

## Consumers' Perception And Purchase Intention Of Organic Food Products In Batticaloa Eravurpattu Divisional Secretariat Area

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### Abstract

*The need for organic food is increasing due to greater consumer awareness of the nutritional value and food protection for health care. There are great potentials for organic food growth in other regions as well, such as developing countries, including Sri Lanka. This situation forced to gain knowledge about the consumers' perception and intention towards organic food products. The main research question of this study is "Whether health, safety, environmental friendly and animal welfare, and product quality influence on purchase intention?" In order to answer this main research question, primary data were collected from 39 Grama Niladhari divisions in Batticaloa Eravurpattu Divisional Secretariat area. A total of 321 completed questionnaires were gathered, representing 81.89% response rate, using stratified random sampling method. The data were analysed by using multivariate analyses. The finding of the study revealed that intention to purchase organic food was significantly influenced by the consumers' health, safety, environmental friendly and animal welfare and quality perception. The findings proposed useful information to organic food products marketers to develop effective marketing strategies to convince organic-concerned segment to purchase the organic food products and to enhance the pro-environmental purchasing behaviour in Batticaloa Eravurpattu Divisional Secretariat area.*

**Keywords:** Consumers' perception, Purchase intention, Organic food products.

### 1. INTRODUCTION

There is ongoing debate among scientists, policy makers, and other stakeholders about the future scenario and development of local, national, and global food systems. The main challenges are to provide enough food for the growing world population, reduce food waste, increase healthy diets and food consumption, conserve natural resources, mitigate and adapt

to climate change, and eliminate social injustice and cultural erosion, i.e. the loss of traditional knowledge (Kodirekkala, 2017).

Although we urgently need to change most farming systems, different approaches are proposed by the different stakeholder groups. On one side, there is the approach that increasingly relies on technology, such as precision farming, automatisisation, and the use of Genetically Modified (GM) crops. On the other side are the more ecologically based or traditional farming systems. Since the first year of commercial planting of biotech crops in 1996, more than 60 countries from all over the world have either planted or imported biotech crops (Clive, 2016).

In 2015, 18 million farmers planted biotech crops in 28 countries on 179 million hectares. Precision farming has also strongly expanded in the last decade by using Global Positioning System (GPS) and big-data technology. However, the more ecologically based systems have also expanded in the last decades: organic agriculture has been gaining popularity all over the world and traditional family farming, mainly in the tropics and subtropics, is still the backbone of world food production.

### **Problem Statement**

Nowadays, most environmental challenges that humanity is facing related to unsustainable consumption patterns and lifestyles (Ham, Pap & Stanic, 2018). As of recommended practices by the global initiatives, organic food production and consumption has been considered to be one of the important alternative measures of increasing consumer well-being and of reducing the environmental malaise and degradation for making our world safe and sustainable (McCarthy & Liu, 2017).

According to the data collected in Batticaloa Eravurpattu Divisional Secretariat area, there are 200 fast food restaurants which constitute a large portion of food consumption. In the long run, these chemicals in food adversely affect vital organs such as the liver and kidney resulting in organ failure and/or cancer and thus, ultimately loss of life (Rahman, Sultan, Rahman & Rashid, 2015). As per the 2018 and 2019 statistics report of Medical Officer of Health (M.O.H), Batticaloa the number of affected people by the conventional food consumption related notifiable diseases increased from 15 registered cases to 34 registered cases. All overly conventional food consumption related notifiable diseases has been

increased by 126% within one year. This may be associated with the increase of fast foods restaurants in Batticaloa (Statistics of M.O.H, 2019).

Organic food consumption patterns may be associated with a reduced risk of non-communicable diseases. This is underlined by studies demonstrating a reduced risk of type II diabetes (World Health Organization, 2014; Maghsoudi, Ghiasvand, & Salehi-Abargouei, 2016), cardiovascular disease (Schwingshackl & Hoffmann, 2015; Rodriguez-Monforte, Flores-Mateo, & Sanchez, 2015), some cancers (Feng, Shu, Zhang, Si, Yu & Zhang, 2017; Shu, Wang, Mu, Zhao & Tao, 2013; Brennan, Cantwell, Cardwell, Velentzis & Woodside, 2010); hypertension (Baudry, Mejean, Peneau, Galan, Hercberg, Lairon & Kesse-Guyot, 2015) and mortality (Li, Hou, Chen, Lei, Wei & Zheng, 2015) in people with healthy diets. There is also a lower mortality in people who report an overall healthy lifestyle, where a healthy diet is one factor (Loef, & Walach, 2012).

As per the 2018 statistics report of Regional Director of Health Services (R.D.H.S) in Batticaloa 4734 conventional food consumption related non communicable diseases registered but in 2019 it has been increased as 5261 registered cases. Comparing 2018 and 2019 registered conventional food consumption related non communicable diseases has increased by 11.13 percentage (Statistics of R.D.H.S, 2019). Therefore this research was conducted in-order to explore *“how consumers’ perceived organic food products and their behavioural intention towards the product.”*

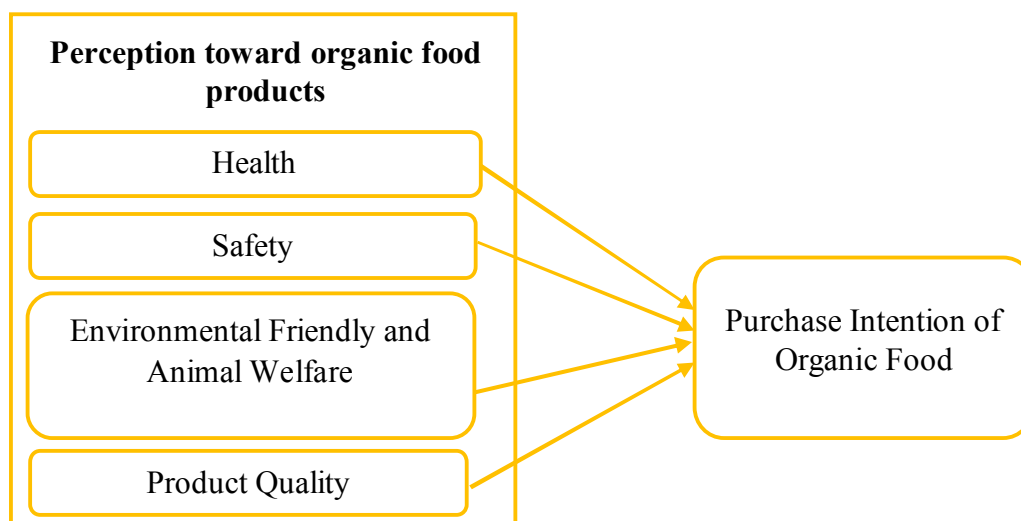
### **Literature review**

Asch and Wolfe (2001) note that when a consumer has recognized a need or a want to buy something, the way that the consumer acts is influenced by his or her perception of the situation. Because all people have their subjective way of forming perceptions, different people can have different kind of perceptions of the same object or situation. Perceptions are formed through a three stage process that consists of selective attention, selective distortion and selective retention (Kotler & Keller 2009).

Health consciousness reflects individuals’ thoughts on health issues and their readiness to undertake actions to ensure their health (Pham, Nguyen, Phan, & Nguyen, 2019). Food safety concern, in its broadest sense, indicates the degree to which people are worried about pesticide residues contained in food as well as about food scares (Pham et al., 2019). According to Dunlap and Jones (2002), environmental concern denotes the degree to

which people are aware of problems regarding the environment and support efforts to solve them or indicate the willingness to contribute personally to their solution. Perceived quality is the process where consumers judge the overall performance of a products Perceived quality can be measured with scales such as high quality versus shoddy quality, best in category versus worst in category, consistent quality versus inconsistent quality, finest quality versus average quality versus inferior quality (Aaker, 1996). Purchase intention is defined as the consumers' probability of purchasing a product or a service in the future and it is directly related to consumer attitude and preference. As behavioural intention is based on attitude, bearing in mind that customer relationship and customer retention are highly built on attitude, purchase intention is expected to have a strong relationship to attitude and a person's behaviour is affected by intention (Alnsour, Ghannam, & Alzeidat, 2018).

#### Study Framework



(Source: Wee, Ariff, Zakuan, & Tajudin, 2014)

#### Significance of the Study

This research main aim is identifying the influence of health, safety, environmental friendly and animal welfare and quality perceptions of organic food products on purchase intention. Mainly three parties benefited from this research; they are marketers, consumers and society, and students at large. Currently organic food market in Sri Lanka has shown a great progress when comparing with other Asian Countries.

#### Hypotheses of the Study

H<sub>1</sub>: Perceived health of organic food products positively influence the purchase intention.

H<sub>2</sub>: Perceived safety of organic food products positively influence the purchase intention.

H<sub>3</sub>: Perceived environmental friendly and animal welfare of organic food products positively influence purchase intention.

H<sub>4</sub>: Perceived quality of organic food products will positively influence the purchase intention.

## 2. MATERIALS AND METHODS

Research has adopted the positivism as a research philosophy. It has been noted that positivism as a theory is compatible with the empiricist view that understanding derives from human experience. This study used deductive approach and survey strategy under the quantitative research method. Time horizon of this study is cross sectional that means research data gathered only in a single point time. Batticaloa Eravurpattu Divisional Secretariat area selected as research site to conduct this research. Population of the study is 20459 families among 39 Grama Nilathari Divisions in Batticaloa Eravurpattu Divisional Secretariat area. Sample size of this study is 392 families. By using Stratified random sampling method this study was conducted. Unit of analysis is one respondent from each selected families.

Data collection based on the primary and secondary sources. Under the primary data collection standard structured questionnaire were issued. It consist of 4 personal information questions and 30 research information questions were used as research instruments for data collection from respondents. The part-1 of the questionnaire inquires respondent's gender, age group, educational qualification, and monthly income level.

The part-2 of the questionnaire were divided into two parts. Through part one focus on 18 questions under concept of perception; in that health includes 4 questions, safety include 4 questions, environmental friendly and animal welfare include 6 questions, and product quality include 4 question. Part two focus on purchase intention include 6 questions. The development of the part-2 research information were based on the following:

In the perception, specifically, four items for measuring consumers' perceived health of organic food products were adapted from Lea, and Worsley (2005); Mohamed, and Shamsudin (2011), four items for perceived safety of the product Mohamed et al. (2011), six items of perceived environmental friendly and animal welfare Mohamed et al. (2011); Rezai,

Teng, Mohamed, and Shamsudin (2012), and four questions of perceived quality of the product Kulikovski, and Agolli (2011). Six items of behavioural purchase intention organic food products were constructed based on the studies of Shaharudin, Pani, Mansor, and Elias (2010), and Rezai et al (2012).

To identify the influence of health, safety, environmental friendly and animal welfare, and product quality perception on purchase intention multiple regression analysis has been used in this study.

### 3. RESULTS AND DISCUSSIONS

Totally 392 questionnaire were issued, and 321 questionnaire were recollected. Recollected questionnaire all overly 81.89% in the sample size. The reliability of the instrument was measured using Cronbach's Alpha analysis. It measures the instrument's internal consistency, based on the average correlation between items. Table 1 indicates the outcome of Cronbach's alpha test, which implies that each instrument's internal performance was adequate.

**Table 1: Reliability Analysis for Overall Variables**

Variable	Cronbach's Alpha Value	Number of Question Items
Health	0.870	4
Safety	0.781	4
EF-AW	0.846	6
Product Quality	0.876	4
Purchase Intention	0.866	6

**Table 2: Respondent Demographics - Frequency Analysis**

Demographic Details	Total	Percentages
<b>Gender</b>		
Male	155	48.28%
Female	166	58.09%
<b>Age Group</b>		
Below 21	80	24.92%
21-35	116	51.71%
36-50	107	33.33%
Above 50	18	5.61%
<b>Educational Qualification</b>		

Below ordinary level	63	19.62%
Ordinary level	68	21.18%
Advanced level	84	26.17%
Undergraduate	54	16.82%
Graduate	36	11.21%
Postgraduate	16	4.98%
<b>Monthly income</b>		
Below 20,000	117	36.44%
20,001 - 50,000	94	29.28%
50,001 - 80,000	91	28.34%
Above 80,000	19	5.92%

Table 2 indicates the outcome of respondent demographics 'frequency analysis. Based on that larger portion of data collected from female, 21-35 age group, advanced level education, and below 20,000 income peoples.

**Table 3: Model Summary of Perception and Purchase Intention**

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.893 <sup>a</sup>	.797	.794	.30231

a. Predictors: (Constant), health, safety, EF-AW , and product quality

Multiple regression test was performed to examine the influence of health, safety, environmental friendly and animal welfare, and product quality perception and purchase intention of organic food products. Based on the Table 3 illustrates that 'R Square' statistic value is 0.797 which means 79.7% of the variation in purchase intention is explained by the perception of health, safety, environmental friendly and animal welfare, and product quality.

**Table 4: ANOVA for Perception and Purchase Intention**

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	99.611	4	24.903	272.484	.000 <sup>b</sup>
	Residual	23.315	277	.091		
	Total	124.926	281			
a. Dependent Variable: Purchase intention						
b. Predictors: (Constant), health, safety, EF-AW , and product quality						

a. Dependent Variable: Purchase intention

b. Predictors: (Constant), health, safety, EF-AW , and product quality



As per the Table 4, the proposed model was adequate as the F statistic ( $F = 272.484$ ) were significant as the 5% level since the p-value is less than 0.05.

**Table 5: Coefficients of Perception and Purchase Intention**

Coefficients <sup>a</sup>						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	.238	.122		1.977	.049
	Health	.143	.042	.167	3.417	.001
	Safety	.419	.072	.410	5.785	.000
	EF-AW	.312	.066	.296	4.718	.000
	Product Quality	.072	.030	.092	2.397	.017
a. Dependent Variable: Purchase intention						

Based on Table 5, regression equation can be written as follows:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e$$

Where, Y - Purchase Intention

$X_1$  - Health

$X_2$  - Safety

$X_3$  - Environmental Friendly and Animal Welfare

$X_4$  - Product Quality

$$PI = 0.238 + 0.143X_1 + 0.419X_2 + 0.312X_3 + 0.072X_4$$

The result indicated that perceived safety ( $\beta = 0.419$ ,  $p < 0.05$ ), perceived environmental friendly and animal welfare ( $\beta = 0.312$ ,  $p < 0.05$ ), perceived health ( $\beta = 0.143$ ,  $p < 0.05$ ), and perceived product quality ( $\beta = 0.072$ ,  $p < 0.05$ ) significantly influence the purchase intention of the organic food products. The study shows highest influence on the purchase intention is described by perceived safety ( $\beta = 0.419$ ,  $p < 0.05$ ). Therefore, there is enough evidence to reject null hypothesis and the following alternative hypothesis of the study is accepted. There are some findings which empirically supports the positive influence on purchase intention.

A study by Cabuk, Tanrikulu, and Gelibolu (2014); Lockie, Lyons, Lawrence, and Mummery (2002); and Van Dijk, Kyriakopoulos, and Nilsson (1997); tells positive influence of



perceived health on purchase intention and suggests that consumers are willing to purchase organic food products because they perceived the products are more good for their health.

A study by McEachern, Seaman, Padel and Foster (2005); Fagerli and Wandel (1999); and Schifferstein and Oude Ophuis (1998); tells positive influence of perceived safety on purchase intention and suggests that consumers are willing to purchase organic food products because they perceived the products are safer to their health.

A study by Fagerli and Wandel (1999); Pal and Zsuzsa (2012) tells positive influence of perceived environmental friendly and animal welfare on purchase intention and suggests that consumers are willing to purchase organic food products because they perceived the products are more environmental friendly, social norms and the moral considerations.

A study by McEachern et al., (2005); Magnusson, Arvola, Hursti, Aberg, and Sjoden (2001); and Olson (1977) tells positive influence of perceived product quality on purchase intention and suggests that consumers are willing to purchase organic food products because the rapid consumption.

#### **4. CONCLUSIONS & RECOMMENDATIONS**

Objective of the study: To identify the influence of health, safety, environmental friendly and animal welfare, product quality perception on purchase intention.

The multiple regression analysis was applied to analyze the influence among study variables. The results of study has been found that, organic food products' health, safety, environmental friendly and animal welfare, and product quality perception has positive and significant influence on organic food products' purchase intention. Safety perception highly influence the organic food products purchase intention and quality perception influence the organic food products purchase intention narrowly. According to the above conclusion, following recommendations are proposed by the researcher.

- Government can increase these positive health perception through conducting awareness campaign on the benefits of organic food products consumption.
- Social well-wisher parties or other parties can increase these positive safety perception through demonstrating the drawbacks of eating conventional food products to society.

- Government can provide positive and effective message to public through support organic farming projects. It will raise people's environment friendly perception towards organic food products.
- By using effective labelling practices (e.g., 100% battery cage free, Free of antibiotic growth hormones, salmonella control program) marketers can create a positive animal welfare perception in consumers' mind.
- Marketers should pay more attention on getting organic food certification to improve their products positive quality perception in consumer mind.

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