

Effects Of Implementation Techniques On Performance Of Agricultural Development Intervention Programmes In Nigeria

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Abstract

Several reasons have been adduced for the poor state of agricultural development in Nigeria. Researchers have not deemed it necessary to investigate the implication of appropriate implementation techniques as a conduit for programme success in the study area. The present study examined a host of agricultural development intervention programmes carried out in the country in relationship to the implementation techniques. South-east Nigeria was purposely selected because of predominance of agricultural development programmes. The study was a population study made up of a total of 215 respondents consisting programme managers (3), Directors (17), Programme Supervisors (81), and Extension Agents/Field Staff (114). Data were derived from primary and secondary sources. Thirty one (31) programmes and twenty (20) implementation techniques were covered in the study. Programmes which had the highest number of implementation techniques were Agricultural Development Projects ADP (5), Operation Feed the Nation OFN (6) and Anchor Borrowers Programme ABP (6). Some programmes did not make use of any form of implementation technique. Thirteen (13) out of the thirty one (31) programmes were adjudged to have performed well. There was a significant and positive relationship between number of implementation techniques and programme performance ($r = 0.428$, $p < 0.05$). Relevant implementation techniques should be built into agricultural development intervention programmes in Nigeria to ensure better performance.

Keywords: Implementation, Techniques, Agricultural, Performance, Development, Intervention, Effects

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I. Introduction

Implementation techniques are intrinsic to performance of agricultural development intervention programmes. Programme development experts agree that a conduit relationship exist between implementation techniques and outcome of agricultural programme. Ajulor (2018) explained that programme implementation is the process of changing a formulated programme into reality. It specifies the operational means by which public programmes are carried out. He remarked that the execution of public programmes require a combination of human, material, machine, and financial resources. Ndidi and Chukwuemeka (2020), and Yusuf et, al (2017)asserted that implementation of agricultural intervention programmes must start with accurate situation analysis. It also calls for the investigation of the role of government agencies, legislature, bureaucracy, and the local people. Relevant implementation techniques are factored into agricultural programmes to yield the desired intervention programme. ,

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the whole farm as a system. It focuses on the inter-dependence of components under the control of the farm household as well as interaction with the physical, biological and socioeconomic factors outside the control of the household (Shaneret.al 1982 in Ogunfiditimi and Ewuola, 1995).

The Community-based Agricultural Development Planning principally involved Participatory Land Use Planning which described a process of Land Use Planning at village and village cluster levels with the active participation of villagers. The PLUP process included nine (9) guided stages: planning preparation; socio-economic data collection (village and household levels); village and cluster village boundaries delineation; village land use zoning; village land management planning; land data and digital map recording, land registration ; villages networking (village cluster level); and monitoring and evaluation. Community Driven Development Approach acts on the same principles with the PLUP (Castella, Lienhard, Tran Quoc, Khamxaykhay, Phimmason, Chaivanhna, and Phonekhangpeng, 2020). The Project Break down Structure, Hierarchy of Objectives, and Programme Evaluation and Review Technique were described by Ovwigho (2012). He stated that Project Break down Structure (PBS) encompass the traditional components or cycle which a programme should follow in its implementation. The hierarchy of objectives involves setting and monitoring input, activities, output, purpose and impact objectives. The programme evaluation and review technique involved continual analysis of the shortcomings and expectations of a project (Ovwigho, 2012).

Social action process is a purposefully planned and executed bottom up or top down process that mobilises and engages organisational stakeholders inside a sphere of interest to achieve a collective goal and objective for social and economic change that benefits the development of a community (Koehnen, 2019). Ovwigho and Ifie (2009) stated that the social action process involved changing the social structure or certain cultural elements of a given community. The stages include mooting the idea, initiation, legitimating, and evaluation.

The Federal and State Governments of Nigeria has implemented more than forty (40) agricultural development intervention programmes which require the application of suitable implementation techniques in order to achieve the desired success. Some of these agricultural development intervention programmes included Farm Settlement Scheme (1963), Regional Agricultural Programmes (RAP) 1960-1966, National Accelerated Food production Programme (NAFPP) 1966-1975, Nigeria Agricultural and Cooperative Bank (NACB) 1973, River Basin Development Authorities (RBDAs) 1976-1977, Agricultural Development Projects (ADPs) 1975, Operation Feed the Nation (OFN) 1976, Green Revolution Programme (GRP) 1979-1983, Back to Land 1983-1985, Directorate of Food, Roads and Rural Infrastructure (DFRRI) 1983, Structural Adjustment programme (SAP) 1986, Nigerian Agricultural Insurance Scheme (NAIS) 1987, National Fadama Development Project (NFDP) 1992, National Agricultural Land Development Authority (NALDA) 1992, National Economic Empowerment and Development Strategy (NEEDS) 1999, National Directorate for Employment (NDE) 1983, National Special Programme on Food Security (NSPFS) 2003, Root and Tuber Expansion Programme (RTEP) 2003, Seven-Point Agenda (2015), Agricultural Transformation Agenda (ATA) 2011, Anchor Borrowers Programmes (ABP) 2015, Better Life for Rural Women 1986, Family Support Programme (FSP) 1994, Family Economic Advancement Programme (FEAP) 1996, Women in Agriculture (WIA) 1991. Others were Multi State Agricultural Development Project (MSADP), Nigeria Incentive-Based Risk Sharing System for Agricultural Lending (NIRSAL), Rural Finance Institution Building Programme (RFIBP), and Presidential Initiative on Selected Crops (PISC). The selected crops were rice, cassava and vegetables (Adisa and Okunade, 2005; Ovwigho, 2009; Daneji, 2011). Without details attached to this article, the programmes were geared toward achieving self-sufficiency in food production, enhance exportation of agricultural commodities and poverty alleviation as well as to support agricultural extension services delivery for improved livelihood of farmers.

Many of the programmes lacked cohesion and continuity. The Federal Ministry of Agriculture and Rural Development (FMARD, 2016) per se found that unstable policy framework, non-implementation of political commitment, persistent shortcomings in agricultural technology and extension, infrastructural deficit, poor finance and risk management and un-streamlined institutional structures were identified as major problems which militated against meaningful outcomes of the agricultural intervention programmes.

Several studies have been conducted on the agricultural development programmes in Nigeria but none has addressed the use of implementation techniques as proponent of programme performance. For instance, the study by Ovwigho, (2009), Daneji (2011), and Iwuchukwu and Igbokwe (2012) merely reviewed and recommended strategies and models for improving the outcomes of agricultural development intervention programmes. No study has been conducted on the implication of implementation techniques on the programmes performance. Thus it became exigent to conduct the study to provide empirical data on the implementation techniques which could be used for improving performance of agricultural development intervention programmes in Nigeria. The specific objectives of the study were to investigate the number of implementation techniques used for selected agricultural programme; ascertain the performance of the programme; and explore the relationship between number of implementation techniques and performance of the programmes.

II. Materials And Methods

Brief Description Of The Study Area

The study was conducted in Nigeria. South-east geo-political zone of Nigeria was purposively selected because all the Federal Government agricultural development programmes and few others were implemented in the zone. Precisely South-east Nigeria lies within latitude 5° 20' and 7° 75' North, and longitude 6° 85' and 8° 46' East of equator and covers a land area of about 28,987 square kilometers. The land area is equivalent to 3.19 per cent of the total land area of Nigeria. The Zone is made up of five states, namely, Abia, Anambra, Ebonyi, Enugu and Imo States. The states in the zone share similar climatic characteristics (NPC, 2007). The major ethnic group is the Igbo-speaking people. The traditional occupation of the people is farming. One of the agricultural festival of the Igbo people is the new yam festival. It is an annual cultural festival held in early August.

The area lies mainly on the plains about 200m above sea level. It is bounded on the south by Akwa Ibom and Rivers States, on the east by Cross River State, on the west by river Niger and Delta State, and on the north by Benue State.

Research design and sample size

The study made use of survey research design. It was a population study made up of a total of 215 respondents consisting Programme Managers (3), Directors (17), Programme Supervisors (81), and Extension Agents/Field Staff (114).

Pre- data collection survey

A preliminary survey was conducted to determine some past and current agricultural development programmes from 1960 to date. Few programmes were not fitted on list because they were not very popular and the relevant policy implementation document could not be found. Implementation techniques were mostly derived from literature. Thirty one (31) programmes and twenty implementation techniques were identified (Tables 1 and 2).

Table 1: Selected agricultural development intervention programmes (1960 to date)

S/N	Programme	Year
1	Regional Agricultural Programmes (RAP)	1960 – 1966
2	National Accelerated Food Production Programme (NAFPP)	1966-1975
3	Farm Settlement Scheme (FSS)	1967
4	Agricultural Development Programme (ADP)	1975 to date
5	Operation Feed the Nation (OFN)	1979-1983
6	River Basin-Development Authorities (RBDAs)	1976 to date
7	Green Revolution Programme (GRP)	1979-1983
8	Structural Adjustment Programme (SAP)	1983
9	Root and Tuber Expansion Programme (RTEP)	1990 to date
10	National Directorate of Employment (NDE)	1986 to date
11	Accelerated Development Area Project (ADAP)	1982
12	Back to Land (BL)	1983-1985
13	Nigeria Agricultural Insurance Scheme (NAIS)	1987 to date
14	Multi-State Agricultural Development Project (MSAP)	1986
15	Nigerian Agricultural and Co-operative Bank (NACB), now Bank of Agriculture	1973 to date
16	Directorate for Food Road and Rural Infrastructure (DFRRI)	1985-1993
17	Better Life Programme for Rural Women (BLSP)	1987-1992
18	National Fadama Development Project (NFDPP).	1990 till date
19	National Agricultural Land Development Authority (NALDA)	1992
20	Family Economic Advancement Programme (FEAP)	1993-1998
21	Family Support Programme (FSP)	1993-1998
22	National Economic Empowerment and Development Strategy (NEEDS)	1999
23	Presidential Initiatives on Select Crops (PISC)	1999-2007
24	National Programme for Food Security	2003
25	Agricultural Transformation Agenda (ATA)	2011
26	Nigeria Incentive-Based Risk Sharing Agricultural Lending	2011 to date
27	Rural Finance Institution Building Programme	2012-2017
28	Agricultural Transformation Support Programme Phase 1	2015-2019
29	Value Chain Development Programme	2015 to date

30	CBN Anchor Borrowers Programme	2015-date
31	Seven Point Agenda	2015-date

Table 2: Programme Implementation Techniques

S/N	Implementation Technique	Abbreviation
1	Project Breakdown Structure	PBS
2	Farmer First Farmer Last	FFFL
3	Participatory Rural Appraisal	PRA
4	Training of Field Staff	TFS
5	Bottom Up Approach	BUA
6	Identification of Felt Needs	IFN
7	Sectoral Development Approach	SDA
8	Project Evaluation and Review Technique	PERT
9	Focus Group Discussion	FGD
10	Project Monitoring Techniques (Hierarchy of Objectives)	PMT
1	Use of Development Plans	UDPs
12	Capacity Building	CB
13	Social Action Process	SAP
14	Community Driven Development Approach	CDDA
15	Method Demonstration	MD
16	Result Demonstration	RD
17	Group Meetings	GM
18	Local Sharing of Appropriate Technologies	LSAP
19	Regular Farm and Home Visit	RFHV
20	Top Bottom Approach	TBA

Method Of Data Collection, Measurement Of Variables And Analysis

Data were collected from primary and secondary sources. The secondary data were derived from document and bulletins domiciled in the Ministry of Agriculture and Natural Rural Development, and National Directorate of Employment. Primary sources involved eliciting responses by the use questionnaire. Respondents were required to tick the implementation techniques used for each of the 31 agricultural programmes. The personnel were also required to tick yes or no to indicate whether a programme failed or passed considering the spelt objectives and subjective performance of each programme.

For implementation technique and programme to be accepted and having performed well 40% and above of the respondents must agree. Forty percent was chosen because it was an often accepted pass mark. The failed and passed was dichotomised into poor and good performance in the evaluation of the programmes. To establish the relationship, good was scored 1 and poor (0). The number of implementation techniques which met the 40% cut-off were counted and recorded as having been used in implementation for a programme. Data on number of implementation techniques and performance were analysed by frequency and percentage while relationship between number of implementation techniques and programme performance were analysed by use of Pearson R

III. Results And Discussion

The implementation techniques and performance as well as relationship between number of implementation and performance were presented and discussed in this section.

Implementation techniques of selected agricultural intervention programmes

Based on the 40% criterion response in Table 3 three programmes - Operation Feed the Nation, Agricultural Development Programme and Anchor Borrowers Programme had the highest number of implementation techniques of (6), (5) and (6) respectively. Focus Group Discussion (FGD) was common to the three programmes. The Focus Group Discussion evolved from the Participatory Research in the 1980s. It is a technique where a researcher assembles a group of individuals to discuss a specific topic in order to draw from the complex personal experiences, beliefs, perceptions and attitudes of the participants through a moderated interaction (Cornwall & Jewkes, 1995; Hayward, Simpson, & Wood, 2004; Israel, Schulz, Parker, & Becker, 1998; Kitzinger, 1994; Morgan, 2000, Morgan, 1996 as cited by Nyumba, Wilson, Derrick, & Mukherjee, 2018)

Group Meetings were typical for Agricultural Development Project (ADP) and National Agricultural Cooperative Bank (NACB). The ADP was established by the World Bank Assisted Tripartite Loan in 1975 for agricultural development in Nigeria. The programme could not be sustained when the World Bank Loan expired. The programme was carried out using the Training and Visit Extension System developed by Daniel Benor 1979. The system was based on field and farmer orientation, regular training and visit as well as monthly technology review meetings (Ogunfiditimi&Ewuola,1995).

The National Directorate of Employment made use of Capacity Building, Project Monitoring Technique and Programme Evaluation and Review Technique. Adebisi and Oni (2012) remarked that capacity building was the main thrust of the NDE agricultural programmes. Between 2005 and 2009, the number of persons trained and empowered by NDE were 599,405 persons. In 2010 and 2011 the number of persons trained were 171,253 and 159,076 respectively (NBS, 2012; Anyebe, 2018).

Root and Tuber Crops Expansion Programme principally made use of method demonstration and result demonstration in transferring proven technologies on root crops production. RTEP was launched on 16th April 2003 with the primary purpose of increasing root crops and reducing rural poverty. Okoruwa, Obi-Egbedi and Adeniran (2015) reported a very high adoption rate of improved local and mini sett technology as a result of the RTEP.

It was found that eight (8) programmes made use of one (1) form of implementation technique or the other while fourteen (14) did not make use implementation techniques. This situation is absurd considering the fact that implementation techniques are the technical vehicles for achieving programme objectives. Furthermore agricultural development intervention programmes are designed like motor to take a given socio-political entity to the next level of agricultural development. In this perspective, if the means of delivery the programme are not available the programme goals and objectives cannot be achieved. It is worthy of note that most agricultural programmes implemented in Nigeria were politically motivated without sound technical and administrative background. For instance the Green Revolution Programme (1979/1980) replaced the Operation Feed the Nation (1976) without thorough analysis of feasible implementation techniques and merely for the fact that the emerging civilian administration wanted to score a point in agricultural development. There would have been more successes if the Green Revolution Programme of the civilian government was made to continue as Operation Feed the Nation of the military regime using appropriate implementation techniques and organs.

Table 3: Response to implementation technique used for agricultural programmes

S/N	Programme	Implementation Techniques Above 40%	Number
1	Regional Agricultural Programmes (RAP)	SAP (67.3%)	1
2	National Accelerated Food Production Programme (NAFPP)	PBS (45.1%)	1
3	Farm Settlement Scheme (FSS)	BUA (47.0%)	1
4	Agricultural Development Programme (ADP)	RFHV (50.7%), GM (42.8%), TFS (40.9%), LSAP (40.5%) FGD (41.2%)	5
5	Operation Feed the Nation (OFN)	PERT (74.2%), FGD (47.8%), IFN (47.3%), FFFL (42.8%), BUA (40.9%), PRA (40.5%)	6
6	River Basin-Development Authorities (RBDAs)	None	0
7	Green Revolution Programme (GRP)	None	0
8	Structural Adjustment Programme (SAP)	None	0
9	Root and Tuber Expansion Programme (RTEP)	MD (60.3%), RD (51.5%)	2
10	National Directorate of Employment (NDE)	CB (92.0%), PMT (45.2%), PERT (43%)	3
11	Accelerated Development Area Project (ADAP)	None	0
12	Back to Land (BL)	None	0
13	Nigeria Agricultural Insurance Scheme (NAIS)	TBA (42.0%)	1
14	Multi-State Agricultural Development Project (MSAP)	None	0
15	Nigerian Agricultural and Co-operative Bank (NACB), now Bank of Agriculture	GM (55.8%), SAP (42.8%) MD (40.9%), CDDA (4.0.5%)	4
16	Directorate for Food Roads and Rural Infrastructure (DFRI)	None	0
17	Better Life Programme for Rural Women (BLPRW)	None	0
18	National Fadama Development Project (NFDLP)	IFN (40.0%), CB (41.0%) RFHV (50.3%), BUA (45.6%)	4
19	National Agricultural Land Development Authority (NALDA)	TBA (52.0%)	1
20	Family Economic Advancement Programme (FEAP)	FGD (48.0%)	1
21	Family Support Programme (FSP)	FGD (40.0%)	1
22	National Economic Empowerment and Development Strategy (NEEDS)	CB (42.0%)	1
23	Presidential Initiatives on Select Crops (PISC)	None	0
24	National Programme for Food Security	None	0
25	Agricultural Transformation Agenda (ATA)	PBS ((41.0%), GM (45.5%)	2
26	Nigeria Incentive-Based Risk Sharing	None	0

	Agricultural Lending (NIRSAL)		
27	Rural Finance Institution Building Programme (RFIBB)	TBA (41.2%)	1
28	Agricultural Transformation Support Programme Phase 1 (ATSP)	None	0
29	Value Chain Development Programme	None	0
30	CBN Anchor Borrowers Programme	LSAP (49.3), FGD (50.7%), MD(40.9%), PBS (48.8%), RFHV(46.8%),GM (40.0%)	6
31	Seven Point Agenda	None	0

Performance evaluation of agricultural development intervention programmes

The performance of past and current agricultural programmes were judged by the objectives and field performance (Table 4). The evaluation was dichotomised as either good or poor performance. Thirteen (13) programmes had good performance out of 31 programmes. These were National Accelerated Food Production Project, Agricultural Development Projects, Operation Feed the Nation, Root and Tuber Expansion Programme, National Directorate of Employment, Accelerated Development Area Project, Back to Land, Nigeria Agricultural Insurance Scheme, Better Life Programme for Rural Women, National Fadama Development Programme, National Economic Empowerment and Development Strategy, National Programme for Food Security, and Anchor Borrowers Programme. Eighteen programmes were regarded as poor considering the programme objectives and performance impact on the people.

Table 4 Percentage Response to Performance of Agricultural Development Intervention Programmes

S/N	Programme	Frequency Response/Percentage			Remark
1	RAP	Failed	140	(65.1)	Poor
		Passed	75	(34.9)	
2	NAFPP	Failed	71	(33.0)	Good
		Passed	144	(67.0)	
3	FSS	Failed	136	(63.3)	Poor
		Passed	79	(36.7)	
4	ADP	Failed	120	(55.8)	Good
		Passed	95	(44.2)	
5	OFN	Failed	123	(57.2)	Poor
		Passed	72	(33.5)	
6	RBDAs	Failed	144	(67.0)	Poor
		Passed	71	(33.0)	
7	GRP	Failed	142	(66.0)	Poor
		Passed	73	(34.0)	
8	SAP	Failed	143	(66.5)	Poor
		Passed	72	(33.5)	
9	RTEP	Failed	64	(29.8)	Good
		Passed	151	(70.2)	
10	NDE	Failed	76	(35.3)	Good
		Passed	139	(64.7)	
11	ADAP	Failed	126	(58.6)	Good
		Passed	89	(41.4)	
12	BL	Failed	89	(41.4)	Good
		Passed	126	(58.6)	
13	NAIS	Failed	125	(58.1)	Good
		Passed	90	(41.9)	
14	MSAP	Failed	144	(67.0)	Poor
		Passed	71	(33.0)	
15	NACB	Failed	132	(61.4)	poor
		Passed	83	(38.6)	
16	DFRRI	Failed	132	(61.4)	poor
		Passed	83	(38.6)	
17	BLPPRW	Failed	99	(46.0)	Good
		Passed	116	(54.0)	
18	NFDp	Failed	90	(41.9)	Good
		Passed	125	(58.1)	
19	NALDA	Failed	151	(70.2)	Poor
		Passed	64	(29.8)	
20	FEAP	Failed	139	(64.7)	Poor
		Passed	76	(35.3)	
21	FSP	Failed	136	(64.7)	Poor
		Passed	79	(36.7)	
22	NEEDS	Failed	119	(53.3)	Good
		Passed	96	(44.7)	
23	PISC	Failed	165	(76.7)	Poor
		Passed	50	(23.3)	

24	NPFS	Failed	116	(64.0)	
		Passed	99	(46.0)	Good
25	ATA	Failed	140	(65.1)	
26		Passed	75	(34.9)	Poor
	NIRSAL	Failed	132	(61.4)	
		Passed	83	(38.6)	
27	RFIBP	Failed	155	(72.1)	
		Passed	60	(27.9)	Poor
28	ATSP	Failed	146	(67.7)	
		Passed	69	(32.1)	Poor
29	VCDP	Failed	160	(74.4)	
		Passed	55	(25.6)	Poor
30	ABP	Failed	94	(43.7)	
		Passed	121	(56.3)	Good
31	SPA	Failed	143	(66.5)	
		Passed	72	(33.5)	

Number of implementation techniques and programme performance

The relationship between number of implementation techniques and programme performance was tested by use of Pearson Correlation (Table 5). A positive and significant relationship existed between number of implementation techniques and programme performance $r = 0.428, p < 0.05$). This connotes that the more number of implementation techniques used the more successful the outcome of a programme. Many programmes have been implemented as mere political fanfare and to meet the interest of politician without using any form of implementation technique. One programme with good number of in-built implementation technique is enough to transform the Nigeria agricultural industry. Future programmes should be matched with relevant implementation techniques to drive the programme implementation process.

Table 5: Correlation between implementation technique and performance

Variables	Implementation Technique	Performance Evaluation
Implementation Technique	1	0.428
Pearson R		
Significance(2 tailed)		0.016
N	31	31
Performance Evaluation	0.428	1
Pearson R		
Significance (2 tailed)	0.016	
N	31	31

IV. Conclusion And Recommendation

The study investigated thirty (31) agricultural development intervention programmes implemented in Nigeria and twenty (20) implementation techniques. Many of the programmes failed to use the expected implementation techniques to enhance achieving the programmes goals. The Agricultural Development Projects, Operation Feed the Nation, National Fadama Development Programme, National Directorate of Employment and Anchor Borrowers programme made use 5, 6, 4, 4 and 6 programme implementation techniques respectively hence the successes recorded in those programmes. Implementation techniques are positively and significantly related to the performance of agricultural intervention programmes. Yusuf *et, al* (2017) recommended that agricultural development intervention programmes should be integrated into the ministries and agencies for better outcomes. Ovwigho and Ifie (2009) confirmed that the long duration and success of the NDE was due to the fact that it was created as an agency. Many of the agricultural intervention programmes in Nigeria stopped functioning when the administration that established them was no more in power. It is the recommendation of this study that agricultural development intervention programmes should make use of appropriate implementation techniques. Programmes. The programmes should be agency based and made to continue with successive political administration.