DETERMINANTS OF URBAN HOUSEHOLD DEMAND FOR CASSAVA AND CASSAVA PRODUCTS IN KADUNA, NORTHERN NIGERIA

Outline

- Significance of the study

- Research Methodology

- Explanation of Results

- Conclusion and Recommendation
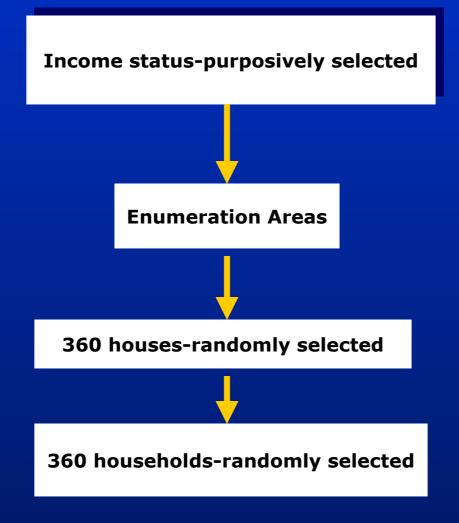
- Display some Cassava Photos

Significance of the study

- Consumption parameters are needed at the macro level to link aggregate food consumption to production levels, food imports and exports.

- At the micro level, consumption parameters are used to determine the implications of price and income changes on nutritional status, especially among the poor.

- To identify commodities which are important to poor and to rich.

- It enables us to identify the market potentials of commodities.

Sampling Procedure

Income status-purposively selected

↓

Enumeration Areas

↓

360 houses-randomly selected

↓

360 households-randomly selected

Hypotheses

- Food budget share of cassava and cassava products across different income groups is the same (Chi-square Test)

- The determinants of household demand for cassava and cassava products are
  - Income
  - Price
  - Household characteristics (AIDS Model)

AIDS Model

- Developed by Deaton and Muellbauer (1980).

  Specified as :
- $W_i = \alpha_i +_{pih}h +_{pid}d +_{pie}e +_{pig}g + \Sigma_j y_{ij} \log P_j +\beta_i \log(x/p^*)$

Dependent and Independent variables

Dependent variable (W_i)	**Budget share of the ith commodity**
Independent variables:	
Household size (h)	***Number of persons in the household***
Education level of household head (e)	***In Years***
Gender of household head (g)	***A dummy variable (1 if Male, 0 if Female)***
Dependency Ratio (d)	***Dependents (< 15 or > 65) over independents ($15 \leq x \leq 65$)***
Price of commodities (P_j)	***Price in Naira per unit***
Total expenditure on the commodities (X)	***Designated as Log (X/P*) in the model***
Price Index (P*)	***Defined as Log $P* = \Sigma_j w_j log P_j$***

Household characteristics by per capita expenditure quartile

CHARACTERISTICS	QUARTILE			
	1 N=90	2 N=90	3 N=90	4 N=90
Household size	8.1	7.4	6.7	4.1
Dependency ratio	0.87	0.82	0.79	0.67
% of male headed households	90.0	94.4	94.4	93.3
% of food expenditures in total expenditure	46.4	47.6	43.9	27.0
% of cassava expenditures in total food expenditure	6.48	6.19	3.61	3.54

Share of cassava products in total food expenditure

cassava Products	Percentage share	Number of consumers
Cassava tubers	1.28	81
Gari	*3.08*	*252*
Cassava flour	0.46	37
Cassava chips	0.11	7
Total	**4.93**	**377**

Comparison of cassava to other root crops

	QUARTILE				
	1	**2**	**3**	**4**	**ALL**
Cassava Yam	**21.9**	**16.4**	**12.7**	**10.2**	**13.6**
Cassava Potato	**136.0**	**186.0**	**84.9**	**60.7**	**92.6**
Cassava Cocoyam	**72.3**	**96.4**	**55.5**	**36.5**	**54.9**

Expenditure and uncompensated (Marshallian) price elasticities

	Budget share	Expenditure elasticities	Cassava tuber	*Gari*	Yam	Potato	Cocoyam
Cassava tuber	0.028	0.321	-0.456	0.212	0.138	-0.211	-0.890
Gari	0.207	1.104	0.537	-0.407	0.329	-0.289	0.088
Yam	0.534	1.303	1.024	0.835	-0.718	0.107	0.451
Potato	0.165	0.452	-0.514	-0.568	0.951	-1.006	-1.187
Cocoyam	0.066	0.755	0.398	0.215	0.438	-0.330	-0.670

Expenditure and own-price elasticities, by income group

	UNCOMPENSATED OWN-PRICE ELASTICITY			EXPENDITURE ELASTICITY		
	INCOME GROUP			INCOME GROUP		
	LOW N=90	HIGH N=90	ALL N=360	LOW N=90	HIGH N=90	ALL N=360
Cassava	-0.96	-0.13	-0.46	0.73	0.26	0.32
Gari	-0.44	-0.35	-0.41	1.16	0.92	1.10
Yam	-0.21	-0.78	-0.72	1.21	1.56	1.30
Potato	-1.18	-0.46	-1.01	0.66	0.14	0.45
Cocoyam	-0.72	-0.24	-0.67	1.05	0.60	0.76

Compensated (Hicksian) price elasticities

	Cassava tuber	*Gari*	Yam	Potato	Cocoyam
Cassava tuber	-0.447	0.278	0.309	-0.136	-0.869
Gari	0.568	-0.178	0.919	-0.107	0.161
Yam	1.295	1.105	-0.022	0.322	0.536
Potato	-0.501	0.662	1.192	-0.931	-1.157
Cocoyam	0.419	0.371	0.841	-0.205	-0.531

Conclusion

- Cassava is more important for the poor and it is fast changing from inferior food to a necessity.

- Gari is highly preferred to any other cassava products even among the rich households.

- Cassava tuber, gari and yam are strong substitutes.

Recommendation

- Expansion of the production of *gari* and yam is necessary as these crops have expenditure elasticity greater than one.

- Government price interventions is not necessary.

- The development of appropriate and cost effective farm-level cassava processing technologies is required.
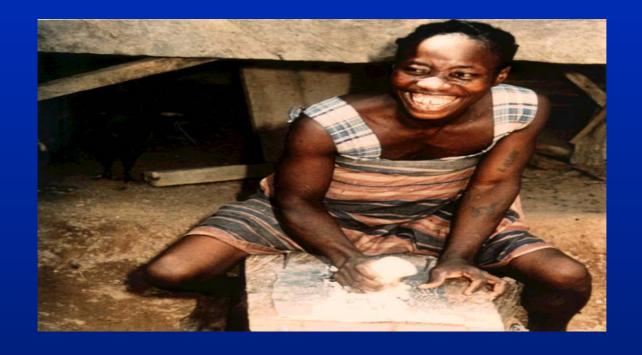
Cassava harvesting

Cassava drying

Cassava peeling

Cassava grinding

Cutting cassava into pieces

Cassava roasting

Cassava on sale

Thank you!