THE ROLE OF THE NATIONAL ECONOMIC EMPOWERMENT AND DEVELOPMENT STRATEGY (NEEDS) EDUCATIONAL POLICY IN POVERTY REDUCTION IN SOKOTO STATE, NIGERIA

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ABSTRACT

This study examines the impact of the National Economic Empowerment and Development Strategy (NEEDS) programme on poverty reduction in Sokoto State of North-western Nigeria, through the channels of the education policy. A total of 826 responses from 11 Local Government Areas (LGAs) were received through a structured questionnaire. The data was analysed using descriptive statistics and the binary logit regression model. It is found that the NEEDS has had a significant impact on the education of the participating households,

which could lead to poverty reduction in the study area. The results also reveal that the NEEDS educational policy is likely to empower the youth to be self-reliant and productive in order to combat poverty in Sokoto State. It is suggested that the government should plan educational policies in the context of poverty reduction, by creating a conducive atmosphere for learning. Further, those who have benefited from similar programmes can be involved in raising awareness of future programmes. In addition, the government should enact a law on children's education so that domestic work in the household and family businesses do not interfere with children's education.

Keywords: needs, access to education, equal opportunity for education, Skills Acquisition, ICT literacy, poverty reduction.

INTRODUCTION

The National Economic Empowerment and Development Strategy (NEEDS) was introduced in 2004, after military rule in Nigeria. After different approaches to development problems by the various military administrations, the challenge of reforming the public sector into a responsive and efficient instrument for services delivery to the people is still prevailing; fraudulent activities and corruption have to be ruthlessly combated; the private sector has to be empowered to lead the process of growth towards becoming competitive; infrastructural decay needs urgent attention; and the vulnerable and weak segment of the population needs uplifting (NEEDS Secretariat, 2004). Therefore, the implementation of NEEDS is a response to the challenges of development in Nigeria (International Monetary Fund - IMF, 2007).

In 2003, the then Nigerian government came up with the idea of NEEDS and launched it in 2004 (IMF, 2007), to see if the lapses of the past development plans could be corrected. Reports from the IMF (2007) and the NEEDS Secretariat (2004) state that the programme as a poverty reduction strategy, hinges on four major approaches; a social charter for the people; institutional reforms by the government; re-orientation of the people to the African value system; and enhancing the growth of the private sector. The reports add that the social charter of the NEEDS is enshrined to cover health, education, gender equality, employment generation, water provision and sanitation, and

poverty reduction (IMF, 2007), as well as security and participation (NEEDS Secretariat, 2004). However, little impact has been recorded in relation to social services delivery (Onwuemele, 2015).

Implementation, monitoring, and evaluation of NEEDS at the national level and its versions at the State and Local Governments levels (States Economic Empowerment and Development Strategy; and Local Economic Empowerment and Development Strategy - SEEDS and LEEDS), are also the concerns of the programme (NEEDS Secretariat, 2004).

The major aim of this paper to examine the impact of the NEEDS programme on poverty reduction in Sokoto State of North-western Nigeria. Although several studies have been conducted on the impact of the NEEDS programme on education, for instance, by Abimbola, Omosewo, and Upahi (2014) and Aderemi (2013), to mention a few, such studies have not been able to link the educational impact of the programme on poverty reduction. In particular, very few studies are available on the impact of the NEEDS programme in the study area. This study, therefore, fills the gap by relating the educational impact of the NEEDS programme on poverty reduction in Sokoto State. The findings can add to the body of knowledge on the educational impact of the NEEDS programme on poverty reduction in Nigeria.

Motivation of the Study

In tackling the problem of poverty in Nigeria, the NEEDS programme makes use of the education policy as one of its major strategies. This is because education is seen as one of the most significant instruments for fighting poverty. However, many households, especially in developing nations, find it extremely difficult to send their children to school, mostly due to poverty. This has adversely affected the global rate of school enrolment and the rate of out-of-school children globally.

It is indeed in relation to this problem that UNESCO (2017) has reported that there are at least 264 million out-of-school children in the world and 750 million adults can neither read nor write, with women constituting about 63 percent of this total. Out of this figure, Sub-Saharan Africa records the highest number of out-of-school children

in all age groups, as more than half of its young people, ranging from age 15 to 17 years are included in this. Children living in poverty are more likely to be affected by this trend (UNESCO, 2016). As a result of this global problem in the education sector, other development organisations, like the World Bank, the United Nations, and UNICEF, have also developed interests in the issue of education, particularly in the developing countries.

In its study on education in Africa, UNICEF (2011) has found that millions of children in Central and West Africa are still denied access to education, although the region is responsible for one-third and one-fifth of the world's total out-of-school primary school and junior secondary school children, respectively. This scenario is obviously unhealthy because education is the right of every child and quality education is the basis for children's success later in life, as well as an important instrument for poverty reduction (UNICEF, 2022; The World Bank Group, 2022). Education enables students to develop skills needed to lead meaningful, healthy, and productive lives (World Bank, 2018).

In Nigeria, although considerable progress has been made in the past by the government, particularly in the programme of Education for All (EFA), more than 50 million adults are estimated to be illiterates and about 8.6 million children are out of school as at 2011 (UNESCO, 2011). Similarly, the Independent Commission for Aid Impact (ICAI) (2015) reports that Nigeria has been off-track in pursuing the educational objectives of the Millennium Development Goals - MDGs - in the areas of universal primary education and elimination of gender disparities in access to education. Consequently, ICAI (2015) reports that 10 percent of the world's out-of-school children are Nigerians, and about nine million of this proportion (equivalent to 37 percent of its primary school-age category) were not in school as at 2007 due to economic and social circumstances; the majority of this category were girls.

This unhealthy development is very pronounced in Sokoto State. More than 69 percent of the school-age children in Sokoto State were out of school in 2015 (although the rate dropped to 37 percent by 2017 (Agency Report, 2017)). These points to the fact that Sokoto State is one of the educationally backward States in Nigeria. In relation

to the poverty situation in the country, reports evince that Sokoto State is perpetually leading the poverty table in Nigeria as the poorest State with poverty rates of 81.2 percent in 2012 and 87.73 percent in 2020 (National Bureau of Statistics (NBS), 2012; Varrella, 2020). This is an indication that education has not been able to alleviate the poverty situation in the State, and has necessitated the conduct of a study on the relationship between educational policy of the NEEDS programme and poverty reduction in Sokoto State.

It is against this background that this study examines the role of the NEEDS educational policy in poverty reduction in Sokoto State of North-western Nigeria. The study also determines the impact of the NEEDS programme on the participants against the non-participants. It is expected that this study can fill the gap in extant studies on the NEEDS educational policy and poverty reduction as very few studies are available, to the best of the researchers' knowledge, on the subject matter, particularly in the study area. This study hopes to add to the body of knowledge and proffers policy implications and suggestions for the government and development planners. It is also hoped that the findings of this study can contribute to the fight against poverty and lead to enhanced economic growth and development.

LITERATURE REVIEW

The issue of poverty has been a major development problem in most developing countries, particularly. This is because it hampers the well-being of the poor, distorts their productive and economic activities by blocking their chances of generating income and savings, does not facilitate accumulation of capital (both human and material), and results in a zero-investment level. This further perpetuates the menace of poverty, including the poor health and lack of education of the population. It is obvious, therefore, that poverty reduction is among the serious challenges facing many developing countries where majority of the people are poor.

The relationship between poverty and education has been extensively studied by many researchers under different circumstances. For instance, Knight, Shi, and Quheng (2010) observed that there are close and strong relationships between poverty and education in a number

of ways, and these interactions are capable of creating a vicious cycle of educational deprivation and poverty. However, if properly handled, education can enhance human capital and sustainable development, efficiency, value, and productivity of labour, thereby increasing wages necessary for poverty eradication (Maiyo et al., 2009; Morrisson, 2002; Omoniyi, 2013; Roberts, 2003).

According to Zapp (2017), the World Bank is "one of the most influential actors" in the governance of global education. Research on the role of the World Bank in education has frequently focused on discovering the "ideological underpinnings" of World Bank's recommendations on education, and how it impacts learning opportunities and public education systems. Accessibility to education has been associated with prevention of poverty and well-being (McNamara et al., 2017). This is because raising the well-being of the poor and the elimination of poverty will obviously enable the poor to realise their potential in society (Roslan, 2004). Despite the inherent value of education to the poor, there still seems to be an increasing number of out-of-school children in many developing countries.

In related studies by Cremin and Nakabugo (2012) and Thapa (2013), it has been reported that education is one of the major indices and components of human development in the world, the others being health and employment. On the other hand, illiteracy, low quality education, and poverty, are the major problems facing developing countries. Evidently, the poor quality of education received by youth is a major factor that triggers the cycle of poverty from one generation to another (Spaull, 2015). Obviously, children with higher educational attainment will be more likely to have access to employment opportunities (Ma, 2019).

Education is a necessary ingredient for human capital development, and human capital is vital for both economic growth and poverty reduction. According to Razak et al. (2010), human capital is necessary for the promotion of economic growth and development as it enables the individual to be more innovative and productive economically. Young, Hong, and Pandey (2007) reported that of all the human capital variables, education is a very important factor associated with poverty reduction. However, the quality of education is of paramount importance if the aim of poverty reduction through education is to be achieved.

Tarabini (2010) posited that, "if more and better education is not parallel to more and better jobs; if poor people have no options to take advantage of the educational investment; if only access to school for the poor pupils is guaranteed without substantially altering the school and social conditions under which the schooling process takes place; there is a risk of obtaining a better-educated population that is as poor as before; a population highly disappointed by the impossibility to fulfil the educational promise". Therefore, quality education should not be sacrificed for mass education in trying to fight poverty.

After several efforts in the fight against poverty, the Nigerian government resorted to the NEEDS which is expected to correct the mistakes of the past and produce fruitful results in the future. This is why the programme was given wider publicity for massive participation. Adata, Geller, and McConnell (2006) stated that the NEEDS as Nigeria's poverty reduction strategy, enjoys strong ownership within government and civil society organisations. The programme emphasises Nigeria's commitment to an agenda that aims to place the country on the path of sustainable long-term poverty reduction by changing attitudes and behaviours of the citizens as well as policies and legislation.

Adata et al. (2006) summarised the major objectives of NEEDS as developing a social charter on education, health, employment, poverty reduction, empowerment, welfare, and participation of the people; promoting the private sector; reforming the government institutions; improvement in agricultural productivity to reduce poverty and promote employment generation; and reorient values away from "business as usual". Consequently, the spirit and institutions of NEEDS have been established at all levels of the three tiers of the government (at Federal, State and Local Government levels), for better and more encompassing results. Anyanwu (2012) recalled that the equivalent of NEEDS at State and Local Government levels are the State Economic Empowerment and Development Strategy (SEEDS) and the Local Government Economic Empowerment and Development Strategy (LEEDS). McDonald et al. (2014) noted that NEEDS is the government's strategised way to fight poverty, hunger, and underdevelopment at all levels of government in Nigeria. Accordingly, the programme is accessible to the poor so as to have its impacts felt by all and sundry.

The major goal of NEEDS, according to Olusoji and Oloba (2014), is poverty reduction in the country by engaging the various sectors of the economy, especially by promoting private enterprise, which is essentially seen as the "engine of growth". The performance of the public sector has been very disappointing due to the corrupt practices of the public servants. For instance, Aderemi (2013) observed that the education sector did not perform well even during the first phase of the NEEDS, as evinced by the educational parameters over the pre-NEEDS years. This was later affirmed by the European Union and the International Organisation for Migration (International Organization for Migration (IOM), 2014), that conducted a survey on the education sector and discovered incapacitating skills and competency gaps in the sector.

However, Aderemi (2013), in determining whether or not the goals of education have been realised by the NEEDS programme, reported that there has been a remarkable improvement in the sector, particularly in adult literacy, female enrolment in primary schools, and the rate of completion of primary education, as well as the final Senior Secondary School Certificate examinations. Accordingly, the IMF (2007) reports that progress in the education sector has been slow but steady, particularly with the growth in the number of schools at all levels. At least, there has been remarkable progress in the sector because before the NEEDS period, educational performance was not encouraging, with the rate in adult literacy being 57 percent and pupil-teacher ratio in the primary school being 41:1 (Aderemi, 2013).

METHODOLOGY

Sokoto State has an estimated population of 3,702,676 (National Population Commission, 2017) and comprises 23 Local Government Areas (LGAs) and three Senatorial zones. Two Senatorial zones (Sokoto East and Sokoto South) have eight LGAs each, while Sokoto North has seven LGAs. In order to arrive at the appropriate sample size for this study, multi-stage random sampling was used to select the LGAs, following Clark et al. (2015). The procedure was conducted in the following manner: firstly, stratified sampling was employed. The State was stratified according to Senatorial Zones (as shown on Table 1). All the LGAs in each Senatorial zone were arranged alphabetically and serialised. To avoid bias in the selection of the LGAs, all the LGAs with even numbers were selected.

Table 1

Local Government Areas Distribution by Senatorial Zones in Sokoto State

Sokoto East	Sokoto North	Sokoto South
Gada	Binji	Bodinga
Goronyo	Gudu	Dange-Shuni
Gwadabawa	Kware	Kebbe
Illela	Silame	Shagari
Isa	Sokoto-North	Sokoto-South
Rabah	Tangaza	Tambuwal
Sabon Birni	Wamakko	Tureta
Wurno		Yabo

Source: National Population Commission (2017)

Eleven LGAs have been selected for this study as displayed on the Table 2 below.

Table 2

Selected Local Government Areas by Senatorial Zones in Sokoto State

Sokoto East	Sokoto North	Sokoto South
Goronyo	Gudu	Dange-Shuni
Illela	Silame	Shagari
Rabah	Tangaza	Tambuwal
Wurno		Yabo

Source: Researcher's Compilation (2018)

Secondly, a probability sampling (systematic random sampling) was employed to select Registration Areas (RAs) in each LGA. A Directory of Polling Units issued by the Independent National Electoral Commission (INEC) (2015) was used to get the RAs in all the selected LGAs. Here again, all RAs with even numbers were selected, as done by Maitra and Rao (2015).

Thirdly, a probability random sampling (systematic sampling) was used to select households in each of the selected RAs. Finally, the convenience sampling method was used to administer the questionnaire to the households. Convenience sampling is simply

the gathering of information from respondents who are conveniently available to provide the necessary information. The convenience could be either due to availability at the time of call, geographical proximity, easy accessibility, or willingness to participate in the study. Consequently, the questionnaire was administered to the household head (male or female) available at the time of call, and in the absence of the substantive household head, the most senior person in the household or anyone who represented the head, was served with the questionnaire.

The study used cross-sectional data gathered using the self-administered structured questionnaire. A 5-point Likert scale type of questionnaire was used. To arrive at the total sample of the study, Krejcie and Morgan (1970) recommended the use of 384 as the maximum sample for a population of 1,000,000 and above, and an additional 4 percent to 50 percent to be added to avoid sample size error and non-response problem (Salkind, 2012). This study adopted 4 percent, equivalent to 154, making a total of 538 questionnaires for participants and 538 questionnaires for non-participants (equivalent to 1,076 questionnaires in total). This figure is the sample size of this study. Hence, a total of 1,076 questionnaires were taken to the sampled area for distribution to the respondents, out of which 858 were collected (giving a response rate of 79.7 percent). Of this figure, 826 were useable for data analysis, comprising 430 participants of the NEEDS programme and 396 non-participants.

The NEEDS participants are those individuals who have participated in the activities of the NEEDS programme (for instance, enrolling their children in schools). The non-participants are those individuals who have similar characteristics as the participants, but have not participated in the activities of the NEEDS programme. The NEEDS programme is an open one, and being a participant is at the will of the individual. Therefore, if one or more members of a household are enrolled in school during the period, the entire household is classified as a participant of the programme. The cross-sectional data collected include demographic characteristics, access to education, equal opportunity for education, skills acquisition, and ICT literacy.

One important approach of the NEEDS programme towards achieving its goal of poverty reduction, is to ensure unhindered accessibility to education for all Nigerian children of school age. Accessibility to

education is essentially vital for the achievement of human potential because lack of education has been shown to be positively related to poverty.

Equal opportunity for education is also necessary for human resource development. A good education system would only be able to address the economic and social inequalities if it is equitable. Therefore, an individual can only achieve a better job and a clearer vision to transform his or her life and contribute positively to the society if he or she has the opportunity to be educated.

Similarly, the acquisition of skills can potentially lead to poverty reduction and education is responsible for the development of knowledge and skills for entrepreneurship and employment as well as poverty reduction. Vocational training, entrepreneurship education, and the quality of vocational education, are very vital for the empowerment of youth and for poverty reduction.

In the same vein, most efforts to reduce poverty nowadays are enhanced by ICT through formal education which is the most suitable avenue for ICT literacy development. Similarly, ICT initiatives are very powerful tools for boosting the economy and enhancing income generation. Therefore, the role of ICT in human development and for poverty reduction cannot be overemphasised

Model Specification

The main hypothesis for this study is that the NEEDS programme contributes to the reduction of poverty in the study area.

Therefore, in order to assess the variable of poverty reduction and its relationship to the NEEDS programme in the study area, binary logistic regression was employed, as follows:

$$L_i = l_n \left(\frac{P_i}{1 - P_i} \right) = \beta_1 + \beta_2 X_i + \mu_i$$

This implies that L, which is the log of the odds ratio, is also linear in both X and parameters. Note that P varies from 0 to 1 as Z moves from $-\omega$ to $+\omega$.

In the same manner, the model for this study can be specified as follows:

$POV_i = \beta_0 + \beta_1 Access_{1i} + \beta_2 Oppot_{2i} + \beta_3 Skills_{3i} + \beta_4 ICT_{4i} + \beta_5 Gender_{5i} + \beta_6 MST_{6i} + \beta_7 ETH_{7i} +$

$\beta_8 LED_{8i} + \beta_9 OCP_{9i} + \beta_{10} Age_{10i} + \beta_{11} INC_{11i} + \mu_i$

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where;

POVi is the binary dependent variable (*POVi*=1 if the respondent is non-poor; *POVi* = 0 if the respondent is poor). The current poverty line of US$1.90 per day as indicated by the World Bank (2016) (in 2011, international purchasing power parity – PPP), was used as the yardstick for measuring the level of poverty of the respondents. Thus, those whose daily income is below the Index were regarded as poor, while those earning $1.90 and above were classified as non-poor.

The independent variables are:

Access = Access to education
Oppot = Equal opportunity for education
Skills = Skills acquisition
ICT = ICT literacy
Gender = Gender of the household head
MST = Marital status of the household head
ETH = Ethnic group of the household head
LED = Level of education of the household head
OCP = Occupation of the household head
Age = Age (in years) of the household head
INC = Monthly income of the household head

In the above model, poverty reduction is the dependent variable, while access to education, equal opportunity for education, skills acquisition, ICT literacy, gender, marital status, ethnic group, level of education, occupation, age, and monthly income of the household head, are the explanatory variables.

FINDINGS AND DISUSSIONS

This section is further divided into two sub-sections. The first sub-section discusses Table 3, which is the summary of statistics. The second sub-section discusses Table 4, which is the findings of the empirical analysis.

Summary of Statistics

The demographic and socio-economic characteristics of the participants of the NEEDS programme, as well as the non-participants, are displayed in Table 3. The descriptive results are purely based on

means, frequency tables and the hypotheses tests conducted in order to compare the two groups (participants and non-participants). From the total of 826 useable responses from the households, 430 (52.06 percent) are NEEDS participants and the remaining 396 (47.94 percent) are non-participants.

In terms of gender, 724 of the sampled respondents are male, constituting about 87.65 percent while 102 (about 12.35 percent) are female. The male participants are 380 (about 88.37 percent) against the non-participants at 344 (about 86.87 percent). On the other hand, the female participants are 50 (11.63 percent), while the female non-participants are 52 (13.13 percent). The results, therefore, indicate that there is no remarkable difference in terms of gender between the participants and non-participants.

In terms of the education level of the household head, majority of the respondents have attained some level of formal education; 323 (39.10 percent) have primary school education; 286 (34.62 percent) have secondary school education; 61 (7.38 percent) possess technical education from technical schools; while 24 (2.91 percent) of the respondents have attained up to university education. However, 132 (15.98 percent) of the respondents have never been to school to acquire formal education.

The results of this survey reveal the level of literacy within the study area, and confirm the statistics of 22.1 percent adult literacy rate and 33.1 percent of youth literacy rate as reported by NBS (2010). In another report by the NBS (2018), 39.6 percent of the Nigerian population has not completed the basic five years of schooling and the school attendance by the children is about 23.8 percent.

Comparing the educational levels of both the participants and non-participants, a cursory look at the figures under education reveals that 93.49 percent of the NEEDS participants have acquired some level of education from primary to university levels. Only 6.51 percent of the participants are without formal education. This is against the 73.74 percent of the non-participants who also have attained some level of formal education; and the 26.26 percent without any form of formal education.

The importance of the educational attainment of the household head is the fact that education of children will suffer a serious setback when the parents are poorly educated and that households whose heads have

acquired some level of education up to tertiary level are less likely to be persistently poor (Dapel, 2018).

The proportion of non-participants who have no formal education is 26.26 percent, higher than that of the participants. On the other hand, about 39.53 percent of the participants have acquired primary education as against 38.64% of the non-participants. The results also reveal that the proportion of the participants who have secondary education (40.47 percent) is higher than the non-participants (28.28 percent). The acquisition of technical education also shows a remarkable difference between the participants (9.77 percent) and the non-participants (4.80 percent). However, there is only a slight difference between the participants who have gained university education (3.72 percent) and the non-participants (2.02 percent). Overall therefore, the proportion of the participants who have acquired certain educational levels is higher than that of the non-participants.

These results reveal that the distribution of the respondents is highly influenced by their level of education. Other variables like age, gender, occupation, ethnic group, and monthly income, do not necessarily relate to being a participant or non-participant.

Essentially therefore, the results indicate the direction of the significant relationship on education and poverty reduction. A vast majority of the respondents have attained certain levels of education (which may not be adequate to hold good positions in the labour market); perhaps, this explains their participation in the programme. The relationship between their level of education and occupation is also exhibited by their levels of income, as majority of them (about 59.69 percent) earn about N20,000 and below per month. This is equivalent to US$55.56 per month (about US$1.85 per day), which is below the poverty line.

In terms of occupation, all the respondents have one kind of job or the other. The results reveal the occupations can be categorised into four (farmer, casual wage earner, businessman, and civil servant). Farmers constitute the largest occupation group with 582 respondents, responsible for over 70 percent of the sampled respondents. The breakdown indicates that 288 participants (66.98 percent) are farmers; while the non-participants make up 294 (74.24 percent) farmers. This is an indication that farming is the major occupation of the study area.

Table 3

Demographics of the Respondents

Variables	Non-participants N_0=396(47.94%) % to N_2	Participants N_1= 430 (52.06%) % to N_2	Total Samples N_2= 826 (100%) N_2= N_0+ N_1
Demography			
Gender			
Male	344 (86.87%)	380 (88.37%)	724 (87.65%)
Female	52 (13.13%)	50 (11.63%)	102 (12.35%)
Education			
No School	104 (26.26%)	28 (6.51%)	132(15.98%)
Primary School	153 (38.64 %)	170 (39.53%)	323 (39.10%)
Secondary School	112 (28.28 %)	174 (40.47%)	286 (34.62%)
Technical School	19 (4.80 %)	42 (9.77%)	61 (7.38%)
University	8 (2.02%)	16 (3.72%)	24 (2.91%)
Occupation			
Farmer	294 (74.24%)	288(66.98%)	582(70.46%)
Casual Wage Earner	24 (6.06%)	33(7.67%)	57(6.90%)
Businessman	39 (9.85%)	59 (13.72 %)	98 (11.86 %)
Civil Servant	39 (9.85%)	50 (11.63%)	89 (10.77%)
Age (in years)			
30-39	12(3.03%)	11(2.56%)	23(2.78%)
40-49	95 (23.99%)	96 (22.33%)	191 (23.12%)
50-59	246 (62.12%)	267 (62.09%)	513 (62.11%)
60 and above	43 (10.86%)	56 (13.02%)	99 (11.99%)
Marital Status			
Married	320 (80.81%)	362 (84.19%)	682 (82.57%)
Divorced	47 (11.87%)	44 (10.23%)	91 (11.01%)
Widowed	29 (7.32%)	24 (5.58%)	53 (6.42%)
Ethnic			
Hausa	329 (83.08%)	349 (81.16%)	678 (82.08%)
Yoruba	23 (5.81%)	39 (9.07%)	62 (7.51%)
Igbo	44 (11.11%)	42 (9.77%)	86 (10.41%)
Monthly Inc. (in Naira)			
Low income	245 (61.87%)	248 (57.67%)	493 (59.69%)
Middle income	137 (34.59%)	166(38.60%)	303 (36.68%)
High income	14 (3.54%)	16 (3.72%)	30 (3.63%)

Source: Field Survey (2018)

Note: N_0 = Number of Non-Participants, N_1 = Number of Participants, N_2= Total Sample

The results indicate that casual-wage earners are also found in the study area, numbering 57 (or 6.90 percent). There are 33 (7.67 percent) casual-wage earners who are NEEDS participants and 24 (6.06 percent) non-participants. On the other hand, 98 (or 11.86 percent) respondents are businessmen. Of this figure, 59 (equivalent to 13.72 percent) are NEEDS participants, while 39 (or 9.85 percent) are non-participants. The results also reveal that there are 89 civil servants in the sample (about 10.77 percent of the respondents). The NEEDS participants who are civil servants are 50 (11.63 percent), while the non-participants are 39 (9.85 percent). Therefore, the results indicate that there is fair distribution of occupations between the participants and non-participants.

The results of the field survey reveal that a large proportion of the respondents are married, accounting for 682 (equivalent to 82.57 percent). The divorced and widowed respondents account for 11.01 percent and 6.42 percent, respectively. This result indicates that majority of the sampled respondents are married and responsible household heads who can cater to the needs of their families.

In terms of ethnic distribution, 678 respondents are Hausa (accounting for more than 80 percent). Hausa is the major ethnic group of the study area. Other major ethnic groups, like Yoruba and Igbo, account for 7.51% and 10.41% of the respondents, respectively. This evinces co-habitation of other tribes in the study area.

Table 3 also displays the monthly income of the household head which is categorised into three. According to the result, there are 493 (or 59.69%) respondents who are low income earners. This is followed by the middle-income earners at 303 (equivalent to 36.68 percent). The high-income earners, who are 30 in number, account for 3.63% of the respondents. Therefore, the results indicate that more than half of the respondents are low income earners. The results also indicate that the higher the income, the less the participation in poverty reduction programmes.

Empirical Results

Table 4 displays the empirical results of the NEEDS educational policy and poverty reduction model estimated through the logistic regression analysis. The results identify the independent variables which determine the reduction of poverty with the NEEDS educational

policy as a focus variable. The overall results indicate that the logistic model is correctly classified almost 73 percent of the sample cases as the percentage accuracy in classification (PAC). Almost all the independent variables are found to be statistically significant. It can safely be concluded therefore, that the explanatory power of the logit regression model can be used satisfactorily to explain the likelihood of evaluating the role of the NEEDS programme in poverty reduction in the study area. The model consisting of all the explanatory variables is found to be statistically significant. The chi^2 is 233.16 with 11 degrees of freedom.

Table 4 shows the estimated variables which determine the impact of the NEEDS education programme on poverty reduction in the study area. The model has poverty reduction as its dependent variable (non-poor=1; poor=0). In order to achieve the objective, the logistic regression model was used.

Table 4 displays the estimated binary logistic regression model. The results show that the likelihood ratio test is significant at the one percent level of criterion (with p-value of 0.0072); thus, the null hypothesis which states that the model parameters are equal to zero is rejected. The estimated model is correctly predicted at 72.88 percent of the sample. The general specification test also reveals that there is no sign of misspecification in the model estimated (with value of 0.959). This implies that the independent variables can be jointly used to analyse the impact of the NEEDS education programme on poverty reduction.

The estimated results reveal that the NEEDS participants have a higher probability of reducing their level of poverty compared to non-participants. This means that the NEEDS educational policy has the capacity to reduce poverty. In other words, policies implemented towards the quality and equality in education have the potential to reduce poverty, which is similar to Santos (2011).

The 'divorced' status has a positive value and is significant at the 10 percent level. The marginal effect shows that compared to the married respondents, the divorced respondents can reduce poverty by 15.2 percent. This means that a change in marital status from married to divorced, would increase the probability of reducing poverty by 15.2 percent. As the area of study is basically a Muslim society (where married women are not free to participate in public programmes), this result is not unexpected.

Table 4

Logit Estimation for Impact of NEEDS on Poverty Reduction

Independent Variable	Odds Ratio	Estimated Coefficients	Robust Standard Error	Marginal Effects
Period (after)	1.166	0.153	0.254	0.013
Treatment	1.528	0.424	0.260	0.060
Gender	0.806	-0.215	0.295	-0.038
Marital Status				
Divorced	2.516	0.922	0.357	0.152*
Widowed	0.973	-0.027	0.515	-0.004
Ethnic				
Yoruba	1.526	0.422	0.357	0.071
Igbo	0.663	-0.410	0.451	-0.074
Education				
Primary School	0.163	1.813	0.261	-0.303***
Secondary	0.295	1.219	0.282	-0.188***
Tech. School	0.130	2.035	0.410	-0.347***
University	0.489	0.713	0.681	-0.100
Occupation				
Casual wage Earner	0.591	-0.525	0.393	-0.096
Businessman	0.828	-0.188	0.365	-0.034
Civil Servant	1.764	0.567	0.246	0.095**
Age	0.357	-1.029	0.142	-0.182***
Monthly Income	14.203	2.737	0.311	0.485***
Access	3.035	1.111	0.440	0.197***
Oppot	0.502	-0.727	0.431	-0.129*
Skills	1.347	0.324	0.148	0.057**
ICT	0.517	-0.649	0.250	-0.115**
LR chi2				233.16
Prob > chi2				0.8187
Pseudo R2				0.2093
Log likelihood				-435.745
Degrees of freedom				20
Correctly Predicted (%)				72.88
Hatsq (p-value)				0.959
Area under ROC				0.794

(continued)

Independent Variable	Odds Ratio	Estimated Coefficients	Robust Standard Error	Marginal Effects
Mean VIF	1.02			
Hettest	Chi²=0.1654	P-Value =0.8187		
Total observations				826

Source: Data from Field Survey (2018)

Note: Marginal effect is estimated at mean value

***=significant at 1% level; **=significant at 5% level; *=significant at 10% level

Dependent variable=1 if respondent is a participant of NEEDS and zero if otherwise

However, the result of widowed respondents is negative but not significant. The marginal effect indicates that when compared to married respondents, the widowed have less probability of reducing their poverty level by about four percent. This indicates that widowed respondents usually have heavy burden to care for their family after the demise of their spouses. They are also more vulnerable to poverty than both the divorced and married respondents. Previous studies have shown that many widows have their living standards reduced after the demise of their husbands (for example, Lee & Lee, 2006).

As for the education variable, the results indicate positive signs at primary, secondary, and technical school levels and university level. Apart from university level, all other levels of education show significantly positive relationships with poverty reduction. Generally, this means that compared to those with no schooling, those with some level of formal education have higher probability of reducing poverty. For example, primary, secondary, and technical school level results are significant at the one percent level, meaning that household heads with those levels of education would have the probability of reducing poverty by 30.3, 18.8, and 34.7 percent, respectively than those who have not gone to school at all (as indicated by the marginal effects).

The marginal effect indicates that those respondents with only primary school education have more probability of reducing their poverty levels by 30.3 percent (when compared to those with no schooling). Similarly, the marginal effects on secondary school, technical school, and university (though not significant), indicate that the holders of these levels of education have the probability of reducing their levels of poverty by 18.8, 34.7, and 10 percent, respectively. In a nutshell, the marginal effects reveal that educational attainment is an important factor in the drive towards poverty reduction.

Likewise, the monthly income of the household head is significant at the one percent level, with a positive sign. The implication of this result is that an increase in income would increase the probability of reducing poverty by 48.5 percent. The results show that the higher the income, the lower the poverty level. The level of income is also associated with higher odds ratio, indicating higher probability for poverty reduction, similar to the work of Janjua and Kamal (2011).

Similarly, access to education is positive and significant at the one percent level. The marginal effect indicates that when compared to non-participants, access to education by the households in the study area and under the NEEDS programme, has a high probability of reducing poverty by almost 20 percent. The implication is that access to quality education can promote the reduction of poverty. This is consistent with Dubin (2018) who affirmed that access to quality education can help in reducing poverty and income inequalities.

On the other hand, equal opportunity for education is significant to poverty reduction at the 10 percent level with a negative sign. The marginal effects indicate that equal opportunity to education has less probability of reducing poverty in the study area by 12.9 percent. The reason for this is not far-fetched. Though schools and educational infrastructure might have been made readily accessible, the study area was under the threats of armed bandits and insurgents at the time of field survey. This has been affirmed by different national dailies (for instance, Akhaine, 2018). This might have contributed to the lack of opportunity to attend schools and obtain western education, which is vital for poverty reduction.

On the other hand, skills acquisition is significant at the five percent level and has a positive sign. The marginal effects indicate that when compared to non-participants, the skills acquisition under the NEEDS programme has the tendency to reduce poverty by 5.7 percent, implying that participating in skills acquisition programmes would eventually lead to productive services and poverty reduction.

Therefore, skills development will help in poverty reduction and is vital for the poor households, because the development of skills by poor households will help in acquiring opportunities for productive employment necessary for poverty reduction.

Similarly, ICT literacy is significant at the five percent level, but with a negative sign. The result reveals that the ICT literacy has lower probability of poverty reduction by less than almost 12 percent. This result is not surprising considering the crisis in the power sector in Nigeria. The power sector in Nigeria is in serious crisis partly due to corruption and misappropriation of public funds meant for the restoration of the sector. This might account for why ICT, which needs electricity to effectively function and serve as a source of employment and revenue, does not have a positive effect on poverty reduction.

The overall implication of these results is that poverty reduction has been placed as a high priority in Sokoto State, in particular, and in Nigeria, in general. As a result, many policies are being implemented and analysed. In view of this, it is obvious that supporting education can reduce poverty in two ways: either by increasing the quality of education of the poor; or by raising the productivity of the poor. Therefore, all the variables (except for reasons of insecurity and electricity outage) have proved that the NEEDS education policy is capable of reducing the poverty levels of the participating households in the study area.

CONCLUSION

After outlining the important role of the NEEDS programme in poverty reduction, this paper goes further to assess the poverty reduction of the respondents in the Sokoto State of North-western Nigeria. Some explanatory variables (which relate to this study) were used in the model, and in order to analyse the model, binary logistic regression model was used. Some of these explanatory variables were found to be statistically significant in determining poverty reduction of the NEEDS participants through the programme. These explanatory variables are equal opportunity for education, ICT literacy, marital status, ethnic group, level of education, occupation, and monthly income.

It is suggested that for the NEEDS programme (and other subsequent development programmes) to achieve their objectives of poverty reduction, the government should plan appropriate policies. In addition, the poor (especially those who have benefited from previous programmes) in the locality should be involved to raise awareness

on the benefits of such programmes. It is also suggested that the government should create a conducive learning atmosphere by way of providing the necessary infrastructure, qualified teaching personnel, in-service training for the teachers, and sponsorship programmes for the children of the poor. The output of these efforts, if adopted, will be qualitative and functional education, which is a prerequisite for employment, self-actualisation, and poverty reduction.

In addition, the government should enact a law on children's education so that domestic chores in the household and family businesses do not interfere with children's education. Any parent who breaches the law should be fined by a court of law specially established for this purpose. This should serve as a deterrent to those who either doubt the sincerity of the government on the issue or who intend to go against the law. A similar bill was recently passed by the Kano State government of North-western Nigeria. The bill reads, "Parents, who refuse to send their children to school will be charged, either one-month imprisonment or pay N20,000 penalty" (Educeleb, 2020).

It is not only necessary for poverty reduction to increase access to education, but also to ensure that the quality of such education is assured. In the long-run, it is the poor who bear the burden of a weak quality education (Berg, 2008).

National evaluation programmes should also be tasked to identify the effect which poor quality education has on the children of the poor. This will certainly go a long way in understanding the predicament of the poor in terms of educating their children. Good quality education is still a crucial factor in the fight against poverty.

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