

Perceived Relevance of Cassava Bread Initiative of the Government among Selected Stakeholders in Ekiti State, Nigeria

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Abstract

The need to rethink Nigeria's food importation burden and consider local content options gave rise to the current initiative of the government on cassava bread production. Policy effectiveness and sustainability however requires that government's actions and decisions be guided by the interests of stakeholders. Perceived relevance of cassava bread initiative of the government among selected stakeholders in Ekiti State, Nigeria was therefore investigated. Multi-stage sampling procedure was used to select 89 stakeholders comprising of master bakers, consumers and marketers from Ekiti State and data was collected using structured questionnaire on respondents' awareness, responsiveness and perceived relevance of the initiative. Data was summarised using frequency distribution, mean, percentages, Chi-square, PPMC and ANOVA. Mean age of the respondent was 37 years. About 55.1% had high awareness of government policy on cassava bread. Radio (100%), television (94.4%) and newspaper (87.6%) ranked highest among respondents sources of information on the policy. Majority of stakeholders (master bakers, 63.3%; marketers 82.8%; and consumers, 66.7%) indicated high level of responsiveness to the cassava bread initiative. While more than half of master bakers (73.3%) and marketers (51.7%) perceived the initiative as relevant, 56.7% of the consumers indicated otherwise. Significant relationship existed between respondents level of education ($X^2=9.279$, $p=0.026$), awareness ($r=0.054$, $p=0.014$) and perceived relevance of the initiative. No significant difference existed in stakeholders' perception of the relevance of the initiative. Study concluded that the stakeholders are well prepared for full implementation of the cassava bread policy in the study area.

Keywords: Cassava bread initiative, government's policy, perceived relevance, policy responsiveness.

1.0 Background to the Study

Cassava (*Manihot esculenta* Crantz) is a perennial vegetative propagated shrub and is one of the most important food crops grown in Africa (Bruijin & Fresco 1989). It is high yielding and drought resistant and with improved pest management practices, its high yielding capacity could be sustained (Cock, 1985). According to Adebayo *et al* (2009), cassava is one of the most important food crops in Africa. Its high resilience and adaptability to a wide range of ecological conditions has sustained its production through many generations in sub-Saharan Africa since it was introduced into this region in the 16th century. Cassava has been found to be a great giant that fights hunger (both for humans and animals) and provides earnings for the farmer. The importance of cassava for food is stressed by Hahn & Keyser (1985) when they stated that the crop is grown for use as food in more than thirty nine African countries. The relevance of cassava is however not limited to consumption but also include its numerous advantages as raw materials for industrial use. For instance, cassava has the potential to substitute for imported alternatives in the areas of paperboard adhesives, plywood glue extenders and bakery products. Also, high quality cassava flour has been found to have potential for use as a textile sizing agent in mills that produce lower quality cloth for the cheaper end of the local market. Based on the above, cassava has become economically important in several tropical countries where the carbohydrate content of its enlarged root in diversified forms is consumed in most African countries, including Nigeria. Food products derived from cassava in Nigeria include *garri*, *fufu*, *pupuru* and *lafun*

According to FAO (2010), the year 2008 estimated global production of cassava was 232,950,180 tons. From this quantity produced, the 51% came from Africa, 34% from Asia and 15% from the America especially south America. The report further noted that the first five countries producers of cassava in the world are: Nigeria, Thailand, Brazil, Indonesia, and Congo Democratic Republic. Currently, Nigeria is reported to be the world's largest producer of cassava with output in 2010/11 estimated at about 35 million tons of tuber (Aderinto, 2011). Thus, in terms of food security for Nigeria and other African countries cassava has its place.

The obvious inseparability of cassava from man and animals especially in the developing countries where it is the cheapest food used to combat hunger and its wide industrial use therefore underscores the pride of place it

had always enjoyed in past successive governments in Nigeria. It was in realization of the foregoing and the need to rethink Nigeria's food importation burden and consider local content options that the Cassava Bread Initiative was launched by the President Goodluck administration. The Cassava Bread Initiative is part of the Agricultural Transformation Agenda of the government which seeks to promote major agricultural crops (cassava inclusive) through value addition programs and create market for farmers among others. The initiative focuses on reducing the wheat content of bread through the inclusion of 40% of cassava flour in the paste for baking bread. According to Adesina (2012) the initiative which was launched in 2012 will save Nigeria of 250 billion naira foreign exchange from reduced import of wheat and wheat flour and rather than enrich foreign farmers, Nigerian farmers and processors income would be raised.

While the launching of the initiative was greeted with much enthusiasm by the economists and several policy experts, it is however important to put in perspective that several past policies aimed at boosting the utilization of cassava and create market for farmers did not last beyond the regime of the initiating governments. For instance, ThisDay Newspaper (2012) noted that as far back as the early years of the structural adjustment programme, the country's trade policy was targeted at promoting agricultural exports and curtailing agricultural raw material imports; but after the initial success the policy was more or less abandoned. Author stated further not much was reaped from the huge investment the Presidential Initiative on Cassava launched by the federal government in 2002 under President Obasanjo. One of the reasons touted for the failure of the 10 percent cassava policy was poor understanding of the policy by the certain stakeholders and the resulting unwillingness of the vast majority of consumers and bakers to subscribe to the initiative. The success and sustainability of the current laudable policy drive therefore depends to an extent on the cooperation of the stakeholders involved in the cassava bread value chain. The need to provide the necessary feedback to the policy makers for the necessary action in order to set the policy on Cassava Bread on the path of success and sustainability therefore informed this study.

2. Objectives of the Study

The general objective of the study was to investigate the perceived relevance of Cassava Bread Initiative of the government among selected stakeholders in Ekiti State, Nigeria. Specific objectives include to:

1. ascertain the awareness of respondents on cassava bread initiative of the government,
2. determine the responsiveness of respondents to the cassava bread initiative of the government, and
3. examine respondents' perception of the relevance of cassava bread initiative of the government.

3. Hypotheses of the Study

1. There is no significant difference in the perception of the stakeholders of the cassava bread initiative
2. There is no significant relationship between the stakeholders personal characteristics and their perception of the relevance of the cassava bread initiative

4. Methodology

The study was carried out in Ekiti State which is located in southwestern part of Nigeria. The state was selected in the southwestern region by the Federal Government for the launching of the cassava bread and training of master bakers. The population for this study comprised of: (i) all master bakers in Ekiti State who received training workshop on cassava bread production organized by collaborative efforts of the Federal Ministry of Commerce and Industry and United Trading Company (UTC) of Nigeria; (ii) major bread marketers who were the immediate retailers of finished bread from the master bakers; and (iii) individual consumers who tasted samples of cassava bread produced during the demonstration workshop in Ekiti State. The list of master bakers trained in the demonstration workshop on cassava bread production was obtained from the Ekiti State Ministry of Commerce and Industry. Out of this list, 20% of the master bakers were selected using simple random sampling technique to obtain a sample size of 30 master bakers. Using snowball research technique, a list of individual consumers who attended the workshop and tasted the cassava bread was generated with the help of staff of Ekiti State Ministry of Commerce and Industry. Fifty percent of the consumers were sampled from this list using simple random sampling technique to give a total of 30 consumers. Sampling of marketers was accomplished by interviewing marketers who were available at the production factory of the selected master bakers at the time of survey and willing to be interviewed. Thus, a total of 29 marketers were sampled. On the whole, 89 respondents were sampled and used for this study.

Data for the study was collected using structured questionnaire on the respondents' personal characteristics, awareness, responsiveness and perceived relevance of the initiative. Perceived relevance of cassava bread initiative of the government among the stakeholders was measured by asking the respondents to indicate their opinion on the relevance of cassava bread initiative to the nation's economy among others. Respondents reacted to 14 perception statements on a five point likert-type scale of SA, A, U, D and SD. Scores of 5, 4, 3, 2, 1 were awarded to positive statements and the reverse to negative statements. Using the mean score generated, respondents were categorized as having favourable and unfavourable perception of the relevance of the initiative. Respondents reacted to the statement on responsiveness (willingness to produce, consume or market cassava bread) on a three point scale of very willing, somehow willing and not willing. Scores of 3, 2, and 1 were awarded to them respectively. The mean score for responsiveness was calculated and this was used to categories respondents. Respondents also reacted to awareness statements on "yes" or "no" basis to ascertain their awareness of the initiative. Frequency distribution, percentage, mean and ranks were used to summarize the data collected. Inferential statistics such as Chi-square, Person Product Moment Correlation (PPMC) and Analysis of Variance were used to test the stated hypotheses at 0.05 level of probability.

5. Findings of the Study

5.1 Personal characteristics of the respondents

Table 1 shows that the mean age of the respondent was 37 years. A higher proportion (37.1%) of the respondents was between 31 – 40 years of age, only 1.1% was above 60 years of age. This implies that many of these stakeholders were within active and productive age range. Respondents' age is anticipated to influence their responsiveness to cassava bread initiative, because younger ones have been observed to be more amenable to change and more responsive to innovation than the older ones who are often times tradition bound and fatalistic. A higher proportion (57.3%) of the respondents were male and 59.6% of were married. An overwhelming proportion (93.9%) of the selected stakeholders had more than primary school level education. The distribution shows a moderately high level of literacy among the respondents. Generally, high level of literacy is expected to encourage uptake of cassava bread initiative. This is because past studies have shown a positive collection between literacy and adoption. For instance, Adekoya, Ogunele & Fadairo (2011) observed that level of education of farmers in Oke-Ogun area influenced their use of ICTs for livestock production.

Table 1: Distribution of respondents' personal characteristics

Variable	Frequency	Percentage (%)	Mean
Age			
< 31	29	32.6	36.5
31-40	33	37.1	
41-50	22	24.7	
51-60	4	4.5	
>60	1	1.1	
Sex			
Male	51	57.3	
Female	38	42.7	
Marital status			
Married	53	59.6	
Single	30	33.7	
Widow/widower	1	1.1	
Single parent	5	5.6	
Highest level of education			
Primary	5	5.6	
Secondary	36	40.0	
Technical school	18	20.2	
Tertiary	30	33.7	
Religion			
Christianity	52	58.4	
Islam	34	38.2	
Tradition	3	3.4	

5.2 Awareness of the cassava bread initiative among major stakeholders

The distribution on table 2(a) suggests that most of the respondents have heard of cassava bread initiative of the government. This suggests that government is doing enough to sensitise people on the policy. This finding is further corroborated by the distribution on table 2(b) which reveals that 55.1% of the respondents had high awareness of the government policy on cassava bread. The high level of awareness of the policy among respondents give credence to the commitment of the government to the on-going Agricultural Transformation Agenda especially when compared with several past policies of the government which were reported to have been bedeviled by poor awareness of the major stakeholders.

Table 2(a): Distribution of respondents based on their responses to statements on awareness of cassava bread initiative

	Statements	Yes
1	I have heard of cassava bread initiative of the government	89(100)
2	Cassava bread means total substitution of the wheat content of bread with cassava flour	45(50.6)
3	Cassava bread initiative is meant to save the huge cost expanded on importing wheat for other purpose for national development	85(95.5)
4	Cassava bread initiative means reducing the wheat content of bread by 40%	89(100)
5	Cassava bread initiative is aimed at including 20% high quality cassava flour in bread.	71(79.8)

Table 2(b): categorization of respondents based on awareness of the cassava bread initiative

Awareness	Score	Frequency	Percentage
Low	7-8	40	44.9
High	9-10	49	55.1

5.3 Responsiveness to cassava bread initiative among major stakeholders

Table 3 Shows that majority of the respondents (70.8%) were very willing to subscribe to the cassava bread initiative of government. Only 3.4% of the respondents indicated lack of will. Similar trend was observed for the data on the master bakers, marketers and consumers who indicated high willingness for the policy (63.3%, 82.8% and 66.7% respectively). The foregoing suggests that the ground is well prepared for the take off of the policy in the study area. Furthermore, the finding implies that the wide speculation that the policy is unacceptable by Nigerians is untrue and not based on empirical findings. Nevertheless, the positive response of majority of the stakeholders to the initiative might not be unconnected with the sensitization activities and awareness workshop held in the state by the collaborative efforts of the Ministry of commerce and Industry and the Federal Ministry of Agricultural and rural development. The scaling up of the workshop to other states of the Nation would therefore create a conducive atmosphere for smooth implementation of the initiative in Nigeria.

Table 3: Responsiveness to cassava bread initiative among major stakeholders

Responsiveness	All respondents	Master baker	Marketer	Consumer
Very willing	63 (70.8)	19 (63.3)	24 (82.8)	20 (66.7)
Somehow willing	23 (25.8)	10 (33.3)	5 (17.2)	8 (26.7)
Not willing	3 (3.4)	1 (3.3)	0 (0)	2 (6.7)

Figures in parenthesis are percentages

5.4 Perceived relevance of cassava bread initiative among respondents

Appendix 1 on respondents perception of the relevance of cassava bread initiative reveals that majority of the stakeholders were favourably disposed to most of the perception statements on cassava bread initiative For instance, an overwhelming proportion (96.6%) of respondents agreed that implementation of cassava bread initiative will translate to improved markets for cassava farmers. In similar vein, about 73.1% of the respondents also disagreed with the statement that 40% inclusion of cassava flour in bread is an impossible task. On the other hand however, the distribution on the table further reveals areas where stakeholders may need orientation as regards the cassava bread policy. These include perception of a resultant inflation of price of other cassava based products indicated by 85.4% of respondents; inappropriateness of cassava bread consumption for individuals with health challenges such as diabetes as opined by 73.1% of respondents; and perception of high cost and poor nutritive value of cassava bread expressed by 47.2% of respondents.

Table 4 shows that 56.2% of the selected stakeholders had favourable perception. The table further reveals that majority of master bakers (73.3%) and marketers (51.7%) are favourably disposed to the cassava bread initiative compared to only (43.3%) of the consumers who indicated favourable perception. This suggests that master bakers and marketers are well prepared for the full implementation of the policy. The unfavourable perception of the relevance of the initiative however portends some level of risk for the smooth take-off of the initiative among majority of consumers given the important roles played by consumers in the continuous flow in production chain of any commodity. In other words, both the bakers and marketers would soon be discouraged when the demand (consumption) of cassava bread falls short of the supply. This may eventually results in serious loss on the part of the bakers and marketers and ultimately, policy failure.

Table 4: Categorization of respondents based on their perception of relevance of cassava bread initiative

Perceived relevance	All respondents			Master bakers		Marketers		Consumers	
	Score	F	%	F	%	F	%	F	%
Favourable	53-62	50	56.2	22	73.3	15	51.7	13	43.3
Unfavourable	30-52	39	43.8	8	26.7	14	48.3	17	56.7

6. Test of Hypotheses

6.1 Respondents selected personal characteristics and influence on their perception of relevance of cassava bread initiative

Table 5 shows that there is no significant relationship between respondents sex ($\chi^2 = 0.252$, $p > 0.05$), marital status ($\chi^2 = 1.933$, $p > 0.05$), religion ($\chi^2 = 3.37$, $p > 0.05$) age ($r = 0.188$, $p > 0.05$) and perceived relevance of cassava bread initiative. A significant relationship was however observed between their levels of education ($\chi^2 = 9.279$, $p < 0.05$) and perception of the relevance of the policy initiative. This implies that respondents' sex, marital status, religion and age are not associated with their perception of the initiative. The positive association between level of education and perception of the respondents might be well explained that education influences individuals' awareness which ultimately affects his/her perception, attitude and behaviour. This argument is further reinforced giving the significant relationship observed between respondents awareness and their perception of the initiative ($r = 0.054$, $p < 0.05$). This is because more literate individuals are better positioned to access information and utilize them. In the vein of this finding, there is need for relevant agencies championing the promotion of the cassava bread initiative to explore several means of communication particularly, traditional media that are more accessible to the educationally disadvantaged citizens in order to bring them at par with others who are more educated in terms of awareness and perception of this initiative.

Table 5: Relationship between respondents selected characteristics and perceived relevance of cassava bread initiative

Variables	df	χ^2 -value	p-value
Sex	1	0.252	0.286
Marital status	3	1.933	0.587
Level of education	3	9.279	0.026*
Religion	2	3.337	0.189
		r-value	p-value
Age		0.188	0.077
Awareness		0.054	0.014*

*significant $p < 0.05$

6.2 Difference in stakeholders' perception of cassava bread initiative

Table 6 shows that no significant difference existed in the perception of the relevance of the cassava bread initiative across the categories of the major stakeholders investigated in the study. This implies that the respondents categories (whether as master baker, consumer or as marketer) did not influence their perception of the policy.

Table 6: Difference in stakeholders' (master bakers, consumers and marketers) perception of relevance of cassava bread initiative

Variables	df	Mean square	F-value	p-value
Between groups	0.633	0.317	1.532	0.222
Within groups	17.771	0.207		

7. Conclusion and Recommendation

The cassava bread major stakeholders are well prepared for full implementation of the policy in Nigeria. In addition, the wide speculation that the policy is unacceptable by Nigerians is untrue and not based on empirical findings. Efforts to disabuse the minds of consumers on the myths associated with consumption of cassava bread would grant impetus to effective implementation of the policy.

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9.0 Appendix

Appendix 1: Respondents perception of the relevance of cassava bread initiative

Statement	SA	A	U	D	SD	Mean	Std. Dev
Full implementation of cassava bread initiative will result to loss of job among bakers in Nigeria	23 (25.8)	4 (4.5)	1 (1.1)	31 (34.8)	30 (33.7)	3.46	1.61
Implementation of cassava bread initiative will translate to improved markets for cassava farmers	60 (67.4)	26 (29.2)	0(0)	1(1.1)	2(2.2)	4.58	0.77
Cassava bread if accepted nationwide will reduce the import bills of the nation	55 (61.8)	32 (36.0)	0(0)	1(1.1)	1(1.1)	4.56	0.67
Cassava's inclusion in bread will ensure food security for the nation's teeming population	42 (47.2)	35 (39.3)	9 (10.1)	2(2.2)	1(1.1)	4.29	0.82
Cassava inclusion in bread can better secure Nigeria food supply than wheat	39 (43.8)	34 (38.2)	9 (10.1)	5(5.6)	2(2.2)	4.15	0.98
40% inclusion of cassava flour in bread is an impossible dream in Nigeria	17 (19.1)	2(2.2)	5(5.6)	20 (22.5)	45 (50.6)	3.8	1.54
Wheat flour is better and healthier for bread making than cassava flour	20 (22.5)	14 (15.7)	20 (22.2)	23 (25.8)	12 (13.5)	3.07	1.36
Cassava consumption in the form of bread is not good for those with diabetes	20 (22.5)	45 (50.6)	10 (11.2)	6(6.7)	8(9.0)	2.29	1.15
Introduction of cassava bread into the market will inflate the prices of other cassava-based products such as gari	24 (27.0)	52 (58.4)	2(2.2)	3(3.4)	8(9.0)	3.91	1.11
Cassava flour has much lower glycerin index [sugar]	16 (18.0)	38 (42.7)	27 (30.3)	4(4.5)	4(4.5)	3.65	0.98
Cassava bread will provide a cost effective way of combating vitamin A deficiency because of its richness in vitamin A	21 (23.6)	54 (60.7)	4(4.5)	3(3.4)	7(7.9)	3.88	1.06
Inclusion of cassava flour in bread will improve the health benefit of the bread we produce and eat	32 (36.0)	40 (44.9)	16 (18.0)	0(0)	1(1.1)	4.14	0.79
Cassava bread is more expensive and less nutritious than 100% white wheat flour bread	27 (30.3)	15 (16.9)	10 (11.2)	31 (34.8)	6(6.7)	2.70	1.39
Cassava bread tastes and stores longer than wheat flour bread	34 (38.2)	30 (33.7)	15 (16.9)	5 (5.6)	5(5.6)	3.93	1.13

Figures in parentheses are percentages.

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