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Food Consumption Expenditure Amongst Students in Tertiary Institutions; A case study of Ramat Polytechnic, Maiduguri, Nigeria

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Abstract: **This study analysed the expenditure on food consumption by students of Ramat Polytechnic Maiduguri. The data for the study were obtained through the use of structured questionnaires administrated on 80 respondents. The respondents were selected through stratified random sampling procedure. Data collected were analysed using percentages and regression estimates of ordinary least square. The findings of this study revealed that there is a positive relationship between socio-economic characteristics of students and their expenditure. It was observed that majority (33.75%) of the respondents fall within the age range of 21 – 25 years, 80% were singles and mostly (62.50%) males. Majority (42.50%) fall within the allowance range of N2, 501 – N4, 500 per month and had their source of income mainly from parents/ guardians. In the same vein, the linear regression estimate showed that income (X_2) was the major variable that influenced food consumption tested at a significant level of 1%. Similarly, majority (83.75%) of the respondents were discovered to spend higher proportion of their income on food consumption hence proportion of income consumed in the study area was high suggesting that most of the respondents were from a poor background. Based on the findings of the study, it was recommended that there is the need for the upward review of students' income by both the parents and government so as to enable them have the best of education thereby enhancing their worth.**

Keywords: **Food consumption, income, expenditure, variables, student.**

I. INTRODUCTION

Consumption is an important variable which determines the national income of a country at large and to a small unit such as individuals or house-hold [1]. According to FAO [2], consumption is the largest component of aggregate expenditure. The rate of consumption depends on the amount of national income a country owns. The level of living standard of citizens in a country and their welfare position is determined by the rate of consumption of either food, materials or services etc. [3-6]

Consumption can further be said to be the act of using goods and services to satisfy current wants of an individual or nation as a whole [7]. It is the total expenditure by house-hold on goods and services [8]. Following the above definition, we can look into the trend of consumption in Nigeria since the 1960s to date briefly.

After independence, a study carried out by Ogbonna [9], depicts that the consumption expenditure in the county was fairly stable, there was a drastic change and at this time it was an increase in expenditure which was accompanied by increase in import which marked the genesis of the country's dependence on import for direct consumption needs. There was clearly a demonstration effect especially by the well to do and educated elites [10-14]. Afterward, there was an economic crisis in the country which was brought about by the fall of oil prices during the boom era. This resulted in the decrease of foreign exchange earnings which in turn had an adverse effect on the Nigerian consumer. This whole scenario further amounted to

Nigeria banning the importation of some selected food items and opted for producing goods and services locally for local consumption hence the search for alternative strategies of production. Ogbonna [9], further confirms the fact that the economic crisis persisted following the debt burden, foreign dependence and neglect of the agricultural sector. This and many others made it easier for inflation to take over, hence worsening the consumption pattern in the country especially with the structural adjustment programme (SAP) guiding the trend.

Although the general consumption trend in the country has been deteriorating by the day due to a number of factors clearly stated above. This study will therefore attempt to examine consumption expenditure amongst the students in tertiary institution by describing the socio-economic characteristics of the students and try to examine the effect of the socio-economic variables on expenditure and the proportion of income spent on consumption taking into cognizance the different background of each individual student.

II. MATERIALS AND METHODS

The study area

The study area was Ramat polytechnic Maiduguri, Borno state. The state is located on the North-eastern part of Nigeria within latitude 11°51`N and 13°40'S and 10.0'E and 13.40'W. It has a common border with Chad republic to the east, Cameroon to the south as well as Niger republic to the North [5]. The very area of study Ramat polytechnic is located opposite the state internal revenue office and lies within latitude 10°56'13"N and longitude 13°00'50"E. The polytechnic has a registered students population estimated at 5.022 [15]. The polytechnic has four schools namely; school of Management, school of vocational/ training and Agricultural extension, school of Engineering and school of environmental studies. Each of these schools has its own various departments. The polytechnic also runs a consultancy programme.

Sampling techniques

In order to achieve the stated objectives of this study, a stratified random sampling procedure was adopted in the selection of the respondent to avoid any biasedness. The four schools formed the strata where twenty (20) students were selected at random from each of the four (4) schools in the polytechnic giving a sample size of 80 respondent to represent the student population.

Type of Data and collection procedure

Data collected for the study were of primary and secondary sources. The primary data were collected through the use of structured questionnaires and oral interviews. Primary data collected includes; socio-economic variables such as gender, marital status, food consumption, income group and sources of income. Individual expenditure on food is used as a proxy to students' consumption. The secondary data were gotten mainly from the students' handbook.

Definition of variables

Certain variables used in the analysis of this study has different meanings hence the need to define them as used. Income is defined in this context as the money received by a student on a regular basis e.g monthly. Looking at the marital status on the other hand, students that are not married, widows, widowers and divorcees are considered as singles.

III. STATISTICAL ANALYSIS

Statistical analysis was done using the following

Analytical Technique

The analytical tools used for the study are;

i. Descriptive statistics and

ii. Inferential statistics

Descriptive Statistics: Descriptive statistics such as percentages and frequency distribution are used to describe the socio-economic characteristics of the respondents. Hence, this is used to achieve objective number one and three.

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Inferential Statistics: The regression analysis was used to determine the relationship between students' expenditure on food and their socio-economic variables. The relationship is used to achieve objective two. The relationship can be implicitly expressed as:

$Y = X_1 + X_2 + X_3 + X_4 + e$

Where: Y = Estimated expenditure on food (in N/month)

X_1 = Age of the respondent (years)

X_2 = Income (allowance) in N/month

X_3 = Gender i.e. 1 if male, 0 if otherwise

X_4 = Marital status i.e. 1 if male, 0 if otherwise

e = Error term

Four functional forms were tested (linear, semi-log, double-log and exponential). Linear was chosen as the lead equation for its R^2 (0.4124)

IV. RESULTS

Socio-economic characteristics of respondent

The socio-economic characteristics of respondents (students) are presented in Table 1. The variables considered were age, gender, marital status, income (allowance) group and sources of income

Table 1: Socio-economic characteristics of respondents

S/No.	Variables	Frequency	Percentage (%)	Cumulative percentage (%)
1.	Age (years)			
	15 – 20	15	18.75	18.75
	21 – 25	27	33.75	52.50
	26 – 30	21	26.25	78.75
	30 and above	17	21.25	100
2.	Marital Status			
	Married	16	20.00	20
	Single	64	80.00	100
3.	Gender			
	Male	50	62.50	62.50
	Female	30	37.50	100
4.	Allowance group (N/month)			
	1500 – 2500	19	23.75	23.75
	2501 – 4500	34	42.50	66.25
	4501 and above	27	33.75	100
	Sources of income			
	Parents/guardians	45	56.25	56.25
	Savings	10	12.50	68.75
5.	Salaries	15	18.75	87.50
	Gov. Scholarship	**7**	**8.75**	**96.25**
	Others	3	3.75	100

Source: Field survey, 2006

Relationship Between students Expenditure on food and their socio-economic variables

The empirical result of the ordinary least square regression analysis between students' expenditure on food and their socio-economic variables is presented in Table 2. The analysis revealed that about 41% of variation in consumption is explained by the specific socio-economic factors in the model as indicated by the R^2

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Table 2: Linear regression estimates of the relationship between students' expenditure and their socio-economic variables

Variables	Linear	Exponential	Semi-log	Double-log
Age (X_1)	-8.03	-0.00	174.08	-0.09
	(0.71)	(0.54)	(0.88)	(0.68)
Income (X_2)	0.62*	1.00*	4307.93*	0.70*
	(0.00)	(0.00)	(0.00)	(0.00)
Gender (X_3)	-179.72	-0.05	-184.75	-0.05
	(0.32)	(0.19)	(0.31)	(0.18)
Marital Status (X_4)	45.65	-0.00	62.27	-0.00
	(0.84)	(0.93)	(0.78)	(0.97)
Constant	1004.82**	3.17*	-1955.8	1.10*
	(0.09)	(0.00)	(0.00)	(0.04)
R^2	0.41	0.34	0.40	0.34
Adjusted R^2	0.38	0.30	0.36	0.30
F- ratio	12.81*	9.33*	12.03*	9.23*
	(0.00)	(0.00)	(0.00)	(0.00)

Source: Summarized computer output, 2006

(Figures in parenthesis are t-value)

* = Significant at 1%

** = Significant at 10%

Proportion of income spent on food

The proportion of income spent on food by the respondent is presented in Table 3. The respondents were classified according to those that spend above their income, those that spend below and those that spend large proportion of their income

Table 3: Proportion of income spent on food

	Frequency	Percentage (%)	Cumulative percentage (%)
100% and above	9	11.25	11.25
Above 50%	67	83.75	95.00
Below 50%	4	5.00	100.00

Sources: Field Survey, 2006

V. DISCUSSION

From table 1, the age distribution shows that majority of the respondents (33.75%) fall within the age range of 21 – 25 years. Those within the age range of 15 – 20 years, 26 – 30, and 30 and above are 18.75%, 26.25% and 21.25% respectively. A similar study conducted by Wuliya [3], in the University of Maiduguri revealed that the majority of students are within the age range of 26 – 30 years thus in complete disparity with what obtains in Ramat polytechnic. The implication is that most of the students after finishing from secondary school do not enrol directly into the University but rather go through other higher institutions of learning or vocation before enrolling into the university. This usually takes about 2 – 3 years therefore making them older.

Similarly, the table shows that majority of the respondents (80%) in the study area were singles while only 20% were married. This finding is akin to a study by Idi [5], in the University of Maiduguri which shows that 85% of the respondents were singles while 15% were married. These findings could be backed up by the fact that people in academic pursuit would want to concentrate on their studies and thus not want divided attention. Also the financial implication involved is a major

factor militating against many not been married. This is especially when educational cost is growing by the day. The third variable which is the gender distribution is also represented in the table. The study depicts that majority of the respondents (62.5%) were males while only 37.5% were females. The research by Idi [5], also reveals that majority of the respondents (55%), in his study were males while 45% were females. These findings apply to all institution in the Maiduguri metropolitan council and could be supported by the fact that most parents consider girl child education of less importance and hence they are reluctant to send them to school. The fourth variable represented in the table is the allowance group of the respondents. Majority of them (42.5%) fall within the range of N2, 501 – N4, 500 per month. Those within the range of N4, 501 and above, N1, 500 – N2, 500 are 33.75% and 23.75% respectively. This findings disagrees with the findings of Idi [5]. In his study, the majority (40%) of the respondents in the University were found to be within the allowance range of N1, 500 – N2, 500. This variation may be due to the fact that people in the University have other responsibilities to take care of. The fifth variation considered was the source of income. From the table, it was depicted that majority of the respondents (56.25%) have their source of income from parents and guardians while those that had theirs from salaries, savings, government scholarship and other sources are 18.75%, 12.50%, 8.75% and 3.75% respectively. This findings agreed with the definition that students are group of individuals living together having different family background and mostly live under parental care [16].

The linear form was the lead equation used in table 2. The analysis of results showed that the income (X_2) of the respondents is positive and statistically significant at 1% level. This implies that N1 increase in income of the respondent will lead to a unit increase in consumption of food at 1% level of significance. Research by Jhingal and Stephen [17], has shown that there is a relationship between per capita income and the amount spent on the purchase of food. This is true of the wide range of people having different levels of income and consumption pattern. Furthermore, the analysis depicted that constant is positive and statistically significant at 10% level. Marital status (X_4) though positive but not statistically significant which means that it does not affect food consumption expenditure. Conversely from table 2, the analysis reveals that both age (X_1) and gender (X_3) of the respondents were negative thus a positive change in either of them will lead to a decrease in consumption and vice versa.

From table 3, it is obvious that majority (83.75%) of the respondents spent a higher proportion of their income (above 50%) on food consumption. The implication is that due to the high expenditure on food, they are left with only little portion of their total income to cover other expenses of consumption such as buying of stationaries, reading materials (handouts), detergents, barbing and other miscellaneous. This may affect their academic performance as students because only a small proportion of income is left for academic purchases and sundry expenses. In addition, table 3 shows that only 11.25% of the respondents spend above their income. This is possible because they may have other sources of income which they have not disclosed such as transfer payments, some may be engaged in petty business which may increase their savings. Those that spend a lower proportion of their income on food consumption are only 5%. This represents those having high income. This implies that only about 5% of the students can adequately finance their educational, food and other needs.

VI. CONCLUSION

From the results of the analysis of expenditure on food by the students of Ramat polytechnic, income was found to be the major socio-economic variables that determines food consumption among the respondents. Proportion of income taking by the consumption of food was high amounting to over 50% of students' income who mostly are still under the care of their parents/ guardians.

VII. RECOMMENDATIONS

Based on the findings of the study, it was recommended that:

1. There is the need for government to increase its expenditure on education as well as advance income to students in the form of scholarships so as to augment what they receive from their parents/ guardians.

2. Parents should increase their investments in the education of their wards so as to enable them have the best of education.

3. Further research in other sister institutions should be carried out and variables other than the socio-economic characteristics should be captured to probe further other relevant factors that influence students' food consumption.

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