



## Demand Analysis for Tomatoes Consumers in Brass Local Government Area of Bayelsa State, Nigeria

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This study examined the demand analysis for tomatoes among consumers in Brass Local Government Area of Bayelsa State, Nigeria. Specifically, the study described the socio-economic characteristics of tomato consumers, identified factors influencing the demand for tomatoes, and examined the major problems affecting tomato demand in the study area. A multistage sampling technique was employed in selecting eighty (80) respondents. Primary data were collected through the use of structured questionnaires and interview schedules. Data collected were analyzed using descriptive statistics and multiple regression analysis. The results showed that majority (73.75%) of the respondents were females, with mean age of 40 years. Most (60%) of the respondents were married and 87.5% had formal education. The mean household size was 6.76 persons, while majority (43.75%) spent between ₦50,001 and ₦100,000 monthly. The findings revealed that price of tomatoes ( $P<0.01$ ), age ( $P<0.05$ ), and years spent in school ( $P<0.05$ ) negatively and significantly influenced the demand for tomatoes, while household size ( $P<0.05$ ) and household income ( $P<0.01$ ) positively and significantly influenced tomato demand. The major problems affecting tomato demand were high price of tomatoes, ease of processing and poor storage facilities. The study concluded that socio-economic factors such as household income, household size, price of tomatoes, age, and educational level significantly influenced tomato demand among households in Brass LGA. The study therefore recommended that government should improve storage and warehousing facilities, provide better transportation infrastructure, and formulate policies that will stabilize tomato prices and improve tomato supply within the area.

**Keywords:** Demand. Tomatoes, Consumers, Brass L.G.A, Bayelsa State, Nigeria

### INTRODUCTION

In agriculture, horticultural crops including tomatoes have a significant place; the crop not only contributes to the share of agriculture in the national economy but also possesses great potential and comparative advantage in the economy. The ease of cultivation, widespread uses, and excellent health and financial benefits of tomatoes make them a top choice in the preparation of most meals in Nigeria (Stan, 2016). Horticulture such as tomatoes is an important sector in economic development, food and nutrition security, and poverty reduction drives of many countries (Adella et al., 2022). Rapidly growing demand for

horticultural products, especially the burgeoning market for processed fruits and vegetables, is evidence of this phenomenon, which is mainly responsible for accelerated horticultural growth in many developing countries (Suma, 2019).

Tomato is the world's largest vegetable crop after potato and tops the list of canned vegetables. Tomato (*Lycopersicon esculentum* Mill) is one of the most important vegetables supplying vitamins, minerals, and fibres to consumers and possesses high nutritional value. It is widely accepted and commonly used in a variety of dishes as raw, cooked, or

processed products more than any other vegetable (Adugna, 2019). Tomato fruit provides 3–4% total sugar, 15–30mg/100g ascorbic acid, 7.5–10mg/100ml titratable acidity, and 20–50mg/100g fruit weight of lycopene, which serves as an antioxidant for cancer prevention, especially cancers of the prostate gland, lungs, and stomach. Tomatoes are important in daily meal preparation since they can be eaten raw or cooked. Large quantities are also used in the production of soups, juice, sauces, ketchup, puree, and paste. The seeds extracted from the pulp and residues contain about 24% oil used for salad dressing and in the manufacture of margarine and soap, while the residual press cake is used as livestock feed and fertilizer. In addition, tomatoes apart from being consumed locally also earn foreign exchange for producing countries through exportation (Sani, 2014).

Within this context, consumers play a critical role in ensuring food security within Brass Local Government Area (LGA). These consumers form the backbone of the informal food trade, acting as the primary link between producers, often located in distant agricultural zones, and households within their communities (World Bank, 2018). They navigate complex supply chains, often with limited access to credit facilities, storage infrastructure, and market information, to ensure the availability of essential food items like tomatoes, which are crucial components of the local diet (IFPRI, 2016). However, tomato trade and consumption are particularly vulnerable to the challenges inherent in the region's food system.

Despite the crucial role of consumers in the local food system and their vulnerability to market shocks, there remains a significant gap in research and data regarding the demand for tomatoes within Brass LGA. This lack of information hinders the development of effective policies and interventions aimed at stabilizing prices, strengthening supply chains, and improving food accessibility within the area (NEPAD, 2019). Without a clear understanding of the factors influencing tomato demand, interventions may remain ineffective or misdirected, thereby

perpetuating the cycle of vulnerability among consumers and limiting efforts toward improving food security in the region.

Demand has been described as the quantity of goods which a consumer is willing and able to buy at a given price and time. The Niger Delta region of Nigeria, despite its abundant natural resources, continues to face persistent challenges relating to food security and economic stability, particularly in rural communities. This situation highlights the complexities of food systems in developing regions where geographical barriers, inadequate infrastructure, and socio-economic disparities interact to create unique challenges (FAO, 2020). Brass Local Government Area in Bayelsa State, situated within the heart of the Niger Delta, exemplifies these challenges. Predominantly riverine in nature, Brass LGA experiences limited road networks, poor storage facilities, and high transportation costs, all of which hinder access to essential food items and affect the livelihoods of those involved in the local food system (UNDP, 2017).

Furthermore, the highly perishable nature of tomatoes, coupled with the logistical constraints associated with a riverine environment, makes the tomato supply chain particularly susceptible to disruptions, leading to price fluctuations and periodic scarcity (Akpan & Udoh, 2012). These fluctuations directly affect household purchasing power and the affordability and accessibility of tomatoes among consumers (Olaniyi & Omitogun, 2014). This precarious situation underscores the need for a detailed understanding of the demand dynamics for tomatoes within the specific context of Brass Local Government Area of Bayelsa State, Nigeria. The specific objectives were to (i) describe the socio-economic characteristic of tomatoes marketers; (ii) estimate the demand for tomatoes in the study area; (iii) identify the problems faced by consumers in Brass Local Government Area. The hypothesis is stated tested that household size, educational level, price of basket of tomatoes, Price of close substitute, marital status, Age of respondents, Experience in years, household expenditure

and Engagement in production are positively related to demand.

Brass LGA, being a predominantly riverine area, faces unique challenges in terms of availability of tomatoes. This geographical context likely influences the demand and supply dynamics of perishable goods like tomatoes. This study will shed light on these specific challenges and their impact on the consumers, providing valuable data for policymakers and development agencies to formulate targeted interventions to make tomatoes available. By focusing on consumers, the project acknowledges their significant contribution to the local economy and aims to empower them with data-driven insights for better decision-making in procurement, pricing, and inventory management. Ultimately, this research contributes to a deeper understanding of food systems in riverine communities, promotes inclusivity in agricultural value chains, and supports sustainable economic development within Brass LGA.

## METHODOLOGY

### Study Area

The study was carried out in Brass Local Government Area of Bayelsa State, southern Nigeria. Its headquarters are in

the town of Twon-Brass on Brass Island along the coast, it has a coastline of approximately 90 km on the Bight of Bonny. Much of the area of the LGA is occupied by the Edumanom National Forest. The area lies between latitude of  $4^{\circ} 45'$  and  $4^{\circ} 75'$  North and longitudes East  $7^{\circ} 50'$  and  $8^{\circ} 0'$ . It has an area of 1,404 km<sup>2</sup> and a population of 185,049 at the 2006 census (NBS, 2024). The area is generally a lowland area with average elevation below 30 metres above sea level. Its geology comprises basically of alluvial sedimentary basin and basement complex. The thick mangrove forest, raffia palms and light rainforest are the major types of vegetation. Due to high rainfall, with average annual temperature is about 28.6°C the soil in the area is usually sandy or sandy loam. The Brass people are also known as farmers as Farming is also an important economic activity with crops such as oil palm, plantain, and sugarcane grown in the Brass area. Another economy activities of the Brass to sustain livelihood are Fishing and the making of fishing nets, construction of canoes also is another key economic feature of the Brass area (NBS, 2024).



Figure 1: Map of Bayelsa State, showing Brass Local Government Area  
Source: NBS (2024)

A multistage sampling method was used to select respondents in the study area. Purposive sampling was used for selection of the community, because of high concentration of tomatoes marketing consumes... In the first stage, two (2) major community in the area were purposively selected for the study. They are Okpoama and Odioma. The communities were chosen because they are the community with the highest concentration of tomatoes marketing consumes. The second stage involve a randomly selection of forty (40) household from each community to give a total number of 80 consumers for the study. The study used only primary data source. The primary data were obtained through aid of questionnaire and interview schedule. Additionally, personal observations also will form a critical means of data collection. Information on the socio-economic characteristics of tomatoes marketers in area; per capita expenditure on tomatoes among the marketers; in Brass Local Government Area of Bayelsa State. In analyzing the data for this study, both descriptive and inferential statistical tools was employed. Objectives (i) and (iii) were achieved using descriptive statistics like tables, frequencies, percentages and means. Objective (ii) which is to estimate the demand for tomatoes and onions in the study area was analyzed using demand function:

To estimate the demand for tomatoes in the study area was analyzed using demand function, the model is specified implicitly as follows:

$$D_t = f(X_1, X_2, X_3, X_4, X_5, X_6, X_7, X_8, X_9, e_i) \quad 1$$

Where:

$D_t$  = Monthly expenditure on tomatoes (Naira)

$X_1$  = Income (naira)

$X_2$  = Price of tomatoes (in naira/basket)

$X_3$  = Price of substitute per month (including other vegetables like lettuce, cucumber etc, naira)

$X_4$  = Household size (number)

$X_5$  = Age of the household head (Years)

$X_6$  = Years of education (years)

$X_7$  = Engagement in production (Yes=1, No=0)

$X_8$  = Total expenditure on food per month (including tomatoes expenditure, naira)

$X_9$  = Household expenditure per month (₦)

$e_i$  = error term

For equation (1) four functional forms – linear, exponential, semi-log and double log was tried so as to determine the choice form. The choice of the lead equation was selected based on the magnitude of the coefficient of multiple determinations ( $R^2$ ), the number of significant regression coefficient, and signs of the significant regression coefficients as they conform to *a priori* expectation and the value of the F-statistic.

## RESULTS AND DISCUSSION

### Distributions of Respondents According to Sex

Distribution of the respondents according to sex as derived from field's survey data is presented in Table 1 above. It can be observed that 26.25% of the sample respondents in the study area were males, while 73.75% were Females. This showed that there were more female in the household in Brass L.G.A than male. The reason may be due to the fact that females are more stable in household choice and activities than males as male migrate from the area to the city in search for white collar jobs for household survival, thereby living only the females at home. This is in line with Ajibola's (2000), who reported that majority of household in Nigeria was female dominated.

**Table 1: Distributions of Respondents According to Sex**

| Sex          | Frequency | Percentage (%) |
|--------------|-----------|----------------|
| Male         | 21        | 26.25          |
| Female       | 59        | 73.75          |
| <b>Total</b> | <b>80</b> | <b>100.0</b>   |

Source: Field Survey (2026)

**Distributions of Respondents According to Age**

From table 2, it can be observed that the mean age of the respondent was 40.28 years. This result indicates that majority of the respondents' falls within the age bracket of 37 and 46 years. This implies that most of the respondent are middle aged and still in their active stage in live. They can tomato. It implies that most of them were still active young adults who could apply maximum physical labour and skills needed in the farming business as well as their ability to

obtain off-farm jobs to boost their income in order to access more tomatoes. According to Alders and spradbaw (2000) this age bracket contained the innovative and adoptable individuals. The result agrees with the findings of Wang *et al.*, (2006) which revealed that the younger the household heads the stronger they are and they are expected to cultivate large farm size than their older counterparts. The implication of this age bracket on rural farming household is increasing production and likelihood of poverty reduction in the area.

**Table 2: Distributions of Respondents According to Age**

| Age (years)  | Frequency    | Percentage (%) |
|--------------|--------------|----------------|
| 17 – 26      | 11           | 13.75          |
| 27 – 36      | 14           | 17.50          |
| 37 – 46      | 23           | 28.75          |
| 47 – 56      | 16           | 20.00          |
| 57 – 66      | 9            | 11.25          |
| 67 – 76      | 7            | 8.75           |
| <b>Total</b> | <b>80</b>    | <b>100.00</b>  |
| <b>Mean</b>  | <b>40.28</b> |                |

Source: Field Survey (2026)

**Distributions of Respondents According to marital Status**

From Table 3. The marital status of the respondents reveals that 22.5% of the respondent are single, 60% were married while 17.5% were divorcees. This result implies that majority of the respondents were married. Married respondent would be relatively stable in their place of residence than their single counterparts. Married person may have the support of

their spouses and children in accessing tomatoes. Also, married individual may have a positive attitude towards demand for tomatoes as it is been used on daily basis for preparation of meals. This stability creates conducive environment for good citizen training, development of personal integrity and entrepreneurship, which are very important for efficient uses of resources (Nwaru, 2004).

**Table 3: Distributions of Respondents According to marital Status**

| Marital Status | Frequency | Percentage (%) |
|----------------|-----------|----------------|
| Single         | 18        | 22.50          |
| Married        | 48        | 60.00          |
| Divorced       | 14        | 17.50          |
| <b>Total</b>   | <b>80</b> | <b>100.00</b>  |

Source: Field Survey (2026)

### Distributions of Respondents According to Level of Education

Table 4, the educational distribution of the respondents shows that 12.5% of the respondent had no formal education, 27.5% had primary school education, 38.75% had secondary school education; while 21.25% of the respondent had tertiary educational qualification. This result suggest that mainstream of the respondents had secondary school education. The implication of the result is that majority of the respondents were fairly educated. Furthermore, overwhelming majority (87.5%) of the respondents had formal education while the. This result suggests that there is moderately high level of literacy among the respondents. Lawal *et al.*, (2009) posited that educated individuals would be highly receptive to new innovations, which could enhance their productivity, efficiency and general wellbeing. Improved education level brings about positive changes in the knowledge,

attitude and skills through research and extension. The implication is that these respondents were better positioned to take advantage of innovation that could boost their wellbeing. Literacy (ability to read and write) would enable the household to better utilize effectively and efficiently available resources in the area for farm businesses and curtail frivolous spending. As expected, higher education would enhance improved business ideas, skills, innovation and managerial ability for business sustainability. This result is in agreement with Onyeneke and Nwaiwu (2012) that as an individual increases his educational attainment, his managerial ability for business sustainability also increases. Education has been described as being pivotal to unlocking the entrepreneurial abilities of farmers and enhancing their ability to understand and evaluate new production techniques (Ajala, 2003; Thornton, 2010; Ellis and Freeman, 2011).

**Table 4: Distributions of Respondents According to level of Education**

| Level of Education | Frequency | Percentage    |
|--------------------|-----------|---------------|
| Never attended     | 10        | 12.50         |
| Primary school     | 22        | 27.50         |
| Secondary school   | 31        | 38.75         |
| Tertiary education | 17        | 21.25         |
| <b>Total</b>       | <b>80</b> | <b>100.00</b> |

Source: Field Survey (2026)

### Distributions of Respondents According to Household Size

Table 5, showed the mean household size of the respondents was 6.76 (~8) persons. This could be regarded as high on the average. Large household sizes may provide the much-needed family labour required for

agricultural production. This has implications on labour supply to the business. In the absence of well-functioning labor markets, smaller households face higher labor bottlenecks at critical points in their business (Sheng *et al.*, 2011; Ejioala and Yinka, 2012).

**Table 5: Distributions of Respondents According to Household Size**

| Household size | Frequency   | Percentage |
|----------------|-------------|------------|
| 1-3            | 12          | 15.00      |
| 4-6            | 23          | 28.75      |
| 7-9            | 31          | 38.75      |
| 10-12          | 14          | 17.50      |
| <b>Mean</b>    | <b>6.76</b> |            |

Source: Field Survey (2026)

### Distributions of Respondents According to Monthly Expenditure on Tomatoes

Table 6 showed that majority (43.75%) of the household spend between ₦ 50,000 to ₦ 100,000 per month. This is moderate and should also translate into better standard of living for household in Brass LGA; this is because with higher income, the demand for tomatoes will increase and vice versa which will further make the farming household to enjoy a higher living standard. The data presented in Table 4.6 indicates that a significant proportion (43.75%) of households in Brass LGA spend between N 50,000 to N 100,000 per month. This moderate level of expenditure suggests that these households

may have a relatively higher income compared to those spending less. As a result, it is expected that an increase in income will lead to an increase in demand for goods and services, including agricultural products such as tomatoes. The implication of this finding is that as household income rises, there is likely to be a corresponding increase in the demand for tomatoes and other agricultural products. This increased demand can have positive effects on farming households in Brass LGA, as it can lead to higher sales and potentially higher profits. This, in turn, can contribute to an improved standard of living for these households.

**Table 6: Distributions of Respondents According to monthly expenditure on Tomatoes**

| Monthly income (₦) | Frequency | Percentage    |
|--------------------|-----------|---------------|
| 1-50,000           | 25        | 31.25         |
| 50,001-100,000     | 35        | 43.75         |
| 100,001-150,000    | 14        | 17.50         |
| 150,001-200,000    | 6         | 7.5           |
| <b>Total</b>       | <b>80</b> | <b>100.00</b> |
| <b>Mean</b>        | 34,790.00 |               |

Source: Field Survey (2026)

### Demand Function for Tomatoes in the Study Area

Table 8 showed the multiple regression result on factors influencing demand of tomatoes in the study. The linear regression function was chosen as the lead equation based on the value of  $R^2$  (coefficient of multiple determination), F-ratio, the number of significant variables and the conformity of regression coefficient with a priori expectation. The value of  $R^2$  of 0.62 means that 62% of the total variation observed in the independent variable is accounted in the model. The F-ratio of 2.754 signifies that the model is statistically significant at 5% level of significant. The coefficient of price of tomatoes, age and years spent in school were negative and significantly influence the demand for tomatoes in the area, this show that an increase in any of these variables will decrease the quantity of tomatoes demand and vice versa. Also, the coefficient of household size and household income were positive and statistically related to demand

for tomatoes in the area, this show that an increase in any of these variables will increase the quantity of tomatoes demand and vice versa.

Price of tomatoes was significant at 1% and negatively related to the demand of tomatoes. This implies that as the price of tomatoes increases. This conforms to a priori expectation as economic theory stipulate an inverse relationship between demand and price and also agrees with the findings of Nwaru (2004) and Ubo et al (2013). Household size was significant at 5% and positively related to the demand of tomatoes. This implies that as the household size increases the quantity of tomatoes demanded also increases and vice versa. This implies that an increase in household size will lead to a corresponding increase in quantity of tomatoes demanded in the area. This shows that people with large household size will demand more tomatoes while people with small number of household size will demand for less tomatoes. This tallies with the

findings of Ubon et al., (2013), who found that higher the household size the higher the quantity of food stuff consumed.

The coefficient of age was significant at 5% and negatively related to the demand of tomatoes. This implies that as the age advances, the quantity of tomatoes demanded will decrease and vice versa. This implies that an increase in age will lead to a corresponding decrease in quantity of tomatoes demanded. This shows that as the consumers' advances, they will be a shift in dietary pattern, which will tend to decrease the quantity of tomatoes consumes. The years spent in school was significant at 5% and positively related to the demand of tomatoes. This implies that as the consumers attain higher level of education, their demand

for tomatoes increases and vice versa. Better education has the effect of enabling household's access and conceptualizes information on their dietary pattern and will tend consume less tomatoes. The regression coefficient of household income was positively related to the demand for tomatoes at 1% level. This implies that the higher the household income, the higher the demand for tomatoes. The consumers have more purchasing power which makes them increase their level of purchase as their income increases. This agrees with the findings of Wangi and Messah (2011) which stated that at low level of income, the consumers have will demand food item as he possess more income.

**Table 8: Multiple Regression Result on Demand Function for Tomatoes in the Study Area**

| Variables                       | Linear+                 | Exponential           | Double log           | Semi log              |
|---------------------------------|-------------------------|-----------------------|----------------------|-----------------------|
| Intercept                       | 15.052<br>(3.568)**     | 2.55<br>(4.637) ***   | 5.812<br>(2.368) **  | 42.210<br>(2.218) **  |
| Price of tomatoes ( $X_1$ )     | -0.006<br>(-4.390)***   | 0.000<br>(0.619)      | -0.090<br>(-0.747)   | -0.0533<br>(-0.572)   |
| Marital status ( $X_2$ )        | 0.324<br>(0.708)        | 0.046<br>(0.770)      | 0.337<br>(1.173)     | 2.216<br>(-0.995)     |
| Gender ( $X_3$ )                | -0.132<br>(-0.141)      | -0.046<br>(-0.376)    | -0.055<br>(-0.440)   | -0.140<br>(-1.145)    |
| Household size ( $X_4$ )        | 1.404<br>(2.316) **     | 0.174<br>(2.197) **   | 0.428<br>(2.101) **  | 3.506<br>(2.220) **   |
| Age ( $X_5$ )                   | -0.130<br>(-2.777)**    | -0.013<br>(-2.204) ** | -0.418<br>(-1.743) * | -3.998<br>(-2.149) ** |
| Years spent in school ( $X_6$ ) | -0.402<br>(-2.498)**    | -0.036<br>(-1.685) ** | -0.204<br>(-1.797) * | -2.132<br>(-2.425) ** |
| Price of substitute ( $X_7$ )   | 0.002<br>(0.488)        | 0.000<br>(0.580)      | -0.023<br>(-0.102)   | 0.007<br>(0.004)      |
| Income of household ( $X_8$ )   | 2.900E-5<br>(11.174)*** | -3.245E-6<br>(1.580)  | -0.160<br>(-1.121)   | -1.422<br>(-1.286)    |
| $R^2$                           | 0.620                   | 0.602                 | 0.538                | 0.495                 |
| $R^{-2}$                        | 0.366                   | 0.337                 | 0.231                | 0.158                 |
| F-ratio                         | 2.754**                 | 1.811*                | 1.748*               | 2.395**               |

Source: field survey (2026)

Key: + = Lead equation, \*\*\* = Significant at 1%, \*\* = Significant at 5% and \* = Significant at 10%

### Problems Faced by Consumers in Brass Local Government Area

Decision rule: any mean response  $\geq 3.0$  was adjudged accepted while any mean responses  $< 3.0$  was adjudged rejected. Analysis according to the problem affecting the demand for tomatoes were presented and summarized in Table 9. It was identified in the study that price of

purchasing tomatoes and ease of processing were the most critical problem affecting the demand for tomatoes in the study area. This shows that the household will demand for more tomatoes if these factors are put into consideration. Price is an important factor in consumer's behaviour, especially for goods with substitute as it reduces the quantity and

tomatoes demand. The serious problem include income, taste poor storage facilities and spoilage. Other problem such as taste, price instability and seasonality of commodity was rejected since their mean

values is less than the bench mark (3.0) this implies that these factors does not influence the demand for tomatoes in Brass LGA.

**Table 9: Problems Faced by Consumers in Brass Local Government Area**

| S/N | Responses                    | VS  | S  | UD | M  | US | Mean | Decision |
|-----|------------------------------|-----|----|----|----|----|------|----------|
| 1   | Income                       | 23  | 12 | 8  | 23 | 14 | 3.09 | Accepted |
| 2   | Price of purchasing tomatoes | 120 | 80 | 36 | 18 | 15 | 3.36 | Accepted |
| 3   | Taste                        | 90  | 64 | 24 | 36 | 20 | 2.92 | Rejected |
| 4   | Ease of processing           | 130 | 80 | 30 | 18 | 15 | 3.41 | Accepted |
| 5   | Poor Storage facilities      | 95  | 56 | 42 | 32 | 17 | 3.02 | Accepted |
| 6   | Price Instability            | 85  | 52 | 27 | 46 | 18 | 2.85 | Rejected |
| 7   | Seasonality of Commodity     | 95  | 40 | 33 | 32 | 24 | 2.80 | Rejected |
| 8.  | Spoilage                     | 95  | 56 | 42 | 32 | 17 | 3.02 | Accepted |

Source: Field Survey Data (2026) Multiple responses existed

#### **Very Serious (VS), Serious (S), Undecided (UD), Minor (M) and Unserious (US)**

Decision rule: any mean response  $\geq 3.0$  was adjudged accepted while any mean responses  $< 3.0$  was adjudged rejected. Analysis according to the problem affecting the demand for tomatoes were presented and summarized in Table 9. It was identified in the study that price of purchasing tomatoes and ease of processing were the most critical problem affecting the demand for tomatoes in the study area. This shows that the household will demand for more tomatoes if these factors are put into consideration. Price is an important factor in consumer's behaviour, especially for goods with substitute as it reduces the quantity and tomatoes demand. The serious problem include income, taste poor storage facilities and spoilage. Other problem such as taste, price instability and seasonality of commodity was rejected since their mean values is less than the bench mark (3.0) this implies that these factors does not influence the demand for tomatoes in Brass LGA.

#### **CONCLUSION**

The study on tomato demand in Brass Local Government Area of Bayelsa State revealed that the socio-economic characteristics of

respondents significantly influence their consumption behaviour. The findings showed that the average household size was 6.76 persons, while the mean age of respondents was 40.28 years, indicating that most households were within active working age. A large proportion of respondents were female (73.75%) and married (60.0%), with 87.5% having formal education, suggesting a relatively literate and stable population. Monthly expenditure on tomatoes was also moderate, with 43.75% of households spending between ₦50,000 and ₦100,000 and a mean expenditure of ₦34,790. The regression results further confirmed that 62% of the variation in tomato demand was explained by the model ( $R^2 = 0.620$ ), with an F-ratio of 2.754 indicating statistical significance at the 5% level. Key determinants of demand included household size ( $\beta = 1.404$ ), household income ( $\beta = 2.900 \times 10^{-5}$ ), price of tomatoes ( $\beta = -0.006$ ), age ( $\beta = -0.130$ ), and years of education ( $\beta = -0.402$ ), all of which were statistically significant. In addition, major constraints affecting demand included high price of tomatoes and ease of processing. Overall, the study concludes that tomato demand in the area is largely driven by socio-economic factors, particularly income, household size,

and price, which jointly shape consumption patterns in Brass LGA.

### RECOMMENDATIONS

Based on the findings of the study, the following recommendations are made:

- i. Significant variables such as price of tomatoes, age, years spent in school, household size, and household income should be considered in policy formulation and implementation relating to tomato demand and consumption.
- ii. Adequate storage and warehousing facilities should be provided either through private ownership or government support to reduce the problem of tomato scarcity during off-seasons in Brass LGA.
- iii. Infrastructure facilities such as roads, waterways, and transportation systems should be improved by the government to facilitate the movement of people and goods, thereby enhancing the quality and quantity of tomato supply in the area.
- iv. An organized market system for tomatoes in Brass LGA is strongly advocated. This will help sustain and encourage tomato trade and consumption within the area.

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