



Socio-economic determinants of supply and demand for convenience foods (Okpa, Moimoi and meat pie) in lafia urban of Nasarawa state

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ABSTRACT

The study specifically described the socio-economic status of the people involved in the production, distribution and consumption of convenience foods in Lafia urban of Nasarawa state. It identified the factors that influence the entry into convenience food enterprise, factors necessitating the demand and supply of the products and examined the costs and returns of three convenience foods. The data collected were analyzed using descriptive statistics, inferential statistics (multiple regression analysis), the four points likert scale and the enterprise gross margin. The major findings indicated that female producers of convenience foods were more than male producers, the multiple regression result on the effects of socio-economic characteristics of consumers on the amount of money spent on consumer foods revealed that R^2 value is 0.697. This implied that 67.7% of the total variation in output (Y) is explained by the combined influences of the independent variables in the model. The gross margin enterprise revealed that the sale of convenience foods in Lafia metropolis is profitable. The study concluded by advocating for provision of credit facilities amongst others to producers and distributors of convenience foods with limited income.

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Introduction

Food is an important part of social life in any country. Esau sold his birth right for bread and a potage of lentils; it was famine in Middle East that brought Jacob and his family to settle in Egypt, all because of food, which made the empty stomach becomes the great motivator of human race. Daily social events often also involve food. Food frequently gives people something to talk about and “breaks the ice” at social functions. Because human beings cannot do without food-any day, anytime and anyplace, new processed food of various types are now being produced and marketed in different parts of the world, which Lafia urban is one of them. For instance, in Lafia urban, a large population of the total food supply now contains the so-called “convenience foods.

The definition and meaning of convenience foods were given by many authors according to their backgrounds and perspective. According to Okaka (2005), convenience foods can be regarded as foods which have been fully or partially prepared, in which significant preparatory input culinary skills and energy have been transferred from the homemaker’s kitchen to the food processor’s factory. Similarly, Labensky *et al* (1997) stated that convenience food or tertiary processed food is a commercially prepared food designed for ease of consumption. Furthermore, they said that product designated as convenience foods are often prepared food stuffs that can be sold as hot, ready to eat- dishes at room temperature, self-stable product that requires minimal preparation, typically just heating, by the consumer. These definitions indicate that convenience foods are the handy and take away foods that need no further or little processing. Typical example of these foods is dough-nut, sausage, buns, cakes, moi-moi, biscuits, okpa, akara, agidi, meat-pie, egg-roll, plantain chips, fish roll, etc.

Convenience foods are not new, when Rome was at its peak; many of its people lived in apartment blocks without kitchen and bought food ready-cooked from stalls. Convenience foods play a vital role in many urban and even rural areas. They are used during ceremonies or special occasions sometimes they are taken as luxury foods by people living in urban areas and by a few people in rural areas as well, but now the reverse is the case. This made the demand to have risen and supply seems not to match demand in many urban areas. As ethnic population increases due to immigration, the demand for convenience foods also increases.

Ugwu (2010), reported that in recent years convenience foods have gained popularity due to a number of factors; first, increased number of women are going out to work and therefore having less time to prepare food. This more than any factor, has made eating of at least one meal out of the home, this in turn left their children with the option of buying convenience foods to sustain themselves until their mother comes back. Secondly greater desire for leisure has made most people, especially students to rely more on convenience foods which they think will require less time in warming rather than fresh cooking. And much time will be left for their reading and other domestic works. Thirdly humans today, like the automobile, now welcome the proliferation of human fueling stations where people can so-to-speak, drive in and fuel their stomachs. These human fueling depots may be fast-food restaurants, wayside, eating shades (bukas in Hausa) or institutional eating establishments. Finally, our children today cannot do without convenience foods like pop-corn, buns, ice-cream, moi-moi, puf-puf, etc. during recreation or break in schools before closing hours. Likewise their counterparts in tertiary institutions that may be taking theirs while rushing to lectures or even in the lecturehall.

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The Role of Convenience in Consumer Food Choice

It is evident that convenience plays a prominent role in the food choices of today's consumers. A trend having begun through the western world, consumers demand for convenience foods is now on the increase around the globe. The growing presence of drive-through windows, microwave dinners, take out meal, delivery for groceries and internet shopping, all demonstrate importance of convenience in determining food choices. Costa *et al* (2005), argued that convenience itself determines where, when, why, what, how, and even with whom we eat. Convenience has an immense impact on the food choices of today's consumers. This suggests that food products offering less convenience will be deemed less preferable to consumers. Therefore adding convenience traits to certain products deemed healthy and/or beneficial, and could increase the consumption of special food products. Jacger and Mieselman (2004), noted that food-related convenience itself, looking over each stage of the meal preparation process, discovered that perceptions of convenience are related to both time and effort. Effort was further characterized to include both mental and physical effort being composed of both thinking activities and the amount of physical energy involved in the meal delivery process. Jacger and Saedello (2007), argued that a meal perspective should be adopted when analyzing food related convince, rather than the "product perspective". "This allows taking the dimension of timing of convenience into account, as convenience is experienced during one or more stages of meal preparation and consumption processes.

Problem Statement

Since the creation of Nasarawa state in October, 1996, Lafia the state capital has been growing in population as a result of influx of people. Also many schools and higher institutions have been springing up with many students who seem to have high appetite for convenience foods. Many workers in ministries, parastatals and non-governmental organizations also tend to demand convenience foods which serve in most cases as their lunch. While the demand for convenience foods seem to be visibly high, the supply does not seem to match demand. Many new traditional and engineered convenience food products pour into the market and become accepted, introducing yet further changes in food habits motivated by our quest for comfort and escape from the boredom of food preparation. Also the introduction of varying degrees of convenient and flexibility into our day-to-day choice of use of foods made possible by processing of foods, all give rise to high demand of convenience foods. This study therefore tends to address the demand-supply situation of convenience foods in Lafia metropolis. The study also takes a look at the socio-economic attributes of those demand and supply of these variant of convenience foods. And finally, whether convenience food enterprises are profitable.

Objectives

The broad objective of the research is to investigate the social –economic determinants of supply and demand for convenience foods in Lafia Urban of Nasarawa State.

The specific objectives are:

- (i) Describe the socio-economic status of the convenience food producers, distributors and consumers
- (ii) Determine the factors that influence the entry into convenience foods enterprise
- (iii) Determine the production costs and returns of local convenience foods found in the study area.
- (iv) Determine the effect of socio-economic characteristics of consumers on the amount of money spent on convenience foods

- (v) Identify the social and economic factors affecting convenience foods production in Lafia metropolis of Nasarawa State.

Methodology

The study was conducted in Lafia metropolis of Nasarawa State. Since the pronouncement of Lafia as the capital of Nasarawa State in 1996, the population has been growing as a result of influx of people. Most people in Lafia metropolis are traders, civil servants and students. There are good number of primary schools, tertiary institutions, ministries, parastatals and fast food joints. Lafia urban market operates on daily basis. Data were collected with the aid of a structured questionnaire that was administered to the respondents. A total of one hundred and twenty (120) respondents were selected using simple random sampling.

The respondents comprised of forty (40) producers, forty (40) distributors and forty (40) consumers. Descriptive statistics such as means, percentages, frequency counts, Gross margin and multiple regression model were used for the analysis. Objectives (i) and (ii) were analyzed using frequency distribution tables and percentages. Gross margin was used to achieve objective (iii), multiple regression model was used to achieve objective (iv), while objective (v) was analyzed using 4 – point likert scale.

The multiple regression model is expressed as thus:

$$Y = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7)$$

And can be explicitly expressed as:

$$Y = b_0 + b_1 X_1 + b_2 X_2 + b_3 X_3 + b_4 X_4 + b_5 X_5 + \dots + et$$

Where:

Y = Amount spent on convenience foods (N)

X₁ = Occupation (dummy)

X₂ = Age (years)

X₃ = Marital status (dummy)

X₄ = Gender (dummy)

X₅ = Level of education (number)

X₆ = Household size (number)

X₇ = Monthly income (N)

b₀ = Constant

b₁ – b₇ = Parameters

et = stochastic term

The Gross margin analysis is expressed as:

$$GM = TR - TVC$$

$$\pi = GM - TFC$$

Where:

GM = Gross Margin

TR = Total Revenue

TVC = Total Variable Cost

π = profit

TFC = Total Fixed Cost

The likert formular is expressed as:

$$\bar{X} = \frac{\sum fn}{nr}$$

Where

\bar{X} = Mean score

\sum = Summation

F = Frequency of the respondents

n = likert moninal value

nr = number of respondents (sample size)

And decision rule is derived from the formula

$$\bar{X} = \frac{\sum f}{n}$$

Where:

\bar{X} = Mean score

\sum = Summation

f = Frequency of the respondents

n = number of items/observation.

Results and Discussion of Findings

The results of data analysis were presented under the following major headings; personal characteristics of convenience foods consumers, distributors and producers; factors that influence the entry into convenience food enterprise; factors that necessitated the demand and supply of convenience foods; determination of annual economic profit/loss from the convenience foods enterprise, determination of costs and returns for the production of convenience foods and problems of convenience foods production.

Socio-economic characteristics of people involved in convenience foods

The socio-economic characteristics of convenience foods consumer, producers and distribution analysis include: gender, age, marital status, income distribution, educational background and monthly income level as shown in table 1:

From the table, the result shows that 20% of the convenience foods producers were males whereas 80% were females. This is because convenience foods production was more of female workers as linked in the belief that women's work is in the kitchen. The data also showed that 70% of the convenience foods distributors were males whereas that of females was 30% due to the business like nature of male gender. Also in convenience foods consumers, males had 57.5% while females had 41.5%. This portrays the greater tendency of males eating outside as compared to females. Further analysis from the table showed that producers within the age range of 31-40 years were greater in number (50%) followed by the age range of 41-50 which was 30%. Age ranges of 21-30 and 51-60 years had 12.5% and 7.5% respectively. It was observed that there was no producer below 20 years of age. the highest number of producers were within the age range of 31-40 and 41-50 years. This was due to the fact that convenience foods producers were mostly young and middle age women who are normally active and produce for their children to hawk. It was also observed that the highest percent of convenience foods distributors were within the age range of 20-30 (45%), followed by people below 20 years of age. This is because these people are young and strong to hawk these products as their parents produce them. The least distributors fell within the age range of 41-50 and 51-60 with 10% and 2.5% respectively. However people within the age range of 21-30 years constitute 50% and they consume more of convenience foods followed by age range of 31-40 with 23%. This is because people within these ranges were more of young people (students, bachelors, and spinsters) who are still single. People that were within 41-50 had 7.5% whereas the least consumers were within 51-60 and constitute 5%. Furthermore, the result showed that high percentage of convenience foods producers were married with 52% followed by widows with 30%, single 12.5%. Least was divorced with 5%. This inferred that convenience foods production was mainly the job of married women and widowers. Data also showed that most of the convenience foods distributors were single constituting 63% this is followed by those married with 25%. Widows and widowers had 10 and 2% respectively. The highest percentage was as a result that marketing is a job of young person's as they are still teenagers. The survey also indicated that the consumers who had the highest frequency in the study area had 48%, followed by widowers with 25% and also married with 20%. This portrays the greater tendency of single and widowers eating outside the home as compared to that of widow and divorced with 5% and 2% respectively.

The educational background of respondents revealed that greater producers of convenience foods were within 45% and had no formal education, 32.5% attended primary schools, and

17.5% attended secondary education whereas 5% attended tertiary education. Also, the highest distributors of convenience foods constitute 62.5% attended primary school whereas no distributors attended tertiary education. This inferred that distributors were mainly people that could not further their education or school drop-outs. The survey also indicated that people that had tertiary education (50%) consume more of convenience foods, followed by those that attended secondary education (40%), primary education had 8% and no education had 2%. This is because majority of people in tertiary and secondary schools do not live with their parents and prefer eating outside.

The findings of the income level showed that 12.5% of the producers earn between 11-20 and 61-70 thousand naira, 15% earn between 41-50 and 51-60 thousand naira, 10% earn 21-40 thousand naira 20% earn 70 thousand naira and above whereas 5% earn 1-10 thousand naira monthly. Also, 37.5% of the convenience foods distributors earn between 1-10 thousand naira, 32.5% earn between 11-20, thousand naira 25% earn between 21-30 thousand naira whereas 5% earn between 31-40 thousand naira. Finally, 30% of convenience foods consumers earn between 11-20, 25% thousand naira earn between 1-10 thousand naira, 12.5% earn between 31-40 thousand naira, 10% earn between 21-30 and 41-50 thousand naira, 7.5% earn between 51-60 thousand naira whereas 2.5% earn 61 thousand naira and above.

Responses were greater than respondents due to multiple responses.

Data from table 2 showed that majority of the respondents (28%) entered into the business of convenience foods due to its profitability, 25% gave high demand as their reason, whereas 21% entered because the capital needed to start the business is small. Data also showed that 8% and 7% of the respondents were motivated to enter into the business because of its easy marketing and production respectively. The highest frequency (28%) showed that the most motivating factor for any business venture is its profitability while the least frequency (7%) showed that production of convenience foods is easy.

Effects of Socio-economic Characteristics of Consumers on the Amount of Money Spent on Convenience Foods

The model used had the regress and as amount spent on convenience foods (₦) while the regressors were (X_1), age (X_2), marital status (X_3), gender (X_4), level of education (X_5), household size (X_6) and monthly income (X_7)

Presented here under is the final estimated regression equation

$$R^2 = 0.697$$

$$Y = 278.542 - 38.942X_1 - 0.819X_2 - 2.483X_3 + 17.861X_4 + 1.621X_5 - (87.077) (10.712)^* (1.428) (9.785) (18.146) (2.507) 5.352X_6 + 0.0053X_7 (4.778) (0.000)^*$$

*Indicates significance at 1% level; NS= not significance.

Note: Figures in bracket represent standard errors of estimate.

From the regression result the coefficient of occupation (X_1) had a negative sign. Though this was not in conformity with the priori expectation, but due to the nature of the economy of our country today, most of the people consume convenience foods because of its low price irrespective of their occupation.

Coefficient of age (X_2) had an inverse relationship with the dependent variable and is in accordance with the priori expectation because the higher the age the lower the amount spent on convenience foods. Coefficient of marital status (X_3) had a negative sign indicating not conformity with the priori expectation.

Table 1: Percentage distribution of socio-economic characteristics of convenience foods producers, distributors and consumers

Factor	Producer	%	Distributors	%	Consumers	%
Gender						
Male	8	20	28	70	23	57.5
Female	32	80	12	30	17	41.5
Total	40	100	40	100	40	100
Age						
Below20	-	-	10	25	6	15
21-30	5	12.5	18	45	20	50
31-40	20	50	7	17.5	9	22.5
41-50	12	30	4	10	3	7.5
51-60	3	7.5	1	2.5	2	5
Total	40	100	40	100	40	100
Marital status						
Married	21	52.5	10	25	8	20
Single	5	12.5	25	63	19	48
Divorced	2	5	-	-	1	2
Widow	12	30	4	10	02	5
Widower	-	-	1	2	10	25
Total	40	100	40	100	40	100
Educational qualification						
No.edu	18	43	3	7.5	1	2
Pri.edu	13	32.5	25	62.5	3	8
Sec.edu	7	17.5	12	30	16	40
Tertiary Edu	2	5	-	-	20	50
Total	40	100	40	100	40	100
Monthly income level(₦'000)						
1-10	2	5	15	37.5	10	25
11-20	5	12.5	13	32.5	12	30
21-30	4	10	10	25	4	10
31-40	4	10	2	5	5	12.5
41-50	6	15	-	-	4	10
51-60	6	15	-	-	3	7.5
61-70	5	12.5	-	-	1	2.5
71 and above	8	20	-	-	1	2.5
Total	40	100	40	100	40	100

Source: Field survey, 2013

Table 2: Frequency Distribution Of Factors That Influence The Entry Into Convenience Foods Enterprise

Factors	No of respondents	Percentage (%)
Easy to produce	10	7
Easy to market	12	8
Raw materials availability	15	11
Profitability	39	28
High demand	35	25
Small starting capital	30	21
Total	141	100

Source: field survey, 2013

multiple responses

Table 3: Multiple regression result of the effect of socio-economic characteristics of consumers on the amount of money spent on convenience foods

Model	Coefficients	Std. error	t-value	Sig
(Constant)	278.542	87.077	3.199	003
Occupation(x ₁)	-38.942	10.712	-3.635	001*
Age(years)(x ₂)	-819	1.428	-574	570NS
Marital status (x ₃)	-2.483	9.785	-254	801NS
Gender(X ₄)	17.861	2.507	984	332NS
Level of education (years) (X ₅)	1.621	2.507	647	523NS
House hold size(number) (X ₆)	-5.352	4.778	1.120	271NS
Monthly income(naira) (X ₇)	-7.22E-005	000	-269	790NS

Source: data analysis, 2013

Table 4: Determination of Cost and return for the Production of 10kg (50 cups) of Okpa

Item	Ave. quantity/day	Ave. unit cost(N)	Total cost (N)
Revenue	600(wraps)	30/wrap	18000
Variable cost			
Raw material (bambara nut)	10kg(50 cups)	80	4000
Firewood	1 bundle	200	200
Packaging material	3 rolls	50	150
Palm oil	5 bottles	180	900
Water	20 liters	10/5L	40
Grinding/ sieving	10kg(50 cups)	-	300
Ingredients	-	-	500
Transportation	-	-	100
Opportunity cost			
Labour(man hours):mixing	4 hours	50/hour	600
Wrapping and cooking			(3 labourers)
Marketing (Mondays)	1 day	100/day	400
Total variable cost			7190
Gross margin			10810
Fixed cost			
Depreciation(pot, pan, tray)			350
Total fixed cost			350
Return on management and risk			10, 460

Source: field survey, 2013

Table 5: Determination of cost and return for the production of 3kg 15 cups) of moi-moi

Item	Ave. Quantity/day	Ave. unit cost (₦)	Total cost (N)
Revenue	600 pieces	50/piece	30000
Variable cost			
Raw material	50kg	5500	5500
(Flour)	(250 cups)		
Water	25 litres	10/5l	50
Oil	5 litres	200	1000
Gas	1 cylinder	2800	2800
Ingredients	-	-	1000
Transportation	-	-	100
Labour (manhours)			
Mixing, baking, and packaging	4 hours	50/hour	600 (3 labourers)
Marketing cost	1 day	100/day	300 (3 marketers)
Total variable cost			11350
Gross margin (M = N30,000 – N11350)			18650
Fixed cost			
Depreciation (show case and baking pans)			300
Total fixed cost			300
Return on management and risk			18350

Source: Field Survey, 2013

Table 6: Determination of cost and return for the production of 50kg (250 cups) of meat-pie

Item	Ave. Quantity/day	Ave. unit cost (N)	Total cost (N)
Revenue	600	50/piece	30000
Variable cost			
Raw material	50kg	5500	5500
(flour)	(250cups)		
Water	25 litres	10/5L	50
Oil	5 litres	200	1000
Gas	1 cylinder	2800	2800
Ingredients			1000
Transportation			100
Opportunity cost			
Labour (manhours)			
Mixing, banking and packaging	4 hours	50/hours	600(3 labourers)
Marketing cost	1 day	100/day	300 (3 marketers)
Total variable cost			11350
Gross margin			18650
Fixed cost			
Depreciation (show case and baking pans)			300
Total fixed cost			300
Return on management and risk			18,350

Source: field survey, 2013.

Gender (X_4) had a positive coefficient indicating an agreement with the priori expectation; this is because convenience food consumers were mainly male who hardly stay at home due to their responsibilities in nature. Level of education (X_5) conforms to the priori expect on due to its positive sign. This is because the higher of education one attends, the more convenience oriented he becomes. For example, majority of students in tertiary institutions live outside their parents home and prefer eating outside because of the nature of their studies.

Household size (X_6) had a negative coefficient which implies inverse relationship with the dependent variable though it was expected that the higher the number of household size, the higher the amount spent on convenience foods but reverse is the case. According to research carried out by Candel (2001), it was found that singles were more convenience oriented than multiple – person household and also that families with children appear to be less convenience oriented than those without. The reason is that families with children are more inclined to want to perceive meal preparation and cooking as an enjoyable family activity when children are involved in the process. Similarly, Marquis and Manceau (2007), found out from their own research that “convenience played a big role in determining food choices of single men living in apartment in Montreal” therefore, it is agreed that the lower the family size, the higher the amount spent on convenience food.

Monthly income (X_7) was in agreement with a priori expectation due to its positive sign. Household income is considered a major determination of convenience orientation, with higher incomes possessing higher convenience orientation and consumption. this was in accordance with research carried by Ryan *et al* (2002), who describes how people with large disposable incomes and very little to spend are often categorized as the “ cash rich, time poor consumers, also those consumers with higher income levels purchased more convenience items” Furthermore the coefficient of occupation (X_1) tested highly significant at 1% while other variables were statistically not significant. R^2 value of 0.697 implies that 69.7% of the total variation output (Y) was explained by the combined influence of the independent variables in the model, while the remaining 30.3% implied that there are still other important determinants that were omitted in the model.

Determination of costs and returns for the production of convenience foods (okpa, moi-moi and meat pie) Gross margin analysis was used to determine the profitability of the production of convenience foods like okpa, moi-moi and meat-pie in Lafia urban. The average cost and returns data pf the producers for the year 2013 was used for the calculation. Tables 5, 6 and 7 showed the Gross Margin Analysis

Source: field survey, 2013

Gross Margin=Total Revenue (TR) – Total Variable Cost(TVC)

Profit= Gross Margin (GM) – Total Fixed Cost (TFC)

∴GM=N18,000 – N 7190=N10,810

Profit π =N10,810 – N350= N10,460.

GM=N15000-N5450 =N9550

Profit(π)=N9550-N350 =N9,200

GM = N30,000-N18650

Profit (π) N18650-N300=N18350

The cost and returns of okpa, moi-moi, and meat-pie are presented in tables 4, 5, and 6 respectively. The result indicated that meat-pie preparation is more profitable. It has a profit margin of N18,650, followed by okpa with a profit margin of N10,460, while the least is moi-moi with a profit margin of N9,200 only. The Gross margin indicated that all the convenience foods enterprises are profitable.

Table 7 below showed various problems faced by entrepreneurs in convenience foods production as analysis with 4-point like scale:

Table 7: Distribution of convenience foods production according to the degree of seriousness of problems encountered

Problems	X_s
Capital	
Insufficient starting capital	2.2
Limited/no credit facilities	2.1
High interest on borrowed capital	1.9
High cost of input	2.9
Labour	
Insufficient supply of labour	2.8
Social hazards associated with marketing the product	3.3
Drudgery in production	2.6
Storage	
Power failure	3.8
High cost of storage facilities e.g refrigerator	2.4
Raw material availability	
Long distance from source of raw materials e.g bambara nut, flour, beans e t c.	3.2

Source: field survey, 2010

Decision rule: Mean score >2.5 indicates agree to the statement, while mean score below 2.5 indicates disagreement. Result findings indicates that the respondents admitted that power failure (3.8) is one of the most serious problems they encountered in the production of convenience foods, followed by social hazard associated with marketing the product (3.3). Findings also showed that other factors like high cost of input (2.9), insufficient supply of labour (2.8) and drudgery in production (2.6), all pose serious problems to the producers of convenience foods Factors that are not up to 2.5 mean score like insufficient starting capital (2.2), limited / no credit facilities (2.1), high interest on borrowed capital (1.9) and high cost of storage facilities (2.4) indicated that they were not significantly recognized as being serious problems in the production of convenience foods.

Conclusion

The business of convenience foods offer a vast majority of the people an opportunity to be self employed especially women with limited income. The business serves as a reliable source of income because there is a great demand for convenience foods all the time. Besides, it accommodates the low income earners who form the bulk of the population in the area of study. The result from the study revealed that families with children are more inclined to want to perceive meal preparation and cooking. Therefore household size has a negative coefficient, implying inverse relationship with the dependable variables. The study concluded by advocating for provision of credit facilities among other producers and distributors of convenience foods.

References

- Candel, M.J.J.M. (2001): Consumer’s convenience Orientation towards meal preparation: Conceptualization and measurement. *Appetite*, 36 (2001): 15 – 28.
- Costa, A.I. de I, Schoolmaster, D. and Dekker, M. Jongen, W.M.F. (2005): To cook or not cook: A means end study of Motives for choice of meal solution. *Food Quality and preference*, 18 (2007): Pp. 78 – 88.
- Jaegar, S.R. and Meiselman, H., L. (2004): Perceptions of meal convenience: The case at home evening meals. *Appetite*, 42 (2004) Pp. 317 – 325.
- Jaegar S.R. and Cardello, A.V. (2007): A construct Analysis of meal convenience: The case at convenience Applied to military foods. *Appetite* 49 (1); Pp 231 – 239.

Labensky, S., Ingram, G.G. and Labensky S.R. (1997): Webster's New World Dictionary of Culinary Art. Upper saddle River NJ: Prentice Hall.

Marquis, M. and Manceau, M. (2007): "Individual Factors determining the food behaviours of single men living in apartments in Montreal as revealed by photo graphs and interviews" *Journal on Youth Studies*, 10(3): Pp. 305 – 316.

Okaka, J.C. (2005) Handling, Storage and processing of plant food. Pp 48 – 49, 90,270-285.

Ryan, Cowan, C., McCarthy, M. and O'Sullivan C. (2002): "Food-related lifestyle segments in Ireland with a convenience orientation" *Journal of International Food and Agnbusiness marketing* 14 (4): Pp. 29-47.

Ugwu, R.C. (2010): Social and Economic Determinants of supply and demand for convince foods in Awka urban of Anambra state. An unpublished research project submitted to the Department of Agricultural Economics, Management and Extension, Ebonyi State University, Abakaliki Pg 1 – 65.