International Research Symposium
Rajarata University of Sri Lanka

IRSyRUSl 2015

Consumers' Willingness Over The Organic Food Product In Batticaloa District, Sri Lanka.

AmuthenieS[1]*, and Dasinaa. S[2]. Sugirtharan. M[2]

[1]Department of Agricultural Chemistry and [2]Department of Agricultural Engineering, Faculty of Agriculture, Eastern University, Sri Lanka

ABSTRACT

Sri Lanka is identified as one of the agricultural countries in the world and agriculture plays a vital role in livelihood performance of the population and economic status of the country as well. Agricultural sector contributes a significant role in national GDP (10.9%) and less percentage involvement occurs via organic farming. Therefore, the production of organic food is a challenging issue from naturally available substances with the help of technical supports and knowledge. This trend is highly fixed to the current society and people who are with much more awareness against the causal agents which creates health risk and threats for the person's long live. In these circumstances, current study was focused on Batticaloa District by adapting three major DS Divisions named as KoralaiPattu North, Eravur Town and Manmunai North including ten GN Divisions in Batticaloa District, Sri Lanka where the organic cultivation is significantly higher in its statistics. Based on the number of production sites, consumption pattern also higher within those areas which reached the peak success in its selling rate. Therefore, a well-designed questionnaire was formulated along with the objectives of the willingness of consumers with the related attributes of organic food production and selling. And also, the structured questionnaire was distributed to the 150 randomly selected consumers who were available in entire selling sites of organic produce with the origin of those particular DS and GN Divisions along with the objective of consumers' personal interest on organic produces.

Hence, the study revealed that the age group between 41-50 (40%) and 31-40 (30%) showed a great interest on buying those produce. And also, the trend in the high percentage of involvement occurred among the population by holding the category of Degree level (50%) and Secondary level (20%) education based on the positive nature of organic produces gained via the learning. Around 50% of the respondent who dwell in those areas could not buy such commodities due to the lack of availability of demanded goods throughout the day and also, all the cultivated goods were completely sold due to the high demand given by consumers towards the organic products in those areas. In addition, labelling on organic product was preferred by the consumers (100%) in Batticaloa District, Sri Lanka. To welcome those issues in future, awareness of the society and consumer preference should be concentrated much further and deeper on organic products which are beneficial to the health of people.

KEYWORDS: *Consumers' Preference, Demand, Labelling, Marketing, Organic Produce*

[1]* Corresponding Author: Amuthenie. S: sugirtharan818@yahoo.com

1 Introduction

Over the past two decades, consumer demand for niche products (including organic and locally grown foods) has grown substantially (Riccarda Moser et al., 2011). Consumers' perception on quality of the organic produce is significantly influenced by the product's intrinsic attributes as well as by extrinsic indicators and cues provided by the seller of the product (Caswell et al., 2002). Food as a good can be classified into search, experience and credence goods according to the level of quality that can be discovered by the consumer at different stages (Riccarda Moser et al., 2011). The credence good category incorporates a wide range of fairly intangible and often interrelated characteristics such as outcomes related to public health, environmental conservation, origin, creation of employment, supporting small-scale agriculture and local rural communities, farmers living and producing in marginal and/or disadvantaged conditions and workers' rights. All these attributes fully or partially fall under the realm of public goods (non-excludable, non-rivalrous) (Darby et al., 2006).

In Sri Lanka, contribution of organic farming to the livelihood attitude of a family was rare in past decades. Nowadays, this trend has been changed a lot due to the pros and cons of organic products to inorganic products. As evidenced by the growing number of consumers who are concerned about the nutritional value of what they eat and attempt to follow a healthful diet that can decrease the risk of obesity and chronic diseases. Market surveys have shown that consumers perceive organic food products as being less harmful to the environment and containing less chemical contamination, but their reactions to the quality of organic foods are not very well established (Charles et al., 2002). Therefore, people started their farming from their home level and full fill their day to day needs and selling surplus. In such cases, sellers started to transport commodities from one place to another and supporting to consumers who have not enough space and time for organic farming. However, people who dwell in BatticaloaDistrict, started contributing towards their living standards through which the adaptation of organic farming as a tool for the successful impacts on their health as well as nature. Due to such establishments, consumers move towards those kind of selling places and buying for their domestic purposes in those areas. Hence, with the consumers' background and nature, the following objectives were developed to continue this study in Batticaloa District, Sri Lanka.

2. Objective of the study

Following aspects were analysed to determine the consumer based factors on buying organic products.

1. To study the overall importance and willingness of the consumers to purchase such organic foods cultivated in Batticaloa District, Sri Lanka.
2. To identify the future concerns and willingness of the consumers on buying fresh organic produce.

3. Materials and Methods

A questionnaire survey was designed to have a better understanding of consumers' willingness towards their adaptation on consumption of organic vegetables and fruits. Survey was divided into two main categories which were socio-economic information and Consumers' view. Household information including gender, age, civil status, ethnicity, family size, education level and employment status were arranged in an order for the clear biography of the consumers. Further, satisfaction of organic vegetable and fruits, quality of commodity, price variation and importance of labelling were clearly spreaded in the questionnaire.

Three major DS Divisions named as KoralaiPattu North, Eravur Town and Manmunai North Divisional Secretariat Division were selected as the study area which are located in Batticaloa District where the cultivation of organic product was typically higher. Within that, Kathiraweli, Uriyankattu, Puthur, Kadukamunai, Navatkudah, Marapalam, Urukamam, Thiruperunthurai, Eravur and Putchankerny GN Divisions were the randomly selected as study locations where the accumulation of population who engaged in organic produce were higher in significant. Finally, detailed survey was elaborated to the consumers (150) and made them to the right respondence and awareness. The collected data were tabulated and spreaded in an Excel sheet and undergone for statistical analysis with SPSS (version 22).

4. Results and Discussion

a. Socio-economic information of the consumers

According to the present study, more than 80% of the men had the regular visit to the production sites

of the organic produce than the women (Figure 1). It might be due to the location of the organic food production sites which are slightly far from their home and the access by the women were little difficult. And also, in most of the cases, the organic product were sold at their own production sites before it reaches to the markets. Therefore, the location identification by the women is the challenge while comparing with the men. During the study period, the visiting was as shown in the Figure 1.

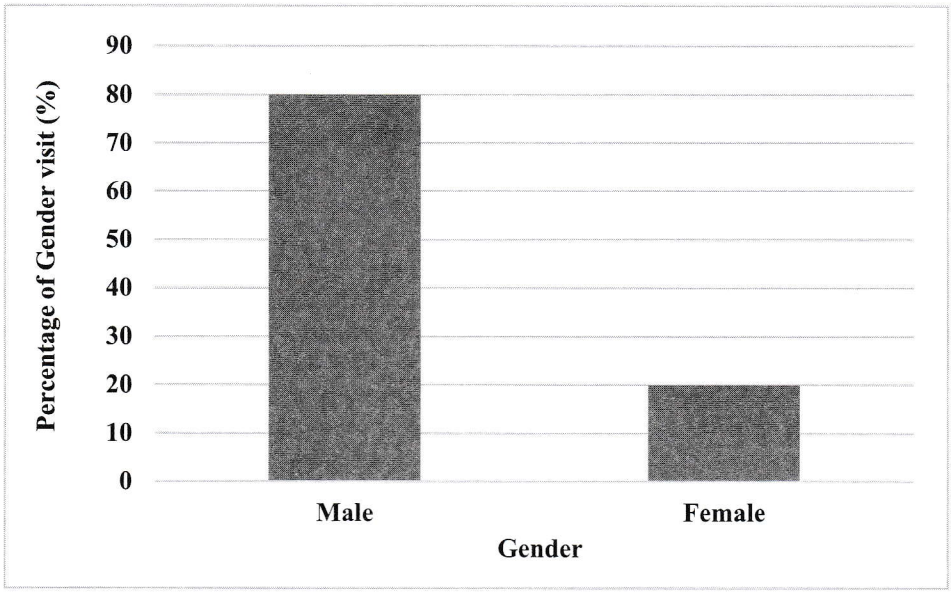

Figure 2: Gender distribution as consumers (visiting) at the organic market

Here, the age group of consumers who visit organic farming sites was categorised into four main categories where the contribution of male and female was higher under the age category of 41-50 (40%) and 31-40 (30%) took place the second most important place (Figure 2). Third place was trapped by the age group of above 51, during this study period in Batticaloa District.

Majority of the population dwells in Batticaloa District was identified as Tamil, Muslim and Burgher where the ethnic group of Sinhalese is null in head counts. During the study period, people who visit the production sites (Organic vegetables and fruits) were observed and noted which represented around 70% of the Tamil people, 10% of Muslims and rest were Burghers (20%). Approximately, 90% of the total respondent got married and 10% came under unmarried category. In addition, family size ranges between three and six during the study period.

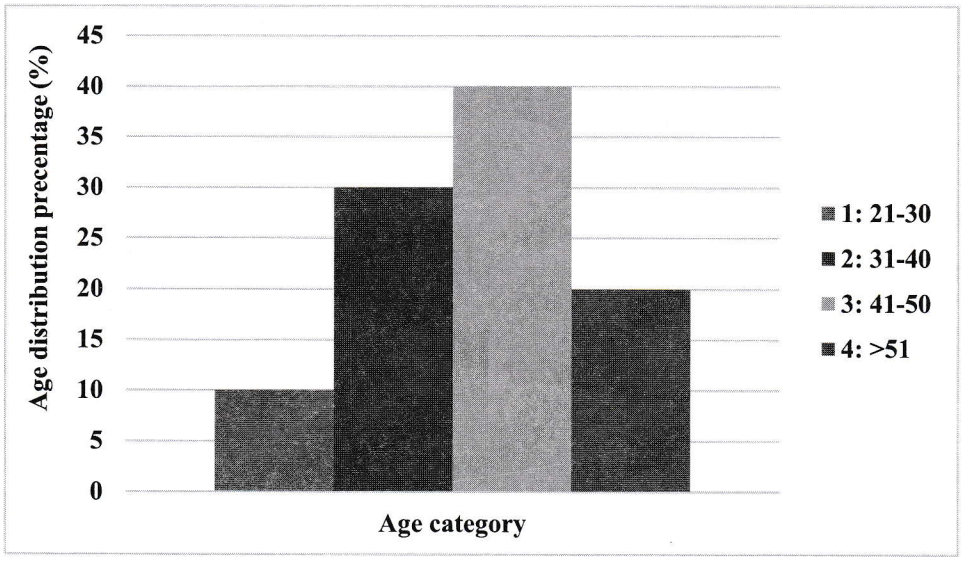

Figure 3: Distribution of age in buying organic food

Most of the consumers who visit those organic production sites were mainly engaged with the government jobs (70%) and around 10% of the people were with self-employment. It was the direct visit of respondent to the organic vegetables production sites and willingness on finding the organic products wherever it is available in Batticaloa District. And also, it was one of the responsibilities of the household head to feed their family with the chemical free foods for their long lives.

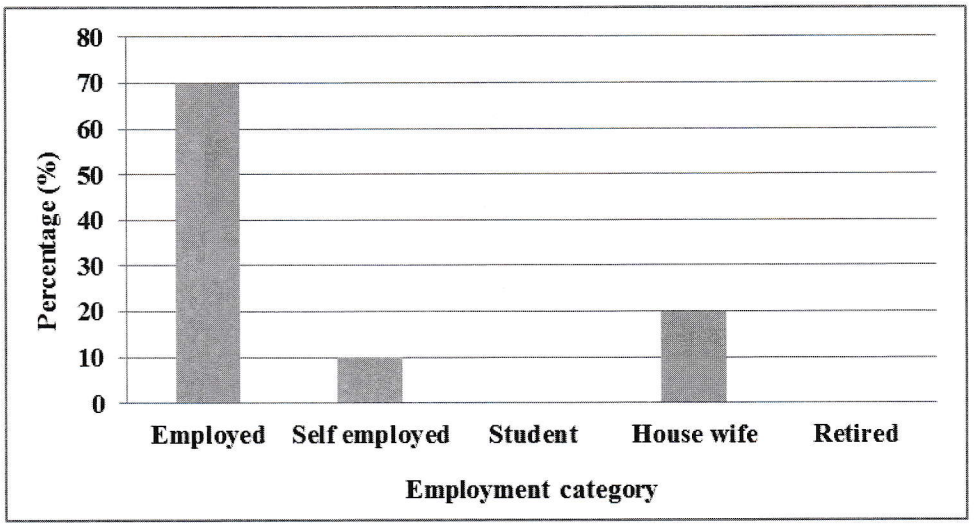

Figure 4: Employment category of the consumers

And also the educational qualification of the respondents (consumers) reached around 50%, 20%, 10%, 10% and 10% with degree, secondary, diploma, technical education and primary, respectively. Therefore, the background is one of the fact to differentiate the chemical free foods, importance of organic produce and its benefits as well.

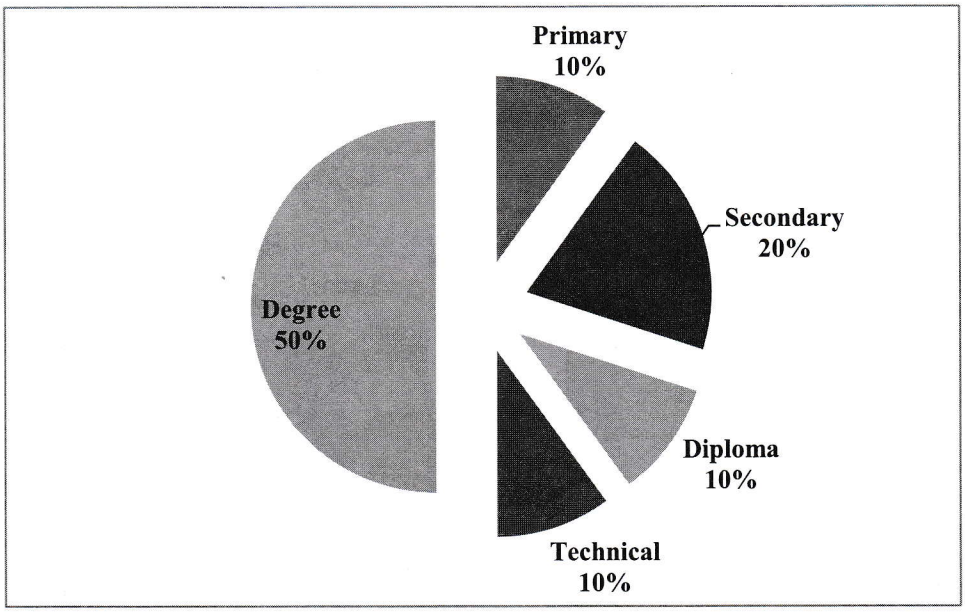

Figure 5: Educational background of the consumers

b. Demand and supply of available organic produce

Area which was responsible for the supply of adequate amount of organic products was little lower in Batticaloa District and it has been currently under the enthusiasm while comparing with the past situations. Here, the demand has been increased due to the health benefits.

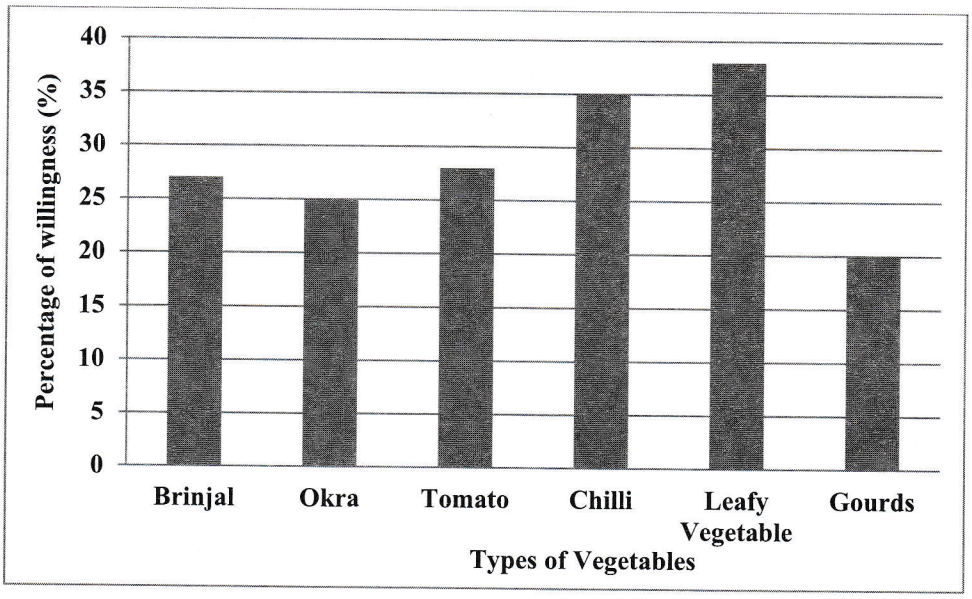

Figure 6: Demand of available organic produce (vegetables) to the consumers

Although, people face such difficulties due to the lack of resources especially land for their successful cultivation, still the demand for the organic produce is higher. However, the production sites are much lower in Batticaloa District and it is higher while comparing with the previous years. It is because of the scarcity of land, people started buying organic products from the available sides without considering their economic level. And also, people who worried much on their economic benefits started cultivating organic products at their home level only for the household consumptions. Brinjal, okra, chilli, tomato, pumpkin, gourds and leafy vegetables were the higher demanded organic produce in Batticaloa District (Figure 5).

According to the present study, consumers preferred much on leafy vegetables (38%) for their balanced diet as well as the healthy conditions. Variety of organic produces was not higher but it was focused from the consumer side and their preference. Approximately equal amount of consumers' preference was on Brinjal, Okra and Tomato. However, chilli was preferred by the consumers for the spicy condition which was significant and around 35% of the consumers focused on buying organic chilli.

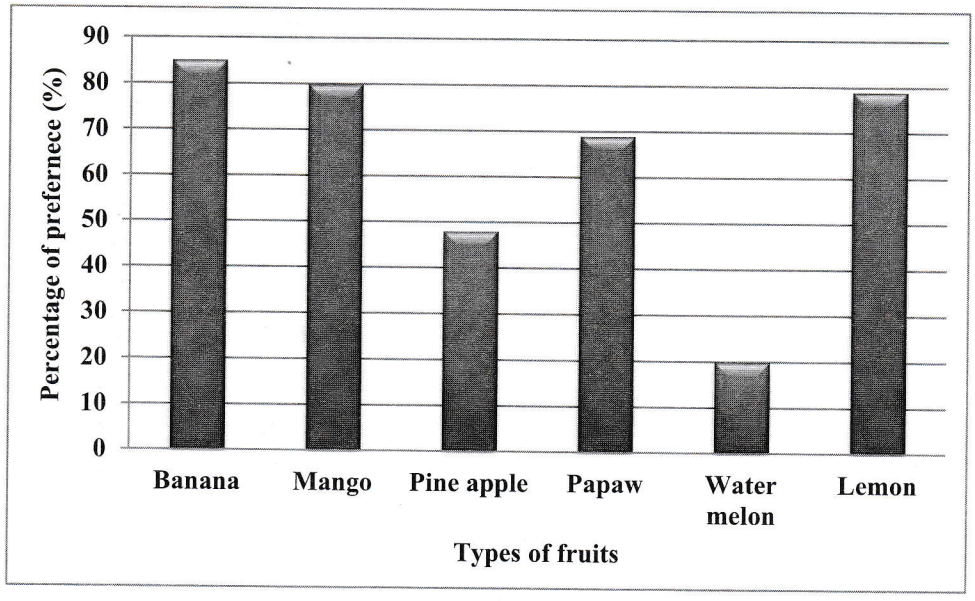

Figure 7: Consumer preference for organic fruits

In this study, there was high demand for Banana produced via organically and around 85% of the

consumers bought as their desserts due to availability in all the seasons. Secondly, Mango was considered into the fruit category and reached its peak at 80%. For the better digestion, most of the consumers preferred papaw which was organically produced and sold in those particular villages (Figure 6). Water melon was one of the high water content fruits mostly preferred during the hot climatic condition and sellers focused those in their dry climatic conditions. During the hot climatic condition, lemon and water melon was demanded by the consumers for the drinking purposes as juice. It was around 78% and 20% for lemon and water melon in Batticaloa District.

Together with visual, smell and aroma components, health related attributes are perceived by consumers as the most significant reasons to buy sustainable food. According to this literature review, perceived personal health related differences in fruits and vegetables can be linked to specific food components (artificial additives, genetically modified organisms), to the presence of nutritional components (rich in vitamins), and to the perceived risk associated with the use of agrochemicals. According to a large number of the studies, consumers perceive sustainable fruits and vegetables as being natural, with higher vitamin and nutrient content, and containing fewer or no pesticides and additives compared to conventional fruits and vegetables.

c. Consumers' view for buying organic food in local markets

Present study showed more than half of the respondent (70%) has the regular visit to the production site to buy organic products. While experience and search good involves usually private good characteristics, credence good provides private benefits to those who consume the good, while its production often has "affiliated public dimensions" (Lusk et al., 2007). Reason for the irregular visit of such respondent was considered with their lack of time in week days and they had the choice to purchase goods on weekends. It was the evidence to this research that around 80% of the male respondents involved in regular visit to this selling site due to the higher exposure to the outside and works. Consumers who regularly visit those production sites prefer (70%) to have more stalls with different variety of vegetables and fruits. However, they satisfied with presently sold products in organic market.

At the present study, 50% of the respondent responded that they could not buy organic vegetable and fruits in the evening time. In addition, the demand of organic product in these areas was higher, which lead the sellers to sell their product as soon as possible. And also, 100% of the respondent mentioned that the price of organic product, as "reasonable" one. Related to risk concerns, "pesticide free" is perceived as another important attribute in consumer buying behaviour as respondents were willing to pay a premium averaging 15% above the regular price to buy pesticide-free fresh (Onozaka et al., 2007).

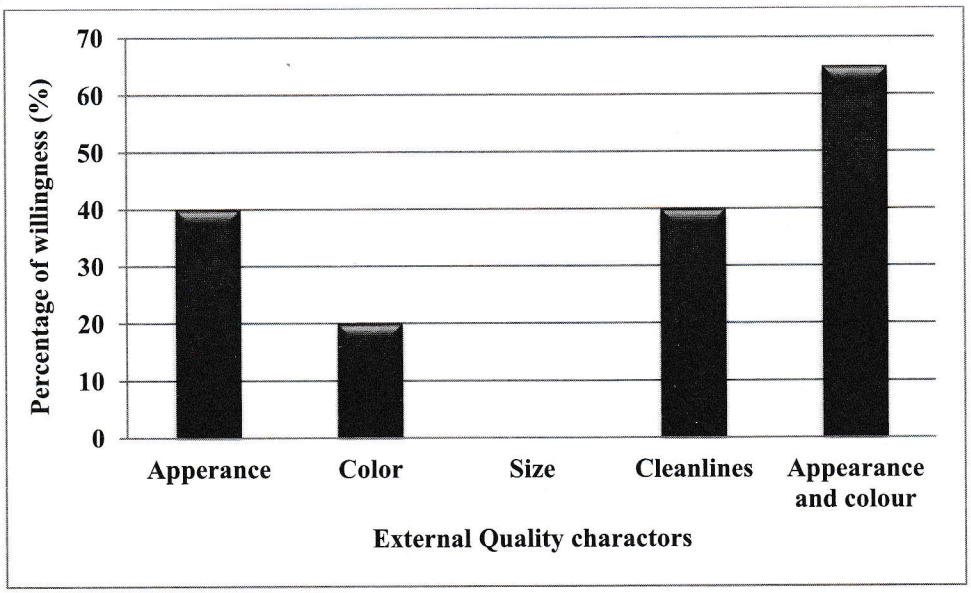

Figure 8: Willingness of consumers on external quality characters

Most of the consumers purchased organic products with such quality characters those are appearance, colour, size and clean lines. The main components are flavour – defined as being made up of taste (sweetness, acidity, astringency, bitterness) and aroma – texture (defined as firmness, juiciness, succulence) and colour and shape (Tan, 2000). Those quality aspects were satisfaction to the consumers and willing to purchase more and more commodity in future too. And also, "flavour", better, intensive and authentic taste, good texture, and freshness. Moreover, these components were commonly used as indicators about the overall product quality (Ness Mitchell et al., 2010). Concerns about global climate change may also have been an important factor in consumers' decisions to purchase locally available products.

Around 40% of the customers prefer the best appearance on their expected food product as one of the quality characters and also, around half of the appearance contributes on colour as the quality aspect. During the study period, no one was ready to select the organic fruits and vegetables according to their size (Figure 7). Clean lines were the morphological character which decides the external appearance of the food product without any blemishes. As a result, both appearance and colour were considered as a remarkable quality characters in the study location.

Labelling was another criterion to determine consumers' willingness for future aspects. Whole respondents preferred to have labelling on their purchased product to fit their trusty with organic products. People think,labelling on organic food ensures their health aspects as well. Together with visual, smell and aroma components, health related attributes are perceived by consumers as the most significant reasons to buy sustainable food (Riccarda Moser et al., 2011). Several studies suggest that the lesser importance placed on certification process could be due to the lack of clear procedures that implicitly guarantee the credence attribute, such as safety (Zanoli et al., 2007). However, among different labels, eco-labels seem to provide the most effective market signal (Rodriguez-Ibeas et al., 2007). Eco-labels for fresh apples and tomatoes showed a price premium of between $0.10 and $0.50 per pound (Mabiso et al., 2005).

According to the present study, no one was with 100% belief of selling organic food products in Batticaloa District. That was extended from 50% to 90% where 70-79% category took part a high percentage contribution from the respondent in Batticaloa District. Equal range of (30%) belief held on rest of the percentage. It might be due to the lack of proper labelling in organic food products at the recognized areas. Currently, consumers select their commodity with their skills and knowledge gained from literature sites. It can be supported in future, through the proper labelling in its nature sites.

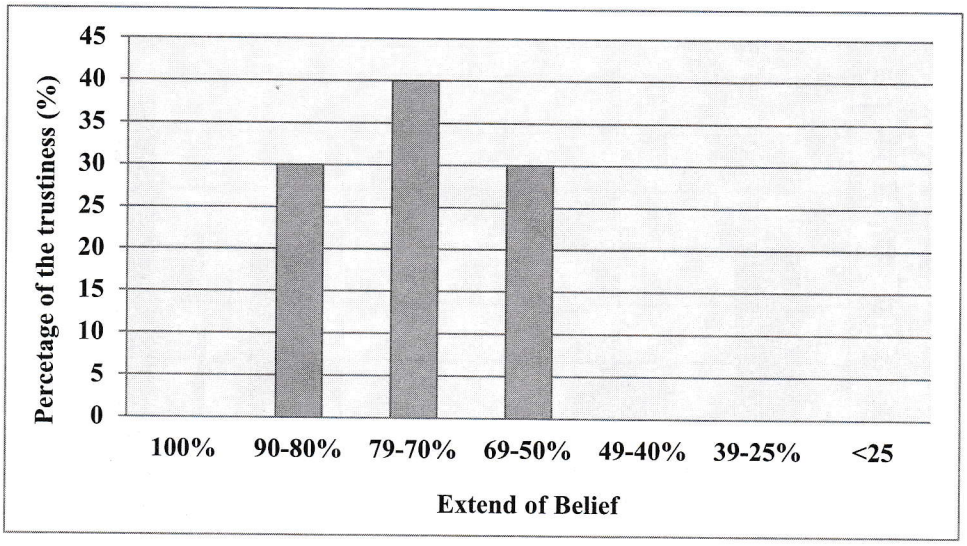

Figure 9: People's extend of belief on buying organic food

It is a worldwide phenomenon that people have become more and more separated from their origins of their food. At present, they much worried about their health; consumers seek out certified products to protect themselves from toxins and carcinogens. With an increasing awareness of the domestic

problems regarding pesticide poisoning and diseases from fresh food products, organic food production can be stimulated in all the parts of the world.

5. Conclusion

Study revealed that the consumers' willingness on buying organic products depends on such attributes. Educational background with the concept of organic farming contributes a lot in choosing and identifying organic produce. Age between 41-50 (40%) and 31-40 (30%) showed a great interest on buying those produce. And also, high percentage of involvement occurred with the category of degree level (50%) and secondary level (20%) education. Around 50% of the respondent could not select the commodity at the evening and all the goods were completely sold due to the high demand given by consumers towards organic products. For further achievement labelling on organic product is preferred by the consumers (100%) dwell in Batticaloa District, Sri Lanka.

References

Caswell., Julie A., Corinna, M., Noelke., and Eliza, M Mojduszka. (2002). Unifying Two Frameworks for AnalysingQuality and Quality Assurance for Food Products. In Global Food Trade and Consumer Demand for Quality, ed., B. Krissoff, M. Bohman, and J. A. Caswell, 43-61. New York, NY: Kluwer Academic/Plenum Publishers.

Charles S Brennan., and Victor Kur. (2002).Relationship between sensory attributes, hidden attributes andprice in influencing consumer perception of organic foods. UK Organic Research 2002: Proceedings of the COR Conference. 65-68.

Darby., Kim., Marvin, T., Batte, Stan Ernst., and Brian roe. (2006). Willingness to pay for locally produced foods: A customer intercept study of direct market and grocery store shoppers. Paper Presented at the American Agricultural Economics Association Annual Meeting, Long Beach, California, July.

Lusk, Jayson., Tomas Nilsson., and Ken Foster. (2007). Public Preferences and Private Choices: Effect of Altruism and Free Riding on Demand for Environmentally Certified Pork. Environmental & Resource Economics 36(4): 499-521.

Mabiso.,Athur., James Sterns., Lisa House., and Allen Wysocki. (2005). Consumers' Willingness-to-Pay for Country-of-Origin Labels in Fresh Apples and Tomatoes: A Double-Hurdle Probit Analysis of American Data Using Factor Scores. Paper Presented at the American Agricultural Economics Association Annual Meeting, Providence, Rhode Island, July.

Ness., Mitchell R., Mitchell Ness., Mary Brennan, Elizabeth Oughton, Christopher Ritson, and Eric Ruto. (2010). Modelling consumer behavioural intentions towards food with implications for marketing quality low-input and organic food. Food Quality and Preference 21: 100-111.

Onozaka., Yuko., David Bunch., and Douglas Larson. (2006). What exactly are they paying for? Explaining the Price Premium for Organic Fresh Produce.UPDATE Agricultural and Resource Economics. 9(6): 1-4.

Press note. Estimates of Gross Domestic Product (GDP) (2002 – base year).1st quarter of 2015.The Department of Census and Statistics.Ministry of Policy Planning, Economic Affairs, Child, Youth and Cultural Affairs, Sri Lanka.

Riccarda Moser, Roberta Raffaelli and Dawn Thilmany-Mcfadden. (2011). Consumer Preferences for Fruit and Vegetables with Credence-Based Attributes: A Review. International Food and Agribusiness Management Review / Volume 14, Issue 2, 2011.

Rodriguez-ibeas., and Roberto. (2007). Environmental Product Differentiation and Environmental Awareness.Environmental & Resource Economics. 36: 237-254.

Tan, S. C. (2000). Determinants of eating quality in fruit and vegetables.Proceedings of the Nutrition Society of Australia. 24:183-190.

Zanoli.,Raffaele., Martine François, Peter Midmore, KaterineO'Doherty-jensen, and Christopher

RITSON. (2007). Determining consumer expectations, attitudes and buying behaviour towards "low input" and organic foods. Paper Presented at 3rd QLIF Congress: Improving Sustainability in Organic and Low Input Food Production Systems, University of Hohenheim, Germany, March.