Determinants of organic food buying behavior: special reference to organic food purchase intention of Sri Lankan customers

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Abstract

Sri Lankans are experiencingmany non-communicable diseases and health problems for decades since they were away from traditional food habits and traditional agriculture prevailed in ancient Sri Lanka which was based on organic constituent.Value of organic foodis perceived differentlyand many customers demonstrate slow buying behaviour and stay back from real purchasing decisions. Among different determinants whichaffect on purchasing intention of organic food, This paper aims to examine the impact of health consciousness ,environment concern ,reference group influence and awareness on purchase intention of organic food. Data gathered through a survey questionnaire from 400 individuals fromWestern Province of Sri Lanka. A Multiple Linear Regression Model was used to assess the degrees of impact from each individual determinant on purchase intention. The research findings demonstratedthat awareness and health consciousness were the two key determinants and demonstrated asignificant positive impact with purchase intention of organic food. Yet, environment concern and reference group influence have no significant impact on organic food purchase intention of Sri Lankan customers. Extending organic food consumption is a sound and sustainable solution for the environmental and health problems prevails in Sri Lanka at present. Stimulating Purchase intention would employ as one of the strategies to persuade consumption and increase the demand for theorganic foods. Policy makers need to draw special attention on improving awareness levels and promote thespecific health benefits of organic food in order to stimulate real purchasing decision. Research findings underscore the existing body of knowledge about determinants of purchase intention of organic food.

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1. Introduction

Agriculture laid the base for healthy life styles, food safety, and environmental protection and sustainable food consumption in ancient Sri Lanka. Sri Lankans experiencing non transferable chronic deceases and health problems for decades since they were away from traditional food habits and traditional agriculture which were prevailed in ancient Sri Lanka.World Health organisation (2015) highlighted that 38 million deaths have been reported around the world due to non communicable diseases andunhealthy diet was one of themajor reasons. Organic foods are the food grown without chemical fertilizers,pesticides, preservatives and synthetic food enhancers.Organic foods were introduced again to Sri Lankan customers recently, however, value of organic food is perceived differently. Yet, customersdemonstrate slow buying behaviour and stay back from real purchasing decision. Dean *et al.*[1]highlighted that human behaviour depends on behavioural intention. Ajzen[2] highlighted that behaviour is determined through the intention to perform the behaviour.Organic foods have been perceived asno specialvalue in the eyes of consumers[3 & 4].The main focus of this studywas to reviewthat what determines the purchase intention of organic foodby Sri Lankan customers. Among many determining factors of purchase intention of organic food, the objective of this study was to examine the impact of health consciousness, environment concern, reference group influence and awareness on purchasing intention of organic food. Health consciousness was impacted on the purchase intension of the organic food[4,5,6,7,8,9 & 10].Reference groups represented in this study were family members, peers and friends.Products and brands thatindividual's purchases are affected by the reference groups[11 & 12].Awareness and environment concern have a positive effect on consumption of organic food[5 & 9].

2. Methodology

The research was intended to describe the determinants which lead purchase intention of organic food and it falls under a descriptive research. The research lies under the category of quantitative research. Primary data gathered through a structured survey questionnaire with likert scale of 5 from 400 customers in theWestern Province in Sri Lanka. 200 respondents were from Colombo and 100 each from Kaluthara and Gampaha districts. The data collection was based on stratified random sampling method using administrative divisions(Pradesheeya Sabha).The questioner was administered both in Sinhala, the national language of Sri Lanka and English with the support of previously tested questionnaires.

2.1 Hypotheses

H_1: There is a significant impactof healthconsciousness on purchase intention of the organic food.
H_2: There is a significant impact of environment concern on purchase intention of the organic food
H_3: Thereis a significant impact of reference group influence on purchase intention of the organic food.
H_4: There is a significant impact of awareness on purchase intention of the organic food.

2.2 Data Analysis Methods

Descriptive statistics were used to analyse demographicsof the sample. Cronbatch'sAlpha Reliability Coefficients were used to measure the reliability of the instrument.Pearson's Correlation Analysis was used to measure the levels of association between each individual determinant with purchase intension. AMultiple Linear Regression Modelwas developed to assess the degrees of impact from each individual determinant on purchase intention of organic food and Stepwise Regression Model was developed to emphasize the key determinants of purchase intention of organic food.

2.3 Regression Model

$$PI = \beta_0 + \beta_1 HC + \beta_2 EC + \beta_3 RF + \beta_4 AW + \epsilon_i$$

PI = Purchase Intention
β_0 = Constant Factor

β₁HC =Health Consciousness

$\beta_1 HC$ = Health Consciousness
$\beta_2 EC$ = Environment Concern
$\beta_3 RF$ = Reference Group Influence
$\beta_4 AW$ = Awareness
ϵ_i = Error Term
$\beta_1, \beta_2, \beta_3, \beta_4$ = Coefficient of each factor

2.3.1 Stepwise Regression model

Stepwise regression analysis was used as variable reduction method and was built to identify key determinants of organic food purchasing intension .Stepwise regression models excluded environmental concern and reference group influence.

$PI = \beta_0 + \beta_1 HC + \beta_4 AW$

PI = Purchase Intention
β_0 = Constant Factor
HC = Health Consciousness
AW = Awareness
β_1, β_4 = Coefficient of each factor

3. Results

3.1 Descriptive Analysis

400 Sri Lankan consumers were selected and 58% females and 42 %.The highest percentage of the age category was 41-50 years and represented 38%. 27% of the sample represented by 31-40 age category.11%, 16% and 8% wererepresented by age groups of 18-30, 51-60 and 60 above age groups. 40% of the sample have obtained high school education, 35% have obtained degree and 25% of the sample was obtained postgraduate degrees and above educational qualifications. The family income per month of the sample was represented by the different income categories. The highest income category represented 21% of the sample and it was above Rs 100,000. 38% of the sample was represented Rs 76000 and 100,000 per month. Rs 75 000 and 50,000 categoryrepresented by 27% and less than Rs 25,000 represented 16% of the total sample .72% of the respondents were from the urban areas and 28%was represented rural areas of the Western Province of Sri Lanka. The Cronobatch's Alpha values were reported as 0.701,0.716,0.874,0.744 and0.867 for environment concern,awareness, health consciousness, reference group influence and purchase intension respectively. All the Cronbatch's Alpha values were above accepted value of 0.7.Mean Analysis revealed that mean value for purchase intension**w**as 3.41andhealth consciousness was 3.37.Environment concern,awareness andreference group influence reported as 2.14, 3.12,and 2.16 respectively on a five point likert scale. All the independent variables showed significant association with purchase intention at 99% confidential level and coefficient of correlation between health consciousness and purchase intention was0. 407, environment concern and purchase intension was 0.183. Awareness and purchase intension was 0.451whilereference group influence and purchase intension was 0. 314.The correlations among independent variables was less than 0.5 and were free from multi-co linearity problem.

3.2Multiple LinearRegression Analysis

3.2.1Statistical Predictability of the Model

Table 1.Multiple Linear Regression Analysis: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	0.525[a]	0.276	0.268	.8437

a. Predictors: (Constant), RF, EN, AW, HC

Source: Research,(2015)

Table 1 represents the Summary of the model and based on table 1, the goodness of fit of the model was atgoodlevel. P values and F values provided the evidence for ensuring the predictability of the model.The R^2 value reported as0.270 which predict 27% of the dependent variables through independent variables.

Table 2 .Coefficients of Regression

Model	Unstandarized Coefficients		Standarized Coefficients Beta	t	**Sig**
	B	Std.Error			
(Constant)	.820	.183		4.486	.000
EN	.046	.051	.040	0.902	.368
AW	.367	.155	.322	6.727	.000
HC	.252	.054	.234	4.659	.000
RF	.095	.053	.088	1.794	.074

Source: Research,(2015)

Table2represents the Coefficients of Multiple LinearRegression andwere revealed that the degrees of impact of environment concern, awareness, health consciousness and reference group influence on purchase intention of organic food.Awareness was reported the highest regression value of 0.367 which was significant at 99% level of confidence and provided the evidence that increase in one unit of awareness lead to increase in 36.7.% of purchase intention. Health corniness wasreported as0.252, which was significant at 99% level of confidence and provided the evidence that increase in one unit of health consciousness lead to increase in 25.2% of purchase intention. Reference group influence was reported as 0.095 and environmentconcern was reported as 0.046.Those variables were not significant at 99% level of confidence.

$$PI = \beta_0 + \beta_1 EN + \beta_2 AW + \beta_3 HC + \beta_4 FR + \epsilon_i$$
$$PI = \beta_0 + 0.046EN + 0.367AW + 0.252HC + 0.095RF + \epsilon_i$$

3.2.1Stepwise Regression Analysis

Stepwise Regression Analysis used to identify key detainments.A model was developed and awareness reported as the most influential determinant and health consciousness reported as the next highest. Reference group influence and environment concern were excluded from the model as depicted in table 3.Stepwise regression was reported the same findings by highlighting awareness   as the key determinants and health consciousness as the second highest determinant which impact on purchase intention of organic food purchase intension in Sri Lanka with the coefficients of 0.451 and 0.275 with 99% confidence. Based on the regression coefficients the modified regression model was developed as given below.

$$PI = \beta_0 + \beta_1 AW + \beta_2 HC + \epsilon_i$$
$$PI = \beta_0 + 0.395AW + 0.296HC + \epsilon_i$$

Table 3. Stepwise Regression Analysis: Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.451[a]	.203	.201	.8814471
2	.518[b]	.268	.264	.8461084

a. Predictors: (Constant), AW; b. Predictors: (Constant), AW, HC

Source: Research,(2015)

R^2 value of the original model was0.276 which implies all the four independent variablesexplained 27% of the total variability of the purchasing intension.Table 3represents that the R^2 value of model was 0.203 which implies that

awareness explains 20% of the total variability of the dependent variable. The second model,the R^2value was 0.268 which implied that awareness and health consciousnessexplained 27% of the total variability of the purchasing intension. R value was 0.518 (52%), denotedthat awareness and health consciousness hadsignificant correlation withpurchase intension.

3.3Hypothesis Testing

The results of multiple linear regression analysis provided supportive evidence to prove the fourhypotheses of the research. The first hypothesis was H_1: There is a significant impactof healthconsciousness on purchase intention of the organic food. The coefficients of regression between health consciousness and purchase intention was0.252 and p< 0.001.It can be proved that, $H_1$was accepted under the confidence level of 99% and there is a significant impact from health consciousness on purchase intention. The Second hypothesis was H_2: There is a significant impact of environment concern on purchase intention of organic food. Coefficients of regression between environment concern and purchase intention was 0.046 and p>0.001.It can be proved that, $H_2$was rejected under the confidence level of 99%. There is no significant impact of environmental concern   on purchase intention of organic food. The third hypothesis wasH_3: There a significant impact of reference group influence on purchase intention of the organic food. The coefficients of regression between reference group influenceand purchase intention was 0.095 and p< 0.001.It can be proved that, H3was rejected under the confidence level of 99%. There is no significant impact of reference group influence on purchase intention of organic food. The fourth hypothesis wasH_4: There is a significant impact of awareness on purchase intention of the organic food.The Coefficients of regression between awareness and purchase intentionwas0.367 and p< 0.001. It can be proved that, H4was accepted under the confidence level of 99%. There is a significant impact of awareness   on purchase intention of organic food.

3.4 Discussion, Conclusion and Recommendations

The research finding demonstrated determinants of organic food purchase intention of Sri Lankan customers and it was reported that, awareness and health consciousness werethe two key determinants of purchase intention of organic food.Increase in one unit of health awearness lead to increase in36.7%of purchase intention. Increase in one unit of healthconsciousness leads to increase in 25.2% of purchase intention. Environment concern and Reference group influence were not reported as determining factors which were affecting on purchase intension of organicfood in Sri Lanka. With the increasing level of awareness, customers tend to have more intension to purchase organic food as well as the customers who concern about the health, have   increased intention to buy organic foods. Findings of health consciousness were consistent with the findings of Aertsens,[5];Tregear[3].Knowledge about organic food had positive impact on consumption of organic food[5 & 9]and the same was proved in Sri Lankan context. Yet, Sri Lankan customers' purchase intention of organic food has not been significantly impacted by the environment concern, where as many authors,Aertsens[5,] highlighted that environmental concern has a significant impact on consumption of organic food.Reference group influence on purchase intention of organic foodhas also not considered as impacting factor in Sri Lankan context.Extending organic food consumption is a sound and sustainable solution for the environmental and health problems   prevail in Sri Lanka .Purchase intention would employ as one of the   strategies to persuade consumption and demand of organic food. Policy makers need to draw specialattention on improving awareness levels and promote the health benefits of organic foodsin order to stimulate real purchasing decisions of Sri Lankan customers.

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