

# CONSUMERS' ATTITUDE TOWARD ORGANICALLY GROWN VEGETABLES PRODUCT IN CALABAR MUNICIPALITY

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## Abstract

*The study investigated consumers' attitude toward organically grown vegetables in Calabar Municipality. The study was motivated by consumer interest in organic vegetables especially for some class of consumers. The independent variables for the study were; price and quality of organically grown vegetables. The study adopted a survey research design in order to sample across section of consumer response. Questionnaire instrument was the chief means of primary data collection method. A simple random sampling technique was employed in the sampling procedures. The sample size was determined by using Top man formula. The study applied Pearson Moment Correlation Coefficient to analysis 245 copies of questionnaire, the result showed that price does not significantly affect consumer attitude towards organically grown vegetables. Quality of organically grown vegetables has a weak relationship with its consumption. The study recommends that farmers as well as consumers should be educated on the importance of organically grown vegetables. The knowledge of farmers and consumer should be reinforced through persuasive marketing communication; the health benefits of the organically grown vegetables should be advocated by government at various levels through its agricultural institutions and*

*relevant stakeholders. This has an implication for better pricing attitude on the consumers.*

**Key words:** Organic vegetables, Quality, Price and consumer attitude

## 1.1 Background of the study

Technological advancement in the 21<sup>st</sup> century has raised the degree of consumers' enlightenment, sophistication of taste and other marketing environmental dynamics. Hence, consumers have become increasingly knowledgeable on the importance of consuming quality products such as organic vegetables for healthy living. This can be adjudged by the growing number of informed consumers who prefer and desire organic vegetables for consumption to inorganic vegetables.

Vegetables generally are herbaceous plants grown for food such as fluted pumpkin, green, cabbage, lettuce among others. Specifically, organic vegetables are products of organic farming which is a farming method where farm inputs such as fertilizers, pests and disease control measures for both plants and animals are obtained from natural products which are renewable (Orgi, 2013). The processes of organic farming are environmentally

friendly as compared to the inorganic method.

Organic vegetables are not just biologically acknowledged to be rich in vitamins but naturally medicinal and good for healthy body system. These vegetables are highly required in the preparation of daily meals, most especially for vegetarians. Many researchers have pointed out the health benefits of organic vegetables and other organic products for human consumption.

The potency of organic farming in Nigeria is high as local farmers still strongly hold to the traditional land tenure system due to vast vegetation. In many advanced countries such as United States organic foods have emerged as niche market for major food industry since early 1980 (Thompson & Lohr,1998). Research by nutritionists and health experts coupled with education on the health benefits of organic vegetables and other foods, there is increase in the consumption of these food items.

Thus, it has become vital to assess the attitude of consumers toward organic market patronage in recent times. This line of thought became imperative as it may seem strange that many producers of vegetables in Cross River State and Nigeria at large may not be acquainted with the nutritional quality or value of organic foods over inorganic foods. Again the frequency and quality of information to the reach of consumers can enhance purchase decision of organically grown foods. Hence in this research, organically grown vegetable will be assessed based on product quality and price value, thus; the study was motivated to measure the influence of these variables on consumers' attitude towards organically grown vegetables in Calabar, Nigeria.

## **1.2 Statement of the problem**

Inspite of the large land mass and vegetation in Cross River State and Nigeria at large

that supports the shifting cultivation farming system, it is strongly alleged that potency of organic farming is highly undermined and still at a low, unlike in advanced worlds, Nigeria is yet to develop and grasp the full potentials of organic farming.

Gain Report (2014) indicates that Nigeria cultivated 3,154 and 11,979 hectares only in 2007 and 2010 respectively. Many farmers who though hold to the traditional land tenure system bow to pressure to welcome the application of NPK fertilizers that possesses the challenge of poor product quality and forceful maturity of farm produce.

The results of these challenges are easily food decay and shorter life span due to difficulty of preservation among others. It is also suspected that due to few or non-conduct of research and scanty or non-documentation of information on organic farming activities, these are some of the reasons why there exist low activities on organic farming and foods unlike developed Western economics where many researchers have investigated organic vegetables or foods (Loureinu & Hine, 2001).

Govindasamy (2001), Govindasamy and Itilia (1998) state that evidence exist to show that gender and income highly influenced consumers' decision for the consumption of organic products. On the other hand few studies exit on the relationship between health safety (product quality) and price value of organically grown vegetable as factors that can influence consumers' attitude. Hence, there exist a gap in the context of consumers' attitude towards the consumption of organically grown vegetable and to understand consumer preferences that are product of attitude.

### 1.3 Objectives of the study

- i. To determine the influence of quality of organically grown vegetables and consumer attitude in Calabar municipality.
- ii. To evaluate the influence of price of organically grown vegetables on consumer attitude in Calabar Municipality

### 1.4 Research questions

- i. Does product quality of organically grown vegetables influence consumer attitude in Calabar municipality?
- ii. To what extent does the price of organically grown vegetable influences consumer attitude in Calabar municipality?

### 1.5 Research hypothesis

HO<sub>1</sub>: There is no significant relationship between the quality of organically grown vegetables and consumer attitude in Calabar municipality.

HO<sub>2</sub>: There is no significant relationship between price of organically grown vegetable and consumer attitude in Calabar municipality.

### 1.6 Significance of the study

The study is suggested to be of benefits to the society as this will bring to the laudable advantages such as health and medicinal benefits associated to organic vegetables consumption. The producers and middlemen will be acquainted with the make-up or content and preservation benefit as they offer these products to market for

sales'. A fresh and challenging ground is created for further research to the academic world.

## 2.1 Theoretical framework

### 2.1.1 Assimilation contrast effect theory

The theory of assimilation contrast effect was introduced by Schwartz and Herber (1992), the theory states that consumer often depends on some attributes of a product to make an overall evaluation of them since complete product information is rarely available to consumers. In the case of organic vegetables, these attributes may be nutritional value, economic value, freshness of organically grown vegetables, table and healthy safety consideration etc.

### 2.1.2 Adaptation level theory

The theory was forward by an American psychologist Harry Nelson in 1947. It states that an individual's evaluation pertaining to a particular result depends on the collective experience garnered by the same while facing similar situation in the past. This theory explains that consumers with positive experience of purchase of organically grown vegetable may prefer it over inorganic vegetable, if face with difference choices of inorganic or organic vegetables in the market place on their various product experience in line with their need. The theory also has an implication to the price that consumer who is willing to pay for some class of customer. Organic product with positive express may command a premium price in the market.

### Conceptual model



Organic vegetable consumption in Calabar can be influenced by a negative or positive attitudes of consumer based on consumers state of information based on their product quality and their prices in the market place.

## **2.2 Concept of consumer attitude**

Consumer attitude is a complex pattern and sophisticated understanding for marketing researchers, it is the study of psychological, social and physical actions when people buy, use and disposed product services, ideas and practice (Johnman, 2006). The attitude of consumes are dynamic in nature, consumers are increasingly becoming aware of chemical effect present in vegetables, they tend towards purchasing organic food as an alternative to safety and healthy foods.

## **2.3 Quality of organically grown vegetable and consumers' attitude**

A part from health, food safety and environmental considerations, several other product characteristics such as nutritive value, taste, freshness, appearance, and other sensory characteristics may influence consumer preferences for organic vegetables (Bourn and Prescott, 2002). In general, the empirical evidence supports the hypothesis that quality characteristics affect consumers' preferences for organic food; the most important including nutritional value etc. Wolf (2002) while most studies reviewed for North America tend to suggest that consumer rank taste and related sensory characteristics as more important than food safety and environmental concerns, studies in the other region (such as the EU) tend to place health and food safety, and environmental concerns at the top of the preference ranking.

## **2.4 Price of organically grown vegetables and consumers attitude**

Contrary to the usually economic theory of demand, income does not seem to contribute important information in predicting who is likely to purchase organic vegetables. Since

organic products often cost more than conventionally grown food. Jolly and Dheji (1989) and Jolly (1991) found that income was not important in explaining differences in food purchasing behaviour between buyers and non-buyers of organic poultry and produce. Park and Lohr (1996) found that the effect of income on organic carrot demand was zero. Besides the apparent lack of importance of income, other intermediate demand variables such as total household food expenditures seem to add little predictive information. Ester (1994) found that price is ranked by organic producer as the primary reasons for not buying more organic inputs for production. Both organic and inorganic producer consider the production as expensive, but non-buyers view it as too expensive. Closely tied to the issue of price is the concept of willingness to pay. Ajike, Akpan and (2016) posit that price is one of the most important factor during consumer decision making. Product managers generally believed that organic produce are too expensive. Morgan (1990) found that non-organic produce sellers who are interested in organic produce cite price as the main barrier to selling organic produce. He also finds that 76.6 percent of organic produce sellers use the same or lower mark up on organic produce as they do for non-organic produce; only 23.4 percent use a higher mark up on organic produce. Park & Lohr (1996) found out that as organic prices rise, quantity demanded falls at an increasing faster rate, making it difficult to keep prices high.

## **2.5 The importance of organic farming in agriculture**

Organic farming not only results in an economic benefit to small-scale farmer but it reduces pollution due to reduced nutrient run-off and leaching (Nyamangara & Berstron 2008). Increasing soil organic matter by organic farming has the added benefit of improving soil quality and thereby enhancing the long-term

sustainability of agriculture (Laird, 2001). Organic agriculture also help to conserve and improve precious resource-the topsoil, compaction, nutrient loss and erosion, organic farmers use trees, shrubs, leguminous plants to stabilize and feed soil, dung and compost to provide nutrients and terracing which prevent erosion and conserve ground water (Parrot and Marsden, 2002).

## 2.6 Empirical review

In a study by Adekunle, Akerele and Amodemasa (2006) in their study on consumer willingness to pay for organic leafy vegetables, in Abeokuta southwest Nigeria, evidence from double bounded dichotomous choice approach. In their finding the result showed that 70% of the consumers were willing to pay a premium price for the selected organic leafy vegetables. Although, the proportion of the consumers who were willing to pay the premium price generally decreased with increases in price. It was concluded that bid price, prior knowledge and income were significant factors influencing respondents' willingness to pay a price premium for the selected leafy vegetables in the study area.

Study by Deliana (2003) in his research on hierarchy of consumer decision in buying organic vegetable in bandung. Result future show that there is a significant relationship between source of information on organic farming and farmer's perception of organic farming. This implies that those who have more access to information on organic farming tend to have a favorable perception towards organic farming than those with little knowledge of organic farming.

In a study by Marie (2012) research on organic food consumer's knowledge attitudes and behaviour regarding labour in organic farms. Consumer's knowledge and awareness of current organic certification process attitudes influence their buying and

frequency of motives for purchasing organic foods. Most participants value the inclusions of labour in organic certification standards, reasoning that people should be paid fairly for their labour. However, the study suggests that consumers do not necessarily purchase organic vegetable to support farm worker.

## 3.0 Material and Method

### 3.1 Research design

Polite (2001) define a research design as "the researcher's overall for answering the research question or testing the research hypothesis". A survey research design has been employed for the study. Ngus and Katona (1953) survey design is an attempt to collect data from a subset of the population that will reveal specific facts about the population itself. The survey design is therefore considered appropriate for the collection of data on consumer's attitude toward organically grown vegetable product in Calabar municipal.

### 3.2 Population of the study

The populations of the study consist of males and females residing in Calabar Municipality who consume organic product.

### 3.4 Sample size determination

The study adopted Topman formula because the population of the study is unknown (Luck & Rubin 1987). The variables of interest were measured on pilot study where 10 respondents were approached whether or not the variables price and quality influence the purchase choice of the respondent disagreed. The sample size was determined as follows;

$$n = \frac{z^2 p \cdot q}{e^2}$$
$$p = \frac{8}{10} = 0.8$$
$$q = \frac{2}{10} = 0.2$$
$$n = ?$$

$$P = 0.8$$

$$Q = 0.2$$

$$e = 0.05$$

$$z = 1.96$$

By substitution,

$$n = \frac{1.96^2(0.8.002)}{0.052} = \frac{0.614656}{0.0025}$$

$$z = 245$$

### 3.5 Sampling techniques

Ekerete (2003) simple random sampling is a sub set of a statistical population in which

each member of the subset has an equal probability of been chosen. Simple random sampling techniques were used in respondent to (consumers) or organically grown vegetable product in Calabar Municipal.

### 3.6 Tool for Data Analysis

Pearson Product Moment Correlation (PPMC) was employed to test for relationship on the established hypothesis.

## 4.1 Presentation of results

**Table 4.1**

**Correlation result showing the relationship between quality and the consumption of organically grown vegetables**  
**Correlations**

		Quality variable	Consumptions pattern
Quality variable	Pearson Correlation	1	.388**
	Sig. (2-tailed)		.000
	N	164	162
Consumptions variable	Pearson Correlation	.388**	1
	Sig. (2-tailed)	.000	
	N	162	163

\*\* Correlation is significant at the 0.05 level (2-tailed)

### Interpretation:

The table above shows the statistic of the correlation result between of organically grown vegetable and consumption pattern. The R-statistic was = 38 percent which shows a weak relationship. However, the P.

values of .000<0.05 shows a relationship between the two variable variables. The implication of the result shows that the quality of organic and inorganic products is not differentiated by consumers.

**Table 4.2**

**Correlation result showing the relationship between price and the consumption organically grown vegetables**  
**Correlations**

		Price variable	Consumption pattern
Price variable	Pearson Correlation	1	.156*
	Sig. (2-tailed)		.047
	N	164	162
Consumptions pattern	Pearson Correlation	.156	1
	Sig. (2-tailed)	.047	
	N	245	163

\*Correlation is significant at the 0.05 level (2-tailed)

**Interpretation:**

The table above shows the correlation statistic of the price of organically grown vegetable and its consumption pattern. The R-statistic is 15% which implies that the relationship between the two variables is very weak. P-Value is 0.047 which is less than 0.05. However the result implies that the price of organically grown vegetables in Calabar is not appreciated by consumers. Hence, whether or not the farmers should grow organic vegetables, the price is not significant and attractive to organic farmers.

### 4.3 Discussion of findings

**HO<sub>1</sub>:** Quality of organically grown vegetables and consumption pattern.

In the test of hypothesis one, it was found out that the quality of organic products has a weak relationship with consumer consumption pattern. The outcome does not support the findings of Bourn and Prescott (2002) in their book "comparison of the nutritional value, sensory qualities and conventionally provided foods" with their ideas that different studies may have different notions of quality to the various survey respondents and quality in terms of both sensory and nutritive characteristics; others differentiated sensory characteristics from nutritive attributes. This finding goes to show the level of consumer awareness and the insignificant market of organic vegetable in Calabar. It means the bigger shopping malls in Calabar are not consciously making efforts to differentiate their market for organic vegetables. Spar and Discount city malls amongst other are concentrating on dehydrated foods with no attention to vegetables consumption in organic form. However, the freshness of tomatoes commands good price, but the price may not be based on their organic composition. On the other hand, the poor quality vegetables may command more patronage because of its cheapness. It is unfortunate to say that most of the

commercial food vendors may prefer second or third grade class of most vegetables especially tomatoes and others because they appear cheap in nature.

**HO<sub>2</sub>:** Price of organically grown vegetable product and consumption.

In the test of hypothesis two, it was found out that the price of organically grown vegetable is not appreciated by consumers. This implies that the price of organically grown vegetable is not appreciated by consumers and this finding is contrary to the findings of Morgan (1990) in their book "expanding the organic product Nichell when the opined price as the main barriers to selling organic produces. Again the finding supports the view of Barbour and Greene (1990) in vegetables and specialist situation and outlook yearbook" when they discovered that the organic produce sellers use the same lower markup on organic produce as they do for nonorganic produce, because the price is not appreciated. Hence, if an individual cannot clearly differentiate between two alternative products, a price on the organic produce can affect the individual's purchasing decision in favour of the cheaper product. Consumers in Calabar are not willing to pay extra for organic products. The mass market is dominated by some vegetables from the core Northern part of Nigeria, some of the market is used as a dumping market in times of high harvest. Local farmers competing with the Northern suppliers cannot command a premium price for their organic products. The best approach to sell organic products is expensive in nature, the seller must use a personal selling approach with most times direct delivery to a well segmented market based on income and personal Lifestyle. The use of scale is not popular in selling vegetables, therefore it becomes difficult for modern farmers to sell to consumer, they see it as an unfair weight for buying. However, the defunct Songhai Farms in Itigidi, Abi Local Government did well in their sale of

organic produce when they were operational. They remain a good model to study in marketing organic vegetables.

### 5.1 Summary of findings

- i. There is no significant relationship between quality organically grown vegetable product and consumer attitude
- ii. There is no significant relationship price of organically grown vegetable and consumer attitude
- iii. There is no significant relationship between knowledge of organically grown vegetable and consumer attitude.

### 5.2 Recommendations

- i. Farmers as well consumers should be educated on the importance of organically grown vegetables.
- ii. The knowledge of farmers and consumer should be enforced through persuasive marketing communication.
- iii. The health benefit of organically grown vegetables should be advocated by big farmers
- iv. Government should train farmers on organic means farming.
- v. Farmers should be able to price organically grown vegetable separately from inorganic ones.

### 5.2 Conclusion

Organically grown vegetables in Calabar have not really gained the required awareness and consumer value as compared to the Western World. It may be common among the middle class and above, but the market for organically vegetables has not reached the level for hard core loyals. Consumers assume that some classes of farmers use organic method of farming and prefer to buy directly from such farmers. It a common sight to find consumers at farm roads buying vegetables, because it afford the opportunity to get them fresh and healthy. The state ministry of Agriculture

should educate farmers on organic method with the abundance of organic farming materials like the Neem, Egg shell, Blood meal, bone meal, compost and the host of others resources available for organic farming.

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