Int. j. adv. multidisc. res. stud. 2022; 2(4):371-375

International Journal of Advanced Multidisciplinary Research and Studies

ISSN: 2583-049X

Effectiveness of Training on VADI Project's Participating Households Productivity in Kwara State, Nigeria

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Abstract

The study examined effectiveness of training on VADI project's participating households in Kwara State, Nigeria. Primary data were collected by means of structured interview schedule and three stage sampling procedure was used for the selection of 60 respondents; involving the selection of 2 local governments from the state, 2 communities per selected LGAs and sampling of 15 participating households from each of the selected communities. Descriptive statistics and Pearson Product Moment Correlation were used in analyzing the data. The mean age of the respondents was 49.5 and majority (58.3) were males. The respondents had a positive perception about ARMTI training programmes and unanimously agreed that the training programmes be sustained. Top on the list of challenges identified are inadequate finance (40%),

Keywords: ARMTI, VADI, Effectiveness, Training, Participating

1. Introduction

The Village Alive Development Initiative (VADI) is an action-oriented research laboratory of ARMTI. The initiative initially took off in 1995 as Village Alive Women Association (VAWA). After a period of dormancy of the original Village Alive Women Association (VAWA), ARMTI Management resuscitated the project as the Village Alive Development Initiative (VADI) in 2011, to include men, women and youth as beneficiaries in the project. This was followed by the conduct of a socioeconomic survey of four selected communities (Falokun-oja, Fufu, Apa-ola and Elerinjare) in Kwara State.

The survey showed that more than 80% of the dwellers of the selected communities lived below poverty line (VADI Field Survey, 2011). They were mainly engaged in rain-fed farming and largely unemployed during the dry season. The men were often less busy during the dry season and usually experience severe food shortage often times. Their income and literacy levels were low, and these largely accounted for the low nutritional status of the food consumed by them. Hence, they were usually prone to health hazards. Their productivity was low because of their poor access to modern farm inputs and extension services. In addition, they used traditional methods in processing their farm produce resulting to post-harvest losses and inability to expand their production activities. They also lacked adequate access to credit facilities and market. It was therefore observed generally that lack of market information, and access to finance by the rural poor, are part of the main reasons why people remain poor.

Consequent upon these findings, ARMTI designed action research to evolve a sustainable strategy for poverty alleviation using the selected villages as social laboratory. The project aims at creating village-level opportunities to alleviate poverty amongst



project beyond its present tentacles.

improvement in their productivity and business enterprise. It

was recommended that the institute should develop a more

robust framework to capture the key challenges faced by

participants of VADI project as this will encourage non-

participants to join thereby increasing the spread of the



Accepted: 14-07-2022

Received: 04-06-2022

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rural people and also use the result to strengthen ARMTI's training programme.

The broad objectives of VADI relate to increase in income level, poverty reduction and human capital development in poor households and communities. Although, there are reports about the constraints and potentials of the programme, there is a research gap in the assessment of its activities on the income level of participating households. More so, there have been serious claims on the part of the institute about the success of VADI project, all without substantive investigative evidence backed by research. We cannot substantiate these claims without subjecting them to empirical research to assess to what extent the project has achieved its objectives. It is against this background that this study was designed to specifically: determine the perception of farmers on the effectiveness of VADI project; examine the benefits derived from VADI; and identify the challenges faced by VADI participants.

2. Methodology

Study Area

The study was carried out in Kwara State, Nigeria. Kwara State lies on latitudes 110 2| and 110 45|N, and longitude 20 45| and 60 4|E (National Bureau of Statistics, 2011)^[7]. It covers a land area of about 32500km2. It is bounded in the north by Niger State, in the south by Oyo, Osun and Ekiti States and in the east by Kogi State. It also has an international boundary in the west with the Republic of Benin. The seasonal pattern of the state is dual; with dry and wet seasons with the wettest months occurring usually between July and September. Monthly rainfall varies between 50.8mm and 241.3mm levels with the annual mean rainfall between 745.5mm and 1,409.2mm. Average atmosphere temperature is between 180C and 350C. Kwara state has 24 forest reserves covering 5,087.2sq km (NBS, 2011)^[7].

Sampling Technique and Sample Size

A three-stage sampling technique was used for the study. The first stage involves a purposive selection of the two Local governments under VADI operation (Ilorin South and Ifelodun) in Kwara State. The second stage also involves a purposive selection of the four pioneer communities after the resuscitation of VADI in 2012 (Apa-Ola, Falokun-Oja, Elerinjare and Fufu) in Ifelodun and Ilorin South Local Government Areas of Kwara State. The third stage involves the use of a systematic random sampling technique to select 15 respondents each across the four (4) communities making a total of sixty (60) respondents for the study. Primary data was obtained for the study and were collected through the use of interview schedule.

Data analysis

Data collected for this study were analyzed using descriptive statistics such as mean, frequency, percentages and standard deviation. Pearson Product Moment Correlation Coefficient was used to test the relationships between the test variables and generated hypothesis.

Pearson Product Moment Correlation (PPMC): was used to test the measure of strength and direction of relationship that exist between the respondents' socio-economic characteristics and the perception of farmers on the effectiveness of ARMTI VADI programme.

$$PMCC(X,Y) = \frac{n\left(\sum_{i=1}^{n} X_{i}Y_{i}\right) - \left(\sum_{i=1}^{n} X_{i}\right)\left(\sum_{i=1}^{n} Y_{i}\right)}{\sqrt{\left[n\left(\sum_{i=1}^{n} X_{i}^{2}\right) - \left(\sum_{i=1}^{n} X_{i}\right)^{2}\right]\left[n\left(\sum_{i=1}^{n} Y_{i}^{2}\right) - \left(\sum_{i=1}^{n} Y_{i}\right)^{2}\right]}}$$

Where X is the socio-economic characteristics of the respondents,

Y is their perception of farmers on the effectiveness of ARMTI VADI programmes, and n is the number of observations of these variables.

3. Results and discussion

Socioeconomic characteristics of the respondents

The descriptive analysis of socioeconomic characteristics of respondents in the study areas in Table 1 revealed that majority (55.0%) of the respondents were within the age bracket of 37 – 55 years. This implies that majority of the respondents are still in their middle age, which indicates that the respondents are still in their active age that can enhance agricultural production. Age is regarded as an important socioeconomic characteristic as it can affect productivity, output and adoption of innovation. The Table also revealed that 58.3% of the respondents were males. This is in agreement with reports by Falola, Banjoko and Ukpebor (2012)^[5]; Olaoye and Oloruntoba (2011)^[11] and Ogunlade (2007)^[9] that revealed that males are mostly involved in farming activities than their female counterparts. This can be attributed to the tedious nature of farming activities particularly in the aspect of cultivation, as noted by Okonji and Bekerederemo (2011)^[10].

In addition, Table 1 shows that 76.7% of the respondents were married. This corroborates the stand that the marriage institution is still cherished and an indication of economic responsibilities of the respondents in caring for their dependents (Adeyemi et al., 2002). A relatively large household size comprising of 5 - 10 person made up 51.7%of the respondents. The implication of this is that there will be more members of the family working on the farm. This is because small scale farming is labour intensive, requiring labour contribution from the farming family, particularly in post-harvest activities. This is in line with findings by Ahmed (2003)^[4] who reported that farming communities in Nigeria consider marriage as an important aspect of their culture and hope that family members will help with farming activities. Results showed a significant proportion (11.7%, 15% and 25%) of the farmers in the communities have one form of educational exposure or the other. The proportion of respondents with formal education was encouraging and it could likely have positive impact on adoption of technology.

Earlier reports had observed that education plays an important role in technology adoption.

 Table 1: Distribution of respondents according to their socioeconomic characteristics (N=60)

Variables	Frequency	Percentage
Age		
≤ 18	1	1.7
19 – 36	19	31.7
37 – 55	33	55.0
56 and above	7	11.7
Mean Age		49.5
Community name		
Fufu	15	25.0
Apaola	15	25.0

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Falokun-oja	21	35.0
Elerinjare	9	15.0
Marital status		
Single	5	8.3
Married	46	76.7
Widowed	7	11.7
Separated	2	3.3
Sex		
Male	35	58.3
Female	25	41.7
Household size		
< 5	18	30.0
5 -10	31	51.7
>10	11	18.3
Level of Education		
No Formal Education	23	38.3
Quranic Education	3	5.0
Adult Education	3	5.0
Primary Education	7	11.7
Secondary Education	9	15.0
Tertiary Education	15	25.0
Total	60	100.0

Source: Field Survey, 2018

Fig 1 shows the sources of income of respondents before attending ARMTI training programme (s). The result revealed that majority (36.7%) and (25.0%) were involved in farming and trading respectively as their sources of income. This result is in line with the findings of Adeleke and Balogun (2013)^[2] which affirmed that most rural people have farming as their major source of income.



Fig 1: Respondents' sources of income

Perception of VADI participants on the effectiveness of ARMTI training programmes

Table 2 shows the effect of ARMTI training programmes on various production activities in the study area. Majority (85.0%) of the farmers perceived ARMTI training programmes as being very effective on their farming activities. The result is in tandem with the works of Nweke, (2002) ^[8] and Marketa and Sanjiya, (2012) ^[6] who in their separate studies identified training as the best way to impact on farming activities.

 Table 2: Perceived effect of ARMTI training programmes on farm activities

Items	Frequency	Percentages
Very effective	51	85.0
Effective	9	15.0
Not Effective	0	0.0
C	10	

Source: Field Survey, 2018

Table 3 shows the perception of farmers about ARMTI Training Programmes. 79.7% of the farmers perceived ARMTI Training Programmes as very effective. This result explains the fact that ARMTI training programmes are impactful and appreciated in the study area. The result underscores the need to continuously train and re-train farmers in the study area especially, where they seem to possess inadequate knowledge and/ or the right management skills needed to perform optimally on the farm and improve their productivity. Also, the result affirms the need for ARMTI to engage in research-based Training Needs Analysis in order to identify the specific gaps within the production system is now paramount. This will include identifying the specific role of training on farm development and livelihood and further provide empirical data for planning of future trainings.

Table 3: Farmers' Perception of ARMTI Training Programmes

Frequency	Percentage
47	79.7
11	18.6
1	1.7
59	100.0
	Frequency 47 11 1 59

Source: Field Survey, 2018

Table 4 shows respondents' views on whether ARMTI training programmes should be sustained and all (100%) the respondents unanimously agreed for it to be sustained. This further buttress the conclusion from year 2016 progress report on VADI that the project has served as an experiential learning process for ARMTI and has impacted on the people's lives as shown above. There has been increased and diversified sources of income as part of the impact of the project. This has improved their standard of living in many ways. The lives of the people in the project communities are being transformed positively by VADI project.

Table 4: Sustainability of ARMTI Programmes

Response	Frequency	Percentages
Yes	60	100
No	0	0.0
Total	60	100

Source: Field Survey, 2018



Fig 2: Farmers Motivating Factors for Participating in VADI

Fig 2 revealed farmers' motivating factors for participating in ARMTI training programmes. Top on the list of motivating factors is the quality of the training (63.2%). This result shows that majority of the farmers affirm that ARMTI's training programmes are of high quality. Another key motivating factor as pointed out by the farmers is the positive change experienced in their businesses. This also shows that ARMTI's training has helped to bring about a International Journal of Advanced Multidisciplinary Research and Studies

significant improvement in the overall income of the farmers. It must be noted also that improvement in the income of the beneficiaries will ultimately lead to an improvement in the standard of living of the farmers.

Benefits derived from ARMTI training programme

On the benefits derived from ARMTI training programmes, about 40.0% of the farmers reported in fig 3 that ARMTI's training programmes have been helpful in their businesses. Equally worthy of note is that 18.3% of the respondents admitted that ARMTI raining programmes have improved their confidence level as well as in knowledge sharing. Moreover, about 16.7% of the farmers had their productivity improved by attending ARMTI training programmes.



Fig 3: Benefits Derived from ARMTI Programmes

Fig 4 revealed that 35.0% of the respondents have acquired new marketing skills while about 23.3% have acquired new business management skills. Other skills acquired include: Record Keeping (21.7%), Human resource management (10.0%) and Monitoring of enterprise activities (10.0%). The result confirms the impact of ARMTI training programmes on the beneficiaries.



Fig 4: Management activities improved upon by attending ARMTI Training

Challenges faced by VADI Participants

Fig 5 shows the challenges faced by farmers in their farming enterprise. The result shows that inadequate finance (42.0%) ranked as the major challenge faced by farmers in their enterprise. The other challenges faced by farmers are: market problems (14.0%), and herdsmen encroachment into farmlands (14.0%). The result is in tandem with the work of Sekaleli and Sebusi (2013), who identified lack of finance as a major constraint to farmers adopting different technological innovations in their farming enterprise. Also, the result also revealed the negative influence of herdsmen on farming activities in the study area. Adeleke (2017) ^[1] described the attack by herdsmen as the biggest monster staring agricultural production and development in the face.



Fig 5: Distribution of respondents according to the challenges faced in farming enterprise

Fig 6 shows a description of the steps taken by farmers in resolving the challenges faced in their farming/business enterprise. Majority (41.2%) of the respondents joined the various groups in the VADI project in order to get solution to some of the challenges staring them in the face. Others solve these challenges by participating in seminars (39.2%) and by applying for loans (19.6%). The result shows the effectiveness of VADI project in helping farmers solve the numerous challenges faced by them.



Fig 6: Distribution of respondents according to steps taken in resolving challenges faced in farming enterprise

Hypothesis

Ho1: There is no significant relationship between some selected socio-economic characteristics of the respondents and the perception of farmers on the effectiveness of ARMTI's training programmes.

Table 5 shows the relationship between selected socioeconomic characteristics and perception of farmers on the effectiveness of ARMTI training programmes. It was revealed that age has a significant association with the farmers' perception on the effectiveness of the technical support provided and quality of the training programme (pvalue < 0.05) while that of the perception on improved productivity was significant at p-value of 10% (i.e pvalue=0.059 < critical p-value of 0.10). Also, there is a significant association between seed fund from VADI and farmers' perception on the effectiveness of ARMTI training programmes (r=0.209). The higher the correlation coefficient, the better the degree of co-movement between the selected socio-economic variables and the farmers' perception on the effectiveness of ARMTI training programmes in the study area although, an inverse association (r= - 0.219, p-value < 0.05) was observed in the relationship between age and technical support provided by the ARMTI. This indicates that as age increases the lesser is the technical support provided by the scheme and vice versa. However, this might be because as man grows older, his

breadth of knowledge and experiences increase and the lesser man might likely depend on technical support and the technical knowledge he has acquired through past experience. This observation is in agreement with the report of Olumba and Raji (2014) that as age increases, experience can be tapped to improve the respondents farming prowess.

 Table 5: Relationship between Respondents' Perception of respondents of ARMTI Training Programmes and their Socio-economic Characteristics

Perceptions	Socio-economic characteristics		
	Age	Farming experience	Farm size
Improved productivity	0.184* (0.059)	0.133 (0.175)	-0.053 (0.557)
Quality of training programme	0.220** (0.023)	0.146 (0.134)	0.044 (0.651)
Seed fund from VADI	0.103 (0.293)	-0.018 (0.853)	0.209** (0.032)
Provision of market	0.088 (0.372)	-0.027 (0.785)	-0.045 (0.649)
Access to Land	0.095 (0.331)	-0.003 (0.972)	0.120 (0.219)
Availability of tractors and ATM	0.015 (0.880)	-0.044 (0.653)	0.285** (0.003)
Sales of farm produce	0.041 (0.673)	0.100 (0.104)	0.157 (0.108)
Training season	-0.219** (0.024)	-0.053 (0.593)	-0.025 (0.802)
Access to right information	0.013 (0.897)	0.046 (0.639)	0.082 (0.406)

Source: Field Survey, (2018)

Figure in parenthesis is P-Value ** Significant at Pv. = 5%, *significant at Pv=10%

4. Conclusion and recommendations

The study concluded that respondents had a good perception about ARMTI training programmes and adjudged its training as effective in bringing about a significant improvement in their productivity and business enterprise thereby leading to higher income as a result of membership of VADI. In lieu of the foregoing, it was recommended that:

- ARMTI should develop a more robust framework to capture the key challenges faced by participants of VADI project. This will no doubt encourage nonparticipants to join thereby increasing the spread of the project beyond its present tentacles.
- Effort should be made through the institute's capital budget to increase the seed fund for VADI credit scheme so that more participating households can have access to credit as at when due. This will go a long way in helping their farm and non-farm enterprise grow thereby improving their livelihood.

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