

IMPACT ASSESSMENT OF POVERTY ALLEVIATION SCHEME OF NATIONAL DIRECTORATE OF EMPLOYMENT (NDE) IN KOGI STATE, NIGERIA

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ABSTRACT

This study is on impact assessment of poverty alleviation scheme of the National Directorate of Employment (NDE) in Kogi State of Nigeria. The specific objectives were to: describe the socioeconomic characteristics of participants and non-participants of the NDE programme, determine the influence of socioeconomic characteristics on the income of participants, and assess the impact of the programme on income. A multi-stage random sampling procedure was used to select a sample of 192 respondents (participant and non-participants). Data collected were analysed using descriptive statistics, OLS regression and the Double Difference in Difference Estimator (DDE). The results showed that the majority of the participants in the programme were males while the mean age was 42 years. An average household size for the participants was 5 persons. The analysis also showed that education influenced the income of NDE Participants negatively, while farm size and farming experience had positive influence on income. The Double Difference Estimator (DDE) showed that income after the programme was significantly higher than income before the programme ($p < 0.001$). The DDE further indicated that income increase for participants of NDE was significantly higher than those of non-Participants ($p < 0.001$) at 5% level of probability. The study recommends that government should open up more poverty alleviation programmes in rural communities to accommodate more persons in the programme.

Key Words: Poverty, NDE, Impact, Employment

INTRODUCTION

The most fundamental challenges facing the world today is food insecurity and poverty. Poverty exists in every nation of the world and the unabated increase in poverty is posing a serious concern and danger to the survival and development of many nations of the world today. Despite the myriads of Poverty alleviation programmes we have seen, poverty has never stopped soaring in Nigeria. According Olotu *et al.*, (2015) the poverty situation in Nigeria is quite disturbing; both the quantitative and qualitative measurements attest to the accelerating incidence and depth of poverty in the country. National Bureau of statistics also stated that since independence there had been deterioration of the quality of life of Nigerians which has resulted in steady increase in the number of Nigerians caught below the poverty line.

The National Directorate of Employment which was established in 1986 was targeted at employing youths and training them towards self-employment and how to utilize finance. In order to actualize its mandate the Directorate launched four well-articulated programme in 1987. These were: National Youth Employment Programmes, Small Scale Industrialists graduate employment programmes, Special Works programme and agricultural programmes (Gbosi, 2015). The NDE also floated some agricultural programmes including Graduate Agricultural Self- Employment Scheme, School Leavers Farming Scheme, Crop Farming Scheme, Crop Processing Scheme, Crop Processing Training Scheme, Artisan Fishing Scheme, Livestock Production Scheme, Dry Season Irrigation Farming Scheme, Block Farming Employment Scheme, Integrated Farming Training Scheme (IFTS), Agro-Service and Rural Agricultural Development Training Scheme.

Specifically in spite of various interventions, the poverty situation in Kogi State is growing at an alarming and geometric rate. Although several studies have been conducted to examine the effects of poverty alleviation programmes in Nigeria (Onwe and Chibuzor, 2015, Bukar, Kura and Idris 2014), these studies have been conducted outside the context of NDE. The study worth noting is that of Obike, Ukoha and Nwajiuba, (2007) in which logistic regression model was used, but it was limited to Abia State.

METHODOLOGY

Kogi State was created on August 27th 1991 from Kwara and Benue States with the Capital at Lokoja. Geographically, it is located between latitude 6°30¹N and 8°48¹N and Longitude 5°23¹E and 7°48¹E. Kogi State is marked with two distinct seasons in a year; these are wet and dry seasons. The wet season spans between middle of March and October and the dry season is usually experienced between the months of October and March. It has a land area of 283,135,359Km² (NPC, 2006).

The population of the study comprised of all the 8,985 participants of the National Directorate of Employment (NDE) in Kogi State. A sample size of 99 participants and 99 non- participants were selected as respondents, following the Yamane (1967) formula. Respondents for the study were selected using proportionate sampling technique as specified below:

$$nh = Nh(N/h)$$

Where;

nh = Sample size from Yamane's formula,

Nh = Sample frame,

n = Sample size from each group,

N = Total number of participants from the selected zones

Table 1: Sample Size Selection at Senatorial District’s Level

Senatorial District/Zone	Participants		Non- Participants
	Sample Frame	Sample Size	Sample Size
Central	3,129	34	34
East	3,176	35	35
West	2,680	30	30
Total	8,985	99	99

Source: Authors’ Computation using Data from NDE State Office, 2019

Primary data obtained through the administration of questionnaire were analysed using descriptive and inferential statistical tools. The Ordinary Least Square (OLS) multiple regression analysis was used to determine the influence of socioeconomic variables on participants’ income while the Difference-in-Difference estimator was used to establish the impact of participation in NDE scheme on income.

The implicit form of the OLS model is specified as follows:

$$Y_i = f(X_{is})$$

$$Y_i = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + e_i$$

Y_i = income of participants from the NDE enterprises engaged in poverty alleviation programmes (N)

X_1 = age of the household (years)

X_2 = household size (number)

X_3 = years spent in schooling

X_4 = income of the participants (N)

X_5 = income of the non- participants (N)

X_6 = farming experience (years)

e = error term.

RESULTS AND DISCUSSION

Socio-economic Characteristics of Respondents in Kogi State

The socio-economic characteristics of the participants in the NDE programme and non-participants are presented in Table 1. Although there were more males than females, the spread of the participation across gender was fair and could be attributed to the gender accommodating nature of the programme as indicated by the various schemes floated by the Directorate. These schemes like Vocational Skills Development Programme, National Open Apprenticeship Scheme, School on Wheel, Waste to Wealth (WTW) and Resettlement Loan Scheme are open to both gender. The age distribution indicates that, participants in NDE programmes are relatively in youthful and middle age category. The youthful age of the participants and non-participants hold potentials as regards energy and skills acquisition. As Uwagboe *et al* (2010) reported, age plays important role in skills acquisition; if majority of the participants are old they will have less energy and this will affect their skill acquisition programmes. The percentage score of married respondents was high on both sides. The result on participant's marital status concurs with the findings of Eze and Onwubuga (2009) who found that majority of the participants were married as well as those of Sabo (2005) which revealed that majority of the participants and non-participants were married. The mean household size for both the participants and non-participants is 5 persons. This is smaller than national average of 7 as noted by Onuche *et al* (2020). Furthermore, according to Onuche *et al* (2014), household size have implications for labour availability and could influence the likelihood of skill acquisition especially in relation to the financial status of the family which is largely influenced by the age mixes in families.

The result also shows relative high level of educational attainment among the respondents. Education is known to increase managerial and adaptive capability of individuals and has been found to be one of the most important factors in innovation adoption process as well as acquiring training skills in any organization (Opaluwa, 2014) attested to the finding that high literacy level contributes positively to acquiring of skills. The occupational distributions of the respondents has implication on the income and level of living of participants is that it could promote or enhance livelihood diversification which could also make more money available for investment in farming and poverty reduction. Overall, Participants had larger farm sizes then non-participants as the mean farm sizes were 5.0 ha and 3.1 ha for participants and non- participants respectively. Generally, participants had more experience than non-participants. Furthermore, Table 1 also reveals that personal efforts through savings and cooperative operations were the major sources of income.

Table 1: Socio Economic Characteristics of the Respondents

Sex	Participants			Non-Participants		
	Freq.	%	Mean	Freq.	%	Mean
Male	284	74.0		260	67.7	
Female	100	26.0		124	32.3	
Total	384	100.0		384	100	
Age						
20-30	32	8.33		88	22.92	
31 -40	168	43.75		148	38.54	
41-50	124	32.29		84	21.88	
51-60	24	6.25		16	4.17	
61-70	36	9.38		48	12.50	
Total	384	100.00	42	384	100	40.00
Marital status						
Single	28	7.3		76	19.8	
Married	344	89.6		268	69.8	
Widow	8	2.1		16	4.2	
Divorce	4	1.0		12	3.1	
Total	384	100.00		384	100	
Household size						
1-5	228	59.38		232	60.42	
6-10	148	38.54		152	36.46	
11-15	8	2.08		0	0	
Total	384	100.00	5	384	100	5
Educational Qualification						
Adult education	8	2.1		4	1.0	
Primary	8	2.1		16	4.2	
Secondary	56	14.6		84	21.9	
Tertiary level: ND/NCE, HND/First degree, Higher degree	312	81.3		280	72.9	
Total	384	100.00		384	100	
Major Occupation						
Farming	92	24.0		124	32.3	
Trading	48	12.5		88	22.9	
Civil Service	168	43.8		140	36.5	
Artisan	36	9.4		20	5.2	
Others	40	10.4		12	3.1	
Total	384	100.00		384	100	
Total Farmland owned in 2007 (Ha)						
0.1-3	168	43.75		256	66.67	
3.2-6	172	44.79		116	30.21	
6.1-9	12	3.13		12	3.13	
>9.0	32	8.33		0	0	

Total	384	100.00	5.0	384	100	3.1
Farming Experience						
1-10	136	35.42		156	40.63	
11-20	124	32.29		204	53.13	
21-30	108	28.13		24	6.25	
31-40	16	4.17		0	0	
Total	384	100.00	16.12	384	100	12.56
Sources of income						
Personal savings	140	36.5		140	36.5	
Loans from friends/relative	44	11.5		44	11.5	
Cooperative Society	140	36.5		140	36.5	
Bank loan	60	15.6		60	15.6	
Total	384	100.0		384	100	

Source: Computation of Data from Field Survey, 2019.

Influence of Socioeconomic Characteristics on the Income of Participants

The estimates of the OLS regression on the influence of socioeconomic characteristics on income of the participants in NDE programmes are presented in Table 2. The linear functional form was chosen as lead equation among the four functional forms tried because it was the best of fit. It has a coefficient of multiple determinant (R^2) value of 0.746, highest F-ratio of 54.211 and lowest standard errors. The R^2 value of 0.746 implies that 74.6% of the variation in the income was jointly explained by the independent variables used in the regression analysis.

As indicated in Table 4.2 Age was observed to have an inverse relationship with the income of the participants of NDE programmes in Kogi State. The implication is that, an increase in the ages of the participants will lead to a decrease in income of the participants in NDE programmes. This agrees with the findings of Mbah (2011) who reported effects of socio-economic characteristics on farmers output in Ishiagu, Ebonyi State Nigeria.

It was expected that the high level of Education level (X_2) of the participants in the State earlier noted would lead to enhanced income. However, this is not the case as the effect of education on the income of participants of NDE programmes was negative. Gregorio and Lee (2003) had reported the general influence of education on income. Their report is not in tandem with what was found in this study.

Table 2: Influence of Socioeconomic Characteristics on Incomes of NDE programme Participants Kogi State

Variable	Coeff.	t	Sign.
Constant	2342.56	.197	0.849
Age	-286.80	-1.30	.198
Education	-1442.46	-3.08**	.003
Farm size	6203.98	7.13**	.002
Experience	1525.02	5.06**	.008
R ²	0.746		
F-ratio	54.211**		
N	96		

Source: Computation of Data from Field Survey, 2019.

Note: *, **= significant at 5% and 1% respectively

Farm size (X_3) had influence on income at 1% level of probability. This implies that increase in farm size of the participants means increase in the level of the income. This result is in consonance with the findings of Julius and Job (2012) who used multiple regression analysis to show that participants land area cultivated significantly influenced maize output. Experience (X_4) also had positive influence on the income level. This means that increase in the experience of the participants in the poverty alleviation programmes of the State increases their income status. This conforms to the findings of Julius and Job (2012), Enete and Okon (2010) have also reported that years of experience affects the returns from farm production activities depending on their location.

Impact of NDE on Income of Participants

The impact of NDE schemes on income of participants is presented next in Table 3. The results of Double Difference Estimator shows the annual income for the non-participants which is the control before they participated in NDE poverty alleviation programmes. For the non-participants in NDE programmes the income after the program (₦ 390,000) was higher than the income before the programme (₦96,000). Expectedly, the income of participants also increased significantly by ₦590,000. These findings indicate increase in the incomes of the two sets of respondents. The difference in difference analysis however indicates a significantly positive income increase difference in favour of the participants at 1% level of probability. This is an indication that the positive change in income of the participants is linked to participation in NDE schemes, implying that the NDE schemes had improved the income of the participants and thus recorded success in its operation in Kogi state.

This result is in agreement with the findings of Abdullahi (2006) who found that a significant difference in income between participants and non-participants in his study of some poverty eradication programmes.

Table 3: Impact of NDE on Income of the Participants in Kogi State

Double Difference Estimation Results for Kogi State				n = 96
Outcome var.	INC	S. Err.	/t/	P>/t/
Participant	9.6e + 04			
	3.9e + 05			
Diff (T – C)	3.0e + 05	9.2e + 04	3.21	0.001***
Non participant	3.4e + 05			
	9.3e + 05			
Diff (T – C)	5.9e + 05	9.2e + 04	6.40	0.000***
Diff- in- Diff	2.9e + 05	1.3e + 05	2.25	0.025**

R- Square : 0.19; N=96

* Means and standard Errors are estimated by linear regression

Inference: * p<0.01; ** p< 0.05; * p<0.1

CONCLUSION AND RECOMMENDATIONS

It can be concluded from findings of this study that, participants of the NDE poverty alleviation programmes in Kogi state were able to increase their incomes, indicating that the programme was successful. Based on the outcome of this study, the following recommendations are made:

1. Since the participants of NDE programme have their income increased for participating in NDE poverty alleviation programme therefore their continue participation will increase their standard of living.
2. Farm settlement centres should be re-introduced in order that the young graduates will have access to land that will attract more young agricultural graduates into the poverty alleviation programmes
3. There is need for an institutional mechanism to monitor progress in policy implementation so as to eliminate wastage and corruption in the system. This will enhance changes where necessary for effective policy implementation.
4. As it is comparatively found in this study the participants have their income increased when they participated in poverty alleviation programmes than non-participants, government should open up more poverty alleviation programmes in our rural communities to accommodate more persons in the programme.

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