

Determinants of Food Consumption Pattern Among Households in Chikun Local Government Area of Kaduna State, Nigeria

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Abstract

Food consumption patterns refer to the process by which people search for, purchase, and consume products to meet and satisfy their needs. Unfortunately, there is paucity of studies or no single study has examined determinants such as purchasing power, rising food prices, and food unavailability have been found to change consumption patterns among households residing in Chikun Local Government Area of Kaduna State. The aim of this study is to evaluate food consumption patterns vis-à-vis the factors that weakly and strongly influence consumption decisions. The study employs a survey research design and uses a cross-sectional approach for data collection. Krejcie and Morgan's (1970) table for determining sample size was used to obtain a sample size of three hundred and eighty-four (384) individual households in Chikun Local Government of Kaduna State. A purposive sampling technique was used to select the sample size based on the nature of the population. A total of 384 questionnaires were distributed for data collection, and three hundred and sixty-one (361) were retrieved for analysis. Data collected were subsequently analyzed using regression analysis with the aid of SPSS version 24 as an inferential statistical tool. The results of the study reveal that purchasing power, food prices, and food availability strongly and positively affect the consumption decisions of individual households in Chikun Local Government Area. Therefore, the study recommends that the government at all levels should prioritize policies toward mechanized agricultural production, enhance transportation facilities, and provide improved seeds and fertilizers to increase food availability.

Keywords: *Purchasing power, food prices, food availability, food consumption pattern.*

1.0 Introduction

Economists believe that production is not complete until the products produced have reached the final consumers, and these consumers are households. Food consumption is the utilisation or intake of food items to meet the food needs of consumers, thereby ensuring sustainability and the proper maintenance of the human body. Every human being is therefore expected to be food secure in terms of food availability, accessibility, and sustainability. Over the years, the demand for food has been increasing due to the ever-growing population driven by urbanisation (Olumide-Ojo, Akanni, Salako, Olatunji, & Asunlegan, 2019).

Sustainable food consumption involves consuming affordable, available, and culturally acceptable foods while minimising environmental impact. This means that the concept of sustainable food consumption can be viewed from four domains: dietary, socio-economic, cultural, and environmental. The dietary domain focuses on nutrients and energy levels, the economic domain on food affordability and availability, the cultural domain on socially acceptable food, while the environmental domain primarily addresses Greenhouse Gas Emissions (GHGs), also known as the carbon footprint (Ifeanyichukwu & Nwaizugbo, 2019).

As also noted by McCracken and Brandt (1987), food is one of the basic human needs, hence it is at the top of Maslow's hierarchy of needs. Food constitutes a key component of several fundamental welfare dimensions, such as food security, nutrition, and health. It makes up the largest share of total household expenditure in low-income countries, accounting on average for about 50% of households' budgets (Oteh, Agwu, Njoku & Agbai, 2014).

Food consumption patterns and behaviour differ across nations and cultures. In Nigeria, food consumption patterns have undergone significant changes over the last few years. Specifically, from the early 1970s to the late 1990s, there was a steady increase in food consumption by most Nigerians. This was due to the fact that, during this era, agricultural production reached its peak, resulting in a high level of food availability at affordable prices. These factors accounted for the high level of food consumption by individuals and households (Oloyede, 2005).

Recently, there has been a negative change in food consumption patterns in Nigeria. Food consumption among households can be described as poor. This is evident as many households in Nigeria are unable to meet their food consumption needs. In 2004, it was estimated that over 40% of Nigeria's population was food insecure (Fasoranti, 2011). Similarly, the United Nations has predicted that by 2030, 82 million Nigerians, or about 64% of the population, may face hunger. This will have a severe impact on the food consumption patterns of individuals and households. Additionally, the Food and Agriculture Organisation (FAO) predicted that no fewer than 2.6 million Nigerians in Borno, Sokoto, and Zamfara States may not be able to afford sustainable and affordable food between June and August 2024.

In the recently released 2023 Global Hunger Index (GHI), Nigeria was ranked 109th out of 125 countries, with a score of 28.3 percent. This situation reflects the low level of food consumption among individuals and households in Nigeria.

Despite agriculture being one of the major economic activities in Nigeria, which is expected to alleviate the country's low food consumption crisis, the government has failed to stop terrorists from driving farmers away from their farmlands. Furthermore, data obtained from the National Bureau of Statistics (NBS) website (2024) indicates that Nigeria is facing a record-high inflation rate of 28.92 percent, with food inflation at 33.92 percent, signalling an astronomical increase in the prices of staple food items. Additionally, the foreign exchange rate is rapidly devaluing the naira, making it a currency barely worth the paper on which it is printed.

To worsen the issue of food consumption among households, the removal of the fuel subsidy on 29th May 2023 by the current government has further exacerbated the situation. According to Ozili (2023), the subsidy removal has created two significant negative economic implications.

Firstly, it decreases economic growth, which leads to an increase in the price of essential goods and services. As a result, individuals and households are left with less disposable income due to rising prices, stagnant wages, and a fixed national minimum wage. This has led to weaker consumer demand for food and other goods and services.

Secondly, the removal of the fuel subsidy has increased the inflation rate from 22.41 percent in May 2023 to 30.21 percent in November 2023 (Ozili, 2023). However, the National Bureau of Statistics (NBS) reported that the consumer price index (CPI) and headline inflation rate rose from 22.41 percent in May 2023 to 34.4 percent in July 2024. This unfortunate situation has resulted in increased local transportation costs, higher prices of essential goods and services, and a reduction in the purchasing power of individual households.

Although there has been an ongoing debate about the factors that determine food consumption patterns among households in various communities globally, many studies have been conducted to examine these patterns. However, despite numerous efforts made by academics, there is still no consensus on the unified determinants of food consumption (Bashir, 2021). For instance, Lekshvili (2008) stressed the importance of the minimum living wage, average per capita income, food exports and imports, domestic food prices, and the share of agriculture in GDP as factors affecting sustainable food consumption. Scafetti (2010) emphasised the importance of education, household employment, income, illness, and the health status of a household as determinants of sustainable food consumption. Aprapova (2018) conducted a comprehensive analysis of the key factors influencing food consumption potential in Asian countries. The study compared "consumer patterns" in Asia with those in other countries, identifying differences in how the same factors affect household food consumption expenditures globally, using macroprudential reforms, and social and demographic factors as major determinants.

To the best of the researcher's knowledge, studies conducted in this area of research are limited, particularly those focused on Nigeria. Moreover, recent studies that take into account the current economic realities—such as those that use purchasing power, food prices, and food availability as determinants of food consumption after the removal of the subsidy—are unavailable. Additionally, no such study has been conducted in Kaduna State, specifically using Chikun Local Government as the area of interest. Therefore, there is a need to conduct a study to address this research gap and contribute to the literature by providing empirical data.

The main objective of this study is to examine the determinants of food consumption patterns among households in the Chiku Local Government Area of Kaduna State.

To achieve this objective, the following specific objectives have been developed:

- i. To examine the influence of purchasing power on food consumption pattern among household in Chikun Local Government Area.
- ii. To examine the influence of food price on food consumption pattern among household in Chikun Local Government Area.
- iii. To examine the influence of food availability on food consumption pattern among household in Chikun Local Government Area.

2.0 Literature Review and Hypotheses

2.1 Food Consumption Pattern

Food consumption patterns refer to the habits and behaviours of individuals or households when it comes to spending their money on food. This includes what types of food people buy, how much they spend on each category, where they make their purchases, and how often they make purchases (Oana, 2023). Food consumption patterns can be influenced by factors such as income level, cultural preferences, lifestyle choices, marketing efforts, and economic conditions (Mmakola, Kirsten, & Groenewald, 1997). Analyzing consumption patterns helps businesses and policymakers understand consumer behaviour and make informed decisions regarding consumption.

According to Ibbih and Siyan, (2018). Food consumption patterns refer to trends or predictable manners through which households purchase various categories of food over time. These patterns are majorly influenced by income levels, preferences and price of goods and services. Understanding these patterns, therefore, contributes significantly to the broader comprehension of an economy's behaviour and performance.

Oana, (2023) viewed food consumption pattern as the amounts, proportions, variety, and frequency with which different foods and beverages are habitually consumed in diets. They

opined that it is an important aspect of household welfare, living standards, and economic performance of countries. Changes in food consumption patterns can be influenced by factors such as income levels, price levels, food service supply, consumption habits, cultural traditions, and preferences.

2.2 Purchasing Power

Purchasing power refers to the amount of goods and services that can be bought with a specific amount of money. Purchasing power can also be described as "buying power." It measures how much of an item one can buy with a unit of currency, such as a naira (Olumide-Ojo, Akanni, Salako, Olatunji & Asunlegan, 2019). According to Bashir (2021), purchasing power influences the spending capabilities of an individual or household, as it affects the number of products and services that can be bought with available funds. This most commonly comes into play with currency exchange rates and interest rates. It can be an indicator of the current economic conditions of a country. It is influenced by various factors such as inflation, the cost of living, and individual income levels. The concept of purchasing power helps to understand how far money can go in terms of buying goods and services in a particular economy (Ifeanyichukwu & Nwaizugbo, 2019).

According to Arapova (2018), real income refers to the purchasing power of money income. When the price level rises, the value of real income falls, and when the price level falls, real income rises, assuming money income remains constant. Increased real income results in increased consumption, and vice versa. With the removal of subsidies, fuel prices surge, the cost-of-living increases, and this leads to reduced purchasing power for individuals and households. This may greatly affect the food consumption patterns among household members. A study conducted by Akpan, Patrick, Udoka, and Okon (2013) observed that reduced purchasing power negatively affects consumption patterns, leading to reduced demand for food. Hence, in view of the current realities within Chikum Local Government Area, the study predicts that:

H:1 Purchasing power significantly influence food consumption patter among households in chikum Local Government Area.

2.3 Food Price

Food price refers to the amount of money required to purchase a unit of food; it is usually measured in monetary units (₦) per unit of food. Food prices are typically influenced by supply and demand, agricultural subsidies, global market trends, and economic conditions such as inflation. Food prices have a significant impact on household consumption patterns, especially for low-income populations who spend a larger share of their income on food. A 1% increase in food prices results in greater reductions in food consumption in low-income countries compared to high-income countries. Poorer households in all countries are most adversely affected by increases in food prices. For instance, in Nigeria, data obtained from the NBS website (2024)

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indicate that in April 2024, food prices in Nigeria increased considerably compared to April of the preceding year. Prices of sweet potatoes, unripe plantains, beans, and broken rice (ofada) increased the most. In particular, the price of a kilogram of unripe plantains grew by over 168 percent compared to the previous year, while the price of a tuber of yam rose by about 154 percent. None of the selected foods recorded a price decrease. This indicates that food prices in Nigeria are experiencing sustained inflation (Statista, 2024).

As food prices rise, low-income households may shift to cheaper, less nutritious options. This has varying effects on food consumption patterns among households in Chikum Local Government. There are theories and empirical evidence linking the relationship between food prices and consumption patterns. For instance, Ifeanyichukwu and Nwaizugbo (2019) observed that food prices influence sustainable consumption patterns in the southeastern part of Nigeria. Food prices are influenced by changes such as the removal of fuel subsidies, costs of farm inputs, transportation, and high inflation rates among residents of Chikum Local Government Area, this study therefore prognosticate that.

H2: Food price significantly influence food consumption patter among households in chikum Local Government Area.

2.4 Food Availability

Food availability, according to Akpan, Patrick, Udoka, and Okon (2013), refers to the physical presence of food in sufficient quantities to meet the consumption needs of individuals or households. Food availability is a major determinant of food consumption. In Nigeria, food availability is influenced by agricultural productivity, food importation and exportation policies, market dynamics (supply and demand), conflicts and political instability, government policies, and regulations. Food availability is often linked to market dynamics and the other factors mentioned above, where higher availability can lead to lower prices. When food is abundant, households are more likely to purchase and consume a variety of foods. Conversely, in areas where food is scarce, prices may rise, limiting access and forcing households to prioritise cheaper, less nutritious options (Bashir, 2012).

Theoretical and empirical evidence shows that food availability has a direct link with food consumption patterns. For instance, a study conducted by Drewnowski (2017) observed that food availability stimulates and increases food consumption among households in Tamil Nadu, India. However, in Nigeria, food availability has been hampered by insecurity in agricultural areas, leading to poor agricultural productivity. Hence, we predict that:

H3: Food availability significantly influences food consumption patterns among households in Chikum Local Government Area.

2.4.1 theoretical framework

Price effect theory and supply and demand theory are the two theories used in this study to explain the links between the independent variables (purchasing power, food price, and food availability) and the dependent variable (food consumption patterns). The theory of price was first developed by George Stigler in 1946. The price effect in economics refers to the impact of price fluctuations on the demand for goods and services. The primary purpose of this concept is to determine the relationship between price and the quantity purchased. Therefore, it helps to determine the elasticity of demand for a particular product or service. Applying this theory simply means assessing the elasticity of demand for food consumption, which measures how responsive households are to changes in food prices. This indicates that if food prices increase, the amount of food consumed by households will decrease.

The supply and demand theory, also known as the law of supply and demand, was first introduced by Adam Smith in his book *The Wealth of Nations* in 1776. The theory of supply and demand seeks to explain the relationship between the availability and desire for a product, such as a commodity, and its price. Typically, low availability and high demand increase the price of an item, while high availability and low demand reduce its price. This explains that the low availability of food, which results in high demand, leads to higher food costs for households.

2.4.2 Empirical Review

Some scholars have conducted studies on the area of food consumption pattern in Nigeria, other developing countries and developed nations of world. For instance,

Ibbih and Peter, (2018) conducted a study that analyzed consumption behaviour vis-à-vis the factors that weakly or strongly influence consumption decisions. The key objective of their study is to establish the determinants of consumption among individual households in Aggaragu community of Nasarawa and by inference Nigeria. The study also investigated the extent to which consumption behaviour of individuals supported the predictions of conventional models of consumption. A sample of 500 households was drawn from the community population of 22,750, with a response rate of 97%. The model employed alongside others is the Autoregressive Distributed Lagged (ADL) model. The results and findings revealed that individuals do not behave according to the baseline models of consumption. Consumption patterns favoured non-durable consumption and necessities.

Similarly, Mignouna et al. (2015) analyzed the determinants of household food consumption expenditure in yam-growing areas of Nigeria and Ghana. In this study, the objective was to investigate which of the traditional determinants significantly explain household food consumption expenditure using standard regression techniques. The authors used total food consumption expenditure as dependent variable, while gender, age of household head, educational level, marital status, main occupation, total household income, household size, land property status, farm size, membership of formal and informal institutions, southern guinea

savanna and derived savanna as an independent variables in their study. The study uses the cross-sectional data obtained from one thousand four hundred (1400) yam producing households of Nigeria and Ghana. The analysis of data was done using the standard ordinary least square (OLS) and quantile regression (QR) models for total food consumption expenditure. Results indicate that age is one of the important determinants of household food consumption expenditure in the study area.

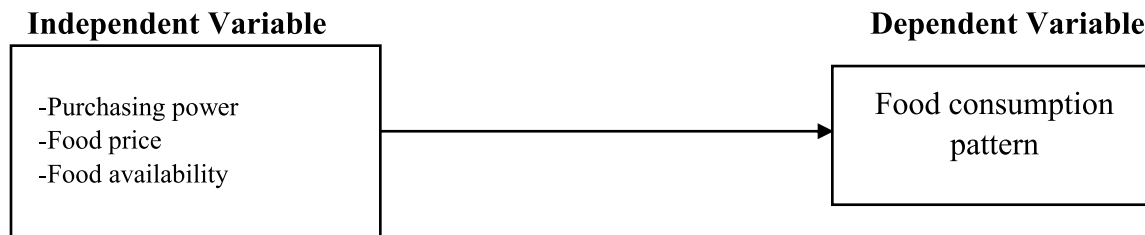
Kostakis (2014) investigates the determinants of household's food consumption in Greece which used total food expenditure as dependent variable, income of household head, gender of household head, retired, food prices, rent, number of kids as an independent variables. In this study, the objective was to illustrate the focal determinants of household expenditures on food in the study area. The study used primary data which employed questionnaire as an instrument for data collection. Furthermore, eight hundred (800) households were selected using stratified random sampling technique. In addition, the study used multiple ordinary least squares regression and logit model, while for performing the analysis STATA 12 statistical packages was used. The study indicates that sex of the household head is significant and one of the demographic and behavioral characteristics that determine the food expenditures across households in Greece.

Lawal, Kolawole, Bolagum, and Jami's (2011) conducted a study on determinants of food demand among rural households in Oyo state, where they used total food expenditure as dependent variable and prices of food class, age of household head, household's size, sex of the household head, household's income, educational status and main occupation of the households as the independent variables. In addition, the study used primary data sourced through the use of questionnaire as a major instrument for data collection. Furthermore, the study selected one hundred and twenty (120) households using multi-stage sampling technique. Descriptive statistics and Almost Ideals Demand System (AIDS) were used in the analysis of data. The result indicates the positive significant relationship between the age of the household head and the household monthly food expenditure. The study also indicates that apart from prices of goods, there are many other factors such as age that determine the consumption of various food items by the rural households in the study area.

2.4.3 Conceptual Framework

Based on the empirical and theoretical framework reviewed, the research conceptualised a framework for the study. Hennink, Hutter, and Bailey (2020) define conceptual frameworks as visual maps that depict the relationships between variables in a graphical or diagrammatic manner, often derived from specific examples or situations. In the present study, the focus was on three variables that represent key factors associated with food consumption patterns: purchasing power, food price, and food availability. Figure 1 provides an illustrative representation of these variables explored in the study. The figure visually demonstrates the interplay and connections between these variables.

Fig 2.1:



Source: Researchers

The study conceptualized that, the independent variables purchasing power, food price and food availability will predict on the dependent variable food consumption pattern hence, this prediction shall be subjected to empirical testing with the help of a well-developed hypotheses.

3.0 Research Methodology

The research design employed for this study is a survey research design, utilising a cross-sectional survey method. Data was collected once during the entire study period, which spanned from April to August 2024. The population of the study consists of 372,272 household members in Chikun Local Government Area (LGA). This population figure was obtained from the 2006 census. Chikun LGA is one of the 23 LGAs in the state and is situated in the southern part of Kaduna State.

The estimated sample size for the study was 384 household members, determined using the Krejcie and Morgan (1970) sample size determination table. A convenient sampling method was used to select household members from the entire population. A self-administered questionnaire was utilised as the research instrument. The questionnaire was divided into two parts: the first part aimed to gather demographic information about the respondents, while the second part comprised thirty items that assessed the variables of purchasing power, food price, and food availability (PUP, FOP, FOA).

The inferential data collected for this study was analysed using regression analysis techniques with the aid of SPSS to achieve all set objectives.

The measurement of all the latent constructs (variables) was adapted from the existing literature, with modifications made as suggested by Netemeyer et al. (2003). A methodical and well-structured approach was used in selecting the items. Though the items in the questionnaire were modified to suit the requirements and context of Nigeria, care was taken to ensure that each item accurately captured the essence of its corresponding latent variable. Food consumption patterns were measured using instruments developed by Aminu, Adebajo, and Mohammed (2016), while the determinants (independent variables) were measured by adapting the instrument used by Ifeanyichukwu and Nwaizugbo (2016).

Specifically, eight items were used to measure each of the independent variables, while six items were used to measure the dependent variable.

Therefore, the model for this study is stated as follow:

$$FCP = \alpha + \beta_0 PUP_0 + \beta_1 FOP_1 + \beta_2 FOA_2 + e;$$

Where:

FCP = Food Consumption Pattern

PUP =Purchasing Power

FOP = Food Price

FOA = Food Availability

α = Constant

$\beta_0 \dots \beta_2$ = Coefficient of the regression

e = Error term.

Additionally, the reliability of the instrument was tested, and the results of the reliability test are presented in Table 1.

Table 1

Reliability Test for Determinants of Food Consumption Pattern			
Scale	Dimension	No of Items	Cronbach's Alpha
FCP	Food Consumption Pettern.	6	0.767
PUP	Purchasing Power	8	0.775
FOP	Food Price	8	0.794
FOA	Food Availability	8	0.716

Source: SPSS Output, 2024

Table 1. presents the reliability results for the determinants (IV) and food consumption pattern (DV), including the individual item reliability tests. It is noteworthy that all the items demonstrate high reliability and were utilized to examine the dimension of the determinants and food consumption pattern. The reliability coefficients for the relationship between determinants and food consumption pattern exceed the threshold of 0.70. As stated by Ghazali (2013), indicators are considered reliable representatives of the variables when the Cronbach's Alpha value surpasses 0.70.

Table 2

Descriptive statistics						
Variable	Min	Max	Mean	SD	Skewness	Kurtosis
FCP	2.83	5.00	4.3153	.50954	-1.105	.776
PUP	3.13	5.00	4.3002	.48577	-.660	-.446
FOP	2.00	5.00	4.3206	.54001	-2.312	7.090
FOA	3.00	5.00	4.2739	.46472	-.944	.970

Source: SPSS Output, 2024

Table 2 presents the descriptive statistics for the determining variables and food consumption patterns. Among the determining variables, food prices obtained the highest mean score of 4.3206, followed by purchasing power (mean = 4.3002) and food availability (mean = 4.2732). This indicates that food prices are rated higher than the other determining variables, while food availability is rated the lowest. The standard deviations for food consumption patterns, purchasing power, food prices, and food availability were calculated as 0.50954, 0.48577, 0.54001, and 0.46472, respectively.

The skewness values for all variables, except for food availability (skewness = 0.944), were negative. This indicates that the scores are more concentrated at the higher end of the scale, except for food availability. Furthermore, the kurtosis values were all less than 1, indicating a platykurtic distribution.

Out of the 384 questionnaires administered to SME owners in Kaduna North and South, a total of 361 questionnaires (representing 94%) were returned and considered valid for analysis. The data were analysed using regression analysis as the statistical tool. The analysis and discussion of the results are presented below.

4.0 Result Analysis and Discussion

Table 3 **Model Summary of the Predictors and Criterion**

Model	R	R. Square	Adjusted R-Square	Standard error of the estimate	Durbin Watson
1	.642	.412	.390	.49275	2.232

Source: SPSS Output, 2024

The regression coefficient, denoted as 'R' in Table 4.1, indicates a relationship of 0.642 or 64 percent between the independent variables (determinants) and the dependent variable (food consumption pattern). This means that the determinants collectively account for 64 percent of the

variability in food consumption pattern. The coefficient of determination, represented by 'R²,' is 0.412, indicating that the independent variables can predict 41.2 percent of the changes observed in food consumption pattern. However, it is important to note that other factors not included in the model account for the remaining 58.8 percent of the changes in food consumption pattern.

The Durbin Watson value of 2.232 suggests that there is no evidence of autocorrelation. According to Field (2009), a Durbin Watson value between 1 and 3 indicates no substantial correlation in the error terms. In this case, the Durbin Watson value of 2.232 falls within this range, implying that the error terms are not correlated.

Table 4 ANOVA of the Predictors and Criterion

Model	Sum of Square	Df	Mean Square	F-cal	P-val	F-crit
1 Regression	18.385	4	6.128	29.139	0.000	6.312
Residual	75.082	357	.210			
Total	93.466	361				

Source: SPSS Output, 2024

The regression equation in Table 4 consists of a set of regression coefficients that are statistically significant from zero. The F-calculation value of 29.139 is greater than the F-critical value at the 0.05 level of significance, indicating a significant relationship between the independent variables and the dependent variable. Additionally, the P-value of 0.000 ($p < 0.05$) indicates the fitness of the model. This implies that the overall regression model is statistically significant, valid, and suitable for prediction purposes.

The independent variables have a strong predictive influence on food consumption pattern based on the results obtained.

Table 5 Coefficient of the Predictors Variables

Variables	Standard Beta	Standard Error	Standardised Coefficient	T- Stat	P-Value	Decision
Constant	1.997	.272		7.350	0.000	
Purchasing Power	0.039	0.062	0.037	.635	0.026	Accept
Food Prices	0.235	0.060	0.249	3.891	0.001	Accept
Food Availability	0.265	0.059	0.242	4.463	0.030	Accept

Source: SPSS Output, 2024

Test of Hypothesis One

H_{01} : Purchasing power significantly influence food consumption patter among households in chikum Local Government Area.

In Table 5 the result shows the contribution of purchasing power on food consumption pattern in Chikun LGA, Kaduna State as follow, ($\beta = 0.039$, $t = .635$, $P = 0.026$, $P < 0.05$).

The standardized beta coefficient of 0.039 indicates that for every 1-unit improvement in purchasing power, food consumption pattern will improve by 0.039 while the t-calculated coefficient of .635 with p-value of 0.026 indicates that there is a significant positive relationship between purchasing power and food consumption. This result suggests that purchasing power contributes to influencing food consumption pattern in Chikum LGA, Kaduna State. Thus, the alternative hypothesis accepted.

Test of Hypothesis Two

H_{02} : Food price significantly influence food consumption patter among households in chikum Local Government Area.

As shown in table 4.3 the result reveals as follow, ($\beta = 0.235$, $t\text{-stat.} = 3.891$, $P = 0.001$, $P < 0.05$). The standardized beta coefficient of 0.235 indicates that for every 1-unit improvement in food prices, food consumption will improve by 0.235 while, the t-calculated coefficient of 3.891 with p-value of 0.001 indicates that there is a significant positive relationship between food prices and food consumption. The result implies that, food prices contribute to influencing food consumption pattern in Chikum LGA, Kaduna State. Thus, the alternative hypothesis is accepted.

Test of Hypothesis Three

H_3 : Food availability significantly influence food consumption patter among households in chikum Local Government Area, Kaduna State.

Also, in the regression result in table 4.3, the result reveals as follow ($\beta = 0.265$, $t = 4.463$, $P = 0.030$, $P > 0.05$). The standardized beta coefficient of 0.265 indicates that for every 1-unit improvement in food availability, food consumption pattern will improve by 0.265 while, the t-calculated coefficient of 4.463 with p-value of 0.030 indicates that there is significant relationship between food availability and food consumption pattern. Thus, the result indicates that, food availability contributes to influencing food consumption pattern in Chikum LGA, Kaduna State. Thus, the alternative hypothesis is accepted while the null hypothesis rejected.

4.1 Discussion of Findings

Based on the results of the analysis particularly, the results of the test of hypotheses. The study uncovered that purchasing power has a significant impact on food consumption pattern in Chikum LGA, Kaduna State. This implies that, food consumption pattern among households in Chikum LGA, Kaduna is influenced by the purchasing power which is largely dependent on their income. This finding is similar to the study conducted by (Ifeanyichukwu & Nwaizugbo,

2019; Bata, Aliero, & Elijah, 2018) who found that purchasing power has significant effect on food consumption pattern. However, the study contradicted the results of (Rufino, 2015; Begum, Khan, Farooq, Begum, & Irfan, 2010) who in their studies concluded that, purchasing power has an inconsequential effect on food consumption pattern.

The study also discovered that food price has significant effect on food consumption pattern in Chikun LGA, Kaduna State. This suggest that Food prices is a major determinant that influences food consumption pattern among household's member in Chikun LGA, Kaduna State. However, this result corroborates with the works of (Adeniyi, Omitoyin, & Ojo, 2012; Davidson, Hendry, Srba, & Yeo, 1978) who found that food prices influence food consumption pattern. This finding is contrary to the findings of (Fasoranti, 2011; Ogundari, Oluwatosin, & Funmilayo, 2015) who found that food prices does not influence food consumption pattern.

Finally, the study also found that, food availability has significant effect on food consumption pattern in Chukum LGA, Kaduna State. This indicates that food availability is a major determinant that affects food consumption pattern in Chikun LGA, Kaduna State. This result is consistent with the findings of (Ibbih & Siyan, 2018; Babalola & Isitor, 2014). who found that food availability has significant effect on food consumption pattern. In contrast, the study conducted by (Bamiro, O. M. 2012; Bozoglu, Bilgic, Yen, & Huang, 2013) found that, food availability has an insignificant effect on food consumption pattern.

5.0 Conclusion and Recommendations

In conclusion, this study aimed at identifying determinants of food consumption patter among households in Chikun LGA, Kaduna State. The study considered three determinants: purchasing power, food prices and food availability (independent variable) and food consumption patter (dependent variable).

Based on the multiple regression test, all the determining factors (purchasing power, food price food availability) concurrently have significant influence on food consumption pattern.

Moreover, food prices and purchasing power have the most critical influence on food consumption pattern. This is followed by food availability.

The study, therefore, concludes that all the determinants adopted and examined has significant influence on food consumption among households in Chikun LGA, Kaduna State.

Based on the findings of the results, the study recommends that:

- i. Government at every level should deliberately make policies that will enhance distribution of more incomes in the hands of households, policy directed at increasing income level of workers should be given paramount attention so as to enhance their food purchasing power, reduce food insecurity and reduce poverty related to food as well as making them have a higher standard of living.
- ii. Since the study observed that food price is a major determinant of food consumption among households, inflation which is a major cause of hike in food price, government should subsidy fuel and electricity these products have direct bearing on food prices.

iii. Government at all levels should prioritise their policies toward mechanised agricultural production, enhance transportation facilities, provide an improved seeds and fertilizer which can enhance food availability.

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