



EMPIRICAL STUDY AND PREFERENCE ON COLA GARCINIA (BITTER KOLA) WITH COLA MALVACEAE (KOLA-NUTS) CONSUMPTION IN NIGERIA

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ABSTRACT

A field survey involving (93) kola consumers who were randomly selected in Ijegun community of Ikotun axis of Lagos State was conducted to examine reasons why kola consumers prefer consumption of kola Garcinia (Bitter kola) to other types of kola-nuts in ceremonies. Data were collected with the use of structured interview schedule and data collected was analyzed using descriptive and frequency statistics. The results revealed that kola consumers in the study area preferred to consumed more of kola Garcinia than other types of kola-nuts with (63.4%) against (27.7%) and (8.6%) respectively. The kola consumers in the study area do have variety of preference and choice in aroma, flavor and taste in consuming kola of different types with Aroma are (47.3%), (41.9%) and (12.9%) for kola Garcinia, kola acuminata and kola natida. The respondents reasons for consuming kola-nuts shows that (73.1%), (20.4%), and (6.4%) are based on Medicinal purpose, Food and Decoy. Kola consumers were faced with constraints why they find it difficult to consume more of kola Garcinia such as scarcity, too expensive and distance barrier consequently affected their level of kola Garcinia consumption in ceremonies and in their locality. Constraint of finance and scarcity of kola Garcinia were the major factor which can be address through effective awareness on its cultivation and it medicinal health value to mankind.

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INTRODUCTION

Kola is tree crop of high commercial value which has three main species: Cola natida (Gbanja or Gworo); Cola acuminata (Abata); and Cola Garcinia (Bitter kola or Odun). Kola is a native of West Africa particularly Nigeria, Ghana, Cote d. Ivoire and Liberia. Nigeria produces about 70% of the World production of kola nuts which is a major product of kola tree (Okunade, 2003 and Opeke, 2005). Kola-nuts have been a major trade item in West Africa region for many years.

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The kola nuts is valued in many cultures as a sign of friendship and peace ties at reunions, during meetings, ritual festivals, religion purposes and even for marriage ceremonies. Kola-nuts are the only stimulant allowed by Muslim faithful, and it is highly medicinal. For this reasons been a consumable food. Kola nut is heavily traded from the Southern humid regions to the Northern arid parts of West Africa. Despite its unique bitter taste, fresh kola Garcinia (bitter kola) and other kola when chewed according to Nickalls,(1986) help in sustaining people in a long journeys. According to Chinyere *et al.*, (2013) states that, the plant, seeds, bark, and stem of a kola garcinia, are traditionally used in the treatment of throat infections, acute fever and inflammation of the respiratory tract. Apart from it medicinal potentials and preference over other types of

kola such as *Cola natida* and *Cola acuminata*. *Kola Garcinia* has proven it high demands, values and preference in ceremonies significance as choice over other types of kola. This is because of its special health potentials minerals deposits and others such as stated by Adekunle *et al.*, (2017) with 49.16% of moisture, 2.9% of ash, 8.67% of crude protein and 2.96% of caffeine. This analysis above is positively against other types of kola with high level of *Kola Garcinia* medicinal cure to human life. It has been observed that *Kola Garcinia* when eaten especially in ceremonies, consumers do jokingly debate that the need for traditionalist or cultural groups to alternate the use of *Kola Garcinia* (bitter kola) over other types of kola, like *Kola acuminata* or *Kola natida* that is most commonly used to open prayer or performing any traditional rites should be considered. Kola-nuts have great functions on social life in West Africa regions, according to Sundstrom, (1966). Observation has shown that after prayer with *Kola acuminata* or *natida*, people still prefer the *Kola Garcinia*. It is in the absence of *Kola Garcinia* that make most kola consumers go for either *Kola acuminata* or *Kola natida*. Traditionally, *Kola Garcinia* when chewed help to stimulate the flow of saliva, but has not been consumed as snacks in West and Central Africa. Like other kola, bitter kola is believed to clean the digestive system of human without any side effect when a lot of nuts have been eaten. Further research findings by Eleyinmi *et al.*, (2006) states that a proper blend of a fresh bitter kola when dried mixed with honey is a good cure of traditional medicine for cough syrup. Therefore, this research work is to investigate the empirical study and preference on *Garcinia kola* (Bitter Kola) Consumption in Lagos State, Nigeria.

Objectives of the Study

The major objective is to evaluate why kola consumers prefer the Consumption of *Kola Garcinia* (Bitter kola) to other types of kola nuts in Ceremonies.

The specific objectives are to;

- Ascertain the demand and consumption level of *Kola Garcinia* preference to other types of kola?
- Evaluate the frequency of bitter kola consumption?
- Find why consumers prefer *Kola Garcinia* to other types of kola?
- Differentiate between qualities on preference of *Kola Garcinia* to other types of kola?
- Identify constraints faced in assessing *Kola Garcinia* in their study locality?

MATERIALS AND METHODS

Study Area: The study was carried out in Ijegan community of Ikotun in Isolo L.G.A, of Lagos State. Thus, a total number of Ninety three (93) respondents were interviewed with a well structured questionnaire. The information elicited was preference on bitter kola consumption in ceremonies and why they prefer *Kola Garcinia* over other types of kola nuts in Lagos State. Data retrieved from the respondents will be analyzed using descriptive frequency and percentage to determine the outcome and findings of the respondents.

RESULTS AND DISCUSSION

Table 1 shows a descriptive analysis of respondents that consume kola-nuts in ceremonies. The study revealed that majority of the respondents do agreed by saying (80.6%) of

them consume kola-nuts in ceremonies without refusing because kola-nuts bring bonding of relationship and sign of happiness, while (19.3%) says that irrespective of bond of relationship, they do not eat kola-nuts either in public or at home. During the course of interaction, it was concurred by all sundry that the best ways to settle dispute or quarrel is providing kola-nuts to the party involved. This study connotes that kola-nut consumption is based on choice and not by religion or spiritual obligation. Table 2 shows why kola consumers consume kola-nuts in ceremonies are based on choice. This further revealed by (73.1%) consume kola-nuts because of its rich vitamins and medicinal purpose, while (20.4%) consume kola-nut as food, and (6.4%) consume kola-nut as decoy. This study has proven that consumers of kola-nut in ceremonies have the opinion that, chewing of kola-nuts guide against being destructive/talkative or being busy not to sleep as been desired by the consumers.

Table 1. Consumption of kola-nuts by kola consumers

Do you consumed kola-nuts	Frequency	Percentages %
Yes	75	80.6
No	18	19.3
Total	93	100

Source: Field Survey, 2018.

Table 2. Reason for kola Garcinia (Bitter kola) consumption

Reasons for consumption of bitter kola	Frequency	Percentage %
Decoy	6	6.4
As food	19	20.4
Medicinal purpose	68	73.1
Total	93	100

Source: Field Survey, 2018.

Table 3. Consumer's preference on bitter kola consumption in ceremonies

Most preferred kola types	Frequency	Percentage %
<i>Kola natida</i> (Gworo)	8	8.6
<i>Kola acuminata</i> (Gbanja)	26	27.7
<i>Kola Garcinia</i> (Odun)	59	63.4
Total	93	100

Source: Field Survey, 2018.

Table 3 shows consumers preference of *Garcinia kola* have high preference demand over other types of kola-nuts with (63.4%) as the most preferred kola-nuts eaten in ceremonies against (27.7%), and (8.6%) respectively for *Kola natida* and *Kola acuminata*. This study further explained that there is high level of demand of bitter kola in ceremonies than the other types of kola-nuts because of its medicinal health purpose on man. Table 4 shows that (31.1%) indicate that *Garcinia kola* are consumed mostly in ceremonies by kola consumers preferable on weekend, while (9.6%) consumed every day. This means that kola consumers prefer to chew kola-nuts on weekend than other weeks. This connotes that relaxation and less work load can lead to more chewing of kola in weekend by respondents that attend outings or ceremonies. Table 5 shows that aroma, flavor and taste of *Kola Garcinia* has indicated that kola consumers have high quality preference on aroma with (47.3%) against (41.9%) and (12.9%) for *Kola acuminata* and *Kola natida*. This study explained that quality, choice and preference of *Kola Garcinia* still have high demand for consumers in ceremonies. For flavor, *Kola natida* have high demand with (52.6%) against (35.4%) and (33.3%) for *Kola natida* and *Kola acuminata*. This study further explained that quality, choice and preference of *Kola natida* have high demand of flavor for quality preference of consumers against

the others. For taste, kola natida has high quality preference on taste with (34.4%) against (24.4%) and (17.2%) for kola acuminata and kola Garcinia. This indicates larger consumers still prefer the taste of kola natida against kola Garcinia and kola acuminata.

Table 4. Frequency on bitter kola consumption

Frequency on bitter kola consumption	Frequency	Percentage %
Once a week	16	17.2
Twice a week	21	22.5
Thrice a week	28	30.1
Weekend	29	31.1
Everyday	9	9.6
Total	93	100

Source: Field Survey, 2018.

Table 5. Difference between qualities on preference on kola Garcinia to other types of kola-nuts

Qualities preference for kola	Frequency	Percentage %
Kola natida: > Aroma	12	12.9
> Flavour	49	52.6
> Taste	32	34.4
Kola acuminata: > Aroma	39	41.9
> Flavour	31	33.3
> Taste	23	24.4
Kola Garcinia: > Aroma	44	47.3
> Flavour	33	35.4
> Taste	16	17.2

Source: Field Survey, 2018.

Table 6. Points of purchase on kola Garcinia

Points of purchase on (Garcinia) Bitter kola	Frequency	Percentage %
Shop/ Stores	18	19
Markets	9	10
Ceremony	15	16
High Way	51	55
Total	93	100

Source: Field survey, 2018.

Table 7. Constraints faced in assessing kola Garcinia (Bitter kola)

Constraints	Very serious	Serious	Fairly serious	Not serious
Scarcity	33	28	20	12
Too expensive	41	25	19	8
Distance barrier	49	27	5	15

Source: Field Survey, 2018.

Table 6 shows that consumers of kola Garcinia do purchase their bitter kola on highways especially when they are travelling with (55%), shops/stores (19%), ceremony (16%) and market place (10%). This indicates that consumers of kola Garcinia find it difficult to access bitter kola than other types of kola- nuts.

Table 7 explain that (49%) of the respondents complained of distance as a barrier for kola consumers to easily access kola Garcinia. While (41%) of the respondents indicate that kola Garcinia is too expensive compare to other kola while (33%) of respondents complained that kola Garcinia fruit nuts are scare, and this has reduce their level of intake in ceremonies or within their locality.

Conclusion and Recommendation

The study has shown that there is high level demand and consumption for kola Garcinia due to it health benefits over other types of kola; such as kola natida and kola acuminata. While some of the respondents equally shows preference on choice in other types of kola such as aroma, flavor and taste respectively. High cost and Scarcity of kola Garcinia can be solved through the farmers and government intervention on awareness and increase in the production of kola Garcinia to compete favorable with other kola types/cash crops like Cocoa, Cashew and oil palm.

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REFERENCES

- Adekunle, J.O., Isa, M.O., Fakorede, O.K., Adedokun, A.K and Adeosun, N.O. 2017. Proximate Analysis of Three Common Kola Varieties in Nigeria. Research Paper (Postgraduate), 2017.
- Chinyere, C.E., and Ebakota, O.D. 2006. Antibacterial activity of Garcinia kola seeds and leaf extract on some selected clinical isolates. *Science Journal of Microbiology, Wong, Y.T., Wei, C.I., Huang, Y.W. and human health. Critical Reviews in Food Science and Nutrition, 38(6): 421 – 464.*
- Eleyinmi, A.F, Amoo, I.A, Sporn, P., and Oshodi, A.A. 2006. Chemical Composition of Bitter Cola (Garcinia Cola) Seed and Huils. *Polish journal of food and nutrition Sciences Volume 15/56, No. 4 pp. 395 – 400.*
- Nickalls, R.W.D. 1986. The Discovery those Cola-nuts contains caffeine. *Pharmaceutical Journal, 236,401 – 402.*
- Okunade, S.O. 2003. Methods of pests control in stored kola-nuts in Nigeria. *Noma, magazine. Published by Institute of Agricultural Research, Samaru, and Zaria. Vol.17 May, 2003.*
- Opeke, L.K. 2005. Tropical Commodity Tree Crops. 2nd edition, Spectrum books Ltd; Ibadan. 180 – 186.
- Sundstrom, L. 1966. The Cola-nut Functions in West Africa Social life. *Studies Ethnographic Upsaliesia 26, 135-146.*
