities are considered as a regulation by some of the developed nations across the globe, while the same has observed to be given very little prominence in the developing nations likes Sri Lanka. It is seen that numerous organizations these days are utilizing green strategies, for exam-

ple, green products, green publicizing, green branding and eco-friendly processes and eco-labeling etc., to emphasis their ecologically agreeable activities. However, the existing findings do not provide adequate proof in this regards, in order to create solid consumer relationships with the clients who prefer green brands.

In view of the arguments made by numerous scholars, there is considerable interest for logical research that can decide the importance and potential productivity of green marketing activities. Thus, this exploration will attempt to bridge the existing gap in green marketing by specifically focusing on one aspect of the same, which is green branding and how it impacts towards the client's brand preference. The objectives of the research are; (a) to analyze the impact of green branding on the brand preference of the consumers of FMCG sector in Sri Lanka, (b) to determine how the perceived values of customers affect the relationship between green branding and brand preference and (c) to analyze whether the green branding dimensions are affected from the demographic factors related to the FMCG consumers in Sri Lanka.

1.1. Literature review

The term green (also environmental, environmentally friendly, eco-friendly and nature friendly) refers to products, services, laws, guidelines and policies considered to inflict minimal or no harm on the environment [22]. In addition, International Tourism Partnership (2013) states that green involves more than environmental issues and relates to all aspects of sustainability and corporate social responsibility.

Studies suggest that green marketing activities should be carried out by the organizations to investigate the behaviors and attitudes of green consumers, identify the green markets and apply market segmentation according to the consumers' needs and develop their positioning strategy and green marketing mix [23].

Consumers have become more careful about environment preservation nowadays, hence most of the companies use green marketing as an effective tool to attract consumer and change their purchase behavior. As explained by Sammer and Wustenhagen, green products and eco-branding provides information about the quality of green product, leading to create a loyal customer base [24]. Similar results have been obtained from the Sri Lankan context by Fernando et al., revealing a positive relationship between brand loyalty and green products, eco branding and green price separately [12].

Green branding is identified as one dimension of green marketing, which has been defined in numerous ways. Yazdani-fard and Mercy in their study refer to green brands as those that consumers associate with environmental conservation and sustainable business practices [25].

Chen has developed a theoretical framework which shows that the green brand equity can be enhanced by green brand image, green satisfaction and green trust. He emphasized the fact that the three elements could be vary according to the

consumers demographics such as their income and educational level, age and gender. Later, Green awareness variable has been added to Chen's from Keller's model due to the difference between the cultures, where Chen has applied his model in Taiwan in which the consumers were apparently aware of the green concept which affects their purchase behavior. But the awareness level in Egypt, where Keller has tested his model, is quite variable among consumers and found to be getting affected by the consumer demographics [26, 27]

Mourad in his study found that there is a solid connection and a beneficial outcome of the green brand image, green awareness and green trust on green brand preference. However green brand satisfaction is happened to be poorly related with the green brand preference among the consumers in the telecommunication industry [19].

Numerous organizations and clients are starting to understand that they are individuals from the more extensive network and should contribute to the environmental preservation in a dependable manner. This converts into firms trusting that they should accomplish adoption of eco-friendly practices just as focusing on profits. Although environmental issues increasingly influence every aspect of human life as well as business strategies, still there are very few studies that discuss green issues in the Sri Lankan market context [28].

The FMCG sector of the country is concerned about the green marketing issues and most of FMCG marketing companies have incorporated green elements into their marketing mixes as a competitive tool [29]. For instance, FMCG marketing companies in Sri Lanka use environment friendly and recyclable packaging and modify the products to minimize or prevent the environment pollution.

Another survey method based study undertaken by Wanninayake and Randiwela investigated the consumer attitudes and perceptions towards eco-friendly products in FMCG sector and their willingness to pay for green products. Their study revealed that the Sri Lankan consumers have a substantial awareness of green products and they are willing to pay more for green products [3].

Green consumers share common values in their concern for the state of the environment and their awareness of the effect of over-consumption on the rate of environmental devastation. These values are reflected in an increased emphasis on the eco-costs of a product, which include its collective social and long term economic impacts. An explorative study conducted by Kinnear and Taylor found that the level of ecological concern among buyers of laundry products had an obvious effect on their brand perception. The results of the study by Patrick et al. indicates that perceived values of consumers has positive influence on attitudes towards the particular brand [9, 31].

2. Methodology

This research is quantitative in nature, which falls into pos-

itivistic paradigm since it produces quantitative data using a large sample due to the large size of the population under study, and is concerned with testing hypotheses in its application. It employs deductive approach in order to propose solutions for green branding efforts in the FMCG sector. The study aims at analyzing the relationship between green branding and brand preference of the FMCG consumers at the time of buying the green products, while considering the moderating effect of the customer perceived values.

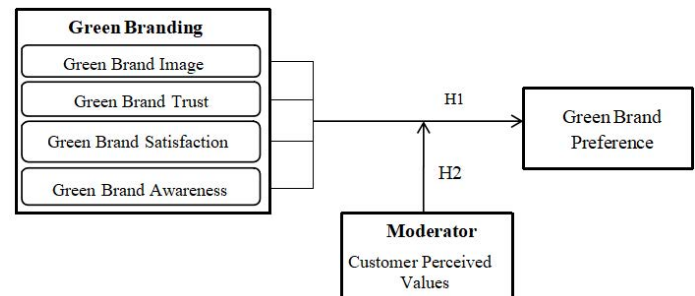


Figure 1: Conceptual Framework

2.1. Hypotheses of the study

- H1: Green Branding has a significant positive relationship on Brand Preference.
- H1A: Green Brand Image has a significant positive relationship on Brand Preference.
- H1B: Green Brand Trust has a significant positive relationship on Brand Preference.
- H1C: Green Brand Satisfaction has a significant positive relationship on Brand Preference.
- H1D: Green Brand Awareness has a significant positive relationship on Brand Preference.
- H2: The relationship between Green Branding and Brand preference is moderated by the customer perceived values.
- H3: Gender has a significant positive relationship on Green Branding dimensions.
- H4: Age has a significant positive relationship on Green Branding dimensions. H5: Income has a significant positive relationship on Green Branding dimensions.

2.2. Data and data collection

The study will mainly employ primary data obtained from a sample of 400 FMCG consumers in the Colombo District. Data will be collected using a semi-structured and self-administered questionnaire as the instrument of data collection. Five (5) point Likert scale is applied for majority of the questions, enabling the qualitative data to be easily converted in to quantitative data.

2.3. Research plan

- Population- FMCG consumers in Sri Lanka
- Target / Study Population - FMCG consumers in Colombo District Sampling Unit FMCG consumers
- Sample size - 385
- Sampling Method - Convenience sampling method

2.4. Data analysis

Statistical Package for Social Science (SPSS) 16.0 statistical software is used to analyze the data mainly in terms of de-

scriptive statistics (mean and standard deviation) and inferential statistics (t-test and ANOVA). Raw data are been analyzed using different analytical methods, such as tables and bar charts, in order to present them more meaningfully and collectively.

Data evaluation was carried out using three different techniques, specifically:

- Descriptive and inferential analysis;
- Correlations analysis
- Hierarchical multiple regression model

2.5. Reliability study

Table 1: Reliability Statistics

Cronbach's Alpha		
Cronbach's Alpha	Based on Standardized Items	No of Items
.920	.846	32

Source: Questionnaire

As the outcomes in table 3.2 shows, the alpha statistic is 0.920, indicating a high level of internal consistency among the questions. Basically, this means that respondents, who tend to select high scores for one item, will likely to give a similar response to the other question as well.

2.6. Data analysis and interpretation

Demographic profile of the respondents: It is quite evident from the above table that the majority of the respondents (62.6%) are females and it indicates the domination of women in the FMCG sector in Colombo District. Minority, which represent by 37.4% of the sample is consist of 144 male consumers.

Table 2: Demographic details of the respondents.

Demographic Factor	Basis	Frequency	Percentage
Gender	Male	144	37.4
	Female	241	62.6
	Total	385	100
Age	18 – 30	39	10.1
	31 – 40	98	25.5
	41 - 50	101	26.2
	51 - 60	112	29.1
	61 and above	35	9.1
	Total	385	100
Monthly Income	Rs.25,000 – Rs.50,000	84	21.8
	Rs.50,001 - Rs.75,000	61	15.8
	Rs.75,001 – Rs.100,000	97	25.2
	Rs.100,001 – Rs.200,000	93	24.2
	More than Rs.200,001	50	13
	Total	385	100
Type of green products	Food and Beverages products	218	56.6
	Personal care	128	33.2
	Home care products	39	10.1

Source: Primary data

Out of the 400 sample drawn, 112 respondents (29.1%) fall in the age band of 51- 60 years, followed by 101 and 98 respondents classified under 41 – 50 years and 31 – 40 years age categories respectively. This motions that people tend to purchase more ecofriendly products as they become older.

Results further shows that the majority of the respon-

dents (25.2%) belong to the income group of Rs.75,000 – Rs.100,000 per month highlighting the fact that respondents require certain level of income to purchase green products.

Mainstream of the sample purchase green products in terms of food and beverages, which consists of 56.6% whereas only a marginal amount of respondents (10.1%) buy homecare

products when it comes to purchasing ecofriendly FMCG products.

Descriptive statistical analysis: This section examines two key descriptive statistics, specifically; mean and standard deviation of the each independent variable and its sub-elements. Outcomes are evaluated using the following decision criteria.

If, mean value is \bar{x} ;

$1 \leq x < 2.5 \rightarrow$ Almost disagree
$2.5 \leq x \leq 3.5 \rightarrow$ Moderate
$3.5 \leq x \leq 5 \rightarrow$ Almost agree

Descriptive statistics of the independent variables: It is evident from Table 3 that green brand satisfaction has the highest mean value generating dimensions, indicating the mean as 3.6265, which can be deviate 0.59689 (standard deviation) from the mean. According to the evaluation criteria, mean value falls in between 3.5 – 5; therefore, it suggests that consumers have almost agreed with the satisfactory indicators that are taken into consideration. It is perceived that the standard deviation is fairly higher than the other independent variables, which characterized the ability of the mean value to switch from being almost agree category at present to moderate level in future. This might be realistic because most of the elements that considered under the green brand satisfaction can be highly varied from one customer to another.

Table 3: Descriptive statistics of the independent variables

Independent Variable	Mean	Standard Deviation
Green Brand Awareness	3.3304	0.52948
Green Brand Satisfaction	3.6265	0.59689
Green Brand Trust	3.4799	0.59573
Green Brand Image	3.6078	0.59410

Source: Primary Data

Second highest mean value of 3.6078 has been generated by the green brand image, with a standard deviation of 0.59410, which can also be classified under almost agree category in relation to the consumers brand preference. Dimension of green brand image entails being the most preferred benchmark, ways of handling environmental reputation, success in environmental performance and the trustworthiness about the environmental promises, in order to attain the above outcome.

The next uppermost mean value of 3.4799 is represented by the green brand trust, following a standard deviation of 0.59573. Since the mean value falls in between 2.5 – 3.5, it denotes that consumers are moderately agreed with the indicators related to the green brand trust, when purchasing green products.

The lowest mean value among the four independent variables denotes by the green brand awareness, which also has

the lowest standard deviation of 3.3304 and 0.52948 respectively. Even though it is the lowest, it still belongs to the moderately agreed category, indicating the fact that consumers are somewhat aware of the ecofriendly FMCG products available in the market.

Descriptive statistics for influencing elements under green brand awareness: Based on the mean values presented in the above table, visibility of environmental labels and noticeability of the brands can be identified as the dominant influencing elements, which have been categorized under green brand awareness. Since both the mean values belong to the range of 3.5 to 5, it is evident that most of the customers have almost agreed that they purchase the FMCG products by following the visibility and noticeability of the green brands. On the same hand, it proves that the above two (02) dominant factors have a greater influence over the brand preference of the consumers rather than various other awareness activities carried out by the companies.

Table 4: Descriptive statistics for green brand awareness indicators.

Elements	Mean	Standard Deviation
Awareness of efforts	2.9662	1.1022
Visibility of the labels	3.6441	0.8603
Recognition of symbols and slogans	3.3324	0.8027
Ability to recall	2.8623	0.7564
Noticeability	3.8467	0.5862

Source: Primary Data

However, it is important to note that the standard deviation of visibility of labels, which is 0.8603, is higher than the noticeability of the brands, indicating that the former has better ability to spread towards a larger area than the other awareness indicators.

Next highest mean values are symbolized by recognition of symbols and slogans and the awareness of efforts by the customers, which are 3.3324 and 2.9662 respectively. It indicates that various kind of advertising strategies and the creative brand reflection of the products have a lesser influence so far than the previous elements, on the consumers' preference, and are classified under the moderately agreed' category by the respondents.

Ability to recall the different green brands have a minimum impact, pointed out by the mean value of 2.8623, which also falls between 2.5 – 3.3 category in the evaluation criteria. This indicates that majority of the sample moderately agree

to the fact that they can recall their preferred green brands, when purchasing FMCG products.

Descriptive statistics for influencing elements under green brand image: Based on Table 5, trustworthiness on environmental promises has recorded the highest mean value, which is closely followed by the brand being the best benchmark in environmental commitments and the means of handling environmental reputation correspondingly; while the success in environmental performance generating an almost equivalent mean to the latter two. Further, it is observed that the respondents pay a momentous level of consideration towards the indicators of green brand image, since all the mean values are greater than 3.5 and thereby fall under the almost agreed category. However, standard deviation of the trustworthiness on environmental promises is relatively higher than the other elements, indicating the ability to move from being in the almost agreed to moderately agreed level in the evaluation criteria.

Table 5: Descriptive Statistics for Green Brand Image.

Elements	Mean	Standard Deviation
Benchmark in environmental commitments	3.6961	0.8469
Environmental reputation	3.6415	0.7714
Success in environmental performance	3.5610	0.7267
Stability in environmental concerns	3.4103	0.7201
Trustworthiness on environmental promises.	3.7298	0.9098

Source: Primary Data

On the other hand, stability in environmental concerns indicates the lowest mean among the five elements, still showing a moderate level of concern when purchasing green products.

Descriptive statistics for influencing elements under green brand satisfaction: In accordance with the table 6; respondents 'idea of their choice being the right decision gain the priority over the other elements, by recording the high-

est mean of 3.8129, which is well placed within the almost agreed 'level effect on the brand preference, since the mean value belong to the range between 3.5 - 5. Similarly, all the other elements except for the satisfaction about the product performance have also generated equivalent means leading to be classified under the 'almost agreed category. However, standard deviations of these indicators are fairly high, indicating a greater possibility of the responses to be reversed.

Table 6: Descriptive statistics for green brand satisfaction.

Elements	Mean	Standard Deviation
Ability of keeping promises	3.5766	0.7772
Happiness about the decision	3.6831	0.7660
Idea of being the right decision	3.8129	0.8205
Satisfaction about the product performance	3.4337	0.7544
Gladness of being a customer	3.6259	0.7146

Source: Primary Data

Descriptive statistics for influencing elements under green brand trust: Based on Table 7 reliability of the preferred brand has obtained the highest mean value of 3.7948 with the lowest standard deviation, indicating a more stable response from the FMCG consumers. On the same hand, ability of the brands to meet the expected environmental concerns

is also up to the almost agreed 'level by the majority of the sample, since its mean value is greater than 3.5 criteria of the evaluation. Yet, a relatively high standard deviation by the later element emphasis the possibility of the response to be shifted from almost agreed 'level towards the moderately agreed' level of impact on the consumers' brand preference.

Table 7: Descriptive statistics for green brand trust.

Elements	Mean	Standard Deviation
Reliability	3.7948	0.6590
Dependability	3.4051	0.7651
Trustworthiness	3.1896	0.7309
Expected environmental concerns	3.5298	0.9408

Source: Primary Data

At the same hand, dependability as well as the trustworthiness of the environmental arguments by the preferred green brands has a lesser impact on consumers 'preference when compared with the other two elements.

2.7. Correlations analysis

Correlation analysis is used to detect the linear relationship between two (02) variables, and especially measure the strength of the association.

H1: There is no linear association between brand preference and the green brand awareness / green brand trust / green brand satisfaction / green brand image.

H2: There is a linear association between brand preference and the green brand awareness / green brand trust / green brand satisfaction / green brand image.

Following decision rule is applied, when analyzing the outcome.

If; P value < α value (0.05) \longrightarrow Reject H1

Table 8: Correlations

Independent Variable	P. Value	Decision	Correlation coefficient
Green Brand	0.000	Reject H_0	0.253
Green Brand	0.000	Reject H_0	0.261
Green Brand Trust	0.000	Reject H_0	0.179
Green Brand Image	0.000	Reject H_0	0.720

Awareness Satisfaction

Source: Primary Data

In accordance with the above table, it is evident that all the P values are less than 0.05, in respect of the decision rule, which leads all the null hypotheses (H_0) to be rejected at 5% significance value. Hence, it is concluded that there is a linear relationship between each independent variable and the preference for the brands of FMCG products.

Since it is observed that the relationships exist between the brand preference and the independent variables, correlation

coefficients can be used to define the nature and the strength of the respective relationships. With reference to table 8, all the coefficient values are positive, indicating the fact that independent variables have positive relationships with the brand preference of the customers.

When considering the strength of the relationship, green brand image seems to have a strong positive relationship with the brand preference of the FMCG products, since it has

obtained the highest coefficient value. On the other hand, relationships between the brand preference and the remaining three independent variables seem to be weak, since the coefficient values are closer to -1, yet the relationships happen to be still positive.

2.8. Association between socio-economic factors and the independent variables

Two (02) types of parametric tests are used to examine the relationships between socio-economic factors and each individual variable, since the data are assured to be normally distributed. Tests, which assumes that sample data derives from a population that follows a probability distribution based on a fixed set of parameters.

Independent sample t-test-Performed, when there are only two (02) categories under the socio economic factor.

E.g. Identify the relationship of the green brand awareness / green brand satisfaction / green brand trust / green brand image with reference to gender of the respondent.

One way ANOVA-Performed, when there are three (03) or more categories under the socio economic factor.

E.g. Identify the relationship of the green brand awareness / green brand satisfaction / green brand trust / green brand image with reference to age and monthly income of the respondents.

Decision Rule

If; P value < α value (0.05) \longrightarrow Reject H_1

Association between Gender and Independent Variables (Independent sample t-test)

H_1 : There is no significant relationship between gender and green brand awareness / green brand satisfaction / green brand trust / green brand image.

H_2 : There is a significant relationship between gender and green brand awareness / green brand satisfaction / green brand trust / green brand image.

Table 9: Significance values between gender and independent variables Variable P.

variables Variable	P. value	Decision
Green Brand Awareness	0.322	Accept H_0
Green Brand Satisfaction	3.4051	0.7651
Green Brand Trust	0.358	Accept H_0
Green Brand Image	0.067	Accept H_0
	0.278	Accept H_0

Source: Primary data

With reference to above results of the t-test, P values of the each independent variable are greater than 0.05, leading to the conclusion that there is no significant relationship between gender and green brand awareness, satisfaction, image and trust, of the ecofriendly FMCG brands, since all four null hypothesis are accepted under 5% significance.

2.9. Association between age and independent variables (One way ANOVA)

- H_1 : There is no significant relationship between Age and green brand awareness / green brand satisfaction / green brand trust / green brand image of FMCG products.
- H_2 : There is a significant relationship between Age and green brand awareness
- / Green brand satisfaction / green brand trust / green brand image of FMCG products.

Table 10: Significance values between age and independent

variables Variable	P. value	Decision
Green Brand Awareness	0.390	Accept H_0
Green Brand Satisfaction	0.001	Reject H_0
Green Brand Trust	0.000	Reject H_0
Green Brand Image	0.006	Reject H_0

Source: Primary data

With reference to the above output generated from one-way ANOVA, P values of the independent variables except for green brand awareness of FMCG products are lower than 0.05, leading to reject the null hypothesis at 5% level of significance. Thus, it is evident that there is a significant relationship between age and green brand satisfaction, trust as well as green brand image, when purchasing eco-friendly FMCG products.

In contrast, green brand awareness has produced a higher P value than the decision criteria, which drives to accept the null hypothesis, emphasizing the fact that significant rela-

tionship does not exist between age and green brand awareness.

2.10. Tukey HSD test

Since it is found that there is an association between age and some independent variables, Tukey HSD test has been performed to further analyze how the brand preference vary among the different age categories.

H0: There are no significant differences among different age categories of the respondents.

H1: There are significant differences among different age categories of the respondents.

Table 11: Multiple comparison between different age categories

Age Categories			Significance Values		
From	To	Green Brand Awareness	Green Brand Image	Green Brand Satisfaction	Green Brand Trust
18 – 30	31 - 40	0.479	0.253	0.852	0.917
	41 - 50	0.618	0.023*	0.145	0.527
	51 - 60	0.351	0.957	0.927	0.161
	61 and above	0.409	0.730	0.814	0.995
31 – 40	41 - 50	0.998	0.696	0.421	0.881
	51 - 60	0.999	0.352	0.100	0.000*
	61 and above	0.988	0.988	0.998	0.713
41 – 50	51 - 60	0.982	0.013*	0.000*	0.000*
	61 and above	0.955	0.610	0.886	0.293
51 – 60	61 and above	0.998	0.926	0.229	0.432

Source: Primary data

Above table indicates the significance values related to different age categories under study, which have also been classified based on the four Independent variables. According to the results, it is notable that significant differences on brand preference exist mostly between 41 – 50 and 51 – 60 age categories in terms of green brand image, satisfaction as well as trust indicators, as marked with * icon.

In addition, responses of the sample who belongs to 18 – 30 age category are found to be considerably differ from the 41 – 50 category about their views on brand image of the ecofriendly FMCG products, whereas a similar situation exist between 31 – 40 and 51 – 60 age categories regarding green

brand trust [32-34].

2.11. Association between monthly income and independent variables (One way ANOVA):

- H_1 : There is no significant relationship between monthly income and green brand awareness / green brand satisfaction / green brand trust / green brand image of the FMCG products.
- H_2 : There is a significant relationship between monthly income and green brand awareness / green brand satisfaction / green brand trust / green brand image of the FMCG products.

Table 12: Significance values between income and other variables Variable P.

variables Variable	P. value	Decision
Green Brand Awareness	0.019	Reject H_0
Green Brand Satisfaction	0.349	Accept H_0
Green Brand Trust	0.102	Accept H_0
Green Brand Image	0.458	Accept H_0

Source: Primary data

In accordance with the outcome presented through the above table, it is observed that the P values of green brand satisfaction, trust and image are greater than 0.05, where the null hypotheses are to be accepted at 5% level of significance. Therefore, it is concluded that there is no significant relationship exists between monthly income and each three individual variables, whereas green brand awareness happened to be having a lower P value, tending the above conclusion to be reversed.

2.12. Tukey HSD Test

With the intention of further analyzing the differences exist among different income categories in terms of the consumers brand preference, Tukey HSD test has been performed and the following results were generated.

H_0 : There are no significant differences among different income categories of the respondents.

H_1 : There are significant differences among different income categories of the respondents.

Table 13: Multiple comparisons between different income categories

Income Categories			Significance Values		
From	To	Green Brand Awareness	Green Brand Image	Green Brand Satisfaction	Green Brand Trust
Rs. 25,000 – Rs. 50,000	Rs. 50,001– Rs. 75,000	0.395	0.760	0.708	1.000
	Rs. 75,001– Rs. 100,000	0.923	0.622	0.830	0.999
	Rs. 100,00 – Rs. 200,000	0.413	0.433	0.444	0.994
	More than Rs. 200,001	0.609	0.990	1.000	0.143
Rs. 50,001 – Rs. 75,000	Rs. 75,001– Rs. 100,000	0.823	1.000	0.997	1.000
	Rs. 100,001– Rs. 200,000	1.000	0.997	0.999	0.995
	More than Rs. 200,001	0.032*	0.974	0.737	0.190
Rs. 75,001 – Rs. 100,000	Rs. 100,001– Rs. 200,000	0.875	0.998	0.963	0.963
	More than Rs. 200,001	0.193	0.950	0.849	0.077
Rs. 100,001 – Rs. 200,000	More than Rs. 200,001	0.028*	0.862	0.526	0.265

Source: Primary data

When consider about the income based classification, it is yet again observed that significant differences exist among the respondents who fall into Rs. 50,001 – Rs. 75,000, Rs. 100,001 – Rs. 200,000 and more than Rs. 200,001 Income categories, but only regarding the green brand awareness

indicators.

Hierarchical multiple regression analysis - Regression statistics

Table 14: Model summary.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin- Watson
1	.878 ^a	.771	.769	.22952	1.855

Source: Primary Data

According to the model summary table, multiple correlation is 0.878 which says that green brand dimensions are having strong joint association with green brand preference. Coefficient of determination is 0.771, indicating that 77.1% of green brand preference has been explained by the multiple regression model. As the value

Exceeds 60%, it is concluded that the model is nicely fitted. At the meantime, Durbin-Watson test statistic is 1.855 which falls in between 1.5 – 2.5, signifying the fact that the residuals of the regression model are independent, thus the model is tend to be appropriate.

Table 15: F – test statistic

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	67.482	4	16.870	320.257	.000a
Residual	20.018	380	.053		
Total	87.499	384			

Source: Primary Data

In relation to the regression ANOVA result, probability of F test statistic happened to be highly significant as the P value is 0.000, interpreting that the four independent variables

(green brand awareness, green brand satisfaction, green brand trust and green brand image) jointly influence on the dependent variable (green brand preference).

Table 16: Coefficients

Model	Unstandardized Standardized				Collinearity		
	Coefficients		Coefficients		Statistics		
	B	Std. Error	Beta	t	Sig.	Tolerance	VIF
(Constant)	.228	.102		2.231	.026		
Green Brand Awareness	.568	.023	.630	24.482	.000	.909	1.100
Green Brand Image	.020	.022	.025	.893	.372	.772	1.296
Green Brand Satisfaction	-.032	.027	-.040	-1.183	.238	.527	1.898
Green Brand Trust	.422	.025	.527	16.639	.000	.601	1.664

Source: Primary Data

The results of the multiple regression analysis further verifies the fact that three out of four independent variables (except green brand satisfaction) have positive influences on the consumer brand preference, while the green brand awareness found to be having the highest impact which is closely followed by the green brand trust, with 0.630 and 0.527 Beta values respectively. Out of the said relationships, interaction between green brand awareness and trust with the brand preference happened to be significant since both have generated 0.000 P values.

In contrast, green brand image and satisfaction are individually insignificant as the P values are higher than 5%. Hence these two dimensions are do not influence on consumer brand preference individually, but they influence jointly.

Additionally, all the variance influencing factors (VIF) are less than 10, indicating that the four independent variables are not perfectly correlated. Therefore regression model doesn't have multi-collinearity problem and the model is appropriate.

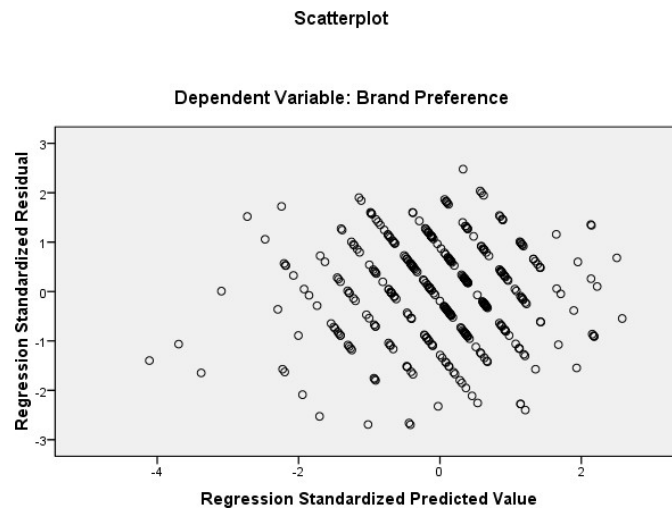


Figure 2: Standardized Residuals Source: Primary Data

According to the scatter plot, standardized residuals have been presented with respect to the standardized predicted values, which are randomly distributed without having any predictable pattern. This illustrates that residuals do not

have funneling shape behavior, thus variance of residuals is constant. Therefore, regression model doesn't have heteroscedasticity problem, proving the fact that model is highly valid.

Table 17: Normality of residuals

	Kolmogorov-Smirnov ^a			Shapiro-Wilk		
	Statistic	df	Sig.	Statistic	df	Sig.
Standardized Residual	.041	385	.144	.991	385	.024

Source: Primary Data

Based on the normality test of residuals, probability of Kolmogorov-Smirnov test statistic is 0.144, which happened to be insignificant at 5% significant level. Therefore, residual is normally distributed with zero mean, thus the model can said to be more valid.

2.13. Moderating effect of consumer perceived value

When the moderating variable (consumer perceived values) is added to the original regression analysis, it indicates more or less the same results which can be used to generate following interpretations.

Table 18: Moderating effect Standardized

Independent Variables	Coefficients Beta	Significance	Effect	R	Adjusted R2	F Statistic
Regression		0.000	Significant	0.872	0.769	404.388
Constant	0.509	0.000	Significant			
Customer						
Perceived	-1.103	0.000	Significant			
Values						
Green Brand	1.692	0.000	Significant			
Moderator	-0.078	0.012	Significant			

Source: Primary Data

Based on the results, multiple correlation and adjusted R2 values indicate a slight decrease, yet showing a strong joint association and model fit, even when the moderating variable is taken into consideration. F test statistic also happened to be significant at 5%, specifying that consumer perceived values as well jointly influence on brand preference

along with the other independent variables. According to the standardized coefficients, it is noteworthy that the Beta value of the moderator is negative with 0.12 P value, which points out a significant moderating effect on the relationship between green branding and brand preference of the consumers in the FMCG sector.

2.14. Research Objectives and Findings

Table 19: Summary of the findings

S.No	Research Objectives	Hypotheses	Findings
1	To analyze the impact of green branding on the brand preference of the consumers of FMCG sector in Sri Lanka.	H1A: Green Brand Image has a significant positive relationship on Brand Preference	Accept
		H1B: Green Brand Trust has a significant positive relationship on Brand Preference	Accept
		H1C: Green Brand Satisfaction has a significant positive relationship on Brand Preference	Accept
		H1D: Green Brand Awareness has a significant positive relationship on Brand Preference	Accept
2	To determine how the perceived values of customers affect the relationship between green branding and brand preference.	H2: The relationship between Green Branding and Brand preference is moderated by the customer perceived values.	Accept
3	To analyses whether the green branding dimensions are affected from the demographic factors related to the FMCG consumers in Sri Lanka.	H3: Gender has a significant positive relationship on Green Branding dimensions.	Reject
		H4: Age has a significant positive relationship on Green Branding dimensions.	Partly Accept
		H5: Income has a significant positive relationship on Green Branding dimensions.	Partly Accept

2.14. Suggestions

It is noteworthy that an increasing number of consumers are becoming environmentally conscious thus demanding more eco-friendly products for their day today consumption purposes. Hence, FMCG players should pay greater attention towards developing and implementing appropriate green branding strategies and marketing plans effectively and strategically in order to encourage positive sales of green products. In this regard, having a thorough

Knowledge on specific green customer segments is vital to develop the right brand positioning strategies as well as adequate marketing programmers for the same [35-37].

Green is gradually becoming a real technical business driver in today's context (Chen, 2008; Chen et al., 2006; Grant, 2008). Thus the market players should be greatly transparent about their environmental claims, as the green brands rely so much on consumers' trust. They should also focus on capitalizing the ideas that tend to build green image for their respective brands through promotions, leading the consumers to achieve a satisfactory level of consumption whilst fulfilling their need to contribute towards the society.

Although the term „green“ has become an emerging trend, use of green marketing strategies is still at a considerably low level among the FMCG players Sri Lanka. Thus it is realistic that the green awareness to become the least influenced

factor in the current context. Therefore, marketers should emphasis on providing clear information and spread awareness about their green brands in order to promote consumer familiarization with the products and enhance their knowledge on the same. The focus of the communication should be to make the consumers aware about the environmental features, advantages associated with the products and its real impact on ecological preservation etc. which will in turn add value to the brand and enhance its performance.

It is further suggested to have a framework to promote and communicate their brands as green in a way that is understandable by the consumers. Success in the communication will create an emotional link with customers that will influence their purchasing decisions, hence will be an added intangible value of their brands. Therefore, green brand preference can become a tool that differentiates the FMCG brands from its competitors in the Sri Lankan market.

It is not enough for a company to introduce green brand/s. Consumers expect the products they purchase to be cost effective and also to help reduce the environmental impact in their own lives as well. Taking these facts into consideration, it is practically possible to introduce various ecofriendly product improvements such as biodegradable packaging and green advertising etc. to be in line with the customer expectations and making them more affordable and appealing to the majority of the market, while becoming responsible to

consumers" aspirations. At the same time, it is suggested for the companies to adopt a layered strategy in branding since some of the green brands being more tailored to particular demographic groups, while others target the mass market.

3. Conclusion

For any kind of organization to be succeeded in the present highly competitive market environment, it is essential to understand its customer needs and fulfil the same in best possible manner. Proving the exact fact, customers are identified as the real pillar of success even in the FMCG sector, which make it a necessity for the players to keep their existing customers satisfied and retained as long as possible, while attracting new customers through need based innovative products. Incorporating the stated factors in the study in the best proportion will enable the suppliers to improve upon the awareness, image, quality and the satisfactory criteria related to their green brands, in order to attract and retain more consumers and occupy a dominant market share. Further, understanding the consumer psychology and how their purchasing decisions are influenced by these factors will be beneficial for the FMCG suppliers in forming their own branding and development strategies that will enhance their performance.

3.1. Limitations of the study

The study sample is exposed to geographical limitation, since the data is collected only from the consumers in Colombo District. Expansion of the study by covering the nationwide consumers through random sampling will be more helpful to overcome this restriction. Further, the study was not focusing on a specific product or a FMCG brand, being subjected to the fact that there is diverse range of green products available in the market. Hence it considered all the eco-friendly products related to the FMCG sector in general, when assessing the green brand dimensions. Therefore, the same framework can be used to analyze a specific product or a brand to generate more precise knowledge on green aspects.

Additionally, this study is concerned only about the relationships of selected independent variables and its sub-indicators with the dependent variable along with a single moderator, where there can be many other factors affecting the brand preference of the consumers. Therefore, having an overall understanding about the influencing factors will be more cooperative towards the further development of green branding within the FMCG sector.

3.2. Directions for future research

Considering the fact that the present study was conducted under a very limited context, covering a narrow aspect of marketing, it provides opportunity for the potential researchers to continue the study in different pathways while expanding the boundaries of green branding. Future studies can mainly tackle the reasons for the lack of awareness of the Sri Lankan consumers and study the most appropriate approaches to raise the environmental awareness in order to make it a part of the company's brand reputation. The studies can also be conducted in some other industries where the effect of the environmental responsibility is more tangible

to the consumers such as automobile or transportation industry, leading the findings to be compared among different sectors to build up a more comprehensive picture. Further, the future studies can focus on market segmentation for the green consumers and study the most sensitive segment towards green branding, since the present study observed many variations among different age and income groups.

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