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ASSESSMENT OF FARMERS' PARTICIPATION AND ATTITUDE TOWARDS GROWTH ENHANCEMENT SUPPORT SCHEME IN OGBOMOSO AGRICULTURAL ZONE OF OYO STATE, NIGERIA

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Abstract

Growth Enhancement Support Scheme (GESS) is a farm input subsidy programme introduced by the Nigerian government to assist farmers, and an assessment becomes imperative for effective and proper implementation. This study, therefore, examined farmers' levels of participation and attitude towards GESS. Multistage sampling procedure was used to draw 260 registered farmers as respondents. Data were collected with the aid of a structured interview schedule. The data were subjected to descriptive statistics and Pearson Product Moment Correlation was used to test the relationship between the respondents' participation and their attitude towards GESS. Farmers' mean age was 44 years and are mostly male with a mean household size of 5 people. Majority of the farmers enjoyed the provision of advisory services through the agro-input dealers, distribution of seeds and fertilizers. Significant relationships exist between age, household size, years spent in formal school and farmers' level of participation in GESS. Over half of the farmers had a moderate level of participation and favourable attitude towards GESS. The government should continue the programme and address the shortcomings such as distance to redemption centres and late delivery of inputs to increase the level of participation by farmers.

Key words**:** *cassava, livestock, feedstuff, farmers, utilization*

INTRODUCTION

Agriculture is a crucial subset of the economies of third world countries. Its rate of growth, however, does not keep pace compared with its essential significance in the economies of different developing countries [12]. For instance, the Nigeria agricultural sector growth dropped severely post-independence with 80% contribution to the GDP in the early 1960s to a pitiful 34% in 2003 [2].

Nigeria was the world largest importer of the United States hard red and white winter wheat with an annual import of ₦635 billion. It is also the second-largest importer of rice (₦356 billion), sugar (₦217 billion) and fish (₦97 billion) [5]. The desire in transformation plan is to achieve a hunger-free Nigeria by means of an agricultural sector that drives at income growth, advances achievement of food and nutritional security, spawn employments and transforms Nigeria into a significant player in global food markets to produce millions of farmers who are wealthy.

In recent times, there is a resurgent interest in agricultural input subsidies which was identified as a peculiar feature of agricultural growth and development policies in pitiable rural economies in Nigeria from the 1960s to the 1980s. [8] estimated significant contribution of farm input subsidies to growth, development and poverty reduction in India during the early phase of the Green Revolution but not later (although, estimated returns to some other aspects such as agricultural researches or investigation were higher). [6] argued that sustained (but not indefinite) farm-input subsidies were an essential part of successful Green Revolution packages, making a meticulous contribution, firstly within staple food supply chains, then, in the broader rural economy. The real success of the Green Revolution policy in Asian countries in driving growth and alleviation of poverty is widely acknowledged.

Nevertheless, regardless of longstanding work revealing the importance of farm-input subsidies in Indonesia [16], in fostering agricultural growth in conditions where farm-input grants should have the pleasing effect [4]. But diversion, late delivery and poor quality are much more significant constraints to fertilizer use by farmers than its expense (although access to credit was also cited as a major constraint).

Various agricultural schemes, programs and policies had been formulated and implemented with the main target of increasing agricultural output since 1960 when Nigeria got her independence. The benefits derived and shortcomings of such previous programs were employed for the execution of the farm-input-subsidy national project tagged Growth Enhancement Support Scheme, a part of the federal government's national Agricultural Transformation Agenda of the past administration. The launching of this policy document was expected to be a roadmap in solving fundamental problems associated with the agricultural sector [5].

GESS is a cost-sharing scheme between the government and the farmer. It is designed for the specific purpose of providing affordable agricultural farm-inputs like fertilizers (inorganic) and hybrid seeds to crop farmers in order to raise their output per hectare thus comparable to world standard because of the past complaints of diversion, exorbitant price and adulteration of various inputs to farmers, which ultimately led to low productivity, increased poverty, unemployment and lack of interest in farming. The scheme approach is to target beneficiaries (small scale farmers) through the use of the electronic system and by encouraging the engagement of the private sector in the distribution and delivery of fertilizers and other critical input directly to farmers. This study, therefore, assessed farmers' participation and attitude towards the growth enhancement support scheme (GESS) in Ogbomosho Agricultural zone of Oyo State, Nigeria.

Hypotheses of the study

The hypotheses of the study are stated in a null form;

H_{01}: There is no significant relationship between the socio-economic characteristics of the respondents and their level of participation in GESS.

H_{02}: There is no significant relationship between the respondents' attitude and their participation towards GESS project.

MATERIALS AND METHODS

Study area

The study was conducted in Ogbomoso Agricultural zone of Oyo state. Ogbomoso Agricultural Zone is made up of five Local Government Area (LGAs), namely Ogbomoso North Local Government Area (LGA), Ogbomoso South LGA, Ogo-Oluwa LGA, Orire LGA and Surulere LGA respectively. Ogbomoso North and South LGAs are the two urban LGAs,while the others are rural-based. The geographical location of Ogbomoso is on Latitude 81^{o}North and Longitude 4.25^{o}East. The total landmass area is about 27,249 square kilometre and total population which is estimated at 3,488,789 as of 2006 census provision figures. It is bounded in the North by Irepodun LGA in the west by Oyo LGA, south by Ejigbo L.G.A of Osun State and in the east by Asa L.G.A of Kwara State.

Sampling Procedure and Sample Size

Multistage sampling procedure was used to select the respondents for this study. Ogbomoso zone comprises five local government areas, and each local government had assigned redemption centres where farmers redeem their inputs. The respondents selected for this study include the farmers that redeemed their inputs through the GESS. In the first stage, purposive sampling technique was used to select three Local Government areas namely; Ogo-Oluwa, Oriire and Surulere due to their rurality in nature and concentration of farmers in the area. The second stage involved random selection of fifty percent (50%) of assigned redemption centres in each local government: two (2) redemption centres in Ogo-Oluwa, two (2) redemption centres in Oriire and one (1) redemption centre in Surulere that resulted into five (5) selected redemption centres. In third stage five percent (5%) of the farmers

rolled out from the report of the present Oyo State Ministry of Agriculture and Rural Development (OYSMARD) were randomly selected from the five redemption centres in the three LGAs which amount to two hundred and sixty (260) farmers that makes up the sample size for the study.

Data analysis

The data for this study was analyzed using both descriptive and inferential statistics. The descriptive statistics include frequency count, percentage, mean an standard deviation while the inferential statistics include Pearson' Product Moment Correlation (PPMC) was used to test the hypotheses.

RESULTS AND DISCUSSIONS

Farmer's demographic characteristics

The farmer's demographic features are as shown on Table 1. The farmer's (respondents) age ranked from 20 to 65 years. The widespread age range concentration was between 50 to 59 years which represented 34.6%. Next was the age range between 40 to 49 years representing 29.6%, while 20.8% fell within 30 to 39 years. Those respondents who fell in the age bracket of 20 to 29 years accounted for 9.3%, although, respondents above 60 years of age represented 5.8%. The mean age of the farmers or respondents was 44.2 years. This supports the findings and report of [1], who explained that most farmers that benefitted from GES scheme were still of active and productive age. Therefore, this informed their effective utilization to enhance productivity.

In addition, 68.8% respondents were male while 31.2% were female. This shows the dominance of the male farmers in GESS. These findings probably indicated that farming activities are an energy-demanding work. Hence men are more involved in production while the women are more engaged with food processing and marketing in agriculture [15].

Moreover, regarding marital status, 59.2% of the respondents were married, while 16.9% were single, 11.9% were divorced and 11.9% were also widowed. The number of married respondents is unconnected with cultural inclinations that confer the responsibility of providing for the wellbeing of their household, according to [3]. Concerning household size, 61.9% of the respondents had up to 5 persons while 38.1% had between six to ten persons in their individual family. On average, a family had five persons. This indicates that the household size of the respondents were relatively large. Thus, this may positively influence farming activities. This agrees with the earlier findings of [14] that large family size gave an advantage of employing them for various farming activities.

Table 1. Farmer's demographic characteristics

	Percentage	Mean
Age (years)		
20 – 29	9.3	44
30 – 39	20.8	
40 – 49	29.6	
50 – 59	34.6	
>60	5.8	
Sex		
Male	68.8	
Female	31.2	
Marital Status		
Single	16.9	
Married	59.2	
Divorce	11.9	
Widow	11.9	
Household size (people)		
1– 5	61.9	5
6 - 10	38.1	
Educational qualification		
None	18.8	
Primary	21.6	
Secondary	34.6	
NCE	11.2	
Vocational	3.8	
Arabic	0.4	
Adult Education	1.2	
HND/Degree	8.5	

Source: Data Analysis, 2018.

The respondents attained various forms of education. Although 18.8% had no formal education, 21.6% had primary school education, 34.6% had secondary school education, 11.2% had NCE qualification, 3.8% had vocational training, 0.4% had Arabic education, 1.2% had adult education while 8.5% had higher diploma or degree. The high form of education or learning among the respondents, according to [15] may encourage

acceptance of innovation as a way of raising farm productivity and income. [13] found that education had a significant and positive relationship with farmers' level of awareness to innovation, diffusion and adoption of innovation which is evident among the GESS respondents.

Distribution of activities in which respondents participated status in GESS

Table 2 conveys the distribution of respondents by their participation status in GESS. Most (77.3%) of the respondents regularly attended meetings concerning GESS activities, while 70% received text messages through handset concerning farm input. Others include quick response to agro-input allocation through e-wallet voucher (68.8%), regular visit to accredited agro-dealers to redeem farm input (80.4%) while, 82.7% were actively involved in the advisory services.

Table 2. Distribution of activities in which respondents participated status in GESS

Participation Statement	Percentage
Regular attendance at meetings concerning GESS	77.3
Receiving text messages from handset concerning farm inputs	70.0
Quick response to agro-inputs allocation through e-wallet	68.8
Regular visits to accredited agro-dealers to redeem the inputs.	80.4
Actively involved in the advisory services	82.7

Source: Data Analysis, 2018.

Farmers' level of participation in GESS

The result in Table 3 shows the distribution of respondent on farmers' level of participation in GESS. The result indicates that most of the farmers regularly attended meeting concerning GESS with 60.0% always attending, 22.7% often attended, 10.8% rarely attended while 6.5% never attended the meeting. Among the respondents, 32.7% indicated that they always receive text messages on their handsets concerning farm inputs, 27.3% often receive such text messages, 20.0% rarely received the messages while 20.0% never received such messages. Most of the farmers responded to agro-input allocation through e-wallet: 31.9% stated that they always quickly responded, 32.7% often responded, 21.9% rarely responded while 13.5% never responded. When asked about their visitation to accredited agro-dealers to redeem the inputs provided by GESS, 45.4% reported that they always visit the accredited agro-dealers 33.1% indicated that they often visited, 9.2% rarely visited. In comparison, 12.3% never visited the dealers. Among the respondents, 47.3% were always actively involved in advisory services, 20.4% often involved, 17.3% reported that they were rarely actively involved while 13.1% were never been actively engaged in the advisory services.

All the WMS on respondents' participation were higher than the mean score of 1.5. This shows that the farmers positively participated in the scheme. This conforms to the report of [5] that GESS is an innovative approach to fertilizer subsidy and other inputs through e-system that ensures only registered and accredited farmers benefit. This is also similar to the report of [10] on the attitude of arable crop farmers to GESS in Imo State Nigeria. [11] attributed the improved participation to the use of mobile phones as access to information from various sources similar to the observation of [9]. Therefore, mobile phone may be viewed as a tool for enhancing participation and productivity.

Categorization of respondent's level of participation

Table 4 shows the categorization of the respondent's level of participation. This revealed that 23.5% of the respondents participated in GESS at high level, and 62.7% of the respondents had moderate level of participation. In comparison, the remaining (13.8%) had low disposition towards participating in GESS. This trend of result may be due to individual inclination towards participation in GESS. From this finding, it could be deduced that most of the respondents moderately participated in GESS which may be attributed to weak communication linkage between farmers and government, late arrival of input, nearness to redemption centres and corruption.

Table 3. Distribution of Respondents by level of participation in GESS

Participation statement	Always	Often	Rarely	Never	WMS
Regular attendance at meetings concerning GESS	60.0	22.7	10.8	6.5	2.36
Receiving text messages from hand set concerning farm inputs	32.7	27.3	20.0	20.0	1.73
Quick response to agro-inputs allocation through e-wallet	31.9	32.7	21.9	13.5	1.83
Regular visits to accredited agro-dealers to redeem the inputs.	45.4	33.1	9.2	12.3	2.12
Actively involved in the advisory services	47.3	20.4	17.3	13.1	2.00

Source: Data Analysis, 2018.

Table 4. Categorization of the level of farmers' participation

Categories of levels of participation	Percentage
High	23.5
Medium	62.7
Low	13.8
Total	100

Source: Data Analysis, 2018.

Respondents' attitude towards GESS

Table 5 shows the respondents' attitude of GESS. The result revealed that majority (86.5%) agreed that farmers should actively participate in GESS to solve agricultural input distribution problems. 89.2% of the respondents agreed that GESS increases and improved crop productivity although, 80.8% agreed with the statement that the seeds supplied by the agro-dealers were sometimes low in quality.

Other statements on the respondents attitude towards GESS follow the same trend as they agreed with them in the following order; GESS increased the income of farmers (70.4%); GESS changes farming capacity (68.9%); late delivery of inputs may be a strategy to divert the supply of inputs to non-GESS registered farmers (45.7), although 21.5% of the respondents were undecided; 50% agreed that GESS could be more appropriately co-ordinated; distributed fertilizers do not meet the required quantity needed by the farmers (59.6); the distribution procedure through GESS encourages corruption (57.3 %); inadequate reimbursement of the dealers by the government may tempt them to sell the inputs to non-GESS farmers (58.4%); 46.2% of the farmers were undecided as to whether officers in charge of input distribution always expect to receive kickback from farmers. However, 44.2% agreed to the statement. About 39% agreed with the statement that says inputs were sometimes sold to farmers beyond the official prices. Although, 52.3% were undecided, this is with respect to their statement. GESS is cost-sharing scheme between farmers and government (22.4% agreed while 35.8% disagreed); The Agro-dealers prefer to deal with big farmers (26.5%); the design and operation of GESS were not beneficial to farmers (26.5%) and all farmers have access to GESS inputs (13.9%).

The weighted mean score for each statement shows the following statement on farmers' attitude towards GESS. The statements are: farmers should actively participate in GESS to solve agricultural input distribution problems (WMS=4.6); GESS increases and improves crop productivity (4.5); seeds of low quality are sometimes supplied by Agro-allied dealers (WMS=4.3); GESS increase the income of farmers (WMS=4.1); GESS changes farming capacity (WMS=4.0); late delivery of inputs may be a strategy to divert the supply of inputs to non-GESS registered farmers (WMS=3.8).

Conversely, the respondents' perceived that GESS was not properly co-ordinated (WMS=3.6) as negative or neutral, as distributed fertilizers do not meet the required quantity needed by the farmers (WMS=3.6).

Table 5. Distribution of Respondents by their Attitude to GESS

Attitudinal statement	SA	A	U	D	SD	WMS
Farmers should actively participate in GESS to solve agricultural input distribution problems.	208 (80.0)	17 (6.5)	23(8.8)	8(3.1)	4 (1.5)	4.6
GESS increases and improves crop productivity	167 (64.2)	65 (25.0)	28 (10.8)	0 (0.0)	0.0 (0.0)	4.5
Seeds of low quality are sometimes supplied by Agro-allied dealers	155 (59.6)	55 (21.2)	37 (14.2)	7 (2.7)	6 (2.3)	4.3
GESS increase income of farmers	97 (37.3)	86(33.1)	77 (29.6)	0 (0.0)	0.0 (0.0)	4.1
GESS changes farming capacity	93 (35.8)	86 (33.1)	78 (30.0)	3(1.2)	0.0 (0.0)	4.0
Late delivery of inputs may be a strategy to divert the supply of inputs to non-GESS registered farmers.	63 (24.2)	114(43.8)	56 (21.5)	18 (6.9)	9 (3.5)	3.8
GESS is not properly co-ordinated	81 (31.2)	49 (18.8)	76 (29.2)	48 (18.5)	6 (2.3)	3.6
Distributed fertilizers do not meet the required quantity needed by the farmers	67 (25.8)	88 (33.8)	55 (21.2)	30 (11.5)	20 (7.7)	3.6
Distribution procedure through GESS encourages corruption.	84 (32.3)	65 (25.0)	45 (17.3)	29 (11.2)	37 (14.2)	3.5
Inadequate reimbursement of the dealers by government may tempt them to sell the inputs to non-GESS farmers.	37 (14.2)	115(44.2)	62 (23.8)	32 (12.3)	14 (5.4)	3.5
Officers in charge of input distribution always expect to receive kick back from farmers.	51 (19.6)	64 (24.6)	120(46.2)	17 (6.5)	8 (3.1)	3.5
Inputs are sometimes sold to farmers beyond the official prices.	47 (18.1)	55 (21.2)	136(52.3)	10 (3.8)	12 (4.6)	3.4
GESS is cost sharing scheme between farmers and government.	29 (11.2)	29 (11.2)	109(41.9)	60 (23.1)	33 (12.7)	3.0
The Agro-delears prefer to deal with big farmers	33 (12.7)	36 (13.8)	112(43.1)	38 (14.6)	41 (15.8)	2.9
The design and operation of GESS is not beneficial to farmers	43 (16.5)	26 (10.0)	67 (25.8)	76 (29.2)	48 (18.5)	2.8
All farmers have access to GESS inputs	33 (12.7)	3 (1.2)	103(39.6)	73 (28.1)	48 (18.5	2.6

Source: Data Analysis, 2018.
Figures in parenthesis are percentages.
SA-Strongly agreed, A-Agreed, U-undecided, D-Disagreed, SD-Strongly disagreed, WMS-Weighed mean score

Also, they perceived that the distribution procedure through GESS encourages corruption (WMS=3.5); inadequate reimbursement of the dealers by the government may tempt them to sell the inputs to non-GESS farmers (WMS=3.5); officers in charge of input distribution always expect to receive kickback from farmers (WMS=3.5);

inputs are sometimes sold to farmers beyond the official prices (WMS=3.4); GESS is cost-sharing scheme between farmers and government (3.0) because some farmers wanted the government to be more generous; the Agro-delears dealers prefer to deal with big farmers (WMS=2.9); the design and operation of GESS is not beneficial to farmers (WMS=2.8) as redemption centres were far away from most villages; all farmers have access to GESS inputs (WMS=2.6) as this may be viewed as vague. All the statements ranked least, respectively. Therefore, it can be implied that respondents attitude towards GESS is either positive or negative depending on their disposition or preconceived notion about what the program should be like. The perceived effectiveness of GESS means the score was equal to 3.0. This result aligns with the finding of [15] on the access to subsidized fertilizer, seed, increased production and income among respondents in Ogun state.

Categorization based on the attitudinal level of respondents to GESS

Table 6 shows the categorization based on the attitudinal level of respondents towards GESS. 51.5% of the farmers had a favourable attitude towards GESS while the 48.8% had an unfavourable attitude towards GESS. This trend of the result may be due to individual dispositions towards GESS.

Table 6. Categorization based on the attitudinal level of respondents to GESS

Categories	Percentage
Favourable	51.5
Unfavourable	48.5
Total	100

Source: Data Analysis, 2018

It could be deduced from the findings that difference in attitude may be as a result of the timing of information disseminated, low access to GESS inputs, inadequate supply of fertilizers to farmers, limited duration of GESS and inadequate awareness of the programme to small-scaled farmers which is the target of GESS.

Testing of Hypotheses

The result of tests of hypotheses for this study are hereby presented. All hypotheses were stated in the null form.

Hypothesis 1

There is no significant relationship between the
respondents' participation and their attitude towards GESS.

Table 7 shows indicates that there was significant correlation between the farmers' participation and attitude towards GESS. This means that the attitude of the respondents had positive influence on the farmers' participation (r=0.108*, p=0.041) of GESS with the study area. On this, the null hypothesis was rejected, and the alternative hypotheses were accepted.

Table 7. PPMC analysis of farmers' participation and their attitude towards GESS.

Variable	N	r-value	p-value	Remark
Attitude	260	0.108*	0.041	Significant

Source: Data Analysis, 2018.

Hypothesis 2

There is no significant relationship between the demographic characteristics of the respondents and their level of participation in GESS.

The result of the analysis, as shown in Table 8 shows that there is a significant relationship between the selected demographic characteristics of the respondents and the level of participation towards GESS. significant relationship exists between the age of the respondents (r= 0.569**, p=0.000) and their extent towards participation. This implies that the level of the farmers' participation is a function of their age. This corroborates household size (r= 0.781**, p=0.000), family size (r= 0.453**, p=0.000), farming experience (r= 0.645**, p=0.000) and years spent in formal school as negative relationship with farmers' participation in the study area (r=-0.179**, p=0.004). On this note, the null hypothesis was rejected while the alternative hypothesis was accepted. This finding is contrary to the observation of [7] on the attitude of farmers to e-wallet platform of GESS for farm-input delivery in Oke-Ogun-zone of Oyo State, which revealed that age, farm size, marital status and religion does not necessarily influence adoption behaviour.

Table 8. Relationship between the socio-economic characteristics of the respondents and the level of participation towards GESS.

Demographic variables	r-value	p-value	Remarks
Age	0.569**	0.012	Significant
Household size	0.781**	0.013	Significant
Family size	0.453**	0.011	Significant
Years spent in Formal School	-0.179**	0.012	Significant

Source: Data Analysis, 2018.
**Significant at 0.01%

CONCLUSIONS

The study revealed that farmers' attitude had a positive influence on the farmers' participation in GESS. Most of the respondents were at their active and productive stage. Most of the farmers perceived GESS as a solution to input problems, using new technologies (SMS) to reach the farmers, thus, enhancing their participation through meetings, response and visit to the agro-dealers. Since the attitude of the farmers favourable influenced their participation in GESS, the government may use this favourable attitude to increase participation by enlarging the capacity of GESS or similar programme in the future.

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