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Using Linkage Mechanism in Community Development Activities in Edo State, Nigeria

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ABSTRACT: The study examined the effectiveness of linkage mechanism in community development activities (CDAs) in Edo State Nigeria using Data collection through structured questionnaire administration to157 local leaders and 31 extension agents. Results shows obtained show that informal linkage mechanisms like social gathering (18.5% and 22.6%) was very low among local leaders and extension agents while 21.0% of local leaders and all (100%) sampled extension agents used community visits and joint problem identification. Majority (66.6% and 75.0%) of local leaders and extension agents perceived use of linkage mechanisms effective in community development activities. 77.1% of local leaders and 77.4% of the extension agents indicated incompatibility of government policies as serious(% ≥ 50) constraint in the use of linkage mechanism in CDAs by local leaders and the extension agents. Significant difference existed between effectiveness of linkage mechanisms between local leaders ($\bar{x}$ = 43.15) and extension agents ($\bar{x}$ = 21.86) in facilitating community development activities in the study area as t-test value obtained was 6.72. The study recommends effective linkage mechanism in community development activities; community developers encouraged and assisted through the formulation of compatible policies which would enhance and promote use of linkage mechanisms in community development activities/efforts.

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Agriculture is main source of livelihood in Nigeria rural communities. This probably made successive government in Nigeria since independence in October 1st 1960 made agriculture transformation, community development their target. Agricultural Development Programme (ADP) has made significant impacts on agriculture and rural community in nations and had impact sustainable, revitalized services, human capacity building, transfer and adoption of innovations, rural infrastructure development, and poverty reduction (Apu and Nwachukwu, 2013, Mengal et al., 2017). But inadequate food supply, abject poverty, and poor rural development remain hallmarks in most Nigeria rural communities. Study revealed that weak linkage is limiting increase food productivity, agriculture transformation and sustainable development (Adenuga, 2013).Also that linkage system among system actors are ineffective (linkage mechanism among system actors/ or stakeholders are ineffective (Agba et al., 2013; Mengal et al., 2017).Linkage mechanisms are actions to obtain result or channel information between groups, coordinate required tasks/activities in process of getting relevant technologies to end-users (Mengal et al., 2017). These actions are common features of ADP programmes/projects implementation which explain why ADP programmes are widely embrace in Nigeria and probably enable its recorded successes. Linkage activities help improve resource use by avoiding the duplication of effort while ensuring that critical tasks

do not fall through the institutional cracks as earlier noted (Swanson, 1993). When community developers (local leaders and extension agents among others) have access to adequate linkage mechanisms, relevant factors and undertaken, then the visions of community and national development can be attained. Poor community development persist despite streaming linkage efforts such as helping community people organize themselves to empower their growth and development (Anandajayasekeram, et al., 2008); initiate activities geared towards community development through considerable coordination, organization of responsibilities and roles. Local leaders are the baseline to every successful community development project (Udensi, et al., 2012) and have better knowledge of the prevailing local conditions and have better ability to enforcing rules, monitor behaviour, and verify actions related to interventions (Platteau and Gaspart, 2003). They help organize and assist in the spread of new ideas and practices to community members and are link between agents of change and community people. (Udensi et al., 2012). Therefore, the objective of this study was to evaluate the effective use of linkage mechanism in community development activities in Edo State, Nigeria.

MATERIALS AND METHODS

Study Area: The study was carried out in Edo State, located in the southern part of Nigeria. It is bounded in the North and East by Kogi State, in the South by Delta State and in the West by Ondo State. The State is located between latitudes 05^{o} 44′ North and 07^{o} 34′ North and longitude 05^{o} 04′ East and 06^{o} 43′ East with a land mass of 17,802km^{2} (6,873sqm) and an estimated population of 4,430,739 National Nutrition and Health Survey. The State is also divided into 3 senatorial districts which are Edo South, Edo North and Edo Central. Edo State is home to several ethnicities among them are the Benin, Esan, Afemai, Emai, Ijaw and others. The State has eighteen (18) Local Government Areas (LGAs) – Akoko -Edo, Egor, Esan North-East, Esan Central, Esan South-East, Esan West, Etsako Central, Oredo, Orhionwon, Ovia North-East, Ovia South-East, Owan West and Ikpoba-Okha. Each of the local government area has chairman as its administrative head. The people of the State are predominantly farmers, with households of 838,107 and 1416 communities in Edo State National Bureau of Statistics (NBS, 2009). The agricultural resources in the State consist of food crops, forestry products and livestock. The main food crops cultivate include, yam cassava, maize and rice. Locally made wooden and metal sculptures are also of commercial and cultural importance especially among the Benin ethnic.

Sampling Procedure and sample size: A multi-stage sampling procedure was used in the selection of respondents for this study. Simple random sampling method was used to select 31 extension agents and 157 local leaders for the study.

Data Collection: The data used were sourced from primary and secondary sources. Primary data were collected with the aid of structured questionnaires while secondary data from past research works and literatures. The questionnaires were divided into two sections: section A was designed to capture the social economic characteristics of the respondents (local leader and extension agents) while section B assessed the linkage among the respondents.

Data Analysis Technique: Descriptive and inferential statistics such as frequency count, percentages, standard deviation and mean was used primarily to describe the socio-economic profile of the respondents. Inferential statistics such as logit regression model was used to determine the relationships that exist between variables.

RESULTS AND DISCUSSION

Linkage Mechanisms Use by Local Leaders and Extension agents: It was observed that informal linkage mechanisms, social gathering, use was very low (18.5% and 22.6%)among local leaders and extension agents while 21.0% of the local leaders and all sampled (100%) extension agents used community visits (Table 1). Home visit was used by 77.4% of extension agents, demonstration was used by 83.9%, and establishment of small plot adoption technique and fortnightly training were used by (71.0% and 90.3%) extension agent respectively. All (100%)extension agents respondents used joint problem identification while 51.6% used joint market building. This finding indicates that only extension agents used some of the informal linkage mechanisms as local leaders were found to use them less. This may be connected to the fact that the identified linkage mechanisms are mostly used as extension strategies to reach rural farmers for effective information and other resources dissemination. This may equally be use by the extension agents to link up with local leaders for sustainable community development through the government, NGOs and rural dwellers efforts. The findings corroborated Okoedo-okojie and Okon (2013) that demonstration, joint campaign, home visits among others linkage mechanisms were the common mechanisms used by extension agents in educating rural farmers in Edo state. Therefore, strong linkage mechanisms and programmes/projects will be a critical step toward ensuring that community develops with assistance of community members while

extension agents provide or guide in the choice of the linkage mechanism and programme to ensure they are effective. For the organization mechanism, civil society dialogue was 77.4% among extension agents, exhibition and display was 67.7%, sharing of technical expertise was 93.5%, information dissemination and knowledge was 100% and evaluation of field visits 100% among extension agents. This finding also implied that extension agents used more of these organization linkage mechanisms more than the local leaders as all linkage mechanisms had low percent of less than 50.0% among the local leaders. At the same time, the study shows that extension agents use all identified organization linkage mechanisms as routine activities in performing their duties as social and community development workers. With the effective use of these linkage mechanisms, it is sure that both the local leaders and the extension agents will be able to building a strong system that would enhance development as asserted by Agbamu (2000). This study submitted that proper linkage between farmers and extension workers nurse a lot of benefits which both stand to benefits.

Table 1: Linkage mechanisms by local leaders and extension agents

Linkage mechanism	**Local leaders**		**Extension agents**	
Informal Mechanism	**Frequency**	**percentage**	**Frequency**	**Percentage**
Social gathering	29	18.5	7	22.6
Community visit	33	21.0	31	100.0
Home visit	27	17.2	24	77.4
Trade associations	41	26.1	13	41.9
Joint campaign	12	7.6	13	41.9
Demonstration	56	35.7	26	83.9
Small plot adoption technique(SPAT)	76	48.4	22	71.0
Forth night training (FNT)	36	22.9	28	90.3
Joint problem identification	32	20.4	31	100.0
Joint building of market	17	10.8	16	51.6
Joint construction of road	31	19.7	11	35.5
Joint building of primary health centre	23	14.6	5	16.1
Joint constructing bore hole	17	10.8	14	45.2
Joint building community hall	33	21.0	5	16.1
Organizational Mechanism				
Civil society dialogue	41	26.1	24	77.4
Mass organizations	29	18.5	14	45.2
Exchange of infrastructure	11	7.0	2	6.5
Exhibition and display	57	36.3	21	67.7
Sharing of technical expertise	46	29.3	29	93.5
Dissemination of Knowledge and information	42	26.8	31	100.0
Publications	34	21.7	27	87.1
Joint seminar and workshop training	52	33.1	25	80.6
Evaluation of reports	68	43.3	28	90.3
Evaluation of field visits	41	26.1	31	100.0

Source: Field Survey, 2019

Effectiveness of Linkage Mechanism by Local Leaders and Extension Agents: The results (Table 2)showed that almost all the identified linkage mechanisms between local leaders and extension agents were rated to be effective ($\bar{x} \geq 3.0$) for each of the variables for both local leaders and extension agents except for joint building of markets ($\bar{x}$ = 1.62) and ($\bar{x}$ = 2.17), joint road construction ($\bar{x}$ = 1.43) and ($\bar{x}$ = 2.16), joint building of primary health centres ($\bar{x}$ = 1.43) and ($\bar{x}$ = 2.77) as well as joint building community hall ($\bar{x}$ = 2.18) and ($\bar{x}$ = 2.19) for the local leaders and extension workers for informal linkage mechanisms.

For the formal/organization linkage mechanism, it was observed that mass organization ($\bar{x}$ = 2.18), exchange of infrastructure ($\bar{x}$ = 2.54) and publication ($\bar{x}$ =2.54) were not rated effective by local leaders while exhibition and display ($\bar{x}$ = 2.66) was rated ineffective among by extension agents in all the organization linkage mechanisms. Table 2 shows that64.3% of the informal linkage mechanisms were perceived by local leaders and extension agents as effective in CDAs. 70.0% of local leaders and 50.0% of extension agents perceived linkage mechanisms to be effective in CDAs. These implied that many of the linkage mechanisms were used by both local leaders and extension agents were effective and the implication is that community development activities in the study area might be yielding desired results.

This is probably because local leaders and extension agents were in mutual relationships through effective linkage mechanisms. Extension works are better when there is mutual relationship between her and the clientele in a good atmosphere as this may have been through effective linkage mechanisms.

The finding corroborates the finding of Okoedo-Okojie and Okon (2013) that concluded that there was effective linkage mechanism between farmers and extension agents in Edo State, Nigeria.

Table 2: Effectiveness of linkage between local leaders and extension agents

Linkage mechanism	**Local leaders**		**Ext. Agents**	
Informal Mechanism	**Mean**	**Std. Dev**	**Mean**	**Std. Dev**
Social gathering	3.09*	0.38	3.52*	0.18
Community visit	3.51*	0.73	4.44*	0.43
Home visit	3.22*	0.65	3.51*	0.75
Trader associations	3.63*	0.39	3.29*	0.07
Joint campaign	3.27*	0.52	3.33*	0.66
Demonstration	3.33*	0.17	4.42*	0.16
Small plot adoption technique (SPAT)	3.19*	0.44	3.95*	0.46
Forth night training (FNT meeting)	3.29*	0.45	4.25*	0.45
Joint problem identification	3.25*	0.93	4.01*	0.67
Joint building of market	1.62	0.17	2.17	0.77
Joint construction of road	1.43	0.61	2.16	0.76
Joint building of primary health centre	1.43	0.48	2.77	0.43
Joint constructing bore hole	2.54	0.42	2.54	0.16
Joint building community hall	2.18	0.61	2.19	0.66
Organizational Mechanism				
Civil society dialogue	3.27*	0.66	4.08*	0.16
Mass organizations	2.18	0.35	3.17*	0.54
Exchange of infrastructure	2.54	0.10	3.15*	0.56
Exhibition and display	3.22*	0.42	2.66	0.67
Sharing of technical expertise	3.42*	0.50	3.13*	0.87
Dissemination of Knowledge and information	3.71*	0.31	4.56*	0.43
Publications	2.54	0.77	3.51*	0.17
Joint seminar and workshop training	3.21*	0.14	3.17*	0.43
Evaluation of reports	3.67*	0.42	4.42*	0.56
Evaluation of field visits	3.93*	0.61	4.69*	0.17

*Source: Field Survey, 2019 *Mean ≥ 3.0 = Effective*

The significance of these linkage mechanisms are enormous as they could be used to facilitate and complete projects, build relationships between stakeholders in community development efforts and unfreeze a society with a view to introducing innovations that may make life better for the members of the community.

Determinants of Effectiveness of Linkage Mechanisms in Community Development Activities among Local Leaders: Table 3 shows the variables that determine the direction and magnitude of effectiveness of linkage mechanisms in community development activities. Results showed that marital status (z = 3.19), rank/position (z = -2.42) occupied by the local leaders and leadership experiences (z = -3.09) were the significant determinants of effectiveness in linkage mechanisms use by the local leaders in community development activities at 5% significant level. The negative sign before values associated with rank/position of local leaders is an indication that an inverse relationship existed between rank and use of linkage mechanisms in community development. This implies that local leaders with high rank use of linkage mechanisms were not effective as much as those of lower ranks in community development activities. While the married use of linkage mechanisms were effective than the unmarried and those with higher leadership experience were more effective in use of linkage mechanisms than those with lower experiences in community development activities. The *apriori* expectation is that the married would participate more and perhaps be more effective in use of linkage mechanisms in community development activities than the unmarried. This is because the married may likely consider their family (spouse, children and relation) in the community who would benefit from the outcome of community development activities and as a results, this may determine their level of commitment as supported by the findings of Adam (2002) that indicated that marital status is a critical determinant of sustainability of community development activities. This implies that commitment is a function of sustainability and this has a strong correlation with the level of roles played with tendency to be effective in use developmental inputs. According to Beierle (2000), leadership experience is a significant factor that influencing decision making process and level of role performance in community development activities. The odd ratio for the significant indicators could be interpreted by looking at their percentage contribution to the use of linkage mechanisms. For the married status, it means that the married would use 29% of the linkage mechanisms in community development activities while ranks and leadership experience would bring about 25% and 19% variation with a unit change in the use of linkage mechanisms in community development activities. The Log likelihood value of -125.758 indicates that the value is

big enough and this shows that the model is fit for this analysis.

On the part of the extension agents (Table 4), results showed that marital status (z = -3.14), rank (z = -2.73), working experience (z = 2.43) and employment type (z = -3.46) were the significant determinants of effectiveness of linkage mechanisms use among extension agents in community development activities. This finding is similar to what was obtained in Table 4 for the community local leaders. It simply means that extension agents who are married are effective in the use of linkage mechanisms in community development activities than their counterparts that were not married. This may be true as the married may be more committed to community development. This will enhance performance and enable more commitment to the job. Hence, it has positive effect on the community development activities. Similarly, extension agents with high ranks may not show much commitment as much as the younger ones in the use of linkage mechanisms in community development activities. This is because as one grows in position in the work place, one is expected to have subordinates who had been trained to perform their roles in situations where technologies are required. In the same vein, type of employment is a function of role played as confirmed staff and permanent staff may likely be effective in the use of linkage mechanisms in community development activities than staff on probation. The Log likelihood = -158.124669 is an indication that the model is fit and suitable for this analysis.

Table 3: Determinants of effectiveness of linkage mechanisms in community development activities by local leaders

	Odd ratio	Std. Error	Z	P>|z|	Decision
Sex	0.18	0.03	-0.70	0.48	NS
Age in years	2.38	1.08	1.32	0.32	NS
Marital Status	1.29	0.50	3.19*	0.02	S
Do you have formal education	1.31	0.31	1.14	0.25	NS
Level of formal education	1.28	1.05	0.30	0.76	NS
Rank or position in the community	0.25	0.13	-2.42*	0.05	S
Leadership experience (year)	0.19	0.04	3.09*	0.02	S
Employment type	0.13	0.32	-0.06	0.96	NS
Household size (Number)	0.11	0.16	1.27	0.62	NS

*Source: Field Survey, 2019. No of obs = 157, LR Wald $\chi 2$ (8) = 34.16, Prob>Wald $\chi 2$ = 0.2539, Log likelihood = -125.758404 Pseudo R2 = 0.2648 CI= 95%*significant at 5%**Significant at 1%*

Table 4: Determinants of linkage mechanisms effectiveness in community development activities among extension agents

	Odd ratio	Std. Error	Z	P>|z|	Decision
Sex	1.02	0.25	1.18	0.23	NS
Age (years)	1.29	0.85	0.86	0.38	NS
Marital Status	0.25	0.18	-3.14**	0.00	S
Level of education	1.20	0.18	1.21	0.22	NS
Rank/position of Ext. agent	0.66	0.37	-2.73*	0.02	S
Working experience	0.78	0.13	2.43*	0.02	S
Employment type	0.38	0.29	-3.46**	0.00	S

Source: Field Survey, 2019.

*Number of obs = 157, LR Wald χ^2 (10) = 121.41 Prob>Wald χ^2 = 0.2265, Log likelihood = -158.124669 Pseudo R^2 = 0.4894; *significant at 5%; **Significant at 1%*

Difference between Effectiveness of Linkage Mechanisms by Local Leaders and Extension Agents in Community Development Activities: Table 5 shows that there was a significant difference in the effectiveness of linkage mechanism used between local leaders (mean = 43.15) and extension agents (mean = 21.86) in facilitating community development activities in the study area as the t-test value obtained was 6.72. The findings show that both the local leaders and extension agents used the identified linkage mechanisms to facilitate community development activities differently. This may be attributed to the fact that the limited number of extension agents as reported by the World Bank (2004). The limited number of extension agents to carry out social works will make local leaders to device ways of helping themselves with or without assistance from external agencies.

Table 5: Difference between effectiveness of linkage mechanisms use by local leaders and extension agents in community development activities

	Mean	Std. Dev	Mean dif.	t-value	Sig	Decision
Local leaders	43.15	18.44	21.29	6.72**	0.00	S
Ext. Agent	21.86	9.71				

*Source: Field Survey, 2019.**Significant at 1%*

Constraining Factors to Use of Linkage Mechanisms: Results in Table 6 show the various constraints to local leaders and extension agents use of linkage mechanisms in community development activities. Results in the table showed that 77.1% of local leaders and 77.4% of extension agents indicated incompatibility of government policies as a constraint. This was rated as a serious constraint by local leaders (100%) and extension agents (100%). Also, incompatibility of government programmes was identified as serious constraint by 89.2% of local leaders and 71.0% extension agents. More so, insufficient fund was identified as the most prominent constraint by all (100%) sampled local leaders and extension agents and it is a serious constraint to use of linkage mechanisms in CDAs. This is not far from the expectations as finance is always a problem of extension works since the withdrawal of funding by the World Bank in early 90s (Nasarawa State Agricultural Development Programme, 2010) and Agbamu (2000). This has hindered many developmental projects that would have eradicated or reduced poverty among rural people. On the incompatibility of government policies and programmes/projects, Nigeria stands out in the areas of government programmes/projects and policies as many agricultural extension programmes were developed to alleviate poverty and rural sufferings since independence. However, these programmes/projects have been very inconsistent and policies to implement such have been very unstable (Koledoye and Gbadamosi, 2017). This instability in policies could be very frustrating and have negative effects on the quality and completion time of programmes/projects if not abandoned. Furthermore, poor programme/project implementation was indicated as a constraint by 70.1% of local leaders and 77.4% of extension workers and this was also rated as a serious constraint. The implication of this finding is that these identified unserious constraints may not necessarily impede the achievement of goals and objectives of community development activities among local leaders and extension agents. This is because the relationships between the duo are not in any way affected by the constraints but serious thought should be given to them as they can become problem in the use of linkage mechanisms in near future.

Table 6: Constraining factors to effective use of linkage mechanisms by respondents

Constraints	**Local leaders**		**Extension leaders**	
	Frequency	**%**	**Frequency**	**%**
Incompatibility of government policies	121	77.1*****	24	77.4*****
Incompatibility of government programmes/projects	140	89.2*****	22	71.0*****
Insufficient sources of funds	157	100*****	31	100*****
Poor implementation of programmes/projects	110	70.1*****	24	77.4*****
Gender bias	18	11.5	2	6.5
High cost of motivation	62	39.5	22	71.0*****
Lack of cooperation among stakeholders	76	48.4	14	45.2
Unequal participation of stakeholder	69	43.9	16	51.6*****
Scarcity and problems of land resource	91	58.0*****	6	19.4
Effects of the traditions and culture	58	36.9	12	38.7
Self-centeredness of people	127	80.9*****	21	67.7*****
Political instability	110	70.1*****	27	87.1*****
Time	117	74.5*****	11	35.5
Illiteracy/low educational qualifications	46	29.3	9	29.0
Lack of adequate communication infrastructure	29	18.5	6	19.4
Disagreement among stakeholders	45	28.7	12	38.7
Women discrimination	12	7.6	5	16.1
Environmental degradation	44	28.0	15	48.4
Inadequate appropriate mechanisms	61	38.9	9	29.0
Conflict of interest of community leaders	73	46.5	12	38.7
Difference in religious belief	43	27.4	7	22.6
Large household sizes	9	5.7	2	6.5
Interference by opposition groups	53	33.8	7	22.6
Poor monitoring and evaluation	29	18.5	21	67.7*****
Insufficient time for training	54	34.4	17	54.8*****
Poor implementation of development efforts	85	54.1*****	14	45.2
Ineffectiveness of extension works	39	24.8	5	16.1
Lack of adequate teaching material	59	37.6	17	54.8*****
Credibility of the extension agent	53	33.8	2	6.5
Opinion and value judgment	67	42.7	5	16.1

*Field Survey, 2019: *Percentage (%) ≥ 50 = Serious, otherwise (%) Not serious*

Conclusion: The effectiveness of linkage mechanisms use in community development activities in Edo State had been examined in this study. This study suggested that local leaders and extension agents use several linkage mechanisms in CDA and that linkage mechanisms were effective in community development activities in Edo State. In addition, significant difference existed between effectiveness of linkage mechanism use in community development activities by local leaders and ext agents in community development activities in the study in Edo State.

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