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ACCEPTABILITY OF SELECTED INDIGENOUS SNACKS BY TOURISTS IN TOURISTS CENTRES IN SOUTH WESTERN, NIGERIA

by

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Abstract

Indigenous snacks are powerful tool in promising great memories for tourists.Tourists hardly patronise them due to packaging. Attractive packaging could boost patronage of IS by tourists. Acceptability of indigenous snacks by touristsin Southwestern Nigeria was conducted.The study was carried in southwestern states Nigeria, with peculiarity of selected IS (Kokoro, Dodo Ikire, Akara Ogbomoso and Aadun) to the source of origin. Two tourists' centers frequently visited were purposively selected in each sampled state. Twenty tourists in each of the tourist centers were randomly selected given a sample size of 180 respondents.Tourists' age were 24.3±5.01 years. About half touristswere male(51.3%)and female (54.4%), had tertiary education (71.9%) and were single (51.3%).Most of the tourists (74.9%) earned less than ?100,000.00±1,232.13 per month.Majority (93.1%) of tourists had high knowledge of IS and more than half (63.1%) had favourable attitudes to IS.Among tourists,Aadun had highest flavour (61.3%), taste (45.6%) and overall acceptability (68.8%), while Akara Ogbomoso had the least flavour (41.3%), taste (22.5%) and overall acceptability (49.4%).Tourists' attitude to IS was significantly higher in Oyo (107.18±9.01), than Ogun (104.33±15.15), Osun (106.10±15.20) and Ekiti (96.25±4.20). In order of magnitude of level of acceptability of IS, Ekiti (106.50±5.57) was highest compared to Osun (102.50±12.30), Oyo (92.85±15.67) and Ogun (85.80±15.37). Age and educational level significantly influenced acceptability of IS by tourists,Knowledge (â = 0.184), attitude (â = 0.06) and perception (â = -0.304) contributed significantly to acceptability of IS by tourists.Tourists' acceptability level of repackaged indigenous snacks was high in Southwestern Nigeria. Determinants of tourists' acceptability of repackaged indigenous snacks were knowledge, attitude and perception.

Keywords: Indigenous snacks, Acceptability, Aadun, Akara Ogbomoso, Dodo Ikire.

Introduction

[illegible] edible substance which after consumption, digestion and absorption in the body will nourish the body, [illegible] the worn out tissues and regulate all the body metabolic processes Olusanya et

al., (2000). It contains nutrients which must be consumed in the right proportion for good intellectual development and growth, also for the maintenance of good health acknowledged by Olusanya et al., (2000).Snacks are small casual meal, ready-to-eat (RTE) foods product which are sometimes considered as substantial source of nutrients.They play important role in Nigerian food culture (Abiola et al., 2012) by show casing the diversity in food selection.Snack is any food consumed outside of breakfast, lunch and dinner, as a selection of small items eaten to replace traditional meals. Whilst serving snack as convenience foods and savoury, they can also be helpful in reducing post-harvest food loses particularly in areas with less developed storage facilities (Omode et al., 1995). It also enhances the income of the producers of raw materials along the value chain. These snacks are reputed to be very rich in nutrients that are essential for body growth and development (Omode et al., 1995; Oladele and Aina (2007). Snacks come in different forms, either raw or cooked due to ingredients used in their preparation and in line with cultural, ethnic, religious or climatic condition as well as tradition and local knowledge.In Nigeria, there are existing tourist centres that are actively and regularly patronized by both local and foreign individuals. These include most museums of antiquities, in National parks, Zoological gardens, Amusement park, Resort centres and a few water spots located in South-West, Nigeria (Ayodele, 2002). Astourism development is gradually becoming the concern of many stakeholders, tourist centres are springing up while tourists come from both within and outside the country. Tourists (either local or foreign) however, would need to take some meals in form of snacks as refreshments or before meals. Local snacks are often sold by itinerant sellers from trays or boxes on their head, from stores in the market in schools or by the road side in small rural towns as well as larger urban centres. Some of this selected snacks are widely sold at marketplaces and hawked at motor parks in South Western part of Nigeria. Food, especially snacks have a significant economic and nutritional role to play in the activity of tourism (Long, 2004). According to Symon (1999), indigenous food as snacks are fundamental components of a destination attributes, in addition to the range of attraction and the overall tourist experience. This results in culture contact, hence, tourists could be introduced to wide varieties of indigenous snacks which contribute to the overall eating of adequate food and part of their tourism experience. Acceptability of indigenous snacks by the Tourists in tourist centres could add to improve the economic resources and nutritional prospects in SouthWestern, Nigeria. Hence indigenous snacks such as over ripe plantain chips (Dodo Ikire), corn cake (Aadun) bean mixture cake (Akara Ogbomoso) and corn cracker (Kokoro), among others could be introduced to Tourist centres to make sufficient sales.

Methodology

The Southwestern Nigeria lies between latitude N60 29and 80 551 and longitude E20 481 and 371. Nigeria is endowed with different physical features of highland hills, natural and man-made lakesand small rivers that make tourism products in the country diverse. The study was purposively carried out in four out of six southwestern states (Ogun, Osun, Oyo and Ekiti) Nigeria, due to peculiarity of selected IS (Kokoro, Dodo Ikire, Akara Ogbomoso and Aadun) as the source of origin. Two tourists' centers frequently visited were purposively selected in each sampled state. Twenty tourists in each of the tourist centers were randomly selected to give a sample size of 160 respondents. Structured questionnaires were distributed to twenty tourists to obtain information on tourist' socio economic characteristics, knowledge of, attitude to and perception of acceptability of IS. Samples of each IS were procured and repackaged for each tourist, organoleptic assessment of indigenous snacks was conducted to determine flavour, taste and overall acceptability using 5- point hedonic scale. Data were analysed using descriptive statistics, Chi-square, pearson product moment correlation, multiple linear regression and ANOVA at á0.05.Chemical analysis of the selected samples of indigenous snacks procured were carried out following the procedures described by AOAC (2000).

Results and Discussions

Table 1 showed socio economic characteristics of touristswhich include age, sex and marital status, educational level attained, religion, estimated monthly income and states from which they came. The mean age for tourists' was24 years, 54.4% of tourists were female. A higher proportion of tourist64.4%) were single, this inferred that single people have more time for themselves, without hindrance of family responsibility, hence, engage in recreation and tourism activities. A higher proportion of tourists (71.9%) have tertiary education which may be indicative of their being well informed that might influenced their decision on acceptability of indigenous snacks Fig. 1. Showed the monthly income of tourists.

Table 1. Socio Economic Characteristics of Tourists

Variable	Frequency	Percentage (%)	Parameters
Age			Mean = 24.32
Less than 10	7	4.4	
11-20	41	25.6	
21-30	48	30.0	
31-40	41	25.6	

Variable	Frequency	Percentage (%)	Parameters
41-50	18	11.3	
≥50	5	3.1	
Sex			
Male	73	45.6	
Female	87	54.4	
Marital status			
Single	103	64.4	
Married	53	33.1	
Divorced	2	1.3	
Separated	2	1.3	
Educational level			
No formal education	3	1.9	
Secondary school education	8	5.0	
Tertiary education	115	71.9	
Religion			
Christianity	119	74.4	
Islam	37	23.1	
Traditional	2	1.3	
Others	2	1.3	

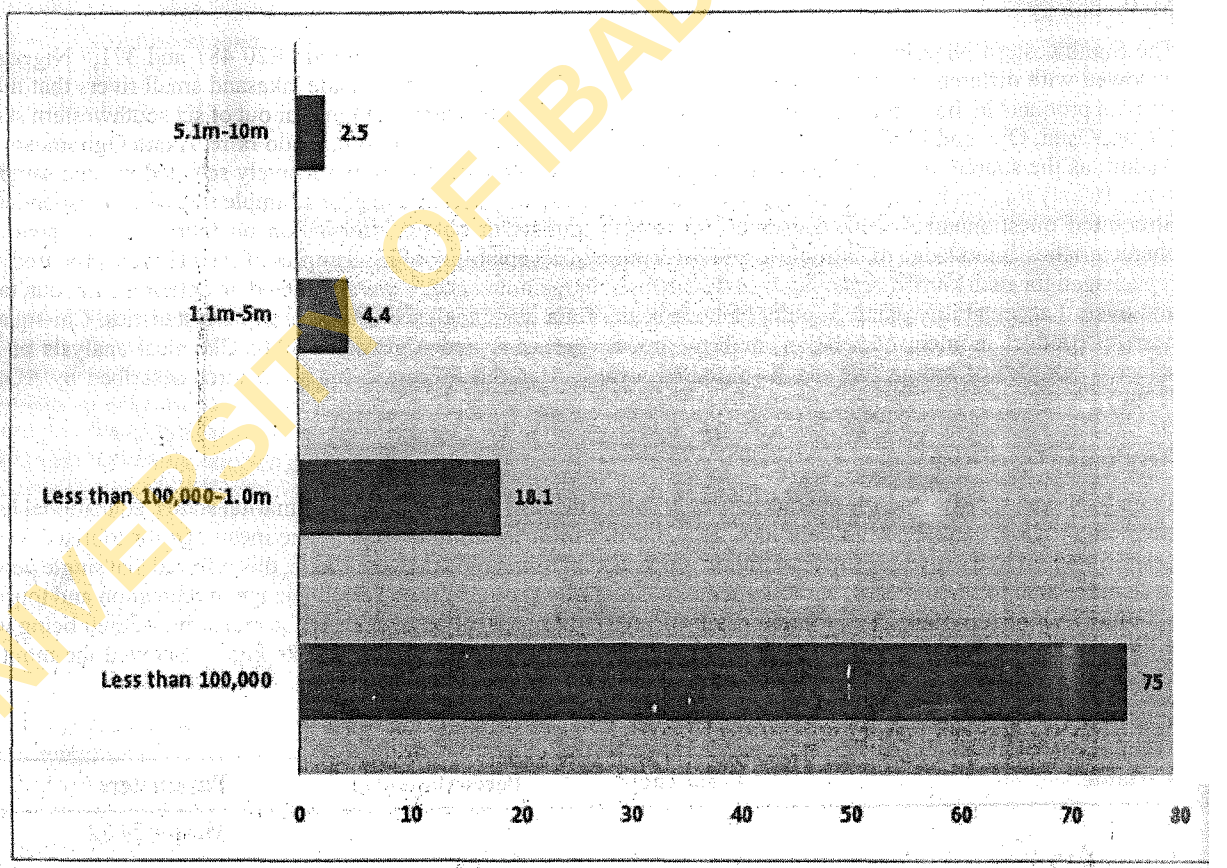

Figure 1: Distribution of monthly income of Tourists

Table 2 showed the knowledge of tourists across the states. All the tourists (100%) in the four states were aware o indigenous snacks. (85%) of tourists in Osun, Ekiti (100%), Oyo (85%) and in Ogun (85%)were informed tha indigenous snacks are commonly available and easy to identify in the area they visit. 45%, 50%, 27.5% and 35% o

tourists in Osun, Ekiti Oyo and Ogun states respectively gave the comments that indigenous snacks are not relevant to the tourism environment. The statement that Indigenous snacks are only eaten at hotel or tourist centres where local people lived was agreed to by 22.5% of tourists in Osun, 50% in Ekiti, 27.5% in Oyo and 47.5% in Ogun. 25.0% of tourists in Osun, 0% in Ekiti, 22.5% in Oyo and 30% confirmed that Indigenous snacks are eaten only at festivals. It was specified by 15% tourists in Osun, 100% in Ekiti, 47.5% in Oyo and 37.5% in Ogun that they taste indigenous snacks before buying. 100% of tourists in Osun and Ekiti, 95% in Oyo, 92.5% in Ogun attest that indigenous snacks can serve as potentials and investment opportunities for southwestern Nigeria. The idea that Indigenous snacks/food is a fundamental component of destinations attribute was justified by 85% tourists in Osun and Oyo, 100% in Ekiti and 75% in Ogun. 100% of tourists in Osun and Ekiti, 87.5% in Oyo and 97.5% in Ogun reported that indigenous snacks are a source of attraction to the area they visit. 85% of tourist in Osun and Oyo, 100% in Ekiti and 82.5% in Ogun also informed that Indigenous snacks can serve as part of overall travel experience. 100% of tourist in Osun and Ekiti, 80% in Oyo and 85% in Ogun pointed out that Activities and destination selection by tourist or respondent can influence their food selection. This in line with Sajna (2005) on food tourism.

Table 2. Knowledge of Tourists to indigenous snacks across states

S/N	Variable	Osun		Ekiti		Oyo		Ogun	
		F	%	F	%	F	%	F	%
1.	Are you aware of indigenous snacks	40	100.0%	40	100.0%	40	100.0%	40	100.0%
2.	Indigenous snacks are commonly available and easy to identify in the area I visit	34	85.0%	40	100.0%	34	85.0%	34	85.0%
3.	Indigenous snacks are not relevant to the tourism environment	18	45.0%	20	50.0%	11	27.5%	14	35.0%
4.	Indigenous snacks are only eaten at hotel or tourist centres where local people are	9	22.5%	20	50.0%	11	27.5%	19	47.5%
5.	Indigenous snacks are eaten only at festivals	10	25.0%	0	.0%	9	22.5%	12	30.0%
6.	I taste indigenous snacks before buying	6	15.0%	40	100.0%	19	47.5%	15	37.5%
7.	Indigenous snacks can serve as potentials and investment opportunities for south west Nigeria	40	100.0%	40	100.0%	38	95.0%	37	92.5%
8.	Indigenous snacks/food is a fundamental component of destinations attribute	34	85.0%	40	100.0%	34	85.0%	30	75.0%
9.	Indigenous snacks are a source of attraction to the area I visit	40	100.0%	40	100.0%	35	87.5%	39	97.5%
10.	Indigenous snacks can serve as part of overall travel experience	34	85.0%	40	100.0%	34	85.0%	33	82.5%
11.	Activities and destination selection by tourist or respondent can influence my food selection	40	100.0%	40	100.0%	32	80.0%	34	85.0%

Table 3 revealed the categorisation of tourists based on their overall knowledge of indigenous snacks, most of the state Osun, Ogun and Oyo had high category of an average (93.1%) accepting indigenous snacks except tourists in Ekiti state, 25% with low rating of overall knowledge of indigenous snacks. This implies that the tourists had high knowledge of indigenous snacks.

Table 3. Attitude of Tourists toward Acceptability of indigenous snacks

S/N	Variable	SD	D	U	A	SA	Mean
1.	I am conversant with Indigenous Snacks wherever I go	1(0.6)	5(3.1)	6(3.8)	73(45.6)	75(46.9)	4.35*
2.	I eat indigenous snacks that are available	23(14.4)	3(1.9)	1(0.6)	53(33.1)	80(50.0)	4.02*

3.	I prefer eating indigenous snacks to foreign or conventional snacks	32(20.0)	28(17.5)	14(8.8)	51(31.9)	35(21.9)	3.18*
4.	I prefer indigenous snacks available at hotel/tourist centres to the roadside base on hygiene	11(6.9)	12(7.5)	18(11.3)	74(46.3)	45(28.1)	3.81*
5.	I do not patronize indigenous snacks in the hotel/tourist centres because they are costlier than the roadside	39(24.4)	41(25.6)	29(18.1)	24(15.0)	27(16.9)	2.74*
6.	If indigenous snacks are available at the hotel/tourist centres, I can buy	15(9.4)	1(0.6)	4(2.5)	59(36.9)	81(50.6)	4.19*
7.	I think it is fun to eat indigenous snacks that am not familiar with	25(15.6)	15(9.4)	16(10.0)	36(22.5)	68(42.5)	3.67*
8.	I cannot eat indigenous snacks that I am not familiar with	32(20.0)	31(19.4)	13(8.1)	23(14.4)	61(38.1)	3.31*
9.	Eating indigenous snacks that I am not familiar with fulfils my tourism	25(15.6)	29(18.1)	25(15.6)	46(28.8)	35(21.9)	3.23
10	Eating indigenous snacks that I am not familiar with is unpleasant to me	36(22.5)	49(30.6)	33(20.6)	19(11.9)	23(14.4)	2.65
11.	I am eager to know what kind of indigenous snacks people from other places eat	4(2.5)	31(19.4)	1(0.6)	80(50.0)	44(27.5)	3.81*
12.	I am not interested in eating other people's food or indigenous snacks	52(32.5)	20(12.5)	3(1.9)	37(23.1)	48(30.0)	3.06
13.	Eating indigenous snacks of another tribe or ethics group is culture contact	5(3.1)	6(3.8)	9(5.6)	33(20.6)	107(66.9)	4.44
14.	I cannot share in any cultural food or indigenous snacks of other people	54(33.8)	22(13.8)	18(11.3)	31(19.4)	35(21.9)	2.82
15.	I often take indigenous snacks home as part of my tourism experience	5(3.1)	7(4.4)	24(15.0)	63(39.4)	61(38.1)	4.05

Figures in parentheses are percentages

On table 4 tourists attitude towards indigenous snacks were also varied of which they indicated different attitude thatthey were conversant with indigenous snacks (45.6%)and(46.9%), eat indigenous snacks that available (33%)and(50%),preference for indigenous snacks to conventional (31.9%) and (21.9%), preference for indigenous snacks available in hotel/tourist based on hygiene (46.3%) and(28.1%), cannot patronize indigenous snacks in hotel because it's costly (15.0%) and (16.9%), can buy indigenous snacks if available hotel/tourist centers (36.9%) and (50.6%),eating indigenous snack I am not familiar with is fun (22.5%) and (42.5%), I cannot eat indigenous snacks I am not familiar with (14.4%) and (38.1%),unfamiliar indigenous snacks fulfills my tourism experience (28.8%) and (21.9%) eating unfamiliar indigenous snacks is unpleasant (11.9%) and (14.4%), eager to know kind of indigenous snacks of other places (50.0%) and (27.5%), not interested in eating other peoples' indigenous snacks (23.1%) and (30.0%), eating indigenous of another tribe is culture contact (20.6%) and (66.9%), cannot share in any cultural snacks of other people(19.4%) and(21.9%), taking indigenous snacks home is part of tourism experience (39.4%) and (38.1%) are shown respectivelywhile their mean scores were 4.4, 4.0, 3.2, 3.8, 2.7, 4.2, 3.7, 3.3, 3.8, 3.1, 4.4, 2.8,4.0 respectively. Details of these are shown on table.

Table 4. Categorisation of tourists based on their Overall Knowledge

Tourists	Low		High	
	F	%	F	%
Osun	0	.0	40	100
Ekiti	10	25.0	30	75.0
Oyo	0	.0	40	100
Ogun	1	2.5	39	97.5
Total	11	6.9	149	93.1
Mean	30.4906			
SD	12.90233			
Minimum	3.00			
Maximum	58.00			

Table 5revealed detailed variations in the perception of tourist on nutritional value of indigenous snacks as strongly agreed and agreed and their mean were 3.5, 3.8, 3.6, 3.4, 3.9, 3.6, 3.4, 3.5, 3.6 and 3.6 agrees with Symon 1999, which showed that the tourists perceptions on nutritional value of indigenous snacks was high and favourable as it is a fundamental component of tourism attributes.

Table 5. Perception of Tourists towards Acceptability of indigenous snacks

S/N	Variable	SD	D	U	A	SA	Mean
1.	Encouraging indigenous snacks in hotel/tourist centers is a waste of time exercise	111(69.4)	28(17.5)	5(3.1)	13(8.1)	3(1.9)	1.56
2.	Incorporating/showcase of indigenous snacks in Hotel/ Tourist Centre could generate more funds into the hotel/tourist Centres	35(21.9)	12(7.5)	5(3.1)	51(31.9)	57(35.6)	3.52
3.	Introduction of indigenous snacks into hotels/tourist centres will be too costly	7(4.4)	52(32.5)	22(13.8)	57(35.6)	22(13.8)	3.22
4.	There are no facilities for preparation of indigenous Snacks	3(9)	27(16.9)	24(15.0)	45(28.1)	61(38.1)	3.84
5.	Caterers are not trained for preparation of indigenous snacks	25(15.6)	45(28.1)	19(11.9)	25(15.6)	46(28.8)	3.14
6.	Awareness and nature of indigenous snacks needs to be made	10(6.3)	21(13.1)	18(11.3)	80(50.0)	31(19.4)	3.63
7.	Menu description about indigenous snacks are Challenging	30(18.8)	39(24.4)	21(13.1)	35(21.9)	35(21.9)	3.04
8.	Information about knowledge and ingredients details on indigenous snacks should be made available for hotels/tourist centres	14(8.8)	33(20.6)	11(6.9)	69(43.1)	33(20.6)	3.46
9.	Indigenous snacks/food is functional (sustains life)	5(3.1)	17(10.6)	12(7.5)	69(43.1)	57(35.6)	3.98
10.	Eating indigenous snacks/food allows for experience of new cultures and Environment	20(12.5)	24(15.0)	7(4.4)	48(30.0)	61(38.1)	3.66
11.	Indigenous snacks play key	30(18.8)	16(10.0)	8(5.0)	59(36.9)	47(29.4)	3.48

	roles in our celebrations(cultural) of the area I visited						
12.	It could compete favourably with some western foods if properly Package	30(18.8)	9(5.6)	21(13.1)	46(28.8)	54(33.8)	3.53
13.	Indigenous snacks cam be exported like other conventional snacks if well prepared in the hotel/tourist centres 2	9(18.1)	7(4.4)	17(10.6)	47(29.4)	60(37.5)	3.64
14.	Indigenous snacks can be entertaining and sensual at casual Outing/occasions	30(18.8)	8(5.0)	23(14.4)	78(48.8)	21(13.1)	3.33
15.	Indigenous snacks could allow the rural economic base to diversify via new agricultural products	23(14.4)	23(14.4)	9(5.6)	45(28.1)	60(37.5)	3.60

Key: SD= Strongly Disagree; D= Disagree; U= Undecided; A= Agree; SA= Strongly Agree

Figures in parentheses are percentages

Table 6 revealed the variations on organoleptic assessmentof the selected indigenous snacks based on their different characteristics such as Colour, Aroma, Taste, Flavour and Texture. Acceptability table showed that colour of Aadun was strongly acceptable followed by Dodo Ikire, Kokoro and Akara Ogbomoso to be 75.6%, 59.4%, 59.4% and 56.9% respectively and Aadun has the highest mean to be 4.5 Aroma of the snacks revealed that Akara Ogbomoso has more percentage of Strongly Acceptability (SA) followed by Aadun,Dodo Ikire and as such Kokoro 41.3%, 40.6%, 35.6% and 31.9% respectively. Aadun has the highest percentage of Strongly Acceptable (SA) next Dodo Ikire and Akara Ogbomoso with 45.6%, 30%, 26.9% and 22.5%. Flavour of the snacks also showed that Aadun has the larger percentage, then Kokoro, Dodo, Akara Ogbomoso viz: 61.3%, 50%, 44.4% and 41.3%. The texture of snacks revealed that Aadun has highest 61.3% Dodo Ikire 32.5%, Akara Ogbomoso 26.9% and Kokoro 26.3%. Overall acceptability, Aadun has the highest mean of 4.3 and percentage (SA) 68.8%, Kokoro 56.3% DodoIkire 55.6% and Akara Ogbomoso had the least 49.4%

Table 6. Organoleptic Assessment for Acceptability of Indigenous Snacks by Tourists

Variable	NA	GA	VA	SA	Mean
COLOUR					
Aadun	5(3.1)	22(13.8)	12(7.5)	121(75.6)	4.53
Akara Ogbomoso	15(9.4)	12(7.5)	42(26.3)	91(56.9)	4.21
Dodo Ikire	4(2.5)	24(15.0)	37(23.1)	95(59.4)	4.37
Kokoro	16(10.0)	27(16.9)	22(13.8)	95(59.4)	4.13
AROMA					
Aadun	5(3.1)	27(16.9)	63(39.4)	65(40.6)	4.14
Akara Ogbomoso	5(3.1)	31(19.4)	58(36.3)	66(41.3)	4.13
Dodo Ikire	12(7.5)	25(15.6)	66(41.3)	57(35.6)	3.98
Kokoro	31(19.4)	19(11.9)	59(36.9)	51(31.9)	3.62
TASTE					
Aadun	4(2.5)	19(11.9)	64(40.0)	73(45.6)	4.26
Akara Ogbomoso	8(5.0)	48(30.0)	68(42.5)	36(22.5)	3.78
Dodo Ikire	8(5.0)	38(23.8)	66(41.3)	48(30.0)	3.91
Kokoro	12(7.5)	40(25.0)	65(40.6)	43(26.9)	3.79
FLAVOUR					
Aadun	9(5.6)	31(19.4)	22(13.8)	98(61.3)	4.25
Akara Ogbomoso	12(7.5)	23(14.4)	59(36.9)	66(41.3)	4.04
Dodo Ikire	17(10.6)	50(31.3)	22(13.8)	71(44.4)	3.81
Kokoro	13(8.1)	28(17.5)	39(24.4)	80(50.0)	4.08

TEXTURE					
Aadun	7(4.4)	20(12.5)	35(21.9)	98(61.3)	4.36
Akara Ogbomoso	15(9.4)	22(13.8)	80(50.0)	43(26.9)	3.85
Dodo Ikire	12(7.5)	56(35.0)	40(25.0)	52(32.5)	3.75
Kokoro	10(6.3)	38(23.8)	70(43.8)	42(26.3)	3.84
OVERALLACCEPTABILITY					
Aadun	5(3.1)	45(28.1)	0(0.0)	110(68.8)	4.31
Akara Ogbomoso	17(10.6)	64(40.0)	0(0.0)	79(49.4)	3.78
Dodo Ikire	8(5.0)	63(39.4)	0(0.0)	89(55.6)	4.01
Kokoro	11(6.9)	58(36.3)	1(0.6)	90(56.3)	3.99

Figures in parentheses are percentages

Table 7showed the chemical composition of selected indigenous snacks. The result revealed that the indigenous snacks are very rich in terms of nutritional value hence, its acceptability by tourists. This agreed with the report of Summerbell (1995) that indigenous snacks are rich in minerals and are free of additives and Adedokun (2006) who stated that Aadun is a good source of energy, phosphorus and magnesium it also contains appreciable iron and traces of zinc and manganese. Moreover, the results of the microbial load of the indigenous snacks showed that the snacks are wholesome and safe for consumption as the number of microbes observed on the snacks are quite lower than the maximum level of microbial food spoilage of 107cfu/g reported by Insausti et al (2001).

Table 7. Chemical composition and Microbial load of selected indigenous snacks in Southwestern Nigeria

Indigenous Snacks Variable	**Aadun (Means ± S.D.)**	**Kokoro (Means ± S.D.)**	**Akara Ogbomosho (Means ± S.D.)**	**Dodo Ikire (Means ± S.D.)**
MC (%)	11.49±0.81	7.93±.46	7.65±0.47	24.81±2.10
CP (%)	8.82±0.39	9.52±0.16	32.92±0.77	4.78±.55
EE (%)	32.42±2.30	27.16±2.91	16.04±0.31	24.9751.00
Ash (%)	3.60±0.32	6.68±.29	5.87±1.51	4.74±0.53
CF (%)	3.50±0.23	4.78±.44	3.18±0.61	3.19±0.19
Carbohydrate (%)	39.90±2.72	43.71±3.15	33.98±2.48	37.14±3.35
TBARS (mgMA/100g)	0.18±.067	0.11±.059	0.06±0.02	0.06±0.03
Oxalate (mg/100g)	2.46±1.51	2.74±.63	1.17±.81	1.42±0.36
Phytates (mg/100g)	24.63±.98	17.66±1.04	32.63±3.11	14.78±1.26
Calcium (mg/100g)	164.17±12.76	181.25±17.47	264.58±23.20	139.17±12.58
Iron (mg/100g)	8.63±0.64	9.60±.359	9.57±0.96	7.11±0.31
Magnesium (mg/100g)	42.08±5.42	47.92±9.16	71.67±7.18	40.00±4.77
Phosphate (mg/100g)	157.50±22.61	159.58±11.17	258.33±11.93	120.00±10.00
TVC (cfu/g)	1600.00±472.90	3575.00±1632.13	155000.00±197004.38	197000.00±261125.88
TFC (cfu/g)	17875.00±22423.73	6775.00±7997.29	59450.00±70826.05	74825.00±129757.68

Key:

SD= Standard Deviation

MC= Moisture content; CP= Crude protein; EE= Ether Extract, CF= Crude Fibre

TBARS=Thiobabituric acid

TVC= Total Viable Count; TFC= Total Fungal Count

Table 8 showed association between socio-economic characteristics of tourists and acceptability, where age (÷2=19.884; P<0.05) and educational level (÷211.482) were significantly related to acceptability. The implication is that age influences the level of acceptability and that the respondents were old and mature enough to decide on the type of the food or snacks that is nutritional and beneficial for them in taking also the respondents have educational knowledge of the nutritional content of indigenous snacks. The relationship between sex and acceptability is not significant (÷20.507) the null hypothesis was accepted. Implying that sex was not affected by the level of acceptability. Marital status not significant, (÷2 1.463) also has the implication that marital status does not influence the level of acceptability. There was significant relationship between educational level (÷211.482) and acceptability whereas religion (÷22.217)was not related with acceptability,estimated income and acceptability also were not significant (÷2 1.907).

Table 8. Socio-economic characteristics and acceptability by tourists

Variables	Chi-square value	Df	P	Decision
Age	19.884	5	0.001	S
Sex	0.507	1	0.476	NS
Marital status	1.463	3	0.691	NS
Educational level	11.482	4	0.022	S
Religion	2.217	3	0.529	NS
Estimated income	1.907	3	0.592	NS

Table 9 indicated a significant differences in the level of acceptability of tourists across the states ($F=21.137$; $p<0.05$). This implies that level of acceptability of tourists were significantly different across the four states. Ekiti has the highest level of acceptability (Mean=106.50) followed by Osun (Mean=102.50) Oyo (Mean=92.85) and the least being Ogun (Mean =85.80). The study further revealed that at 0.05% level, significance, Ekiti and Osun were not significantly different in forms of acceptability of Indigenous snacks (P=0.167). It was establishedthat significant differenceexisted between each of Ekiti and Osun states with Oyo and Ogun states.

Table 9b. Separation of Means Level of Acceptability of Indigenous Snacks across States Duncan

State	N	Subset for alpha = .05		
	1	2	3	1
Ogun	40	85.80		
Oyo	40		92.8500	
Osun	40			102.5000
40				106.5000
Sig.	1.000		1.000	.167

Means for groups in homogeneous subsets are displayed.

Uses Harmonic Mean Sample Size = 40.000.

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