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### Rice and Non-Rice Staple Consumption Preference among Urban and Rural Communities of Ekiti State, Nigeria

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ARTICLE INFO	ABSTRACT
Article history:	Rice is a strategic commodity compared to other staple foods in the Nigerian economies. The
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	and a second

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**Copyright:** © 2022 Omolehin *et al.* This is an openaccess article distributed under the terms of the <u>Creative Commons</u> Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited. Rice is a strategic commodity compared to other staple foods in the Nigerian economies. The study evaluated a comparative analysis of rice and non-rice staple consumption preference among rural and urban communities in Ekiti State, Nigeria. Multistage sampling was used to select 105 households for the study. The primary data collected were analyzed using descriptive statistics and Logit model analysis. The mean age of the rural household was 48 years, while that of the urban household was 47 years. About 64% of the rural households claimed they preferred rice to other food stuffs, while 60% of the urban households claimed that they preferred rice to other foods. The monthly average quantity of rice, beans, maize, and garri consumed by rural households was 48.82, 18.3, 5.23, and 2.5kg, respectively, while urban households consumed 29.58, 45.36, 4.84, and 5.12kg of rice, beans, maize, and garri, respectively. Factors responsible for the low preference for local rice in the state were education, expenditure on food, and the price of the local rice. Moreover, age, household size, price of rice, and taste are the factors that influence preference for imported rice. There is a need to educate the households about the nutritional quality and taste of the local rice so as to encourage the consumption of this brand of rice and also sensitize the general populace about the nutritional values of indigenous staple foods to encourage their consumption.

Keywords: Rice, Consumption, Preference, Rural, Urban, Nigeria.

### Introduction

Rice has become a staple food in Nigeria, such that every household, both rich and poor, consumes large quantities of the commodity.<sup>1</sup> A combination of various factors seems to have triggered the structural increase in rice consumption over the years, with consumption broadening across all socio-economic classes, including the poor.<sup>2</sup> The rising demand has been attributed to the rising population and the increase in income levels over the years.<sup>2</sup> Rice has changed from being a luxury food consumed during festivals to a necessity whose consumption will continue to increase with per capita GDP growth, thus implying that its importance in the Nigerian diet as a major food item for food security will increase as economic growth continues.<sup>2</sup>Over the years, demand for staple crops has risen steadily, and their growing importance is evident given their important place in the strategic food security planning policies of many countries.<sup>4,5</sup> In Nigeria, the rising import bills on rice coupled with the increasing demand for the commodity have led successive Nigerian governments to step up policies aimed at remedying the country's supply deficit for the commodity. Various Nigerian governments intervened in the rice sector by increasing tariffs so that local production could be encouraged. Over the years, Nigeria has relied upon imported rice to meet its growing demand for rice, but the increase in demand in recent years reflected more of an increase in the demand for imported rice brands, partly to meet the shortfalls in domestic production and partly to meet consumer demand in the urban areas.

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The importation of rice to bridge the demand-supply gap was worth \$365 billion before the coming on board of the present administration,<sup>6</sup> and this implies a loss of considerable foreign exchange for the country. The Nigerian rice sector has witnessed some remarkable developments, particularly in the last ten years. Both rice production and consumption in Nigeria have vastly increased during the aforementioned period,<sup>6</sup> and even further in recent years, leading to a serious reduction in the importation of the commodity under the present government. Nevertheless, the demand for rice has continued to outstrip production given the shift in consumption preferences for rice among both rural and urban dwellers.<sup>2</sup> It is projected that demand will reach 25 million tonnes by the year 2050 from the current over 5 million tonnes, rising at the rate of 7 percent per year due to population growth.<sup>6</sup>The research efforts at ensuring a viable rice industry in Nigeria are very commendable, but it is worth noting that a greater proportion of such previous research on rice in Nigeria has focused on issues bordering on enhancing the supply side of the Nigerian rice industry.<sup>7-13</sup> There are few research outcomes on the relationship between the consumption of rice and the demand for other staple foods by households, which is the focus of this study, particularly in the study area. The research also intends to evaluate and compare the consumption of rice by urban and rural dwellers in the state. The demerit of Nigeria's dependence on imported rice is more apparent as the share of imported rice in the Nigerian food market is far above that of domestically produced rice. Rice imports have affected the domestic production and marketing of Nigeria's local rice. This is due to the decreased demand for local rice by Nigerians as opposed to the imported ones.<sup>14</sup> Considerable literature has attributed the low demand issue to the changing tastes and preferences of consumers for western food and cultural values in most developing countries, Nigeria included, due partly to globalization and the availability of cheap imported products.<sup>7,13</sup>

The foregoing underscores the need for urgent, dedicated policies aimed at alleviating the plight of the nation's rice economy vis-à-vis poor consumer demand for locally produced rice. In this vein, the current study seeks to provide practicable policy measures for addressing the dwindling fortunes of local rice producers. Specifically, the study was conducted to compare rice and non-rice staple alternative consumption preferences among urban and rural communities in Nigeria, using Ekiti State as a case study. The study is proposed with a view to arriving at a policy recommendation to stem the foreign exchange drain on imported rice purchases for Nigeria with the aim of attaining sustainable local rice food security for the country.

### **Materials and Methods**

#### Study area

The study was conducted in Ekiti State. The state is situated entirely within the tropics. It is located between longitudes  $40^{0}51^{1}$  and  $50^{0}45^{1}$ east of the Greenwich meridian and latitudes  $70^{0}15^{1}$ and  $80^{0}51^{1}$  north of the Equator. It shares boundaries with Kwara State to the north, Kogi State to the east, Ondo State to the south, and Osun State to the west. It has a total land area of 5887.890 sq km and a population of about 2,384,212 people (according to the 2006 national population census). The temperature ranges between  $21^{\circ}$ C -  $28^{\circ}$ C and  $60^{\circ}$  relative humidity. A humid tropical climate prevails over the state and it has two distinct seasons: the wet and dry seasons. The wet season lasts between April and October, during which there is rain, and the dry season with no rain is between November and March. Agriculture is the main occupation of the people, and it is the major source of income for many in the state. Rice farming is popular in the state, particularly the popular "Igbemo" rice.

#### Sampling procedure and sample size

A multistage sampling technique was employed to select the households for the study. The first stage involved purposive selection of the following Local Government Areas to cover the three senatorial districts of the State. Ado Ekiti and Irepodun/Ifelodun LGAs to represent Ekiti Central, Gboying and Ikere LGAs to represent Ekiti South senatorial district, Ijero, Ekiti West, and Ikole to represent Ekiti north senatorial district. Seven LGAs were selected out of the 16 LGAs in the State which is already almost half of all the available LGAs in the State thus giving the study a wider spread sufficient to enable generalization of the final outcome.

The second stage involved purposive selection of some towns to ensure that urban and rural communities were taken into consideration. The communities selected are; Ado from Ado LGA as urban community, Igbemo from Irepodun/Ifelodun LGA as rural community where rice production is prominent, Ikere from Ikere LGA as urban community while Ilumoba and Ode were selected from Gboyin LGA. Then from Ijero LGA, Iroko, Aiyegunle and Ikoro were selected as rural community while Ijero was selected as the urban community. From Ekiti West, we selected Aramoko as urban community while Erio was selected as rural community. From Ikole LGA, we have Ikole as urban community and Osin as the rural community. In all, 11 communities were selected for the study. The third stage was the random selection of households for interview and this was done by choosing household after every 8 intervals until the required number were selected. The rural households were selected from among the people in the rural communities while the urban consumers were selected from the people living in the urban communities. A total of 55 households were sampled from the rural communities while 50 respondents were selected from the urban communities for the study.

### Data collection and type of data

The primary data were sourced from households for the study between November 2018 and March 2019 in the selected communities. The primary data were elicited with the use of structured questionnaires from heads of household who consulted with their household members on the household's food consumption, food budgetary expenditures, rice production at the location selected for the production survey, rice processing, and rice marketing. Data were also collected on the demographic characteristics of the households, such as the sex, age, and educational level of household heads, household size, household income, and number of household income earners. Also, data were collected on households' rice consumption with respect to the type, frequency, quantity, and expenditure on rice consumption by the household. Similarly, data on quantities, prices, and expenditures on other types of food items consumed by the household were collected in the study area.

### Analytical Techniques

Data collected were subjected to different statistical techniques.

- 1. These include the descriptive statistics such as the use of mean, frequency distribution and standard deviation.
- 2. Logit Regression Model was used to identify factors responsible for household preference for local rice. The Logit regression assumes that the probability of households' preference for local or imported rice brand (P<sub>i</sub>) is expressed as:

$$P_i = \frac{1}{1 + e^{-z}}$$

The probability that a household consumption preference for locally produced rice or imported rice brand  $(1 - P_i)$  is expressed as:

$$1 - P_i = \frac{1}{1 + e^{zi}}$$

 $P_i$  ranges between zero and one and it is a non-linearly related to  $Z_i$ . Therefore,  $Z_i$  is the stimulus index which ranges from minus to infinity and is expressed as

$$Z_i = In(\frac{Pi}{1+}) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_8 X_8 + \mu$$

Now, to obtain the value of  $Z_i$ , the likelihood of observing the sample will be formed by introducing a dichotomous variable. The explicit logit model is therefore expressed as:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \dots + \beta_8 X_8 + \mu$$

Definition of variables;

The variables in the model are as discussed:

Y + dichotomous variable response (1 for households' consumption preference for either local or imported rice)  $X_i$ = Age of the household head (years)

 $X_2$  = Educational level of the household head (number of years of schooling)

 $X_3 =$  household size

 $X_4$  = Food expenditure by household (Naira/month)

 $X_5 =$  Price of rice (Naira)

 $X_6$  = Nutritional quality of the brand of rice (dummy)

 $X_7 =$  Taste of the brand of rive (dummy)

 $X_8$  = Ease of preparation of the brand of rice (dummy).

 $\beta_0 - \beta_8 = \text{constant term or parameters to be estimated}$ 

 $\mu = \text{error term.}$ 

### **Results and Discussion**

Socio-economic and household composition

The socioeconomic characteristics of the households in the study areas are presented in Table 1. The mean age of the rural household was 48 years, while that of the urban household was about 47 years. Looking at it more structurally, about 11% of the respondents in the rural household fall within the age range of 21–30 years, while 14% of the urban household group falls within this age bracket, and about 11% of the marketers are found in this age bracket. On the other hand, about 27% of the rural household group fall the 31–40 year age range, while 24% of people in the urban household group fall in this age bracket, and about 18% of the marketers fall within this age range. The mean age of below 50 years for the two categories of respondents is an indication that they are all still in the active age range that can enable them to engage in active and productive activities.

Among the rural households, about 86% were male while about 14% were female. Usually in an African setting, studies like this treat the husband as the head of the family, and they are usually the ones normally interviewed for such studies.

Table 1: Household structure and composition

Variables	Rural	Urban
	household	household
Age (years)		
21-30	6(10.9)	7(14.00)
31-40	15(27.3)	12(24.00)
41-50	19(34.5)	11(22.00)
>50	15(27.3)	20(40.00)
Mean	48	47.07
St. Dev	19.7	12.25
Gender		
Male	47(85.5)	35(70.00)
Female	8(14.5)	15(30.00)
Marital Status		
Married	48(87.3)	44(88.00)
Single	7(12.7)	6(12.00)
Education		
No formal education	5(9.1)	1(2.00)
Primary	20(36.4)	1(2.00)
Secondary	22(40.0)	3(6.00)
Tertiary	8(14.4)	34(68.00)
Adult		11(22.00)
Household size (Number)		
<3	2(3.6)	11(22.00)
3-5	13(23.6)	19(38.00)
6-8	19(34.5)	18(36.00)
>8	21(38.2)	2(4.00)
Mean	6	5
St. Dev	0.87	1.88

However, we do have rare cases where women take on the position of decision-makers for the household, and such a case must have manifested here. Among the urban households, 70% were male and 30% were female. Furthermore, about 87% of the rural households were married, while about 13% were not. On the other hand, 88% of the urban households were married. About 9% have no formal education at all, while about 36% have primary education, 40 % had secondary education, and about 14% have tertiary education. This is expected since education in Ekiti state considered the home of knowledge, has always been given the priority attention that it deserves. Looking at the high income households, only 2% had no formal education while 2% had primary education, 6% had secondary education and 68% and 22% had tertiary and adult education, respectively. The mean household size was 6 person while it was shown that about 24% had 3-5 persons in the household, about 35% had 6-8 persons in the household and about 38% had above 8 persons in rural households. However, the urban household group has a mean household population of 5 person with about 22% having less than 3 persons per household, 38% having 3-5 persons per household, 36% having 6-8 persons per household, and only 4% having more than 8 persons per household. This is found to be consistent with the general belief that it is usually people in the lower ladder of the economic run that have large household populations, while people in the higher economic scale tend to have a sizeable population.

# Household food consumption and perception on rice and non-rice staple alternatives

Information was collected from the respondents using various methods, including triangulation. From Table 2, households were asked questions about the quantity of rice and other food they purchased per month, and their responses are as presented.

Table 2: Quantity of food Purchased by household in a month

Variables	Rural	Urban household
	household	
Rice grain (kg)		
<50	20(36.4)	28(56.00)
51-100	12(21.8)	11(22.00)
101-150	1(1.8)	Nil
Average	48.82	29.58
Beans grain (kg)		
<50	32(58.2)	35(70.00)
51-100	4(7.3)	4(8.00)
101-150	Nil	-
>150	Nil	-
Average	18.3	45.36
Maize grain (kg)		
<50	2(3.6)	9(18.00)
51-100	Nil	3(6.00)
101-150	Nil	1(2.00)
Average	5.23	4.86
Yam (tubers)		
1-5	2(3.6)	17(34.00)
6-10	6(10.9)	10(20.00)
11-15	2(3.6)	6(12.00)
16-20	3(5.5)	8(16.00)
>20	Nil	1(2.00)
Average	3	5
Garri		
1-5	8(14.5)	26(52.00)
5.1-10	2(3.6)	8(16.00)
10.1-15	1(1.8)	3(6.00)
Average	2.56	5.12

From the table, the average quantity of rice purchased by rural households was 48.82kg and about 36% of the people in the household claimed that they purchased less than 50kg of rice per month, while about 22% and 2% claimed that they purchased between 51-100 kg and 101-150 kg, respectively. Looking at the quantity of beans purchased by the two households, it was discovered that the average quantity of beans purchased by the rural household was 18.3kg, and the breakdown showed that 58% of the people in the rural household purchased less than 50kg while about 7% purchased between 51-100 kg per month. On the other hand, urban households purchased an average of 45.36kg per month, which is more than double the average quantity purchased per month by rural households. This is probably due to the fact that people in the urban area have a higher income and is more enlightened about the nutritional benefits of beans as an important source of protein. Looking closely at the urban household, 70% of the people in the household purchased less than 50kg of beans per month, while 8% of them purchased between 51-100kg per month. Maize was another important food crop whose consumption was investigated. From table 2, the average monthly quantity of maize consumed was 5.23kg by rural households, and about 4% of the people in the household purchased less than 50kg per month. On the other hand, urban households purchased an average of 4.86kg per month, while 18% of the people in the household purchased less than 50kg per month and 6% and 2% purchased between 51-100 and 101-150kg per month, respectively. From the result, it has been shown that maize is not being treated as an important food in the state.

From the result in Table 2, we can see that even though pounded yam is frequently eaten by people in the state, the average tuber of yam purchased by rural households was3 tubers per month, and those purchasing 1-5 tubers per month were about 4%, while those purchasing 6-10 tubers were about 11%, and those purchasing 11-15 and 16-20 tubers were about 4% and 6%, respectively. On the other hand, from the side of the urban household, those purchasing 1-5 tubers per month represent 34%, while those purchasing 6-10 tubers,

11-15 tubers, and 16-20 tubers were 20%, 16%, and 2%, respectively. The result showed that people in urban households have better purchasing power to buy yam to enjoy pounded yam, a very popular food in Ekiti state than their rural counterparts.

Lastly, garri, a derivative of cassava, was equally investigated as part of the foods consumed by people in the State. From the result in Table 2, the average quantity of garri purchased by rural households was 2.56kg per month, and about 15% of people in this rural household purchased between 1-5kg per month, about 4% purchased between 5.1-100kg per month, and about 2% purchased between 10.1-15 kg per month. On the other hand, the average monthly quantity of garri purchased by urban households was 5.12kg while the breakdown showed that 52% of them purchased between 1-5kg per month, 16% purchased between 5.1-10 kg per month, and 6% purchased between 11.1-15kg per month. The import of this is that even garri could become expensive and inaccessible to rural households with low income at a particular period of the year. The result from this section has further confirmed that rice has taken over from other foodstuffs as the most important food in most parts of Nigeria, including Ekiti.

### Household preference for rice consumption in the study areas

The results in Table 3 present the households' preference for rice consumption in the study areas. From the table, about29% of the rural household claimed they do not consume rice at all, while about 2% claimed they consume rice twice a week, and about 29% claimed they consume rice 2-4 times per week, while 40% claimed they consume rice more than 4 times in a week. This is a clear indication that over 60% of the rural households usually consume rice, to the extent that rice has almost become the most important food in the household menu. However, looking at the urban household, there were less people, 12% that claimed they do not consume rice. Moreover, 12% claimed they consumed rice less than twice a week,18% claimed they consumed rice 2-4 times a week, and 48% claimed they consumed rice more than 4 times a week. One could say that rice has become very popular among this category of consumers and must be taking a lot of money out of the pockets of the people in this category.

About 64% of the rural household consumers claimed they preferred consumption of rice to other food stuffs, while about 36% claimed they preferred other food stuffs to rice. The high preference for rice by the two groups is an indication that rice, which used to be a ceremonial food in the past, has now become a normal food that people consume nearly every day. Figure 3 presents the households' preference for rice versus other staple foods in the study areas, as earlier discussed in the table. These households were also asked about their preference between locally grown rice and imported rice, and their responses are also captured in Table 3. From the table, about 76% of the people in the rural household category claimed they preferred locally grown rice to imported rice, while 24% claimed they did not prefer locally grown rice. On the other hand, 48% of the people in the urban household category claimed they preferred locally grown rice to imported ones, while 52% claimed they did not prefer locally grown rice but imported rice. The high preference for locally grown rice by the rural household group could be due in part to the cheaper prices of the local rice compared to imported ones and also the lovely aroma associated with this rice, as claimed by local people. The local rice is also claimed to be tastier than the imported ones. On the other hand, the fairly higher preference of the people in the urban household class for imported rice may be due to the neatness and lack of impurities in the imported rice compared with the local ones that are considered to be laden with impurities, creating the need to pick and wash properly before it could be prepared for eating. Thus, for a civil servant coming late from work, it is easy to just wash and cook the imported rice without much problem.

Factors influencing household preference for local rice consumption The result of the Logit model is presented in Table 4. The 8 variables fitted into the model were: age of the household head, education level of the household head, size of the household, expenditure on food by household, price of rice, nutritional quality of rice, taste of rice, and ease of preparation of the local rice. Looking at each of these variables closely, age was found not to be statistically significant in influencing the demand for local rice, even though it has a positive influence on the demand for and preference for local rice. However, education was found to be significant at the 5% level but had a negative sign, showing that the more educated a consumer is, the less he will be willing to buy local rice. Education is a significant factor affecting demand for local rice consume by household.<sup>14,15</sup>

### Table 3: Household preference on rice consumption

Number of time rice is	Rural	Urban	
consumed per week	household	household	
0	16(29.1)	6(12.00)	
<2 times	1(1.8)	6(12.00)	
2-4	16(29.1)	9(18.00)	
>4	22(40.0)	24(48.00)	
Household preference for rice			
over other food time			
Yes	35(63.6)	30(60.0)	
No	20(36.4)	20(40.0)	
Preference for local rice			
Yes	42(76.4)	24(48.0)	
No	13(23.6)	26(52.0)	

 Table 4: Factors influencing household preference for local

 rice in Ekiti State

Variables	Coefficients	St. Error	t-value
Age	0.0121	0.0645	0.19
Education	-1.5937	0.7716	-2.07*
Household size	0.6279	0.4950	1.27
Food expenditure	0.0040	0.0016	2.42*
Price	-0.1685	0.0544	-11.0*
Nutritional quality	-0.2661	1.4352	-0.19
Taste	2.0899	1.7825	1.17
Ease of preparation	-1.1777	1.5130	-0.78
Log likelihood	-9.5783		

\*P<0.05

 Table 5: Factors influencing household preference for imported rice in Ekiti State

Variables	Coefficients	St. Error	t-value
Age	-0.132**	0.051	-2.57
Education	0.740	0.455	1.63
Household size	1.397***	0.528	2.65
Food expenditure	0.009	0.006	1.52
Price	6.260***	2.238	2.80
Nutritional quality	2.256	1.946	1.43
Taste	-3.207*	1.946	-1.65
Ease of preparation	2.087	1.378	1.51
Log likelihood	-16.55		

\*\*\*Significant at 1% \*\*Significant at 5% \*Significant at 10%

That could explain why people with lower incomes seemed to predominate in their preference for and consumption of local rice. There are certain attributes of local rice that tend to repel high-income consumers, which are the presence of impurities, the presence of stones, the unimpressive color and odor. There is a need to work on these few areas to make this particular brand of rice considered to be more nutritious, of higher preference, and acceptable to a wider audience of consumers. The expenditure on food was found to be statistically significant at the 5% level and positively correlated, showing that the higher the expenditure of rural households, the higher the quantity of local rice they will purchase since this particular brand is cheaper than the imported rice. The price of the local rice normal economic principles, showing a negative sign, indicating that the higher the price of the local rice, the less quantity consumers will be willing to buy. This variable was found to be statistically significant at the 1% level, indicating how strong it was in influencing the preference for local rice. The nutritional quality was negatively correlated and was found not to be significant in determining the preference for local rice in the study areas. The taste of local rice was found to be positively correlated with the preference for local rice, though statistically not significant, but the ease of preparation was equally negatively correlated and was found not to be significant in influencing the preference and demand for local rice. It is evidence that local rice is harder to prepare due to the presence of stones and other impurities they contain.

## Factors influencing household preference for imported rice in the study area

Logit model was equally used to evaluate factors influencing households' preference for imported rice in the study areas, as presented in Table 5. The results show that the ageof the household head was found to be statistically significant at the 5% level but was negatively correlated to household preference for imported rice. The negative relationship shows that the older the household head, the less preference the household has for imported rice. It could be an indication that head, due to his advanced age, realized the adverse effect of imported goods on our foreign exchange depletion, which is consequently equivalent to providing jobs for people in foreign countries at the expense of our own people. It is also possible that older people preferred the taste of locally produced rice to the imported ones, hence their negative disposition in preference for imported rice as seen in the study results. Meanwhile, education was found to be positively related but not significant, while household size was found to be significant at the 1% level and positively related to household preference for imported rice. This implied that the larger the household, the greater the demand for imported rice. This is so since in a household where you have many people, they are bound to exhibit differences in their preferences, and where a lot of young people are involved, their demand for certain commodities might prevail over what the elders' desires are. Hence, in households where there are more younger people, there is the possibility that their demand for imported rice will be higher. The relationship between food expenditure and preference for imported rice was equally positive but not significant. It is expected that the more the household expends on food, the more they will spend on the purchase of rice. As against the apriori expectation, there is a positive and significant relationship between preference for rice and the price of rice. Usually, the relationship between demand and price, according to economic principle, is opposite. Here, it could be that people see imported rice as a status symbol, and as such, there is ego attached to eating imported rice, so the higher the price, the more some people will be willing to prefer the imported rice. In the study areas, the nutritional quality of the imported rice had a positive relationship with preference for imported rice, meaning that the better the nutritional quality, the more preference people will have for imported rice. On the other hand, taste was found to have a negative relationship with preference and be significant at the1% level. Actually, this could be a result of the fact that people generally have the belief that imported rice has no taste, and as such, they do not prefer the imported rice as a result of any ascribed taste.

Finally, there was a positive relationship between the ease of preparation and the preference for imported rice in the state. This is so because people have the feeling that there are no stones, no impurities, and other negative attributes in imported rice, making it relatively easy to prepare, especially for civil servants and other people that are very busy.

### **Conclusion and Recommendation**

Based on the findings of this study, it could be concluded that rice is the most prominent daily food among both rural and urban households in the study areas, as the quantity of rice being consumed as well as the expenditure on rice are considerably higher than what obtains with other food stuffs. Also, it was discovered that the frequency of rice consumption per week by both household groups is higher than the frequency of consumption of other foods. It was discovered that education, expenditure on food, and price were the factors influencing consumers' preference for local rice, while it was equally discovered that household size, age, price, and taste were the factors that influenced preference for imported rice in the area. There is a need to educate the households about the nutritional quality and taste of the local rice so as to encourage the consumption of this brand of rice and also sensitize the general populace about the nutritional values of indigenous foods that are currently being jettisoned in preference for rice that was not originally on the Nigerian menu.

### **Conflict of Interest**

The authors declare no conflict of interest.

### **Authors' Declaration**

The authors hereby declare that the work presented in this article is original and that any liability for claims relating to the content of this article will be borne by them.

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