

# Consumers' Perception and Preference for Organic Leafy Vegetables in Ibadan North Local Government Area, Oyo State

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## Abstract

*In Nigeria current consumption pattern of organic produce is still very low and unsustainable. It is becoming apparent that efficiency gains and technological advances alone will not be sufficient to bring organic products consumption to a sustainable level, but consumer's perception and preference for organic products creates another challenge to sustain organic consumption. Hence, this study assessed consumers' perception, and preference for organic leafy vegetables. Primary data was obtained through interview schedule administered on a random sample of 129 respondents in Ibadan North LGA. Descriptive statistics was used to analyze respondents' perception and preference for organic vegetables. Results reveal that 69 percent of respondents were females with mean age of 31 years and average household size of 5. Quality was found to be the major factor that guided consumer's choice of purchasing point as claimed by 72.1 percent of the respondents. About one-third (65.1 percent) of respondents perceived organic vegetables to be more nutritious than conventional vegetables, 72.9 percent perceived it to be tastier, while 81.4 percent perceived it to be healthier. Results further show that 96.9 percent of the respondents prefer organic vegetables to inorganic vegetables. Most respondents prefer organically produced vegetables; however quality of vegetables is relatively more important to consumers. It is recommended that campaigns should be intensified to educate consumers on the importance of organic vegetables and how to identify certified organic vegetables for distinction in markets so as to build consumers' confidence over time.*

**Key words:** Leafy vegetables, Organic product, Perception, Consumer preference

## INTRODUCTION

Organic products can be identified as products that come from organic production processes or from organic farming. The United States Department of Agriculture defines organic production as a farming system which avoids or largely excludes the use of synthetically compounded fertilizers, pesticides, growth regulators and livestock feed additives to the maximum extent feasible or farming systems that relies on crop rotation, residues, animal manure, legumes, green manure, off-farm organic wastes, and the aspects of biological pest control measures, soil productivity and tilt, to supply plant nutrients and to control insects, weeds and other pests (Alvares *et al.*, 1999).

Organic agriculture is a production management system which promotes and enhances agro-ecosystem health, including biodiversity, biological cycles and soil biological

activity. It combines tradition, innovation and science to benefit the shared environment and promote fair relationships and a good quality of life for all involved (UNCTAD-FAO-IFOAM, 2008). Organic agriculture is one of the most promising options in meeting the challenge of alleviating poverty, increasing incomes and enhancing trade, while at the same time preserving the environment. It is a promising trade and sustainable development opportunity and a powerful tool for achieving the Millennium Development Goals (MDGs), particularly those related to poverty reduction and the environment. Organically produced foods also must be produced without the use of antibiotics, synthetic hormones, genetic engineering and other excluded practices, sewage sludge, or irradiation. Cloning animals or using their products would be considered inconsistent with organic practices. Organic foods are minimally processed without

artificial ingredients, preservatives, or irradiation to maintain the quality of the food.

Vegetables are crop plants that require little or no processing before they are eaten usually characterise by high water content. They include below the ground vegetables (*carrot, potato, radish, beetroot, onion, garlic, yam sweet potato, and celeriac*), above ground vegetables (leaves, flowers, stalks, pod, vegetable fruits vine, fungi). They are consumed for their nutritive values such as; low fat, high fibre, high vitamins, and mineral contents.

The importance of vegetables as food and raw material for industries shows its place in economic growth. Its consumption in Nigeria in the past decades has been on the increase and currently is estimated to about 22 - 47.58 kg/person/year (Hart *et al.* 2005). While *Talinumfruticosum* (water leaf) is noted as one of the most profitable vegetables in the southern Nigeria (Nyaet *al.* 2010), *Corchorusolitorius* (Ewedu) soup is one of the most popular traditional soups in the western part of Nigeria, mostly eaten by the Yoruba's but it is being appreciated by other ethnic groups, like the Igbo's and Hausa's.

With regards to organic agriculture, organically produced leafy vegetables are vegetables grown with the exclusion of synthetic chemicals through sustainable agricultural practices. All activities involved in the entire production process are observed in accordance with principles guiding the farming practice to ensure care, and fairness to both producers and the consumers in terms sales price, ecological conservation, and uncompromised healthy condition of the consumers, the farmer (producers), and the environment (Adeoluwa, 2010).

Synthetic chemicals being used in conventional agricultural production are the major chemicals that are purposely applied to the environment with the aim to enhance agricultural productivity. Repeated use of these chemicals leads to biodiversity loss and environmental degradation. Most pesticides are not easily degradable, they persist in the soil, leach to groundwater and surface water and contaminate wide environment. Depending on their chemical properties they can enter the organism, bio - accumulate in food chains and consequently influence also human health. Overall, intensive pesticide application results in several negative effects in the environment that cannot be ignored (Pesticides Action Network, 2010). Organic food

production and consumption is increasing on all continents, with much of the increase occurring in developed countries. However, there is little emphasis and attention on the production of organic products in Nigeria. The current consumption level of this produce is still very low and insignificant. Thus, consumer's values for organic products creates challenges to sustain organic consumption since prices of these organic products are generally higher than those of the inorganic products as a result of increased cost of production. Consumers' perception and preferences for organic products could determine the demand for these organic products.

Sequel to the underlying problem, this study aims to assess consumers' awareness, perceptions and preference towards Organic vegetables.

### Literature review

Most studies identify consumer preference for organic and inorganic alternative to be a function of several attributes. Many identify main attributes to be quality, price, and knowledge of certification and health risk of what they consume. Studies have shown that most consumers prefer organic vegetable types to the inorganic types. This preference is however revealed based on perception of organic products. Organic products are perceived to be healthier, tastier, and fresher than the conventional products. Bhatta *et al.* (2009), identified consumers' preference for attributes in purchasing vegetables. The study identified that 68% of respondents always think quality while buying vegetables from market. Similarly, 45% always give preference in buying organic vegetables .It further emphasize that periodicity of consumers who sometimes think quality of vegetables and give preference to organic vegetables is lower to former group. Karma *et al.* (2009) reported a comparative preference amongst organically grown crops. The study elicits that consumers have more preference for organic vegetables relatively to other organically grown crops and the main reason for their preference are health which is 75%, taste and palatability (18%) and good appearance and freshness (7%). This shows that health was most important .Furthermore, Dipeolu *et al.* (2009) elicit that in Ogun State, most respondents believes that organic vegetables is healthier, of better quality and tastier. organic vegetables was perceived by 63.15% as being healthier, 42.7% as being tastier, 57.9% perceived better quality while 42.4%, and 28.9%

perceived that it has no harmful effect and that it is more expensive respectively.

### METHODOLOGY

The study was conducted in Ibadan North Local Government area, Oyo state. Ibadan North Local government was purposely selected for study due to farmers' adoption of organic farming in the local government area. For this study, primary data was obtained through administration of well-structured questionnaires. This was used to obtain information about the respondents' socioeconomic characteristics, consumption pattern, perception about organic products, buying preference for organically produced leafy vegetables. 129 respondents were selected randomly from the Local Government Area. Descriptive analysis of frequencies and percentages was used to assess the level of awareness, perception and preference for organic vegetables in this study.

### RESULTS AND DISCUSSION

Result from the analysis of the collected data indicated that 69 percent of the respondents were female, 31 percent were male, while about 50.4 percent of the sampled respondents were married, 26.7 percent were single, 4.7 percent were widowed, and 1.6 percent were divorced. The dominant religion in the area was Christianity, practiced by 61.2 percent of the respondent total size, while 37.2 percent practiced Islamic religion, and 1.6 percent practiced traditional religion. Most of the sampled respondents (59.7 percent) had tertiary education, 27.9 percent had up to secondary education, while 12.4 percent of the respondents had only primary education.

The respondents' average monthly income was ₦ 33,155, revealing that a lot of the respondents were low income earners. Furthermore, the mean household size of respondents ranging between 1 and 12 persons per household was 5 persons per household.

#### Respondents' behaviour for vegetable purchase decision

From the result of the analysis in Table 2, the major purchase points indicated by the respondents included markets (69 percent) hawkers (20.9 percent) and farmers (10.1 percent). This implies that a good number of the respondents prefer getting their vegetables from the market. On respondents' consideration for purchasing points, 72.1 percent of the respondents claimed that quality determine their purchasing

point, 16.3 percent claimed it was price, while 11.6 percent claimed closeness. This is similar to the result of a study by Bhatta *et al.* (2009) that 68 per cent of respondents always think quality when buying vegetables from the market. Therefore, quality was the major factor that informs consumer's choice of purchasing point.

Also important is what consumers looked out for in purchasing vegetables. Even though some respondents considered more than one factor in purchasing vegetables, This result indicates that the major attributes considered in the purchase of leafy vegetables was freshness as indicated by 49.6 percent of the respondents Other considerations included price and taste as prompted by 22.5 percent and 17.8 percent of the respondents respectively. This implies that most of the respondents looked out for freshness in vegetables before purchase; this may be as a result of low shelf life or high perishability of leafy vegetables. It can therefore be concluded that consumers place so much value on quality attributes of leafy vegetables in the study area.

**Table 1: Socioeconomic distribution of respondents**

Variables	Frequency	Percentage
<b>Age (years)</b>		
≤24	41	31.8
25-35	49	38
36-50	34	26.4
≥51	5	3.9
<b>Gender</b>		
Female	89	69
Male	40	31
<b>House hold size</b>		
≤ 3	38	29.5
4-6	68	52.7
≥7	23	17.8
<b>Marital status</b>		
Married	65	50.4
Divorced	2	1.6
Widowed	6	4.7
<b>Level of Education</b>		
Primary	16	12.4
Secondary	36	27.9
Tertiary	77	59.7
<b>Income(₦)</b>		
≤24000	68	52.7
25000-49000	31	24
50000-74000	14	10.9
75000-99000	5	3.9
≥100000	11	8.5

**Table 2: Distribution of respondents by vegetables purchase decision**

Variables	Frequency	Percentage
<b>Major Purchase point</b>		
Farmer	13	10.1
Hawkers	27	20.9
Market	89	69.0
<b>Major factor that informs Purchase point</b>		
Quality	93	72.1
Price	21	16.3
Closeness	15	11.6
<b>Most valued Attributes in leafy vegetables</b>		
Price	29	22.5
Taste	23	17.8
Freshness	64	49.6
Source	13	10.1

**Consumers' perception and preference**

Table 3 shows that 65.1 per cent of the respondents perceives organically produced leafy vegetables to be more nutritious than the conventionally produced ones, 7.0 per cent of the respondents disagree that it is more nutritious, and 27.9 per cent are not sure if it is more nutritious. This implies that most consumers perceive organic vegetables to be more nutritious than conventional vegetables. This is likely to affect their willingness to pay.

For taste parameter, 72.9 per cent of respondents perceive organic leafy vegetables to taste better than the conventional vegetables, 7 per cent disagreed that it taste better, and 20.1 percent were uncertain of the superior tastes of organic vegetables. This implies that most respondents perceive that organic vegetables taste better than conventional vegetables. Similarly, 81.4 per cent of respondents perceive consumption of organic vegetables to be healthier than inorganic vegetables, while 3.1 percent disagreed and 15.5 percent were undecided This result reveals that most people in the study area perceive the vegetables to be very healthy. A comparative analysis of the result shows that most respondents perceive organic vegetables to be healthier relatively more than they perceive it to taste better and to be more nutritious than the conventional vegetables. This corroborates the position of Dipeolu *et al.* (2009) that asserts that most respondents perceive organic vegetables to be healthier relatively than other choices.

In addition, most of the respondents prefer organic vegetables to conventional vegetables, implying that a very high percentage of the consumers prefer organic vegetables, and will give up a lot of other things to be able to pay for organic vegetables.

**Table 3: Distribution of respondents based on perception and preference for organic leafy vegetables**

Variables	Frequency	Percentage
<b>Organic Vegetables is More Nutritious</b>		
Agree	84	65.1
Disagree	9	7.0
Uncertain	36	27.9
<b>Tastier</b>		
Agree	94	72.9
Disagree	9	7.0
Uncertain	26	20.2
<b>Healthier</b>		
Agree	105	81.4
Disagree	4	3.1
Uncertain	20	15.5
<b>Do you Prefer organic vegetables?</b>		
Yes	125	96.9
No	4	3.1

**CONCLUSION AND RECOMMENDATION**

The major purchasing point of leafy vegetables for respondents in the study area is the market. However, the major determinant of purchase point for vegetables is quality while freshness is the most valued quality attribute in purchasing vegetables. In addition, compared to other attributes, quality of leafy vegetables is relatively more important to consumers probably because of its low shelf life. From the study it can be concluded that respondents perceived organic vegetables to be healthier, tastier and more nutritious than the conventional vegetables. Hence they prefer it to the conventional vegetables. It is recommended that campaigns should be intensified to educate consumers on importance of organic vegetables and how to identify certified organic vegetables for distinction in markets. Also, farmers should ensure that production of organic vegetables is quality oriented.

