Consumers Assessment on Organically-Grown Products: A Survey in the Province of Zamboanga Del Norte, Philippines

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ABSTRACT

Organic farming is one form of agriculture and it has been developing rapidly. The consumer's interest and preference towards organic products have been increased nowadays. Consumers provide more attention towards organically grown products free from chemical pesticides and fertilizers so it prevents consumers from health problems. Organic products are classified as the healthiest type of product that any human being can consume and prefer for nutritional value and have a natural taste compared to conventional products. This survey was conducted to assess the consumers' awareness, preference, consumption, and willingness to purchase organically-grown products. A total of 105 participants were randomly interviewed from six municipalities of Zamboanga del Norte namely: (1) Tampilisan, (2) Salug, (3) Leon Postego, (4) Sindangan, (5) Manukan, and (6) Dipolog. The respondents were categorized into four regardless of age and gender such as farmers (42), professionals (20), businessmen (13), and others (students, housekeepers, drivers, unemployed, etc.) (30). A well-structured questionnaire was facilitated containing three (3) categories such as (1) consumers' awareness on organically-grown products, (2) consumers' preference on organically-grown products, (3) consumers' consumption rate of organically-grown products per week, and (4) potential target market or consumers' willingness to purchase organically-grown products.

Results revealed that most of the respondents were aware of the organically-grown products. This contributed to their willingness to purchase and thus resulted in the high amount of organically-grown products to be purchased per week. Among the respondents, the businessmen were the most aware (99%) and willing to purchase organically-grown products. Among the organically-grown vegetables, poultry products, farm animal products, and fish products, the most preferred by the respondents were okra (96%), chicken eggs (95%), pork (84%), and African hito (77%), respectively and that resulted in the amount of 46 kls, 47 trays, 57 kls, and 30 kls, respectively to be purchased per week.

Keywords

awareness, consumers, organically-grown products, preference, willingness to purchase

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Introduction

The word "organic" refers to the way farmers grow and process agricultural products, such as fruits, vegetables, poultry, and farm animal products. Organic farming practices are designed to meet the following goals: (1) Enhance soil and water quality (2) Reduce pollution, (3) Provide safe, healthy livestock habitats, (4) Enable natural livestock behavior, and (5) Promote a self-sustaining cycle of resources on a farm. This is a guide for us to produce organically-grown products not only to sustain agriculture but also to give better health benefits to the consumers. Based on the survey that we have conducted, most of the consumers preferred to eat organic foods because they are aware of their health benefits. Sanchez (2019) also reported that there is 35.37 percent of the Philippines respondents stated to sometimes buy organic food products. Guilabert and Wood (2012) discussed the health and environmental benefits of organic products and they found that consumers believed and preferred to patronize them. Organically-grown products are now encouraged to be patronized all over the world to preserve our health and the environment (Winter and Davis, 2006).

According to IFOAM (2020), there were 2.8 million organic producers in 2018. India was found to be the continuing country with the highest number of producers (1,149,000), followed by Uganda (210,000), and Ethiopia (204,000). 71.5 million hectares were being managed organically in 2018. This represented a growth of 2.9 percent or 2 million hectares compared to 2017. The largest organic agricultural area (35.7 million hectares) was obtained from Australia, followed by Argentina (3.6 million hectares), and China (3.1 million hectares). Due to the large area of organic farmland in Australia, half of the global organic agricultural land is in Oceania (36.0 million hectares). Europe has the second largest area (15.6 million hectares), followed by Latin America (8 million hectares). The organic area increased in all continents compared to 2017. Globally, 1.5 percent of farmland is organic. However, many countries have far higher shares. The countries with the largest organic share of their total farmland are Liechtenstein (38.5 percent), Samoa (34.5 percent), and Austria (24.7 percent). In sixteen countries, 10 percent or more of all agricultural land is organic.

Global production and sale of organically grown food and fiber continue to increase exponentially. The 2009 tally from 160 countries reporting organic production data finds 37.2 million hectares under organic management involving 1.8 million farmers. Global sales of food and drinks have expanded, with the 2009 market estimated at 54.9 billion US dollars and a vast majority of products consumed in North America and Europe. Regions with the largest areas of organic agriculture are Oceania, followed by Europe and Latin America. Asia's total organic agricultural area is nearly 3.6 m ha (Willer and Kilcher 2011).

There were 52,546 hectares for organic production in the Philippines in 2009. This employed more or less 70,000 producers/farmers all over the country. Most handlers of organic production were the private sectors and people organizations or cooperatives. The most domesticated organically-grown crops are vegetables and root crops. These are generally produced by small-scale farmers under more diversified farming systems and are integrated with a few heads of livestock (pigs, goats, carabaos, cows) and poultry (chickens or ducks). Organic farming inputs such as fertilizers, foliar sprays, and microbial soil preparations are sourced and made from local indigenous materials. Organic products are sold in special outlets all over the country. Moreover, the organically-grown products for export are bananas (Bungulan and Cavendish), fresh pineapple, muscovado sugar, coconut palm sugar, virgin coconut oil, coconut vinegar, coffee, asparagus, yellow corn for feeds, banaba leaves, and miscellaneous herbs. These are largely produced through grower arrangements among community-based organizations, agricultural cooperatives, and development NGOs or private corporations. Producers usually employ single crop cultivation in the case of sugarcane, asparagus, and pineapple but are more diversified in the other crops. Inputs are usually produced by the cooperative or company including initial research on efficacy and production efficiency (Maghirang *et al,* 2011).

Organic agriculture is one of the livelihood options being offered to farmers in the Philippine Agriculture 2020. Hence it is imperative to take a closer look at it. There have been issues in the past for and against it and we want to clarify these issues to shed light on the controversy. In particular, we want to expound on how organic agriculture is practiced and evaluate the science behind the practice and its impact on profitability and productivity. With that, the role and place of organic agriculture in the total scheme of agriculture in the country can be pinpointed (Maghirang *et al,* 2011).

Organic farming is one form of agriculture and it has been developing rapidly. The consumer's interest and preference towards organic products have been increased nowadays. Consumers provide more attention towards organically grown products free from chemical pesticides and fertilizers so it prevents consumers from health problems. Organic products are classified as the healthiest type of product that any human being can consume and prefer for nutritional value and have a natural taste compared to conventional products. The global demand for organic products is growing at a very rapid rate. In recent years, interest in organic products and buying has increased among consumers, it has a positive approach. Consumers are more reluctant to choose organic products. It has become very essential to know about the preference of organic products among consumers (Aysawarya and Vasanthi, 2018). Thus this study was conducted to assess the consumers' awareness, preference, consumption, and willingness to purchase organically-grown products.

Methodology

A survey was conducted in the province of Zamboanga del Norte to assess the awareness, preference, consumption, and willingness of consumers to purchase organically-grown products. A total of 105 participants were randomly interviewed from six municipalities of Zamboanga del Norte namely: (1) Tampilisan, (2) Salug, (3) Leon Postego, (4) Sindangan, (5) Manukan, and (6) Dipolog. The respondents were categorized into four regardless of age and gender such as farmers (42), professionals (20), businessmen (13), and others (students, housekeepers, drivers, unemployed, etc.) (30). A well-structured questionnaire was facilitated containing four (4) categories such as (1) consumers' awareness on organically-grown products, (2) consumers' preference on organically-grown products, (3) consumers' consumption rate of organically-grown products per week, and (4) potential target market or consumers' willingness to purchase organically-grown products.

There were specific organically-grown products indicated in the questionnaire. The products that were not mentioned in the questionnaire that they consumed or want to purchase were considered as "others".

The data gathered were consolidated and the percentage of respondents was analyzed in all categories. Before the conduct of the survey, the researchers explained first the benefits and importance of organically-grown products and the purpose of conducting this survey.

Results

The awareness of respondents on organically-grown products is presented in Figure 1. Generally, the result revealed that the most aware of the organically-grown products (vegetables, fruits, poultry, farm animals, and fish) were the businessmen with an average of 99% followed by Professionals (94%). This might be due to the knowledge of the businessmen and professionals on the benefits and importance of organic foods. During the interview, they said that consumers preferred to patronize organic foods rather than those from conventional farming. Most businessmen and professionals are practicing a healthy lifestyle by eating organic foods. Although, farmers are also aware, however, their results are happened to be lower than those of businessmen and professionals. This may be due to the most of them are practicing conventional farming. On the other hand, others (students, housekeepers, drivers, unemployed, etc.) got the lowest average of awareness on organically-grown products (82%). This might be due to their less knowledge of organic foods as compared to the knowledge of those businessmen, professionals, and farmers.

This result obtained a higher percentage rate of the awareness on organically-grown products compared to the findings of Rock *et al.*, (2017) and Alizadeh *et al.*, (2008) that there were only 76% and 47% of the respondents are aware of the organic products in Shiraz, Iran, and Tamil Nadu, India, respectively. It means that the Zamboanga del Norte, Philippines are more aware of the organically-grown products than other countries mentioned above.

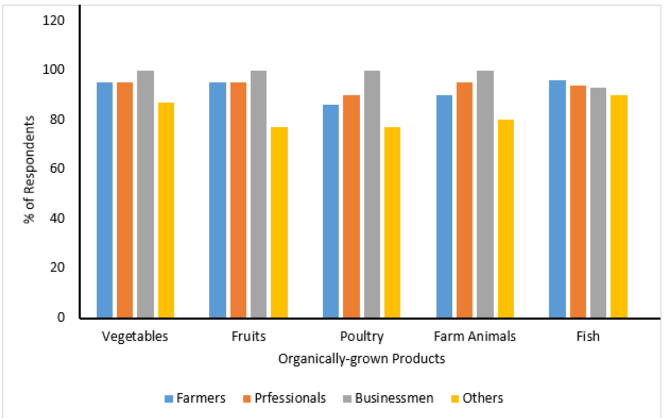

Figure 1. Awareness of respondents on organically-grown products

Information about consumers' awareness is an essential element for farmers and marketing agencies to successfully plan production that can capture a greater market share (Muhammad *et al.*, 2016).

The willingness of respondents to purchase organically-grown vegetables is presented in Figure 2. The result indicated that the most willing to purchase organically-grown vegetables were the businessmen with an average of 86%, followed by the professionals (82%) and farmers (70%) and the lowest was obtained from the others (students, housekeepers, drivers, unemployed, etc.) with an average of 67%. This can be attributed to the awareness of the respondents that expectedly resulted in their willingness to purchase the organically-grown products. Among the organically-grown vegetables, the highest preferred was the okra (*Abelmoschos esculentus*) with an average of 96%, followed by eggplant (*Solanum melongena*) (94%), kangkong (*Ipomoea aquatica*) (92%), tomato (*Solanum lycopersicum*) (90%), bell pepper (*Capsicum annuum*) (85%), bitter gourd

(*Momordica charantia*)(79%), lettuce (*Lactuca sativa*) (70%), spinach (65%), and the lowest was the other vegetables (16.5%).

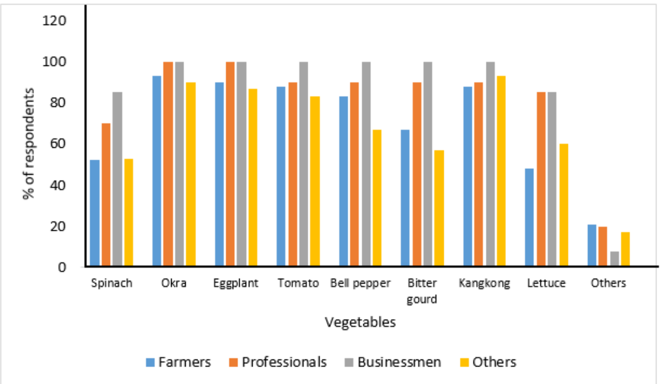

Figure 2. The willingness of respondents to purchase organically-grown vegetables

The willingness of respondents to purchase organic poultry products is presented in Figure 3. The result showed that the organic poultry products were preferred mostly by the businessmen with an average of 82% which is much higher than professionals (59%), farmers (50%), and others (students, housekeepers, drivers, unemployed, etc.) (44%). Among the organic poultry products, the most preferred by the respondents was the organic chicken eggs with an average of respondents to purchase of 95%, followed by live organic chicken (91%), organic chicken meat (83%), organic duck egg (640%), organic live duck (60%), organic live turkey (55%), organic duck meat (53%), turkey meat (49), organic live geese (48%), and organic geese meat (47%). There were no other poultry products mentioned by the respondents that they are willing to purchase.

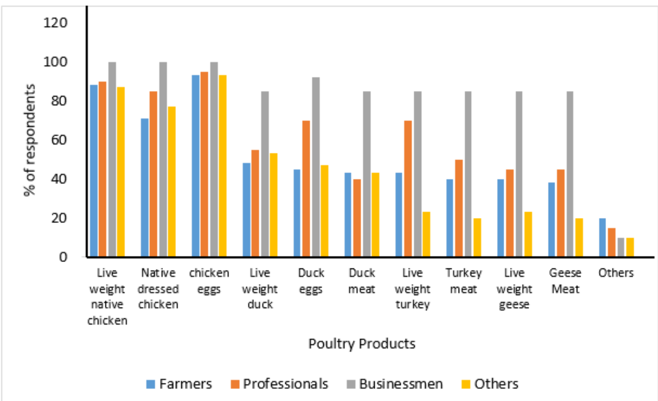

Figure 3. The willingness of respondents to purchase organic poultry products

The willingness of respondents to purchase meat from organically-grown animals is presented in Figure 4. The result indicated that the meat of organic farm animals (goat, swine, rabbit, etc.) were preferred mostly by the businessmen with an average of 71% of respondents, followed by the professionals (46%), and farmers (43%). The lowest willing respondents to purchase the meat of organically-raised farm animals were those respondents who belong to others (students, housekeepers, drivers, unemployed, etc.) with an average percent of 37. Among the meat of organically-raised farm animals, the most preferred by the respondents was the pork with an average of 84% of respondents who are willing to purchase, followed by the goat meat or chevon (71%). Rabbit meat was the lowest preferred among specific items, however, others got the average of 4% of respondents who are willing to purchase them.

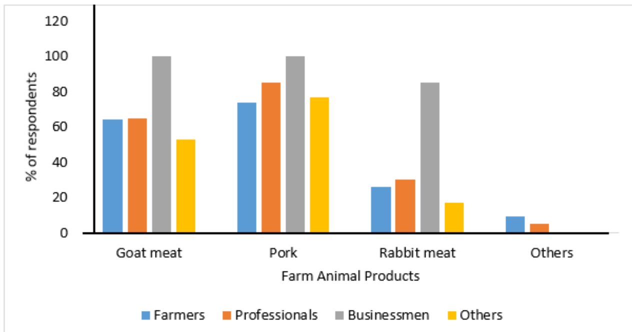

Figure 4. The willingness of respondents to purchase meat from organically-grown animals

The willingness of respondents to purchase organic fish is presented in Figure 5. The result emphasized that others (students, housekeepers, drivers, unemployed, etc.) were the most

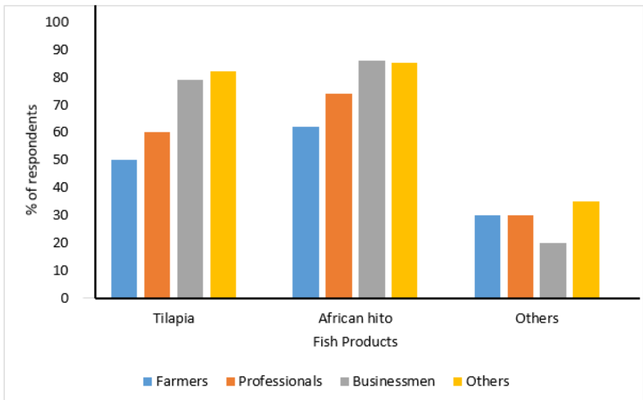

Figure 5. The willingness of respondents to purchase organic fish

respondents who are willing to purchase organic fishes (tilapia and African hito) with an average of 50%, followed by those businessmen (46%) and professionals (41%). The lowest respondents who are willing to buy them were the farmers (36%). The most preferred organic fish by the respondents was the African hito (77%), while the tilapia obtained an average of 68% and others was 29% preferred by the respondents.

Based on the results indicated in Figures 1, 2, 3, 4, and 5, the organically-grown vegetables, organic poultry, and farm animal products are most likely preferred by professionals and businessmen. This might be due to their awareness of the benefits of organic products and that they could also afford the high price of organic products. On the other hand, organic tilapia and African hito are most likely preferred by other respondents that consist of students, housekeepers, drivers, unemployed, etc. Their willingness contributed to the high amount of different organically-grown products to be purchased per week. The amount of organically-grown products that they want to buy is presented in Table 1.

Table 1. Average Amount of organic farm products to be purchased by consumers-respondents per week

Commodity	**Average Amount of Organically-grown Products**
Vegetables (kg)	
Spinach	27
Okra	46
Eggplant	42
Bell pepper	38
Bitter gourd	31
Tomato	33
Kangkong	41
Lettuce	27
Others	40
Poultry Products	
Eggs (tray):	
Native chicken egg	47
Duck egg	23
Live weight (kg):	
Native Chicken	47
Duck	23
Turkey	17
Geese	17
Meat:	
Native chicken meat	38
Duck meat	26
Turkey meat	18
Geese meat	16
Others	10
Farm Animal Products (kg)	
Goat meat	26
Pork	57
Rabbit meat	12
Others	3
Fish (kg)	
Tilapia	20
African Hito	30

The results revealed that the okra, native chicken and its eggs, pork, and tilapia among the organically-grown vegetables, organic poultry products, organic farm animal products, and organic fish products, respectively, obtained the highest number of interested consumers to purchase these products. The result of the survey can positively reach the goal to optimize the profits of those who are planning to establish an organic agri-business.

Conclusion

Based on the results of the survey, most of the respondents in the province of Zamboanga del Norte, Philippines were aware of the organically-grown products. Thus, they are willing to patronize that resulted in the high amount of these organically-grown products to be purchased per week. Among the respondents, the businessmen are the most target markets and also consumers that showed their willingness to purchase organically-grown products followed by the professionals.

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