

Appraisal of Consumers Restaurant Food Quality in Obio/Akpor Local Government Area of Rivers State, Nigeria

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Abstract: This study aimed at the appraisal of consumers' restaurant food quality in Obio/Akpor Local Government Area of Rivers State with a view to unraveling the reasons behind poor quality and standard of service in the study area through the various opinions of respondents and recommending sustainable strategies to improve the standard. Random social survey and quasi experimental research design were adopted and the opinion on quality and standard of foods from 400 adult respondents were sampled through well-structured questionnaire and oral interviews. Statistical application of simple percentages proved that there is a significant level of poor health standard occasioned by poor food handling practices by the operators of restaurants. It concluded that unhygienic practices such as the use of unsafe water; unhealthy food exposure and underage service personnel predispose restaurants food to contamination. Recommendations include registration of all public food outlets with government authorities; regular inspection and enforcement of food regulations so as to ensure that all restaurants operate at a healthy environment with portable water supply and proper waste disposal system; Sensitization and public enlightenment campaign by relevant government bodies to leave the public with healthy choices; and education and training of restaurant operators on good hygiene practices.

Keywords: Restaurant food, contamination, unsafe handling, food hygiene, food quality.

I. INTRODUCTION

The world food consumption patterns have dramatically changed across the world in recent times. This common consumption pattern that is mostly shared by developing countries is the increasing expenditure on different types of fast food and quick restaurant outlets within our immediate surroundings/environment.

The word restaurant first meant "a cup of soup" before the modern day notion of a restaurant existed in Western Europe (Kiefer, 2002). Restaurant is a place where people pay to sit and eat meals that are cooked and served on the premises. It is a business which prepares and serves food and drinks to customers in exchange for money, and the meals are generally served and eaten on the premises but many restaurants also offer take out and food delivery services. Kiefer (2002) stated that Revolutionary Paris is widely cited as the birthplace of modern day restaurant as it was the dominant commercial and cultural center at the time of the emergence of restaurant in

Europe. Now restaurants vary greatly in appearance and offerings, including a wide variety of cuisines and service models ranging from inexpensive fast food restaurants and cafeterias, to mid-priced family restaurant, to high – priced luxury establishments.

Restaurant serves as an alternative source of food supply to home cooked meals for people on-the-go, or travellers on the move. Food is fundamental to human survival in several ways. It is basic for averting hunger and maintaining health for every human being. Food also creates emotional and social satisfaction as well as constitutes a form of cultural expression. The food we eat should be safe, palatable, affordable, and of the quality that can maintain mental, emotional, psychological and physical health. In other words, the population without adequate consumption of safe food materials, including water is less able to carry on productive lives, and this undermines social, economic and health development (Nwaogazie, 2006).

Aguilera and Stanley (1999) defined food as any substance either composed of carbohydrates, water, fats, and proteins, eaten or drank by any animal including humans, for nutrition or pleasure. In addition to nutrients, food conveys emotional satisfaction and hormonal stimuli that contributes to health. Food also contains phytochemicals that give it taste, aroma, colour and characteristics believed to play role in disease prevention (Kicklighter, 2003). In fact, low calorie intake is associated with lack of dietary balance, reflecting an inadequate supply of the range and amounts of food nutrients (carbohydrates, proteins, fats, vitamins and minerals) needed for optimum physical and mental development and maintenance of health (Poronakie, 2015).

It is a fact that an individual is exactly what he consumes. This among the major public health challenges that particularly need urgent attention in our society today are hunger, high-risk lifestyles in diet, among others. Quick service restaurants make the accessibility to food easy and could stire unwanted / undue appetite for traded cheap foods. Metabolically, the more the belly is stuffed up, the longer it takes for the ingested food to reach and be properly digested in the stomach; hence the higher the risk of infection due to the activities of parasitic organisms in the gut.

Historically, humans secure food through two methods: hunting and gathering, and agriculture. Today, the majority of the food energy required by the ever increasing population of the world is supplied by the food industry. Food is essential for ecosystem functioning and its high nutrient environments is capable of Sustaining many microbial lives. The inhabitation of some microorganisms can bring about positive transformation of the food into a high value product, while others can completely render it useless. Our "foods whether freshly harvested or manufactured start its existence as an integral part of the natural ecosystem; and inevitably, with time, are possessed by microorganisms within. Most of these microbiological organisms when ingested by man are pathogenic in nature (Aguelcra and Stanley, 1999).

Lucas and Gilles (2003) defined food safety as the absence of adverse health effect following consumption of food. Food could be processed to eliminate or at least reduce risk of contamination. The methods enumerated by Achalu (2003) include thermal method, freezing, chemical preservation, dehydration, use of microorganism and microbial polymers. Sunday (2001) confirmed that, the manner of handling food has a profound effect on its quality in terms of the extent to which it is germ free or it's potential to initiate diseases. Poorly handled food may be a source of food poisoning to the consumers. This danger emphasizes the need for hygiene which concerns not only those involved in the preparation but also those involved in the distribution, production, storage, transportation, display, sale, cooking and serving of food.

The preventive measures against food contamination embrace laws, proper storage, avoidance, health education and disposable equipment. Making personal effort and decision against patronage of food in the quick service restaurant actually means reducing exposure to micro-organisms that could cause diseases.

Formulating laws by government on the operation of restaurant food is considered to be one of the methods that could safeguard the consumers. Tinker (1987) assured that regulations can make restaurant food safer. Once policy makers have taken their stand, there are immeasurable small ways to make life easier for both the vendors and inspectors while ensuring that the food is safer for consumers. He recommended fair licensing for eligible food sellers; and that inspection of restaurants activities is carried out regularly. However, one obstacle to food safety in Nigeria is the unsanitary conditions of the outlets including poor water supply, poor personal hygiene and exposure of food to contamination. This makes a case for improvement on the general hygiene situation of restaurants in Nigeria (Akpauo, 2016).

Health education of both the public and food vendors on the dangers of improper food handling will foster awareness and reduce one's desire for just any food on the street. WHO (2009) stressed that the education of food vendors is of paramount importance. It noted that vendors are often poorly

educated and untrained in food safety. That, they work under unsanitary conditions with little or no infrastructural support. Following reports of researches that most food related illnesses could be prevented by the use of proper food handling. Education and training of caterers and food vendors may offer the most cost effective way to reduce the incidence of food borne illnesses.

Wardlaw and Kessel (2002) emphasized that consuming adequate protein, the gamut of vitamins (especially vitamin E and B) and zinc, helps to maximize the health of immune system. Deficiency of these nutrients leads to recurrent sickness and poor wound healing process. Food could taste nice actually, but may not be enjoyed when eating. Quite a lot of Variables could be linked to this, such as the location of eating, the materials and technique used in serving, among others.

Offering food for sale takes different shapes. While some make it available in packs, others offer it bare. Those who fall in the latter group are people who usually sell food in restaurants. In local parlance, many of them are called mama put. In Obio/Akpor LGA, there are many food sellers who operate quick service restaurants in several locations.

As a matter of fact, rural - urban migration to Obio/Akpor LGA is on the increase and its consequent population growth has stimulated a rise in the number of food vending activities throughout the area. There is rising daily need among workers to eat food outside their homes while going to work or beat time for appointments. Consequently, many people are not only exposed to food from quick service restaurants on daily basis but also a pattern of lifestyle especially among the low income earners who pre-dominated the informal sector of the economy. In such drive, the very readily source to quench their hunger becomes the patronage of the restaurant, irrespective of the quality.

II. AIM AND OBJECTIVES

The aim of this study is to appraise the quality of consumers restaurant food in Obio/Akpor LGA. In order to achieve this aim, the following specific objectives were pursued, to:

1. Examine personal characteristics of the residents of Obio/Akpor Local Government Area.
2. Determine the perception of the people towards the appearance of restaurant food in Obio/Akpor LGA.
3. Ascertain the attitude of consumers towards the standard of services rendered at the restaurant in the study area.
4. Assess the level of satisfaction from consumers regarding restaurant food in the study area

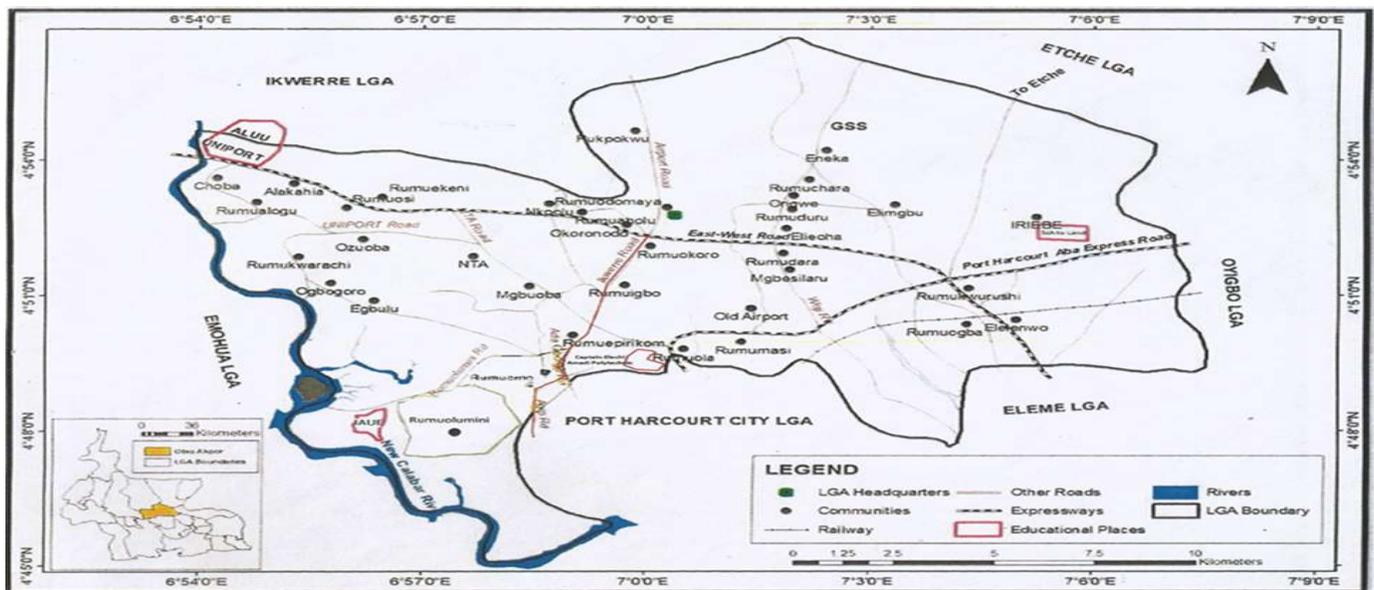
III. THE STUDY AREA

Geographical Location and Extent

Obio/Akpor Local Government Area of Rivers State is an urban settlement with its headquarters at Rumuodomanya. It is

one of the twenty- three local government areas in Rivers State (Niger Delta). The area is one of the major locations of the oil and gas sector of the economy and the hub of commerce and industry of Nigeria. It is the chief oil-refining city in Nigeria. Oil and gas are Nigeria’s most important commodities and the main foreign exchange earner (Poronakie, 2015). Geographically the area is located within the tropical region between latitudes 4°45'N and 4°60'N of the

equator and longitudes 6°50'E and 8°00'E of the Greenwich Meridian. Its total landmass is approximately 260 sq.km occupied by 554,735 people (NPC, 2017). Hence it has a high population density of 2,134 persons per Km². The area is bounded in the north by Ikwerre and Etche Local Government Areas, in the south by Oyigbo and Eleme Local Government Areas and in the west by Emohua Local Government Area, respectively. (See figure 1 & 2 below)



Source: Rivers State Ministry of Land and Housing

Geology and Relief

The relief of Obio/Akpor is generally a lowland area with average elevation between 20 and 30 metres above sea level (Oyegun and Akpoghomeh, 2009). Its geology comprises basically of alluvial sedimentary basin and basement complex assemblages at its fringe areas linking Port Harcourt City and Degema LGA's

The area is characterized by a semi- hot equatorial climate and relative humidity (Tamuno, (2008). It is typified by a uniformity of high temperature throughout the year, intense rainfall which occurs virtually every month of the year, seasonally variable and energetic in down pour with increasing continentality. This often graduates to thunderstorm on its onset and cessation with variation in duration and amount between 2,000mm – 4,000mm in July through September (Ede, 1995). This high incidence of rainfall in the presence of low relief produced flooding in the area, particularly along the Ntaworba creek linking undulating areas of Rumuola, Rumueme, Rumuolumeni and Rumuodomanya. This is determined by its proximity to the coast and elevation with respect to two air masses (responsible for seasonal variation of wet and dry) that operated interchangeably in the area. While the wet season spans over nine months (March to November) with a double rainfall maxima in the months of July and September, the dry season coincides with the harmattan period which lasts from December – February (Oyegun and Arokoyu, 2003).

The soil of the Niger Delta which encompasses Obio/Akpor LGA of Rivers State (Nigeria), could be described as very scanty, heavily leached and Acidic with relative low fertility (Poronakie, 2015, Bell-Gam, 1990). These acidic soils are also known to be ferrallitic because of the presence of alumina and iron oxides contained in them (Bell-Gam, 1990). The vegetation of the study area is basically located on three major ecological zones namely, low-land rainforest, freshwater – swamp forest and mangrove forest indicating parts of the Delta of River Niger which is one of the world's largest wetland covering 70,000km (NDDC, 2006). The vegetation of the study area is basically located on three major ecological zones namely, low-land rainforest, freshwater – swamp forest and mangrove forest indicating parts of the Delta of River Niger which is one of the world's largest wetland covering 70,000km (NDDC, 2006).

IV. MATERIALS AND METHODS

For the purpose of this study, social survey and quasi experimental research design were employed. This involved fields cross examination of the targeted respondents through well-structured questionnaire and oral interviews to effectively capture the participants views on the subject matter as well as field observation. The population of this study comprised literate adult inhabitants of Obio/Akpor local government area which has 88 communities with a population of approximately 268,516 (NPC, 1991). However, we

projected the population of 1991 to 2017 using 2.83% growth rate (NPC 2003). Hence, the projected population of the study area for 2017 is approximately 554,735. However, to get the exact sample size for this study, we applied the use of purposive sampling techniques by randomly selecting 26 communities, which also amounts to 30% of the total communities of the study area. The total population for 26 communities randomly selected and projected from 1991 to 2017 is **236,633** as shown in Table 1.

Table 1: Sampling Size for each of the Communities Projected From 1991 to 2017 Using 2.83% Growth Rate and Applying Purposive Sampling Technique

Sn	Community	Npc 1991	2017 Projected Population	Sample Size
1	Choba Town	10,986	22,696	15
2	Rumualogu	1,528	3,156	15
3	Alakahia	1,914	3,954	15
4	Rumuowha 11 Eneka	857	1,770	15
5	Elimgbu	2,886	5,962	15
6	Eliozu Oroigwe	1,231	2,543	15
7	Rumuodomaya	4,548	9,395	15
8	Rumuogba	3,093	6,389	15
9	Ogbogoro	9,360	19,336	15
10	Rumuigbo	8,619	17,805	15
11	Bori Camp	10,168	21,006	15
12	Rumuomasi	13,210	27,290	15
13	Rumuobiakani	8,451	17,458	15
14	Rumuodara	4,910	10,143	15
15	Eliowhani Rumuodara	411	849	15
16	Rumuokwursi	4,937	10,199	15
17	Elelenwo	3,275	6,765	15
18	Rumuibekwe	2,006	4,144	15
19	Rumuogba	5,614	11,597	15
20	Woji	6,635	13,709	15
21	Rumuokwuta	7,990	16,506	15
22	Mgbuakara	286	590	15
23	Azumini	379	782	15
24	Iwofe	613	1,266	15
25	Agip Estate Rumueme	456	942	15
26	Rumuola	4,327	8,939	15
	Total	118,690	245,191	400

Source: Researchers' field Work (2018)

Based on the projected population, we applied the Taro Yamane (1967) formula to obtain the sample size of 400 for the study area.

Taro Yamane (1967): $n = \frac{N}{1+N(e)^2}$ Where n = sample size,

1 = constant, N = Total population, e^2 = level of significance $(0.05)^2$

$$n = \frac{254191}{1+254191(0.05)^2} = \frac{254191}{1+254191(0.05)^2} = \frac{254191}{254192x0.0025} = \frac{254191}{612.98} = 399.9 \text{ Approximately} = 400$$

400 copies of questionnaire were randomly distributed to literate adults at the 26 communities selected for the study. However, using purposive sampling technique (15) copies of questionnaire were distributed at each of the selected communities. The entire administered questionnaires were returned intact because we employed the services of research assistants to administer the questionnaire. Hence, we have 400 as the sample size for the study area. The Likert – type four – point rating scale of Strongly Agree (SA), Agree (A), Disagree (D) and Strongly Disagree (SD) was used in analyzing responses from the respondents. The results of the analysis were presented using appropriate tables, figures and maps. Also descriptive and simple statistical analysis i.e. pie chart, bar graphs, frequency and Simple percentages were used to present the results of findings.

From the above, both primary and secondary data were used. While the primary data deal with information elicited from the respondents during the field survey, secondary data cover previous studies and government publications e.g population data of the study area etc. (see Table 1 above). Specifically the study covers five randomly selected locations taken from the sampling frame.

V. RESULTS AND INTERPRETATIONS

Respondents’ Socio-economic Characteristics

The Table 2 below shows the outcome of the respondents’ characteristics which were obtained from the 400 questionnaires used for the analysis. The characteristics are: Sex, Age, Educational Level, Occupation, Marital Status and Income Level.

Table 2: Respondents’ Socio-economic Characteristics

Variable	Characteristics	Frequency	Percentage (%)
Sex	Male	312	78
	Female	88	22
	Total	400	100%
Age of respondents	18– 27 years.	176	44
	28 - 37 years	144	36
	38– 47years	40	10
	48– 57 years	24	6
	58 and above	16	4
	Total	400	100%
Educational level	Noformal Education	-	-
	Primary Education	104	26

	Secondary Education	256	64
	Tertiary Education	40	10
	Total	400	100%
Occupation	Unemployed	20	5
	Self- employed	280	70
	civil servant	68	17
	Students	32	8
	Total	400	100%
Marital status	Married	72	18
	Single	302	75
	Separated	8	2
	Divorced	20	5
	Total	400	100%
Income Level (₦) Monthly	Below ₦10,000.00	192	48
	₦10,000.00 - ₦20,000.00	68	17
	₦ 21,000.00 – ₦40,000.00	52	13
	₦ 41,000.00 – ₦60,000.00	48	12
	₦ 61,000.00 & above	40	10
	Total	400	100%

Source: Researchers’ Field Work (2018)

Table 2 above, presents the sex of the respondents. Male respondents were the majority of the respondents being 312 (78%). The remaining 88 (22%) came from the female respondents. This implies that the males who are always out for work and other business eat restaurant food while away from their homes.

The age of respondents were presented in Table 2 above. Greater percentage 176 (44%) of respondents was obtained from the age bracket of 18-27 years. This was followed by those within 28-37 years with 144(36%). Those within the age bracket of 38-47 were 40 which formed (10%) and 24(6%) was recorded for the age bracket 48-57, while those at age range of 58 and above was 16, which formed (4%) of the respondents.

Enquiry on educational level of the respondents revealed that majority of the respondents (256) had secondary school education and this represent 64%. Those who had primary education ranked next being 104 (26%) while those with tertiary education were 40 (10%). None belonged to non-formal education group. This implies that those at secondary level of education patronize restaurant food more than other levels as this class of respondents tend to be more of the singles, unemployed or self-employed among them.

On occupation as presented in Table 2 above, the self-employed formed the greater percentage of respondents being (70%) 280. Civil servants ranked next with 68 (17%), students were 32 (8%) while 20 (5%) were unemployed. This implies that majority of the respondents engaged in time consuming businesses or activities, hence they often preferred restaurant foods to meet targets.

Table 3 above revealed that 302 (75%) of the respondents are single, 72 (18%), are married couples, 20 (5%) are divorced while the remaining 8 (2%) are separated. The implication of this scenario is that majority of the respondents 330 (82%) patronized restaurant foods because they are single, separated or divorced which make them not to have time for private cooking, particularly the workers and business men/self-employed among them.

Income status of respondents was presented in Table 2 above. Greater percentage 192 (48%) of respondents was obtained from the income level of below ₦10,000.00. This was followed by those within ₦10,000.00 - ₦20, 000.00 with 68 (17%). Those within the range of ₦21,000.00 – 40,000.00 were 52 which formed (13%) and 48 (12%) was recorded for income level of ₦41,000 – ₦60,000, while those at income level range of ₦61,000 and above was 40, which formed (10%) of the respondents.

Table 3: Likert-Type Four Point Rating Scale to Respondent’s Opinion on Quality of Restaurant Food in the Study Area

S/ N	Questionnaire Items	Strongly Agree	Agree	Disagree	Strongly Disagree	% of Agreement
1	Restaurant foods may not be of good standard	176 (44%)	184 (46%)	24 (6%)	16 (4%)	(90%)
2	Restaurant foods are not always enjoyable.	244 (61%)	108 (27%)	32 (8%)	16 (4%)	(88%)
3	The appearance of restaurant food is not always appreciated	112 (28%)	184 (46%)	80 (20%)	24 (6%)	(74%)
4	The quantity of some restaurant food does not worth the cost	120 (30%)	220 (55%)	4 (1%)	56 (14%)	(85%)
5	Most restaurant foods do not actually taste fresh or nice	188 (47%)	172 (43%)	24 (6%)	16 (4%)	(90%)
	TOTAL	307 ^o (85%)		53 ^o (15%)		360 ^o (100%)

Source: Researchers’ Field Work (2018)

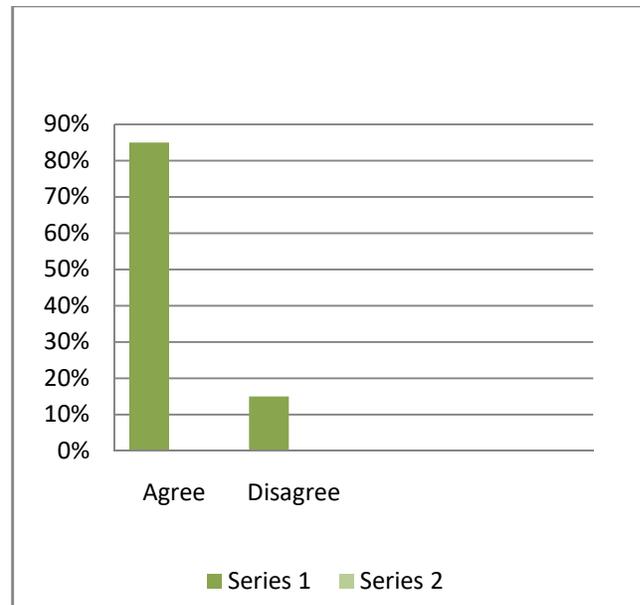


Figure 4: Respondents Opinion on Quality of Restaurants Food
Source: Researchers’ Field Work (2018)

Likert Type Four Point Rating Scale for Opinion on Quality of Restaurant Food

The Table 4 presents the different opinions of restaurant food consumers about the quality of restaurant foods. On the issue of standard, greater majority (90%) of the respondents testified that the quality of restaurant food is not of good standard.

Responding to the question which examined how enjoyable eating restaurant food could be, about (88%) of the respondents affirmed that restaurant food is not quite enjoyable. Answering question relating to the appearance of restaurant food, the respondents who agreed that they do not actually appreciate the appearance of restaurant food formed the greater majority (74%)

The impression of the respondents about the price prescribed for certain quantity of food at the restaurant shows dissatisfaction. About (85%) of the respondents opined that they did not consider the quantity of some restaurant foods as suitable.

In respect of the taste of restaurant food, those who answered that most restaurant foods do not taste fresh and nice were (90%).

Generally, the result shows that even though people eat restaurant food, they do not consider its quality as satisfactory or meeting health standard.

It further revealed that the quality of services rendered at the restaurants in the study area is of low standard. Again, it indicates that there is need for regular inspection and monitoring of all food items prepared by restaurant operators for public consumption by officials and ministry of health, environment

NESREA, NAFDAC etc. Daily sanitation exercise within and around the restaurants is also very necessary as part of the methods to control contamination of restaurant foods.

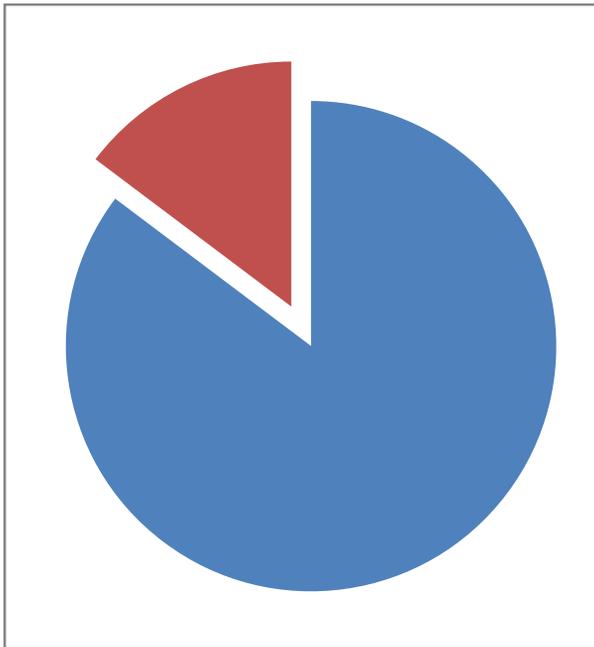


Fig. 5: Respondents Opinion on Quality of Restaurant Food
Source: Researchers’ Field Work (2018)

Agree	87%	(307 ⁰)
Disagree	15%	(53 ⁰)

VI. DISCUSSION OF FINDINGS

In addressing the quality of restaurant food materials in the study area, studies were conducted based on the research objectives. Simple percentages which were used for analysis revealed a significant result in respect of ascertaining the impression of respondents about poor quality of restaurant food. Thus, the result portrayed that the quality of restaurant food is very low. In the analysis of responses, those that favoured the assertion that restaurant foods may not be of good standard accounted for 90%; 88% say that restaurant foods are not always enjoyable; 74% affirmed that the appearance of restaurant food is not always appreciated; 85% agreed that the quantity of some restaurant food does not worth the cost and those that say that most restaurant foods do not actually taste fresh or nice accounted for 90% of respondents. Therefore, the foods served at the restaurants in the study area were considered as substandard. This could be attributed to the fact that most restaurants in the study area were established out of necessity, emanating from the need to earn a living, therefore the operators of those restaurants did not attain any training on hygiene nor on catering. Also, unsanitary environment and poor food hygiene practices by the food handlers in the course of food preparation was observed.

VII. CONCLUSION

The study has ultimately revealed that the quality of restaurant food in the study area is poor occasioned by poor handling practices such as the use of unsafe water; unhealthy food exposure and underage service personnel, among others, predispose restaurants food to contamination.. It therefore implies that a lot of attention should be paid to proper handling rules and techniques which will eliminate or significantly reduce the degree of contamination of restaurant foods. Also restaurant operators are duty bound to ensure that the taste, appearance and nutritional value of restaurant food are high and worth the monetary value spent. To attain the adequate standard for quality restaurant food, all restaurant operators and their employees should be made to undergo at least minimum standard training on catering and be issued with authorized license.

VIII. RECOMMENDATIONS

The following are the recommendations on how to increase the quality of restaurant food in the study area and indeed Nigeria.

- i. Certification may be provided to qualified food outlet by the relevant government agencies such as National Agency for Food and Drug Administration and Control (NAFDAC) and the public should be made to identify the licensed restaurants.
- ii. Sensitization and enlightenment campaign should be mounted intensely by the relevant Government Ministries and Agencies to educate the general public on the health risks associated with consumption of food from uncertified food outlets so as to assist them to make wise choices for their health maintenance.
- iii. Food Regulations for restaurant operators should be properly enforced. And adequate checks and food inspection should be carried out regularly by relevant authorities on all restaurant outlets to ensure uniformity of standard. Also, the relevant government bodies should ensure that all restaurants operate at a healthy environment with portable water supply and proper waste disposal system and not to operate beside refuse bins.

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