Analysis of consumers' preference and willingness to pay for orange-fleshed sweet potato in Osun state, Nigeria

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ABSTRACT

This study assesses the factors that influence consumers' preference and willingness to pay (WTP) for orange-fleshed sweet potato (OFSP), emphasizing the effects of information on its health benefits. A multi-stage sampling technique was employed to select 180 respondents for study. Primary data were collected using a well-structured and pre-tested questionnaire. Data were subjected to descriptive and inferential statistics, viz, the hedonic pricing and probit models. The results show that factors such as gender, root size, availability and storability influence consumers' preference for OFSP. The results further revealed that the root size negatively influenced preference for OFSP, while availability positively influenced it. These results also indicate that preference for OFSP decreases with the length of storage. In terms of willingness to pay for OFSP, the result of the hedonic pricing model indicates that the age of the respondent and colours of the OFSP positively influence consumers' willingness to pay for OFSP. There was a (17.1%) increase in consumers' level of preference after information on the health benefit was provided to them and the result from comparing means (T-Test) of prices consumers are willing to pay before and after information was provided showed a negative co-efficient (-16.341), which was significant at 1% level of significance. We suggest that research should concentrate on identified OFSP characteristics to improve acceptance, while in the short run, there is a need to promote OFSP production to increase availability.

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Introduction

Ipomoea batatas (L) Lam., (sweet potato), is a member of the Convolvulaceae family, which includes about a thousand species, only *Ipomoea batatas* being economically significant to humans and animals (Woolfe, 1992). With an annual production of over 133 million tons, sweet potatoes are currently ranked fifth among the most important food crops in sub-Saharan Africa. China is the top producer worldwide, with Nigeria coming in second with 3.2 MMT (NRCRI, 2009).

The white-fleshed sweet potato (WFSP) and the orange-fleshed sweet potato (OFSP) are the two primary varieties of sweet potatoes grown and eaten in Nigeria. Only the orange-fleshed sweet potato (OFSP) offers a cost-effective way to obtain β-carotene, which is a precursor to vitamin A (Van Jaarsveld *et al.*, 2003). This makes the OFSP a more nutritious option than the widely grown white fleshed sweet potato (WFSP). As a result, the OFSP has become more popular because of its ability to prevent vitamin A deficiency in a sustainable way (Low *et al.*, 2004).

In sub-Saharan Africa, vitamin A insufficiency is a micronutrient malnourishment that has led to major health issues. Various approaches have been taken to address micronutrient deficiencies. According to Black *et al.* (2003), they include nutritional supplementation, fortifying meals at home, fortifying staple foods with condiments, and biofortification.

According to UNICEF and the Micronutrient Initiative (2004), vitamin and mineral deficiencies cause Nigeria to lose more than US$1.5 billion in

GDP per year. It would cost less than US$188 million a year to scale up key micronutrient programs (World Bank, 2009).

However, because bio-fortification can give micronutrients at a lower cost over time if it is integrated into plant food varieties, it has been found to be a beneficial approach. Its ability to provide micronutrients to underprivileged rural populations, who mostly live on staple foods due to lack of access to alternative forms of fortification and micronutrient sources, is extensive (Bouis, 2003). In Nigeria, bio-fortification efforts have been carried out for more than ten years. These activities involve fortifying different crops (such cassava, maize and sweet potatoes) with various micronutrients (including vitamin A, iron, zinc, etc.).

However, Birol *et al.* (2015) found in their study that, even in the lack of nutritional knowledge about the crop, consumers generally accepted and preferred bio-fortified crops with visible traits, and that acceptance increased when the promotion of these foods was accompanied by nutritional information. Compared to unfortified foods, consumers preferred the bio-fortified foods more frequently. Since OFSP is a component of the food-based strategy to increase the consumption of vitamin A in communities at risk of vitamin A deficiency, the purpose of this study is to determine, through consumer preference testing, whether consumers of sweet potatoes in the study area prefer and are willing to pay (WTP) for the OFSP and, if so, how much they are willing to pay for the OFSP.

Statement of research problem

Every successful government in Nigeria has found it extremely difficult to meet the food and nutritional needs of the country's growing population, and the degree to which this goal is met serves as a barometer for evaluating the government's overall performance.

Millions of individuals in developing nations suffer from micronutrient malnutrition, according to Kolapo and Kolapo (2021). Increased mortality has been linked to vitamin A deficiency (VAD), especially in children and women who are pregnant or nursing (Kolapo, 2023). VAD, or vitamin A deficiency, continues to be a problem for public health. Worldwide, VAD is estimated to affect 127 million preschool-aged children (Kolapo *et al.*, 2020a; Kolapo *et al.*, 2020b). The disease is responsible for over 250,000 and nearly 500,000 cases of blindness annually, 600,000 deaths from VAD, and 41% of stunted development in children under the age of five. According to Kolapo *et al.* (2021), the prevalence of vitamin A deficiency is 29.5%.

According to Frick *et al.* (2007), the economic cost of blindness and visual impairment in the US was estimated to be $16 billion, or $4,000 in additional healthcare costs per person annually. Additionally, studies have shown that supplementing diets with vitamin A lowers the morbidity and mortality of VAD-related illnesses (Sommer *et al.*, 1986).

Although OFSP is a cheap and excellent source of Vitamin A due to its higher concentration of beta-carotene, a precursor to Vitamin A, it has been adopted as a food-based approach to address the widespread epidemic of Vitamin A deficiency in the Sub-Saharan region of Africa. The white-fleshed sweet potato (OFSP) appears to be in greater demand, despite its nutritional and health benefits to humans, as demonstrated by its display in our local market. Additionally, the bio-fortified sweet potatoes taste sweeter than the white kinds that are typically consumed. Because of this strange appearance and flavor, consumers may find it difficult to embrace the product, which could limit its potential to improve nutritional outcomes. Therefore, it is essential to comprehend how consumers value OFSP and determine whether or not their desire to pay for the OFSP is influenced by certain aspects. Therefore, by ascertaining if and under what circumstances customers are willing to pay for the OFSP, this study aims to evaluate their choice and readiness to pay for the OFSP.

The general objective of the study is to "determine consumers' preference and willingness to pay for orange fleshed sweet potato in Osun State, Nigeria. The specific objectives of the study are to:

i. describe the socio-economic characteristics of sweet potato consumers;
ii. profile consumers' level of awareness, preference and willingness to pay for OFSP;
iii. identify the factors influencing consumers' preference and willingness to pay for OFSP and
iv. examine the effect of health information on consumers' preference and willingness to pay for OFSP in the study area.

Concept of willingness to pay (WTP) and hedonic pricing

A multitude of diverse concepts is utilized in order to accurately investigate consumer perceptions or views regarding costs. It is critical to demonstrate that WTP is strongly related to the consumer's perception of the price of a given product (acceptable price, reference price), and that it is combined with other elements that influence decision-making when examining the consumer price perception process.

The maximum amount of a consumer product is willing to forego for one unit of that product is referred to as the consumer's willingness to pay; this is the amount of money a person would be willing to tender for a greater degree of quality. According to Wang *et al.* (2007), willingness to pay is also referred to as the reservation price or the "floor reservation price" when the latter is formulated as a concept of margin.

The "floor reservation price" is the highest amount at which a customer is guaranteed to buy a product at 100% of the asking price. The amount of money that represents the difference between the consumer surplus before and after the product in question adds a feature is also included in the notion of willingness to pay. According to Lusk and Hudson (2004), the WTP function takes into account a person's utility (u) and satisfaction (q) as well as their willingness to purchase a product at a particular price point (p) and quality (q).

The derivative of the product price with respect to the associated attribute is known as the hedonic price of a characteristic. It is defined in the setting of perfect competition as the value that customers assign to an additional unit of the characteristic. If it is nearly 0, either customers do not value the characteristic or do not perceive it to be relevant.

Materials and Methods

Area of study

The study was conducted in Osun State, which is situated in Nigeria's southwest geopolitical zone. With a total size of 14,875 square kilometers, Osun state is bordered to the south by Ogun State, to the north by Kwara State, to the west by Oyo State, and to the east by Ondo State. Situated between 7.500°N and 4.500°E and 7030' and 4030'E, it has an agrarian economy with the majority of its people working as farmers. With a population estimated at 4,137,627, it consists of six major cities: Ede, Ife, Ilesha, Ikirun, Iwo, and Oshogbo. There are two distinct seasons in the state: the dry season, which runs from November to March, and the rainy season, which runs from March to October. The temperature ranges from 25 to 27.5°C, while the mean annual rainfall varies from 880 to 2600 mm. The state grows a variety of major crops, such as vegetables including amaranths, melon, and sweet potatoes, as well as cocoa, cocoyam, cassava, melon, and maize.

Sampling procedure

A multi-stage sampling technique was adopted to select the respondents for this study. In the first stage, six (6) Local Government Areas (LGAs) out of the 12 Local Governments Areas (Odo-Otin LGA, Ayedaade LGA, Iwo LGA, Ilesha-North, Ori-Ade LGA, Ife-Central LGA) multiplying vines were purposively selected. In the second stage, three

wards with government schools that benefited from the O'Meals intervention were also purposively selected. In the third stage, 10 sweet potato-consuming households from each of the wards were randomly selected to give a total of 180 respondents for the study.

Method of data collection

Primary data were used for this study, which was obtained through interviews using a well-structured questionnaire. Information collected includes socio-economic characteristics of the respondents, consumers' preferences, level of awareness, provided health and nutritional information, and willingness to pay for OFSP, among others.

Analytical techniques

Data were analyzed using descriptive statistics, hedonic pricing model, and probit regression technique.

Descriptive statistics

Descriptive statistics was used in describing the socio-economic characteristics of sweet potato consumers' in the study area, and in examining the consumers' level of awareness, preference, and willingness to pay for OFSP in the study area. In addition, descriptive statistics was used to measure the effect of providing information on specific health benefits on consumers' preference and willingness to pay for OFSP.

Probit regression model

Factors influencing consumers' preference for OFSP were modeled using probit regression model and Hedonic pricing models, respectively. The implicit form of the probit model is specified thus:

Y takes the value of 1 if the consumer prefers OFSP and 0 if No.
X denotes a vector of regressors, hypothesized to influence the outcome Y.

Specifically, the model takes the form:
$$Pi[Y=1] = [Fzi] \ldots\ldots\ldots\ldots\ldots\ldots\ldots \quad (1)$$
$$Y_i = \beta_1 + \beta_2 X_{2i} + \ldots\ldots\ldots + \beta_k X_{ki} + \mu \ldots (2)$$
Y^* is unobserved but
$$Y_i = 0 \text{ if } y_i^* < 0, \; Y_i = 1 \text{ if } y_i^* \geq 0$$
$$P(y_i = 1) = P(y_i^* \geq 0) = P(\mu \geq -\beta_1 - \beta_2 X_2 \ldots \beta_k X_{ki}) \ldots \quad (3)$$

Where,
P= probability,
I = 1 (Yes), 0 (No)
B = A vector of unknown coefficients.
Y= Nature of the consumers' preference for OFSP (1=Yes, 0=No)
X_1 = Age (years)
X_2 = Sex (male=1, female = 0)
X_3 = Household size
X_4 = Marital status (married =1, otherwise = 0)
X_5 = Income (₦)

X_6 = Root size (1=Yes, 0= No)
X_7 = Taste (1=Yes, 0=No)
X_8 = Colour of root (1=Yes, 0=No)
X_8 = Colour of root (1=Yes, 0=No)
X9 = Occupation
(Off-field activities = 1, Otherwise = 0)
X_{10} = Meal making ability (1=Yes, 0=No)
X_{11} = Availability (1=Yes, 0=No)
X_{12} = Storability (1=Yes, 0=No)
X_{13} = Price (₦)(1=Yes, 0=No)

Estimation of hedonic pricing model

Most researchers have estimated the hedonic function above through regression analysis. By regressing consumers' good prices on characteristics, a coefficient representing the implicit price of attributes derived. This is the approach that has been used by Ladd and Suvannut (1976) and thus adopted for this study. For the sweet potato cultivar, the following hedonic equation is specified as follows:

Pi = □ + $\sum Xij$ □ij + $\sum$□Yi + v............... (4)
Where;
Pi = WTP for a kilogram of sweet potato variety i (Naira). If yes = 1, 0 = otherwise
Xi = Consumption attributes
□i = is the estimates of the attributes,
Yi = Household socio – economic characteristics
□Yi = 1...5, is coefficient for household socio-economic characteristics.
v = Stochastic error term.
Consumption attributes in the model measurement (*Xi)* are:
X1 = Colour of root
(if orange = 1, otherwise = 0)
X2 = prefer OFSP taste
(Yes = 1, otherwise = 0)
X3 = Meal making suitability
(Yes 1, otherwise = 0)
X4 = Availability (Yes = 1, otherwise = 0)
X5 = Meal making suitability
(Yes = 1, otherwise = 0)
X6 = Storability (Yes = 1, otherwise = 0)
Household socio economic characteristics (Yi) are:
Y_1 = Gender (female = 1, male = 0)
Y_2 = Age of respondents (years)
Y_3 = Household size in number
Y_4 = Income of respondents (₦)
Y_6 = Marital status
(Married =1, otherwise =0)

Results and Discussion

The socio-economic characteristics of the respondents, as shown in Table 1 reveal that of the total respondents, the majority (55.6%) of the respondents interviewed were between 20-29 years of age while only a few (5.0%) were between 50-59 years of age, with a mean age of approximately 32 years with a standard deviation of ±8.711 years. This indicates that most of the respondents were in their active years and made more mature decisions related to the acceptability of OFSP. This result was similar to that of Utoni (2016), Naico (2009), Kolapo and Kolapo (2023), who found out in their studies that the respondents were in their active years. The majority (62.2%) of the respondents were female, while (37.8%) were male. This result was similar to that of Naico (2009) and Utoni (2016), who also found out that most of the respondents in their studies were females. A higher percentage of the respondents (51.1%) were married. This conforms with the findings of Utoni (2016) who found that the majority of respondents in his study were married. The result also indicated that 144 (80%) of the respondents had household size that ranged between 1 and 4, while 36 (20%) had household sizes that ranged between 5 and 8. The result also reveals that most (42.2%) of the respondents were civil servants, 24.4% were traders, and only a few (5.0%) were artisans. This result was consistent with MMCSEPR (2012) and Utoni (2016), who reported that an off-farm activity was the main occupation of respondents in their studies. The result reveals that the majority (65.6%) of the respondents interviewed made an income which ranges between ₦10,000 – ₦64,999, 28.3% made an income of between ₦65,000 – ₦119,999, while only 5.6% of those interviewed made between ₦120,000 – ₦174,999. The mean income made by respondents in the study area was ₦55,750 and a standard deviation of ±₦49,066.467.The result shows that 86.7% of respondents were aware of OFSP, while 13.3% claimed not to be aware of OFSP. Kitch *et al.* (1998), found that a good knowledge and awareness by consumers' have a positive impact on willingness to pay and domestic market development. Result also showed that 86.7% were aware of OFSP, but a larger percentage of respondents (54.5%) that were aware of the OFSP were females, which is in line with Okello (2014), who in his study reported that sweet potato was considered as a food for women. The majority (60.6%) were unaware of the health benefits of consuming OFSP to their health, while a lesser percentage (39.4%) of the respondents was aware of the health benefits of consuming OFSP. This is corroborated by Okellos' study, which revealed that most of the respondents (81.7%) in his study did not know about the major vitamins contained in the OFSP root. Result also shows that 61.7% preferred OFSP while 38.3% did not prefer OFSP. This could indicate that though most of the respondents were aware of the OFSP, some did not know the advantage of consuming OFSP to their health. However, after information on specific health benefits of OFSP were provided there was a significant increase in respondent's preference for OFSP, as well as their willingness to pay for 1Kg of OFSP.

Table 1. Socio-economic characteristics of respondents.

Socio-economic characteristics	Frequency	Percentage	Mean (Standard deviation)
Age			
20 – 29	100	55.6	
30 – 39	41	22.8	32.36
40 – 49	30	16.7	(8.711)
50 – 59	9	5.0	
Sex			
Male	68	37.8	
Female	112	62.2	
Total	180	100.0	
Marital Status			
Single	87	48.3	
Married	92	51.1	
Divorced	1	0.6	
Household Size			
1 – 4	144	80.0	3.43
5 – 8	36	20.0	(1.476)
Occupation			
Artisan	9	5.0	
Trader	44	24.4	
Civil servant	76	42.2	
Others	51	28.3	
Income (₦)			
10,000 – 64,999	118	65.6	
65,000 – 119,999	51	28.3	
120,000 – 174,999	10	5.6	55,750.00
505,000 – 559,999	1	0.6	(49,066.467)
Awareness of OFSP			
Not aware	24	13.3	
Aware	156	86.7	
Awareness by Sex of Respondents	32.8	67.2	
Male	54.5	45.5	
Female			
Awareness of Health Benefits of OFSP		39.4	
Aware	75	60.6	
Not Aware	105		
Preference for OFSP Before information on Health benefits		61.7	
No preference	143	38.3	
Preference	37		
Preference for OFSP After Information on Health Benefits		13.3	
No preference		86.7	
Preference	24		
	156		
Willingness to pay for OFSP (₦/Kg) without Information On Health benefits	99	55.0	
	81	45.0	
200 – 299			
300 – 400			
Willingness to pay for OFSP (N/Kg) with information on Health benefits	1	0.6	
	36	20.0	
0	9	5.0	
200	73	40.6	
250	36	20.0	
300	25	13.0	
350			
400			

Source: Field Survey, 2018

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Factors influencing consumers' preference for OFSP

The result of the factors influencing consumers' preference for OFSP were presented in Table 2.
The log-likelihood of -47.238635 was significant at the 1 percent level of significance (Table 2). In general, the model performance as measured by the pseudo R^2 of 0.33 indicates a good fit. The result reveals that the coefficient of gender was positively significant, implying that the likelihood of females to prefer OFSP is higher in the study area. This is because OFSP, as opined by Okello *et al.* (2014), is a food for women. The result also reveals that the coefficient of root size was negatively significant with the preference for OFSP, which indicates that the likelihood of

respondents preferring a big-sized tuber of OFSP is lower in the study area. This shows that the small roots are generally more preferred by respondents. This result is consistent with that of Naico (2009) whose result also shows the negative significance of root size. Furthermore, the result shows that the coefficient of OFSP availability is positively significant, indicating that the likelihood of preferring OFSP because it is available is higher among respondents. This shows that respondents prefer OFSP more when it is readily available. Finally, the result shows that the coefficient of OFSP storability is negatively significant, implying that the likelihood of respondents' preferring OFSP becomes lower with the longer length of its storability.

Table 2. Factors influencing consumers' preference for OFSP.

Variable	Coefficient	Standard error	z-value	Marginal Effect
Age	-0.031*	0.01647	-1.86	-.010945
Root size	-0.7124426**	0.3277387	-2.17	.0388591
Meal making ability	0.4169175	0.3720776	1.12	-.2564863
Availability	1.984983***	0.4984042	3.98	-.0344771
Storability	-1.347721***	0.4640494	-2.90	.0987333
Colour dummy	-.4594722 *	0.2716437	-1.69	-.1775659
Price dummy	.5274912 *	0.3109199	1.70	.2070088
Taste dummy	-.4543325 *	0.261645	-1.74	-.175946
Constant	1.136011	1.2773029	0.89	
Log-likelihood	-47.238635			
Pseudo R^2	0.3317			
LR chi²	46.89***			

Source: Field Survey, (2018)
*Note: * Significant at 10%; ** Significant at 5%; *** Significant at 1%.*

Factors influencing consumers' willingness to pay for OFSP

The result of the hedonic model for factors influencing consumers' willingness to pay for OFSP were presented in Table 3. The result showed that respondents were willing to pay ₦0.21 more for OFSP for every one-year increase in the age of the respondent. This is because the aged recognize the health benefits as well as the vitamin A content of OFSP, which is essential in preventing blindness and other health troubles or deficiencies common among the aged. The result was consistent with Utoni (2016), who also reported a positive correlation between age and WTP for OFSP. The coefficient of marital status was negatively significant with the WTP for OFSP, which implies that those who are not married are more willing to pay for OFSP while the married

would be willing to pay a discount price of ₦0.19 for OFSP. The decrease in WTP for OFSP among the married is because they have financial commitment to their households than those who are single and would want to operate efficiently within their budget constraint. Finally, the coefficient of color had a positive significant effect on WTP for OFSP. Therefore, the result showed that respondents were willing to pay ₦6.46 more for OFSP for its orange color. This is because the OFSP has a very attractive flesh color and induces respondents to pay more for the color. This indicates that color is an important attribute of sweet potatoes for consumers; therefore, any attempt to mar the unique color of sweet potato will abjure consumer's preference.

Table 3. An estimated hedonic model for factors influencing consumers' willingness to pay for OFSP.

Variable	Coefficient	Standard error	t-value
Age	0.212**	0.102	2.07
Marital status	-0.188*	0.107	-1.76
Colour	6.457***	0.842	7.67
Constant	1.944***	0.254	7.67
R-squared	0.998		
Adjusted R^2	0.998		
F statistics	8586.64***		

Source: Data Analysis, 2018

** Significant at 10%; ** Significant at 5%; *** Significant at 1%.*

Effect of providing information on specific health benefits on consumers' preference for OFSP

The result of the information on health benefits on consumers' preference for OFSP were presented in Table 4. The results reveal that without information on health benefits of OFSP, 61.7% of the respondents preferred OFSP. However, there was a 17.1% increase in respondent's level of preference for OFSP (i.e. the percentage of respondents who preferred OFSP increased from 61.7% to 78.8%, after they were provided with information on specific health benefits of OFSP). Specifically, there was a 13.9% increase in respondents' preference when they knew that

OFSP prevents Vitamin A deficiency. In addition, there was a 20% increase when information that OFSP "improves digestion" and "controls diabetes" was provided to them, respectively. Preference also revealed by 18.9% when consumers' got information that OFSP "treats inflammation and prevents dehydration" respectively. Furthermore, when consumers' got information that OFSP boosts immune system, treats bronchitis, and stomach ulcer respectively, their preferences increased by 17.7%, 11.6%, and 15.5%. This reveals that providing information on the health benefits of OFSP increased consumers' preference for OFSP.

Table 4. Effect of providing information on health benefits on consumers' preference for OFSP.

Consumers' Preference for OFSP without Information on health benefits		Consumers' preference for OFSP after providing information on specific health benefits			
Frequency (yes)	Percentage (%)	Provided Info.	Frequency (Yes)	Percentage (%)	Percentage Change (%)
111	61.7	Provides Vit. A	136	75.6	13.9
111	61.7	Improves Digestion	147	81.7	20.0
111	61.7	Treats Inflammation	145	80.6	18.9
111	61.7	Boosts Immune system	143	79.4	17.7
111	61.7	Treats Bronchitis	132	73.3	11.6
111	61.7	Treats Stomach Ulcer	139	77.2	15.5
111	61.7	Prevents Dehydration	145	80.6	18.9
111	61.7	Controls diabetes	147	81.7	20.0
	61.7			78.8	17.1

Source: Data Analysis, 2018
*Note: ** Significant at 5%; *** Significant at 1%.*

Effect of providing information on specific health benefits on consumers' WTP for OFSP

The result of providing information on the health benefits of OFSP *on consumers' WTP for OFSP* were presented in Table 5 .Providing information on the health benefits of OFSP, caused a significant change in consumers' willingness to pay for OFSP, and this is revealed by the increase

in the mean price consumers' were willing to pay for 1Kg of OFSP (N149.48 more per Kg of OFSP), furthermore means were compared for prices respondents were willing to pay before and after information was provided on health benefits (Paired sample T-Test) and the coefficient showed a negative relationship (-16.341) which was significant at ($P<0.001$) level of significance.

Table 5. Information on specific health benefits on consumers' WTP for OFSP.

WTP/KG of OFSP Before Information on Health benefits	Percentage (%)	WTP/KG of OFSP Before Information on Health benefits	Percentage (%)
0	38.3	0	0.6
150	0.6	150	-
200	37.8	200	20.0
250	-	250	5.0
300	19.4	300	40.6
350	-	350	20.0
400	3.9	400	13.9
Mean WTP/Kg 150.28	299.72		
Std. Dev.	128.321		67.372
T-Test	-16.341***		

Source: Field Survey, 2018
*Note: ** Significant at 5%; *** Significant at 1%.*

Conclusion and Recommendations

The study concluded that the factors that influenced respondents' preference for OFSP were gender, root size, availability of OFSP and OFSP storability; however, the factors differ in their magnitude and signs. In addition, age and root colour positively influenced consumers' WTP for OFSP. In contrast, marital status negatively influenced consumers' WTP for OFSP. In addition, when information was provided on the health benefits of OFSP, consumer's preference and WTP was significantly affected. Based on the findings of the study, it is recommended that: Youth should be educated on the health importance and benefits of OFSP as the result revealed that the aged were more willing to pay a premium for OFSP; also, youths should be encouraged in sweet potato farming as result show that the mean respondent income was $153.49/month which falls below world banks poverty line. There is a greater need for the government and private institutions to work more on promoting orange-fleshed sweet potatoes, as many individuals still appear unaware of its health benefits.

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