

SENSORY ASSESSMENT AND ACCEPTABILITY OF TWO VARIETIES OF JOLLOF RICE FOR SALE TO INBOUND TOURISTS IN NIGERIA

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ABSTRACT

Inbound tourists' preference of jollof rice prepared from two varieties of rice grains was determined in this study by assessing their sensory qualities. Extant literature was surveyed to review the nutritional qualities of the rice varieties. Respondents for the study included twenty-five panelists who were selected from among expatriate and local employees of Dangote Cement Plc Ibesse, Ogun State, Nigeria, who took part in the sensory assessment of the two dishes. Sensory assessment score sheet prepared in a 9-point hedonic scale was administered to the respondents to delimit the organoleptic qualities of the rice varieties. One-way Analysis of variance (ANOVA) was used to determine the mean difference of responses between Agric Jollof Rice and Aroso Jollof Rice. The Result indicated superior overall acceptability for Agric Jollof Rice with a mean difference of 8.52 compared to Aroso Jollof Rice with mean of 7.56. Additionally, the p-value for overall acceptability ($0.016 \leq 0.05$) shows a significant difference between the two rice varieties thus indicating preference between the products. The study recommends culinary entrepreneurs in local restaurants to diversify their vocation using the opportunity created by the acceptance of the local food by inbound tourists to reinvent other local food products and gastronomy tourism towards relevant niche tourism implications.

Keywords: Culinary vocation, gastronomy tourism, jollof rice, niche tourism, Nigerian dishes.

1. INTRODUCTION

The continuous evolution of tourism is creating new and interesting opportunities for tourism practitioners in the experience economy. Over the years, tourism has advanced from the sightseeing division to other niche segments that deal with exploration of the culture and philosophies of destinations, including gastronomy tourism. While inbound tourists seek new experiences to make each travel a unique activity, food has been discovered as a major determinant of the overall travel experience that could develop to an impediment or catalyst to inbound tourism development for a destination (Andersson, Mossberg & Therkelsen, 2017; Ukabuilu, Nwokorie & Ezeibe, 2018). Since food has been observed as a major tourism product, it has led to the emergence of so many varieties of culinary vocations to meet tourism demand (Bessi re & Tibere, 2013, Dimitrovski, & Crespi-Vallbona, 2017; Andersson, et al., 2017).

Domestically, entrepreneurship is gradually opening up new vistas in the food industry especially for young professionals in developing societies. Recent studies in the past 15 years have indicated how individuals are getting busy with all forms of vocations (in developing countries) that take them away from home for a reasonable period and does not allow form ample time to prepare their own meals at home (Ares & G mbaro, 2007; Ariffin & Maghzi, 2012; Alam & Sayuti, 2011; Long, 2017; Obiora & Nwokorie, 2018). This gives rise to the consequent habit of eating out especially in local restaurants.

A large percentage of staple food commodities demanded in Nigerian restaurants are carbohydrate based which are required for prompt energy supply (Nwokorie, 2015). Chiefly among these staple foods demanded in local restaurants is rice (*Oryza sativa L.*) which belongs to the family of *poaceae* (Vikram, Kewat, Khan, Husain & Gyanendra, 2018). It is one of the three major leading food crops of the world and forms the staple diet of about half of the world's population, as the global production has been estimated to be at the level of 650million hectares (Muthayya, Sugimoto, Montgomery & Maberly, 2014; Vikram, et al., 2018).

In addition to being valuable for use in medical and functional foods, rice is used mainly in human nutrition (Medleaf, 2009). Besides being the main source of calories and protein, rice is an important cereal because it has the highest digestibility biological value and protein efficiency ratio (PER) among all the cereal (Kaul, Jain, & Olakh, 2019). Rice contains two major subspecies; the sticky, short-grained variety and the non-sticky, long-grained variety (Shabbier, Arjurn, Zahoor & Nawaz, 2008; Srivastava & Jaiswal, 2013). Long grain rice is preferred when the grain is wanted to stay separate during cooking, while short grain is used to give a stickier, more viscous appearance. Rice has varieties

of dishes but the common dish of rice mostly eaten in Nigeria and other parts of West Africa is Jollof rice which is a very common African dish consisting of rice and spices along with beef, fish or poultry (Mbaiwa, 2005; Nana Ato & Mensah, 2006; Osseo-Assare, 2006; 2010; Nwokorie, 2015).

For profitable vocation in the food service sector, culinary experts are expected to regularly consider the preference of consumers in order to determine the best options in provision of services to enhance customer loyalty and improved dining experience. On the other hand, tourists and other travelers form a large percentage of restaurant customers whose travel satisfaction and overall holiday experience is influenced by the food they eat (Bjork & Kauppinen-Raisanen, 2017). This requires that restaurant entrepreneurs should deliver quality dining services by ensuring that the most acceptable food commodities are produced and served in such a way that customer loyalty is achieved to also foster business survival.

Consumption of jollof rice is very common in most West African restaurants. However, customer satisfaction in the overall dining experience have not been taken into consideration in most local restaurants, which has been a major reason why most food service businesses fail (Nwokorie & Ezeibe, 2017). Therefore, the quality of the particular type of rice (grain) used for the preparation of the dish will contribute to the outcome of overall dining experience. Consequently, it is necessary that restaurant entrepreneurs determine the best alternative between the long and short grain rice species in the preparation of jollof rice and to access the level of acceptability of the two varieties for sale in local restaurants especially for improving inbound tourist experience and enhancing their stay.

Gastronomy tourists demand new and sustainable travel experiences that could be enriched through existing and emerging culinary expertise with both local and continental dishes. Indeed, indigenous food products can be personalized or repackaged to portray the indigenous culture of a location, thus producing a unique and rewarding experience for a particular segment of a niche tourist destination (Parasecoli & Abreu eLima, 2012; Long, 2017). This serves as a catalyst for driving the economic environment due to the dynamic variables surrounding the experience economy that create significant exchange of goods and service (Akpan, Ikon, Okereke & Momoh, 2016) in the sectors having linkages with the hospitality and tourism industry including banking, agriculture, transport and manufacturing (Nwokorie & Obiora, 2018).

1.1 Objectives of Study

The major objective of this study is to assess the overall acceptability of jollof rice dishes prepared from two varieties of rice grain: agric and aroso rice grains. Specifically the study was meant to:

- a. Examine the sensory qualities of jollof-rice prepared from agric and aroso varieties of rice grain.
- b. Examine the level of acceptability of jollof-rice prepared from agric and aroso varieties of rice grain using their sensory qualities.
- c. Examine the significant relationship between the jollof-rice prepared from agric and aroso varieties of rice grain.

1.2 Research Question

- a. What are the sensory qualities of jollof-rice prepared from agric and aroso varieties of rice grain?
- b. What is the level of acceptability of jollof-rice prepared from agric and aroso varieties of rice grain using their sensory qualities?
- c. What is the relationship between the jollof-rice prepared from agric and aroso varieties of rice grain?

1.3 Significance of Study

The study will encourage local rice farmers to develop rice species which would reduce dependence on import to meet local demand thereby creating jobs and improving the local economy. Culinary vocation will equally benefit from the study as it would provide the avenue for restaurant owners to understand customer preference in their choice of rice dish thereby enhancing customer loyalty and profit maximization for the business. The study will also inspire research in agriculture and crop production on how to improve the yield of the preferred rice species which will, in turn, benefit the agricultural sector. New vistas will open for gastronomy tourism through complimentary dishes that would emerge as a result of new demands that would arise from the evolving experience economy.

2. LITERATURE REVIEW

Rice, a monocotyledon, is normally grown as an annual plant and can survive as a perennial crop for up to 30 years. Its cultivation is well suited in countries and regions with low labour costs and high rainfall, while its cultivation requires ample water (International Rice Research Institute – IRRI, 2009). However, rice can be grown practically anywhere, even on a steep hill or mountain area with the use of water controlling terrace system. Although its preferred species are native to Asia and certain parts of Africa, centuries of trade and exportation have made it available in common places in many cultures worldwide (IRRI 2009).

The growth period of the rice plant is three to six months (90 to 180 days), depending on the variety and the environment in which it is grown. During this time, there are three distinct growth phases; vegetative, reproductive and ripening (IRRI, 2009). Visual characteristics of rice grains are important search attributes that affect consumers' purchasing decisions (Medleaf, 2009). Grain size is mainly based on the length. On the other hand, grain shape is based on length-to-width ratio (Shabbier, et al., 2008). The classification of rice samples is not standardized across different countries and different markets (Ito, Nguyen, Takashi, & Chandaworn 2009). The routine classification system used by the International Rice Research Institute (IRRI) breeding program is as follows; short (< 5.50mm), medium or intermediate (5.51- 6.60mm), long (6.1 – 7.50mm) and very long (> 7.50mm). The grain shapes of rice likewise can be described based on the routine value ranges used in IRRI; bold (2.0), medium (2.1-3.0) and slender (3.0) (Ito, 2010). Chalky areas in rice grains; those opaque white parts of the grain are deemed, generally, to represent poor quality in many rice market segments. Thus these grains fetch lower market price (Ito, Takashi, & Tomohiro, 2007). Grains, according to Juliano (2009), are classified based on the proportion of the grain that is chalky; none (0%), small (<10%), medium (10-20%) and large (>20%).

2.1 Nutritional Value of Rice

Cooked, unenriched, white long-grained rice is composed of 68% water, 28% carbohydrates, 3% protein and negligible fat (Srivastava, & Jaiswal, 2013). In a 100 gram serving, it provides 130 calories and contains no micronutrients in significant amounts, with all less than 10% of the daily value – dv (Juliano, 2009; Srivastava, & Jaiswal, 2013). Cooked, white, short-grained rice also provides 130 calories and contain moderate amounts of B vitamins, Iron and manganese (10-17% dv) per 100 gram amount (Srivastava, & Jaiswal, 2013).

A detailed analysis of nutrient content of rice suggests that the nutrition value of rice varies based on a number of factors. It depends on the strain of rice, such as white, brown, red and black (or purple) varieties having different prevalence across world regions (Hammermeister, 2008). It also depends on nutrient quality of the soil rice is grown in, whether and how the rice is polished or processed, the manner it is enriched, and how it is prepared before consumption (Hammermeister, 2008; Srivastava, & Jaiswal, 2013).

2.2 Possible Food Dishes Derived from Rice

Rice is one Nigeria food almost 80% of homemakers cannot do without. It can be cooked directly or grounded to make flour. Rice can also be used for breakfast, lunch or dinner. The following meals can be obtained from rice: rice sweet pancake, jollof rice, savoury rice, plain board rice, natured rice, rice puff, rice “agidi” or “kafa”, rice mould, rice banku among others (Osseo-Assare, 2006; Nwokorie, 2015).

2.3 Jollof Rice

Jollof rice is an indigenous delicacy of the West African people of Ghana, Nigeria, Mali, Senegal, Cote D'Ivoire, Sierra Leone, Togo, Benin Republic, Liberia, Niger and Gambia. It is said to have derived its name from the Wolof people of Senegal. The “Wolof” is a one-pot rice dish also called Benachin, popular in many West African countries (Osseo-Assare, 2006; McCann, 2009). The dish consists of rice, tomatoes, tomato paste, saturated fat or cholesterol, onions pepper, salt and spices (such as nutmeg, ginger and curry), while optional ingredients can also be added such as vegetable, meat or fish. (Juliano, 2007).

The consumption of jollof rice became popularly embraced because it is an energy booster since it is made from rice which contains carbohydrates. It also contain a healthy mix of onions which helps reduce the risk of heart diseases and cancer; and pepper which contain vitamins to boost immunity and give healthy night vision (Srivastava & Jaiswal, 2013).

From the tourism perspective, the experience economy has given rise to an all new dimension of special interests leading to the emergence of other niche tourism aspects including gastronomy tourism. Implications of food tourism studies reveal emerging destinations which focus on food tourists, food destinations, and hygiene based issues with

the use of qualitative and quantitative approach (Lee & Scott, 2015). Food equally serve as part of the many cultures of a people, and so can form part of the cultural tourism experience. This shows that food (and beverages) can form an integral part of cultural tourism (Ignatov & Smith, 2006; Perkins, 2014; Nwokorie, 2015) and can equally enhance the attraction of a tourist destination (Visser, 2007; Nwokorie, 2015). The recent surge in gastronomy tourism has led to the rise in new types of food resources which can be used as tools for urban renewal (Dimitrovski & Crespi-Vallbona, 2017). While Frisvoll, Forbord and Blekesaune (2016) observed that food has become an embodiment of cultural and regional identity, it can therefore be leveraged upon for innovative hospitality and tourism undertakings, thereby identifying emerging tourism destinations, creating jobs and alleviating poverty.

3. MATERIALS AND METHOD

Food commodities used (in food preparation) for the study were purchased from the local market in Ilaro from local traders. Production and sensory evaluation were carried out in the kitchen and restaurant of Yewa Frontier Hotel Ilaro, Ogun State, in May 2019.

3.1 Materials

Cooking equipment used in the study include: cooking pot, kitchen knife, mixing bowl, gas (for energy), cooking spoon, spatula, colander. The recipe for the preparation of each of the species is thus presented:

| <i>Recipe</i> | <i>Quantity</i> |
|-------------------|--------------------------------------|
| Rice | 400 grams |
| Tomato puree | 200 grams |
| Pepper | 100 grams |
| Vegetable oil | 150 grams |
| Salt | 2 teaspoons |
| Maggi | 2 cubes |
| Water | 1 ¹ / ₂ litres |
| Curry powder | 1 teaspoon |
| Onions | 250 grams |
| Nutmeg | 20 grams |
| Thyme | 10 grams |
| Jollof rice spice | 20 grams |
| Margarine | 20 grams |
| Crayfish | 200 grams |
| Ginger | 100 grams |
| Garlic | 100 grams |
| Fish/meat stock | as may be required |

3.2 Method

The method adopted for preparing the individual dish is as follows:

- i. Place medium size pot on heat and allow it to dry, after which vegetable oil is added to simmer (2 minutes)
- ii. Slice onions and pour in the oil. Allow to simmer (1 minute)
- iii. Add tomato paste, with blended pepper and fry for (10 – 15 minutes)
- iv. Add magi, curry, thyme, nutmeg, jollof rice spice and keep frying
- v. Add water and salt (5 minutes)
- vi. Rinse rice with warm water and pour into the boiling stew
- vii. Turn with spatula and allow to cook (25 minutes)
- viii. Add margarine when it is about to dry (and stir) to give it a good aroma and taste.

Note: the meal is served with protein – either of beef, fish or poultry (sizeable quantity)

3.3 Population Sampling

Convenience sampling was adopted in selecting 30 local and expatriate employees of Dangote Cement Plc Ibese, Ogun State. The reason for the choice of respondents is premised on ensuring a multicultural approach to the study which is expected to produce a more generalized result. Taro Yamane formula, given by Schawnms (1994) was adopted in determining the sample size for the study, hence sample size for the study is 27.

3.4 Data Collection and Analyses

Sensory evaluation score card was prepared in a nine-point hedonic scale to test for appearance, colour, texture, taste, aroma, flavour, spreadability and overall acceptability to elicit responses from the panelists. The 27 questionnaires distributed to the panelists were completed during sensory evaluation and returned, showing a 100% response rate. However, two score cards were improperly completed, hence unusable (7.40% of returned score cards). Consequently, the 25 usable instruments amount to 92.6% of the total number of returned score cards. One-way Analysis of Variance (ANOVA), with the aids of Statistical Package for Social Science version 20.0 (SPSS), was employed to determine the significant differences in treatment of means, and least significant differences (LSD) analysis to separate means and determine outcomes.

4. RESULTS AND DISCUSSION

Table 1: Demographic Details of Respondents

| S/N | Item | Variables | Frequency | Percentage |
|-----|-------------|---------------|-----------|--------------|
| 1 | Gender | Male | 15 | 60.0 |
| | | Female | 10 | 40.0 |
| | | Total | 25 | 100.0 |
| 2 | Age | 18 - 25 years | 2 | 8.0 |
| | | 25 - 30 years | 7 | 28.0 |
| | | 30 and above | 16 | 64.0 |
| | | Total | 25 | 100.0 |
| 3 | Education | Informal | Nil | Nil |
| | | Formal | 25 | 100 |
| | | Total | 25 | 100 |
| 3 | Nationality | Africans | 9 | 36.0 |
| | | Europeans | 6 | 24.0 |
| | | Asians | 10 | 40.0 |
| | | Total | 25 | 100 |

Source: Data output

Demographic details revealed that 60.0% of the respondents are males while 40.0% are females. All the respondents are adults above 18 years of age with formal education, which has a justifiable implication on the quality of their response. As much as 40.0% and 24.0% are Asian and European expatriate employees (64.0% foreign panelists), while 36.0% are of African origin (Table 1)

Table 2: Descriptive Statistics

| | | S | Mean (\bar{x}) | Std. Dev. (\pm) | 95% Confidence Interval for Mean | |
|------------|--------------|-----------|--------------------|---------------------|----------------------------------|-------------|
| | | | | | Lower Bound | Upper Bound |
| Appearance | AGJR | 25 | 8.56 | .651 | 8.29 | 8.83 |
| | ARJR | 25 | 7.88 | 1.424 | 7.29 | 8.47 |
| | Total | 50 | 8.22 | 1.148 | 7.89 | 8.55 |
| Colour | AGJR | 25 | 8.40 | .645 | 8.13 | 8.67 |
| | ARJR | 25 | 7.72 | 1.275 | 7.19 | 8.25 |
| | Total | 50 | 8.06 | 1.058 | 7.76 | 8.36 |
| Texture | AGJR | 25 | 8.28 | .843 | 7.93 | 8.63 |
| | ARJR | 25 | 7.48 | 1.503 | 6.86 | 8.10 |
| | Total | 50 | 7.88 | 1.272 | 7.52 | 8.24 |
| Taste | AGJR | 25 | 8.44 | .712 | 8.15 | 8.73 |
| | ARJR | 25 | 7.56 | 1.609 | 6.90 | 8.22 |
| | Total | 50 | 8.00 | 1.309 | 7.63 | 8.37 |
| Aroma | AGJR | 25 | 8.32 | .802 | 7.99 | 8.65 |
| | ARJR | 25 | 7.76 | 1.268 | 7.24 | 8.28 |

| | Total | 50 | 8.04 | 1.087 | 7.73 | 8.35 |
|-----------------------|--------------|-----------|-------------|--------------|-------------|-------------|
| Flavour | AGJR | 25 | 8.40 | .816 | 8.06 | 8.74 |
| | ARJR | 25 | 7.76 | 1.332 | 7.21 | 8.31 |
| | Total | 50 | 8.08 | 1.140 | 7.76 | 8.40 |
| Spreadability | AGJR | 25 | 7.96 | 1.136 | 7.49 | 8.43 |
| | ARJR | 25 | 7.60 | 1.443 | 7.00 | 8.20 |
| | Total | 50 | 7.78 | 1.298 | 7.41 | 8.15 |
| Overall acceptability | AGJR | 25 | 8.52 | .714 | 8.23 | 8.81 |
| | ARJR | 25 | 7.56 | 1.781 | 6.82 | 8.30 |
| | Total | 50 | 8.04 | 1.428 | 7.63 | 8.45 |

Code: AGJR = Agric Jollof Rice; ARJR = Aroso Jollof Rice

Source: Data output

Table 2 shows descriptive statistics of sensory qualities of the two jollof rice dishes. Sensory attributes of the two different grains were examined based on appearance, colour, texture, taste, aroma, flavour, spreadability and overall acceptability. Mean response of AGJR (\bar{x} 8.56, \pm 0.651) implies that on average, the analyzed jollof rice type taking “appearance” into consideration were “extremely liked” by the panelists. Although, the ARJR was found to be “very much liked” (\bar{x} 7.88, \pm 1.424) compared to the other. Mean response for colour also indicates that both AGJR and ARJR were “very much liked” (\bar{x} 8.40, \pm 0.645; \bar{x} 7.72, \pm 1.272). This implies that the two jollof rice dishes were almost of the same colour. Mean response of AGJR (8.28 ± 0.843) implies that on average, the analyzed rice type, taking texture into consideration, was “extremely liked” by the panelists. However, ARJR was found to be “very much liked” (\bar{x} 7.48, \pm 1.503). This indicates that AGJR was found to have a better texture. While considering the taste of the varieties of jollof rice, there is an indication that AGJR (\bar{x} 8.44, \pm 0.712) has a better taste when served compared to the ARJR (\bar{x} 7.56, \pm 1.609), including the aroma (\bar{x} 8.32, \pm 0.802, \bar{x} 7.76, \pm 1.261; for AGJR and ARJR respectively) as evidenced by majority of the panelist. In addition, the flavour of the different types of jollof rice also shows that AGJR has a better flavour compared to ARJR. The spreadability of both rice indicates that they have the same level of spreadability, although this could be attributed to the expertise of the chef. On overall acceptability, analysis of the mean response shows that AGJR is extremely liked compared to ARJR since their corresponding average value are 8.52 and 7.56 respectively. The 95% confidence interval shows the bound to which the respective mean response of the samples lies. Bar chart for the mean response of the two varieties of rice as measured using appearance, colour, texture, taste, aroma, flavour, spreadability and overall acceptability can be verified in Figure 1.

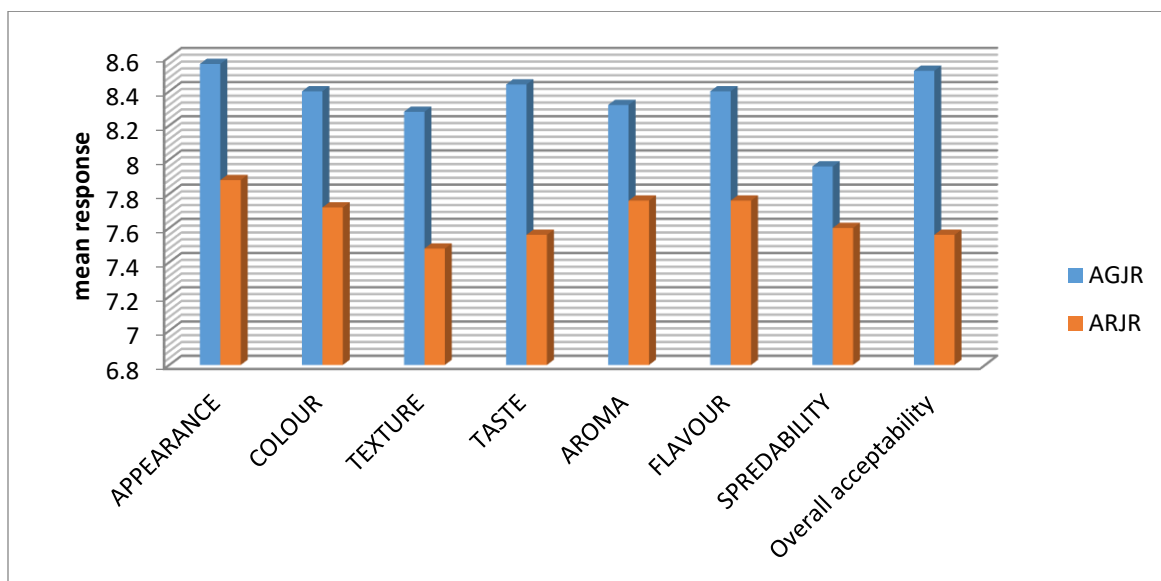


Figure 1: Multiple bar chart showing mean response for two different jollof rice

Source: Data output

Table 3: ANOVA Result

| | | Sum of Squares | df | Mean Square | F | Sig. |
|-----------------------|----------------|----------------|----|-------------|-------|------|
| Appearance | Between Groups | 5.780 | 1 | 5.780 | 4.718 | .035 |
| | Within Groups | 58.800 | 48 | 1.225 | | |
| | Total | 64.580 | 49 | | | |
| Colour | Between Groups | 5.780 | 1 | 5.780 | 5.657 | .021 |
| | Within Groups | 49.040 | 48 | 1.022 | | |
| | Total | 54.820 | 49 | | | |
| Texture | Between Groups | 8.000 | 1 | 8.000 | 5.387 | .025 |
| | Within Groups | 71.280 | 48 | 1.485 | | |
| | Total | 79.280 | 49 | | | |
| Taste | Between Groups | 9.680 | 1 | 9.680 | 6.252 | .016 |
| | Within Groups | 74.320 | 48 | 1.548 | | |
| | Total | 84.000 | 49 | | | |
| Aroma | Between Groups | 3.920 | 1 | 3.920 | 3.484 | .068 |
| | Within Groups | 54.000 | 48 | 1.125 | | |
| | Total | 57.920 | 49 | | | |
| Flavour | Between Groups | 5.120 | 1 | 5.120 | 4.197 | .046 |
| | Within Groups | 58.560 | 48 | 1.220 | | |
| | Total | 63.680 | 49 | | | |
| Spreadability | Between Groups | 1.620 | 1 | 1.620 | .960 | .332 |
| | Within Groups | 80.960 | 48 | 1.687 | | |
| | Total | 82.580 | 49 | | | |
| Overall acceptability | Between Groups | 11.520 | 1 | 11.520 | 6.255 | .016 |
| | Within Groups | 88.400 | 48 | 1.842 | | |
| | Total | 99.920 | 49 | | | |

Source: Data output

Testing the significance mean difference of the two samples in addition was adopted using One-way ANOVA. The “between groups” of the ANOVA in Table 3 indicates the source of variation of the considered samples in the study. The F-value of 4.718 (Sig = 0.035 ≤ p-value – 0.05) shows that there is significant mean difference in the jollof made from the two different types of rice taking the respective rice appearance into consideration. The texture test of significance also indicates that there is significant mean difference in the rice type (Sig = 0.25 ≤ p-value – 0.05) made from the two different rice grain considering the texture. The taste (Sig = 0.016 ≤ p-value – 0.05), flavour (Sig = 0.000 ≤ p-value – 0.05), and overall acceptability (Sig = 0.016 ≤ p-value – 0.05) of the jollof made with agric and aroso rice were also found to be statistically significant. The significance of the aforementioned samples of varieties was as a result of the difference in their respective mean response. This implies that the sampled rice can be used to prepare jollof but the agric jollof rice was found to be more preferred to the aroso jollof rice. However, it can be held from the aroma (Sig. 0.068 ≥ p-value – 0.05) and spreadability (Sig = 0.332 ≥ p-value – 0.05) of the two sampled rice that they are not significantly different from one another.

5. CONCLUSION AND IMPLICATION OF FINDINGS

5.1 Conclusion

This study is primarily based on the sensory assessment and acceptability of jollof rice made from two different types of rice grains. It was proven from the result of descriptive analysis that the two sampled rice grains can be used in preparing jollof rice. However, the agric jollof rice was found to be more preferred to aroso jollof rice due to its appearance, texture, taste, and flavour.

It is evidenced in the study that though jollof rice is an indigenous food of West African countries, Asian and European consumers also find the food acceptable. The preference of aroso jollof rice is a pointer to the need to understand customer choice of product in the dining encounter against the trend of serving guests any available product while

neglecting customer preference, which may result in lack of customer goodwill (Geng-qing Chi, AbKarim, Gursoy, 2010; Sánchez-Cañizares & López-Guzmán, 2012).

Additionally, the consumption of aroso jollof rice could open a threshold for exploration of forgotten Nigerian dishes for gastronomy tourism implications judging from the tendency of jollof rice consumers seeking for more culinary experience as a way of exploring the culture of the destination. Inbound tourists, according to Nam and Lee (2011), have a way of seeking satisfaction through culinary experience in local restaurants at destinations, which assists in extending visitors' stay at the destination giving rise to more visitor-spending (Ukabuili, et al., 2018). This would create opportunity for more sales and better income generation in local restaurants.

The ease in preparation of jollof rice was also exposed in the study, ranging from the availability of the food ingredients in the local market to the timing of preparation, which gives ample opportunity for making the product available on demand. The local architecture of food production is positively affected through the sale of numerous commodities that are complimentary to the production of the product, which stimulates economic activities within the area (Alam & Sayuti, 2011; Dougherty, Brown & Green, 2013; Jablonski & Schmit, 2016). This situation is expected to create partnership in moving goods and services between sectors, which will assist in generating micro revenue in the sectors having linkages with hospitality and tourism including agriculture (Everett & Slocum, 2013; Hughes & Boys, 2015; Andersson, et al., 2017).

Heritage tourism is also indicated in this study judging from the percentage of African respondents and their level of acceptance of the food product. To this end, the study succeeded in the 'heritagisation' of jollof rice as an African food product prepared from a traditional perspective, which helps in tourism promotion and regional development with its synergistic approach towards rural entrepreneurship (Bessière, 2013; Bessière & Tibere, 2013; Andersson, et al., 2017; Obiora & Nwokorie, 2018).

5.1 Recommendations

Local rise farmers should take advantage of the prospects created by the apparent demand of the commodity to invest in the production of the species of rice grain locally. This would provide opportunity for job creation in the agricultural sector and further discourage import, thereby improving the local economy.

Culinary entrepreneurs in local restaurants should diversify their vocation using the opportunity created by the acceptance of the local food by inbound tourists to reinvent other local food products and gastronomy tourism towards relevant niche tourism implications.

To ensure customer loyalty and profit maximization, restaurant entrepreneurs should devise a feedback mechanism from their customers. This would assist in ensuring continuous improvement of their products and enhancing word-of-mouth adverts for business sustainability.

Tourism service providers should look inwards on the use of local culinary expertise to advance gastronomy tourism for the local tourism industry. Apart from rejuvenating forgotten ethnic local dishes, it would also create opportunity for heritage cuisine practice and cultural rebirth.

Ethical values in food production and service procedures should be enforced by local restaurant entrepreneurs. This would ensure that the highest standards of global best practices are maintained in the local restaurant industry to further ensure that hygienic and quality jollof rice is produced for sale.

Relevant government agencies and professional associations should create opportunities where culinary professionals could showcase their vocations, in form of food fairs and food festivals. This would create prospects for budding culinary entrepreneurs who will find breakthroughs for their vocation and become employers of labour.

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