



Perception of Households Towards Eco-Label Products Consumption in Ibadan Metropolis, Oyo State, Nigeria

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ABSTRACT

The study examined households' perceptions of eco-labelled food product consumption in the Ibadan metropolis, Oyo State, Nigeria. A multi-stage sampling technique was used to select 128 respondents from the study area. Data were analyzed using both descriptive and inferential statistics. The distribution showed that the majority of respondents were female (54.7%), married (71.1%), and 58.6 percent had a household size of 4–6 members, with a monthly income of less than ₦50,000 (\$65). The categorization level revealed a low perception of eco-labelled products in the study area. Additionally, 62.5 percent proportionately reported a high level of barriers to adopting eco-labelled products. A favorable relationship was observed between respondents' educational level and monthly income and their perception of the products. Furthermore, a positive relationship was found between barriers and the level of perception ($X^2 = 0.540, p < 0.005$). In conclusion, respondents consumed eco-labelled products despite their low perception. Therefore, to foster a favorable perception of eco-labelled food products, increased awareness and enlightenment on their benefits are necessary.

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INTRODUCTION

Food is the basic need for all human beings and, the essential ingredient to support life. Therefore, consumers have the right to choose good quality foods that are environmentally friendly and hygienic. Food consumption in sub-Saharan Africa could be associated with different environmental impacts and choices. In Nigeria, people give different meanings to food purchased and consumed. It is therefore not surprising that some consumers viewed food consumed through the perception of the packages while in some cases; it could be connected with area of the processing and production. It is generally assumed that the eco-label is a tag or sign on products indicating that the products are not harmful but are environmentally friendly to human health. In essence, an eco-label signifies logos or symbols inscribed on the product that often provide information to consumers about the characteristics of the product the environment, and human health. This labeling is certified and issued by a trusted authority in any particular country. In Nigeria, National Agency for Food and Drug Control (NAFDAC) is the regulatory body that examines, categorizes, and certifies whether a product is healthy for the environment and human health (Nantu et al., 2019). From a business point of view, eco-labels are an environmental management tool that can inform customers of products' new green features in a visual way Thøgersen et al., (2010). In recent times, consumers have become mindful of the damage that some products are causing to human health and the environment.

In recent times, eco-label products are gradually gaining ground in Nigeria, and the acceptance could be attributed to the consciousness strategies in place by organizations and regulatory bodies in the country. Despite cognizance of the eco-label products in the country, evidence has shown that a larger percentage of people in the country still have reservations about the use of the products. Therefore, the level of perception of people towards eco-label foods is scientifically needed to be examined for a

better understanding of the concept. Also, it is important to look at the barriers or challenges preventing people from consuming eco-label food products in the study area.

Leire & Thidell (2005), in a similar study, reported that consumers make purchase decisions depending on how they perceive information about the products in the market. Samantha & Angela (2010) reported that the environmental concern had been taken as a weak influence factor by consumers. The study investigated the perception of people in the study area regarding the consumption of eco-label food products as well as the barriers or challenges faced in consuming eco-label food products in the study area. This objective was achieved by proffering answers to the following research questions.

What are the socio-economic characteristics of the respondents in the study area?

What are the perceptions of the respondents regarding the consumption of eco-label food products in the study area?

What are the barriers facing the consumption of eco-label food products in the study area?

There is no significant relationship between some selected socio-economic characteristics of the respondents and the perception of households towards eco-label product consumption.

There is no significant difference between barriers faced in the consumption of eco-label food products and the perception of households towards eco-label product consumption in the study area.

METODOLOGY

Area of study

This study was carried out in Ibadan. Ibadan is the capital city of Oyo State, Nigeria. It is located between longitudes 7°2' and 7°40' and latitudes 3°35' and 4°10'. The city has been experiencing rapid growth both in territorial boundaries and population since 1829, to become the largest indigenous city in tropical Africa. It is about 24 km. from Akufo (after Apete) in the West to Egbeda along Ife Road in the East and about 28 km. from Moniya along Oyo Road in the North to

Omi Adio along Abeokuta Road in the South. This gives 672 km² measured with the aid of Google Maps. The metropolis is composed of 11 Local government areas, 6 at the outskirts and 5 at the center (Olaniran, 2016).

Target Population

The target populations were urban household heads or representatives in selected households in the Ibadan metropolis, Oyo State Nigeria.

Sampling procedure

Multistage sampling techniques were used to select the households and the local government that will be used for this study.

Stage1: Purposive sampling technique was used to select three out of eleven local governments in the Ibadan metropolitan area based on the level of exposure of the dwellers to regulatory food products in the selected LGA.

Stage2: A random sampling technique was used to select four wards each from the selected LGA and fifteen households were randomly selected from each of the wards to give a total of 135 respondents.

Sampling size

A total of 135 questionnaires were administered, and 15 households were selected in each ward, while 128 questionnaires were retrieved from the respondents. A total of 128 questionnaires were subjected to analyses.

Data collection

Data were collected through the use of a well-structured questionnaire and personal interviews with the respondents in the study area.

The collected data was analyzed using descriptive and inferential statistics. Descriptive statistics were used to analyze the objectives, and inferential statistics were used to test the hypothesis which included Chi-square and Pearson Product Moment Correlation (PPMC).

RESULTS

Table 1 revealed that the majority (54.7%) of the respondents were female, while

45.3 percent were male. This implies that female respondents were more involved in the consumption and stalking of eco-label products; this could be attributed to the fact that females are normally in charge of buying family foodstuffs. This is in line with a similar study by Liu et al., (2017) who reported a higher percentage of females involved in the consumption of eco labels because women are the primary purchasers of food consumed in the family. It was further revealed that the majority (59%) of the respondents falls within the age range of 31-40. This could perhaps be as a result of the active age range level of the respondents. This finding is in line with the study of Zurga & Tavcer (2014) who reported an age range between 20 -40 years, and were fully involved in the eco-label survey conducted in the study.

It was revealed from Table 1 that the majority (71.1%) of the respondents are married. This could be attributed to the fact that married people have responsibilities and must ensure that food consumption in the family is safe and healthy. Table 1 furthermore shows that 56.3% of the respondents were Christians, 41.4% were Muslims and 2.3 percent of the respondents were traditionalists. Mohdsuki & Modhsuki (2015) affirmed in a similar study on the eco-label that Muslim consumers follow a strict diet that complies with religious dietary laws. This could perhaps be attributed to the slightly lower percentage of Muslim involvement in eco-label products.

Table 1 revealed that 49.2 percent of the respondents had tertiary education, followed by primary school (22%), secondary school (17.2%), and formal education (10.9%). This could be attributed to the fact that the majority of the respondents' who consumed eco-label food products were literate, which helped them understand the benefits of the food products. This aligned with the studies that showed the frequency and likelihood of reading food labels increase with increased educational attainment (Basarir, 2012).

Also, the findings revealed that the majority (58.6%) of the respondents had a household size of between 4-6, followed by 28.1 percent

with less than 3, and the least percentage of 13.3 percent with a household of between 7-9. The finding revealed that the monthly income of the respondents varies, as respondents with the highest percentage were those that earn less than #50,000 and followed by respondents (39.1%) that earned between #50,000 and #100,000. This implies that the consumption of eco-label products might not be attached to the income or wealth of an individual. It was revealed from the findings that more than half (51.6%) of the respondents consumed eco-label food products in the study area.

Table 2 shows that the majority (62.5%) of the respondents strongly agreed that it is essential to promote eco-label foods, while (37.5%) of the respondents strongly disagreed. This could be attributed to the benefits derived from the products by consumers. This assertion was buttressed by Zhen et al., (2017) who reported that that information and education assists in the acceptability of eco-label products. Also, table 2 revealed that 48.8 percent of the respondents strongly disagreed that the act of purchasing eco-label foods is irrelevant to our culture; this implies that the consumers understand the impact of eco-label food products and its correlation with the culture and norms in the study area. This correlates with Grymshi (2022) that the demands and attitudes of consumers towards eco-label food products cannot be the same globally because of differences in culture, knowledge and consumption patterns.

Also, 44.5 percent of the respondents expressed their sense of satisfaction with the consumption of eco-label products, as they strongly agreed while 9.4 disagreed that they would be satisfied with their decision to buy eco-label foods. This assertion correlates with the study of Ortega, et al, (2011) that food labels inform consumers' purchasing behavior and show the desire to purchase eco-label food products in developed countries. Furthermore, 59.4 percent of the respondents agreed they would rather go for non eco- label foods than spend so

much on eco- label food and very few (6.3%) respondents strongly disagreed. This could be attributed to the higher price of eco-label products compared to other non-eco-label products. Price is a key extrinsic factor that affects purchase intention (Aschemann et al., 2017) and this implies that consumers tend to purchase products that are less expensive

The study also reveals that most respondents (46.1%) strongly agreed that consumers' health would be much better when they consumed eco-label food products, while 10.9 percent of the respondents strongly disagreed with the statement. This is in line with Brown et al., (2020) who stated that consumption of eco-label food ultimately contribute to the evolution of sustainable and healthy food systems. Most of the respondents (49.2%) believed that the campaigns for eco-label food consumption are a waste of time, while 20.3 percent and 20.3 percent agreed and strongly agreed, respectively to the statement. Furthermore, most respondents (40.6%) believe so much in protecting the environment by consuming eco-label foods. This is an indication that people still considered the environment in the process of consuming food in the study area. This is in agreement with Potter et al., (2021) who reported in the similar study that eco-labels could promote and protect the environment through section, purchased and consumption of more sustainable drink and food.

Table 3 on the level of perception , shows that the level of perception towards the consumption of eco-label food products was low, which was indicated by 51.6 percent of respondents showing their perception towards eco-label as favorable, while 48.4 percent proportion unfavorable perception which could be attributed to their low knowledge about eco-label food products. This assertion was explained by Donato & D'Aniello (2022), who stated that consumers have a low understanding of eco-labels; in their similar studies with only 50 percent of survey participants knew about eco-label products.

Table 1
Socio-Economic Characteristics of the Respondents.

Variable	Frequency	Percentage
Sex		
Male	58	45.3
Female	70	54.7
Total	128	100
Age		
20-30	17	13.3
31-40	59	46.1
41-50	35	27.3
51 and above	13	10.2
Total	128	100
Marital status		
Single	24	18.8
Married	91	71.1
Divorced	3	2.3
Widowed	10	7.8
Total	128	100
Religion		
Christian	72	56.3
Islam	53	41.4
Traditional	3	2.3
Total	128	100
Educational level		
No Formal Education	14	10.9
Primary Education	29	22.7
Secondary Education	22	17.2
Tertiary	63	49.2
Total	128	100
Household size		
<3	36	28.1
4-6	75	58.6
7-9	17	13.3
Total	128	100
Monthly Income		
Less than #50,000	69	54.1
#50,000-#100,000	41	31.9
#100,001-#150,000	9	7.1
Above #150,000	9	7
Total	128	100
Consumption of eco-label food		
Yes	66	51.6
No	62	48.4
Total	128	100

Table 2

Perception toward Consumption of Eco-Label Food Products.

VARIABLES	S.A F(%)	A F(%)	S.D F(%)	D F(%)
It is essential to promote eco-label foods	80 (62.5)	—	48(37.5)	—
The act of purchasing eco-label foods are irrelevant to our culture	34(26.6)	10(7.8)	62(48.4)	22(17.2)
I would be satisfied with my the decision to buy eco-label foods	57(44.5)	26(20.3)	33(25.)	12(9.4)
I would rather go for non- eco-label foods than spend so much on eco-labeled foods	9(7)	76(59.4)	8(6.3)	35(27.3)
My health would be much better if I consume more eco-label foods	59(46.1)	36(28.1)	14(10.9)	19(14.8)
Campaigns for eco-label food consumption is a waste of time	26(20.3)	26(20.3)	63(49.2)	13(10.2)
I will be willing to pay for eco-label foods regardless of the price	22(17.2)	52(40.6)	13(10.2)	41(32.0)
It is unwise for a citizen of Nigeria to spend vast money on promoting eco-label foods	27(21.1)	28(21.9)	57(44.5)	16(12.5)
I think I have so much responsibility in protecting the environment by consuming eco-label foods	33(25.8)	52(40.6)	25(19.5)	18(14.1)
<u>The presence of eco-label foods is more reason why terminal diseases are on the increase</u>	<u>62(48.4)</u>	23(18.0)	1(0.8)	42(32.8%)

Table 3

Level of perception towards consumption of eco-label food products.

Level	Frequency	Percentage (%)	Mean
Low	66	51.6	23
High	62	48.4	
Total	128	100	

Table 4 reveals that the difficulty of distinguishing eco-label products in the market is a major barrier, as asserted by 59.4 percent of the respondents; 24.2 percent considered this statement as a minor barrier, while 16.4 percent of the respondents did not see the statement as a barrier. This could be attributed to the fact that respondents found it difficult to identify or distinguish based on similarity with other packaged products in the market. This is in line with the findings of Danilola et al., (2019) who reported that respondents perceived buying familiar foods as the major constraint to the reading of food safety information on food labels. Also, 30 percent of the respondents asserted

the statement that eco-labeled food makes shopping difficult as a result of conflicting pieces of information on the packaging to be a major barrier, while 34.4 percent considered it as minor barrier, while 35.2 percent did not see it as a barrier. In addition, 32.8 percent of the respondents considered eco-labeled food tags not visible on product packaging a major barrier in the study area, 32.8 percent considered it to be a minor barrier while 28.9 percent perceived it as no barrier. This is in agreement with Danilola et al. (2019) who reported that the illegibility of most food label prints is a major constraint in the reading of food labels on the shelf.

Table 4 further revealed that 45.3 percent

of the consumers did not have adequate knowledge of the eco-label food products and therefore regarded it as a major constraint, while 25 percent assumed it was a minor constraint. This is in correlation with Souza et al., (2006) who reported in their findings that consumers have less or limited knowledge about the types of eco-labels in their environment. Also, 49.2 percent of the respondents claimed the size of their household is too small for their household to consume packaged products, which might not be negotiable. Also, 14.8 percent claimed it was a minor constraint. It was further reported that 58 percent of

the respondents claimed that the products were expensive. This is in agreement with Lambert & Christoph (2021) who observed in their study on purchasing eco-label products that the economical effect of consuming the products is greatest for low-involvement shoppers or consumers, a group that otherwise mainly bases its purchasing decisions on price.

Table 5 shows that 62.5 percent proportion tends towards high levels of barriers mitigating against accepting or consumption of eco-label food products. This implies that respondents' challenges could hinder the consumption of the products.

Table 4
Barriers to the Consumption of Eco-Label Food Products.

Barriers	Major	Minor	Not a constraint
They are difficult to distinguish as they are similar to each other in the market	76(59.4)	31(24.2)	21(16.4)
It makes shopping difficult, as it is another piece of information on the packaging	39(30.5)	44(34.4)	45(35.2)
They are not visible on product packaging	49(38.2)	42(38.3)	37(28.9)
Inadequate knowledge of eco-label food	58(45.3)	32(25)	38(29.7)
It is not accessible	28(21.9)	90(70.3)	9(7)
The income of the household	46(35.9)	15(11.7)	66(51.6)
The size of my household is small compared to the packaged eco-label food products	63(49.2)	19(14.8)	45(35.2)
They are expensive	58(45.3)	53(41.4)	17(13.3)

Table 5
Level of Barriers Faced in the Consumption of Eco-label Food Products.

Level	Frequency	Percentage (%)	Mean
Low	48	37.5	35
High	80	62.5	
Total	128	100	

The chi-square analysis as shown in Table 6 revealed that respondents' educational level ($\chi^2 = 0.23.519, p=0.000$) and monthly income significantly influenced their perception towards consumption of eco-label food ($\chi^2 = 49.773, p=0.002$). This is an indication that the level of education could

be a factor that exposes the respondents to information on eco-label products in the country. Also, it was obvious that the earnings of the respondents also played important roles in their perception of eco-label food in the study area. This is in agreement with the findings of Tigan et al.,

(2021) that stated that Over 70 percent of the responders who earn above the median income believe it is essential to consume organic products.

Table 7 shows a significant relationship between the barriers to the consumption

of eco-label food products and the level of perception of eco-label food products. The result implies that the levels of perception towards consumption are significant with or associated with the benefits derived from the consumption of eco-label food products.

Table 6

Chi-Square Analysis of Socio-Economic Characteristics of Respondents.

Variables	Chi-Square Value	P-Value	Decision
Sex	2.907	0.088	N.S
Age	5.118	0.275	N.S
Marital status	7.405	0.060	N.S
Religion	2.303	0.316	N.S
Education level	23.519	0.000	S
Household size	2.050	0.359	N.S
Monthly income	49.773	0.002	S

Table 7

Relationship between Barrier and Level of Perception of Eco-Label Food Products.

Variable	R-value	p value	Decision
Barriers vs Level of Perception	0.540	0.000	S

CONCLUSIONS

Based on the findings of the study, it was observed that the majority of the respondents were female with good education, households with size between 4-6 dwellers, and a monthly income less than #50000 (\$65). It was further revealed that the perception of the dwellers towards eco-label food products was low. By implication, dwellers unfavorably perceived the products. Furthermore, it was revealed that the level of barriers to the consumption of eco-label products was high, with so many challenges ranging from the expense of the products to the problem of identifying the products in the market. Positive relationships existed between educational background, monthly income, and perception of consumption of eco-label food products in the market. The study also revealed significant relationships between perception and barriers to eco-label consumption in the study area.

In the sequel to the findings of the result, There should be more enlightenment on the consumption of eco-label food products by

the government and other relevant agencies as this would further encourage the purchase and consumption of eco-label food products. Firms or companies involved in the production of eco-label food products should ensure the products are made in a way that could be easily accessible, economical, and also easily identified by the consumers.

REFERENCES

- Aschemann-Witzel, J., De Hooge, I. E., Rohm, H., Normann, A., Bossle, M. B., Grønhøj, A., & Oostindjer, M. (2017). Key characteristics and success factors of supply chain initiatives tackling consumer-related food waste – A multiple case study. *Journal of Cleaner Production*, 155(2), 33–45.
- Basarir, A. (2012). Consumers' awareness of food labeling: A case study of United Arab Emirates. *African Journal of Agricultural Research*, 7(21), 3210–3215.
- Brown, K. A., Harris, F., Potter, C., & Knai, C. (2020). The future of environmental sustainability labelling on food products. *The Lancet Planetary Health*, 4(4), e137–e138.
- Danilola, S., Omotesho, O., & Animashaun, J.

- (2019). Consumer awareness of the use of food labels in Lagos State, Nigeria. *International Journal of Food Studies*, 8(1), 53–64.
- Donato, C., & D’Aniello, A. (2022). Tell me more and make me feel proud: The role of eco-labels and informational cues on consumers’ food perceptions. *British Food Journal*, 124(4), 1365–1382.
- Grymshi, D., Crespo-Cebada, E., Elghannam, A., Mesías, F. J., & Díaz-Caro, C. (2022). Understanding consumer attitudes towards ecolabeled food products: A latent class analysis regarding their purchasing motivations. *Agriculture*, 38(1), 93–107.
- Neumayr, L., & Moosauer, C. (2021). How to induce sales of sustainable and organic food: The case of a traffic light eco-label in online grocery shopping. *Journal of Cleaner Production*, 328, 129612.
- Leire, C., & Thidell, Å. (2005). Product-related environmental information to guide consumer purchases – A review and analysis of research on perceptions, understanding, and use among Nordic consumers. *Journal of Cleaner Production*, 13(10–11), 1061–1070.
- Liu, Q., Yan, Z., & Zhou, J. (2017). Consumer choices and motives for eco-labeled products in China: An empirical analysis based on the choice experiment. *Sustainability*, 9(3), 331.
- Mohd Suki, N., & Mohd Suki, N. (2015). Does religion influence consumers’ green food consumption? Some insights from Malaysia. *Journal of Consumer Marketing*, 32(7), 551–563.
- Nnatu, S., Chukwukelue, B., & Nkechinyere, B. (2019). Eco-labeling on eco-product, product advertisement as correlates of consumer buying behavior for eco-consumption. *Journal of Marketing and Consumer Research*, 9, 31–40.
- Olaniran, M. (2017). Informal residential land market in Nigerian cities: Pro or anti-poor? The case of Ibadan metropolis. *Urban and Regional Planning Review*, 2(1), 46–55.
- Ortega, D., Wu, L., Wang, H., & Widmar, N. (2011). Modeling heterogeneity in consumer preferences for select food safety attributes in China. *Food Control*, 36(1), 318–324.
- Potter, C., Bastounis, A., Hartmann-Boyce, J., Stewart, C., Frie, K., Tudor, K., Bianchi, F., Cartwright, E., Cook, B., Rayner, M., & Jebb, S. (2021). The effects of environmental sustainability labels on selection, purchase, and consumption of food and drink products: A systematic review. *Environment and Behavior*, 53(1), 82–110.
- Smith, S., & Paladino, A. (2010). Eating clean and green? Investigating consumer motivations towards the purchase of organic food. *Australasian Marketing Journal*, 18(2), 93–104.
- Souza, C., Taghian, M., & Lamb, P. (2006). An empirical study on the influence of environmental labels on consumers. *Corporate Communications: An International Journal*, 11(2), 162–173.
- Țigan, E., Brînzan, O., Obrad, C., Lungu, M., Mateoc-Sîrb, N., Milim, I. A., & Gavrilas, S. (2021). The consumption of organic, traditional, and/or European eco-label products: Elements of local production and sustainability. *Sustainability*, 13(17), 9944.
- Thøgersen, J., Haugaard, P., & Olesen, A. (2010). Consumer responses to ecolabels. *European Journal of Marketing*, 44(11/12), 1787–1810.
- Cai, Z., Xie, Y., & Aguilar, F. X. (2017). Eco-label credibility and retailer effects on green product purchasing intentions. *Forest Policy and Economics*, 80, 200–208.
- Žurga, Z., & Tavčer, P. (2014). Apparel purchasing with consideration of eco-labels among Slovenian consumers. *Fibres and Textiles in Eastern Europe*, 22(1), 20–27.

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