

Research article

# CLUSTER COOPERATIVE AS A MODEL FOR POVERTY REDUCTION IN DELTA STATE OF NIGERIA

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## Abstract

The study evaluates cluster cooperative as a model for poverty reduction through Delta Micro Credit Programme in Delta State of Nigeria. A sample of six cluster groups made up of 125 members was drawn from the study area; this cluster approach model were examined and evaluated. Both descriptive and inferential statistics were used. Findings showed that Delta State Micro Credit Scheme has mobilized adequate micro credit to its clients in Delta State to reduce poverty; and there is existence of effective cluster group model approach reducing poverty but there are inadequate training activities available to clients of DMCP, poor monitoring and supervision on the part of DMCP. Also low membership strength and lack of co-operative alliance on the part of the clients. So in order to strengthen the poverty reduction activities of DMCP, it is recommended that Deltans should form more cluster cooperatives to benefit from the programme and DMCP should step up a bit on training, monitoring and supervision on the part of the clients. This should not only guarantee effective usage but also reduce poverty to its barest minimum.

**Keywords:** CLUSTER COOPERATIVE, POVERTY REDUCTION, DELTA STATE MICRO CREDIT SCHEME, THEORY OF GROUP ACTION AND DEVELOPMENT

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## 1. INTRODUCTION

Nigeria Government has recognized that for sustainable growth and development, the financial empowerment of the rural areas is vital being the repository of predominant poor in the society (Olaintan, 2006). Poverty

reduction has for sometimes now been a great concern to many developing nations, Nigeria inclusive. As a result, poverty reduction strategies have been at its centre stage of development programme. According to Ugwu (2006), poverty is seen as a state of persons who exists with little or no material means of surviving, little or no economic liberation, capital infrastructure, employment and productivity.

Delta state government of Nigeria recognizes that poverty is a threat to peace and security, socio-economic development of the state and human race in general. Alleviating poverty and driving socio-economic development at the grassroot is aimed at achieving the state government three point agenda on peace and security, human capital and infrastructure development (D.M.C.P. 2010). Delta State Micro Credit Programme (DMCP) was established to achieve this purpose through the formation of co-operative cluster groups within the communities in the three senatorial districts of Delta State; Delta North, South and Central. These groups may be single or multipurpose cooperatives by nature with a minimum of ten members and maximum of twenty-five members. All members of a co-operative clusters group must be involved in the same trade and resident in the local government of origin. Today, in an era when many people feel powerless to change their lives, co-operatives represent a strong, vibrant and viable economics alternative. Also, co-operatives are formed to meet people's mutual deeds and they are based on the powerful idea that together group of people can achieve goals that none of them could not achieve alone (Ahmed, 2005). He further stated that for many years, co-operatives have been an effective way for people to exert control over their economic livelihoods. They provide a unique tool for achieving one or more economic goals in an increasingly competitive global economy. As government around the world cut services and withdraw from regulating markets, co-operatives are being considered useful mechanism to manage risk for members in agriculture and other co-operatives sectors

Nigeria has one of the highest economic growth rates averaging 7.4%, a well developed economy and plenty of natural resources. Yet it retains high level of poverty (Ogbaba, 2011). He continued that these imply a decline in equity. There had been attempt by the government in reducing poverty in Nigeria. Some of the key programmes executed include:

- 1972: National Accelerated Food Production Programme and Agricultural development Bank.
- 1976: Operation Feed the Nation (OFN) on use of modern farm tools.
- 1979: Green Revolution Programme to reduce importation and increase local food production.
- 1986: Directorate of Food, Road and Rural Infrastructure (DIFRRI).
- 1993: Family Support Programme and Economic Advancement Programme.
- 2001: National Poverty Eradication Programme.

In recent past, various attempts have been made by government recently to reduce poverty which include the establishment of various financial institutions (usually government funded) to make production loans available to the co-operatives societies to boost their income and facilitate rural development and poverty reduction. The establishment of Agricultural Credit Guaranteed Scheme (AGGS) which compels commercial banks to set a certain percentage of their loanable funds to agriculture through co-operative groups and the introduction of Agricultural Development Programme (ADP) which is cosponsored by World Bank. They were set with common objectives of providing credit facilities to target beneficiaries at national, state and local government levels.

DMCP has recorded a lot of achievements in reducing poverty in Delta State. Delta state won CBN 2008/2009 award for effective micro credit lending. Presenting the award to the state governor Dr. Emmanuel Uduaghan,

President Goodluck Jonathan said that Malaysia today has flourished due to micro finance; more state government should emulate the example of Delta State for the betterment of the poor. Also, Central Bank of Nigeria (CBN) Governor Lamido Sanusi stated that “we just awarded Delta State as one of the states where micro finance has been effectively utilized to tackle poverty; we saw a cluster group that started with nothing, now are exporting to Europe” (D.M.C.P Journal, 2010). There has not been an academic examination of cluster co-operative as used by DMCP and hence, the need to assess its mode, operations and efficacy as a model in poverty reduction.

### **Objectives of the study**

The broad objective of this study is to evaluate cluster co-operative as a model in poverty reduction in Delta State. Specifically, the study is designed to:

- i. Identify the socio economic characteristics of members of the cluster group
- ii. To identify if there is a significant relationship between cluster group and poverty reduction

### **Research Questions**

1. What is the socio-economic profile of members of the cluster cooperative group?
2. In what ways do cluster groups affect poverty reduction.

### **HYPOTHESES**

The following hypotheses are tested to guide the study.

- H<sub>01</sub> There is no significant relationship between cluster groups and poverty reduction.  
H<sub>a</sub>: There is significant relationship between cluster groups and poverty reduction.

## **2. REVIEW OF RELATED LITERATURE**

### **Conceptual Review**

Cooperative is derived from the term cooperation which is the act of working or acting together to achieve a common goal. It is a kind of shared effort by individuals and group for economic and social benefits. By combining their efforts, people gain from one another's ideas, talents, skills and energy. McCarthy (2005), sees co-operative to be generally based on specific needs rather than idealism and in many cases has been simply necessary for survival. Ward (2005), opined that self-help, self-sacrifice, self-reliance are implicit in co-operative, as people develop confidence and faith in themselves by participating in tackling problems, making decisions and carrying them out hence he concludes that co-operative society should promote self assertion and development of all involved. Cooperative is based on the values of self-help, self-responsibility, democracy, equity and solidarity. Co-operative recognizes their accountability to members, employees, customers, suppliers, other co-operatives and the larger society (Nwankwo, 2007). Parkash (2003), noted that values, principles, ethnics and business competence constitute the co-operative advantages for members and communities where they operate. Okonkwo (2001) maintained that any definition of cooperative that does not emphasize the promotion of the economic interest of members cannot be a true definition of co-operative. Co-operative is an organization for doing business. It is regarded as a company and its members as shareholders. Other attributes are the democratic nature of the co-operative which allows equity of persons, their participation and equitable share in the activities and benefits of the society and also the fact that co-operative put a higher premium on services to its members at a fair cost rather than profit maximization.

## **2.1 History of Delta State Micro Credit Programme (DMCP)**

Delta State Micro Credit Programme was established and launched on December 14, 2007 and designed to address poverty among Deltans in rural communities and the urban poor. DMCP facilitates the access of economically weak and disadvantaged segments of the population to productive assets and services with a view to making rural economies commercially active. (DMCP, 2010) The interest free and revolving credit programme does not disburse money or give equipment directly to clients, instead, it promotes the subtle redistribution of wealth in partnership with twenty-eight microfinance banks located in twenty-five LGAs of Delta State. Delta State Micro Credit Programme has been instrumental in sowing hope and putting springs in the footsteps of rural and urban poor in Delta State. The participants in the programme are called clients not beneficiaries. They participate in design, implementation and monitoring of the programme.

Against this background, this paper appraises the activities of DMCP in reducing poverty in Delta State.

### **CLUSTER CO-OPERATIVE GROUP FORMATION**

- Form a micro credit cluster group 10-25 members.
- All members of group must be involved in the same trade.
- Each group must have a chairman, secretary and treasurer.
- All members of any group must be resident in the local government of origin.
- Group formation must cut across wards in LGA.
- DMCP must cut across gender.
- No collateral for micro credit loan but group guarantee.
- Repayment in weekly or monthly installment repayable in 52 weeks.

#### **The Target Groups are:**

- The rural population and the urban poor.
- Economically disadvantaged persons especially women.
- HIV infected persons who are discriminated upon because of their status

#### **The activities financed by DMCP**

- Agricultural production in crop, animal and aqua culture.
- Agro processing
- Cottage industries e.g. metal/wood works, welding, pottery soap/cosmetic manufacturing, carpentry etc.
- Sanitation (waste disposal) services, hair dressing, tailoring, phone services, petty trading and food vending.

#### **Criteria to be met by eligible benefiting group**

- Must have enhancement of member's sustainable income earning capacity as its prime objective.
- Membership of the group should be voluntary.
- Autonomous in governance and management.
- Must have a system in place to ensure programme and financial accountability and transparency.
- Adopt the Delta State micro credit operational guidelines

### **2.3 Concept of poverty**

Poverty has been defined variedly. Deng (1995) states that poverty is the deprivation of basic capabilities that provide a person with the freedom to choose the life he or she has reason to value. The capabilities includes; good health, education, social networks, command over economic resources and influence on decision making that affects one's life. He furthered that income is important because money allows a person to develop his or her capabilities, but it is only a means to live a valuable life. From this perspective, poverty is a condition with many interdependent and closely related dimensions which can be summarized in three broad categories.

- I. Lack of access to productive and economic assets such as land, credit.
- II. Lack of access to social safety nets such as education, health care, information, housing, water supply and sanitation.
- III. Lack of access to political power, participation, dignity and respect.

Eli (2000) contends that poverty is better understood when it is described, rather than defined. Poverty indicators according to Quibrin (1990) are embedded within the basic needs of humans. The basic needs perspective could be seen from meeting the primary needs of life which comprise food, clothing, safe water, shelter and the secondary needs of life that comprises freedom of expression, health, security, right to own property, access to productive employment. He summarized that having the primary needs but not all of the secondary needs put one in a state of relative poverty.

### **2.4 Role of Group (Cooperative) in Alleviating Poverty and Livelihood Improvement**

Co-operative is community based, rooted in democracy, flexible and has participatory involvement which makes them suited for livelihood improvement and poverty reduction (Gertler, 2001). The process of developing and sustaining a co-operative involves the process of developing and promoting community spirit. Social organization as co-operative play an increasingly important role worldwide in poverty reduction by facilitating job creation, economic growth and social development (Gibson, 2005).

Co-operatives are viewed as important tools for improving the living and working conditions of both men and women since the users of the service they provide own them. Co-operatives make decision that balance the need for profitability with the welfare of their members and community which they serve. As co-operatives foster economics of scope and scale, they increase the bargaining power of their members providing them, among other benefits, higher income, social protection, opportunities, empowerment, essential elements in uplifting them from degradation and poverty (Somavia, 2002). As governments around the world cut services and withdraw from regulating markets, cooperatives are being considered useful mechanism to manage risk for members and keep market efficient (Henehan, 1997). Co-operatives promote the "fullest participation of all people" and facilitate a more equitable distribution of all benefits of globalization. They contribute to sustainable human development and combating social exclusion. Thus, the promotion of co-operative should be considered as one of the pillars of national and international economics and social development (Levin, 2002).

In addition to the direct benefits they provide to members, co-operative strengthen the communities in which they operate. According to Somavia (2002), co-operatives are specifically seen as significant tools for the creation of decent jobs and for the mobilization of resources for income generation. According to Wikipadia (2006) and Levin (2002), it is estimated that cooperatives employ more than 100 million men and women world wide. In Nigeria, cooperative can provide locally needed services, employment, circulate money locally and

contribute to communities upgrading their skills through workshops and seminars and offer youth in their communities short and long term employment opportunities. Students could also be employed on casual appointment basis during long vacation. Other roles co-operative play in poverty reduction to Hoyt (1996) and Onoh (2009) are:

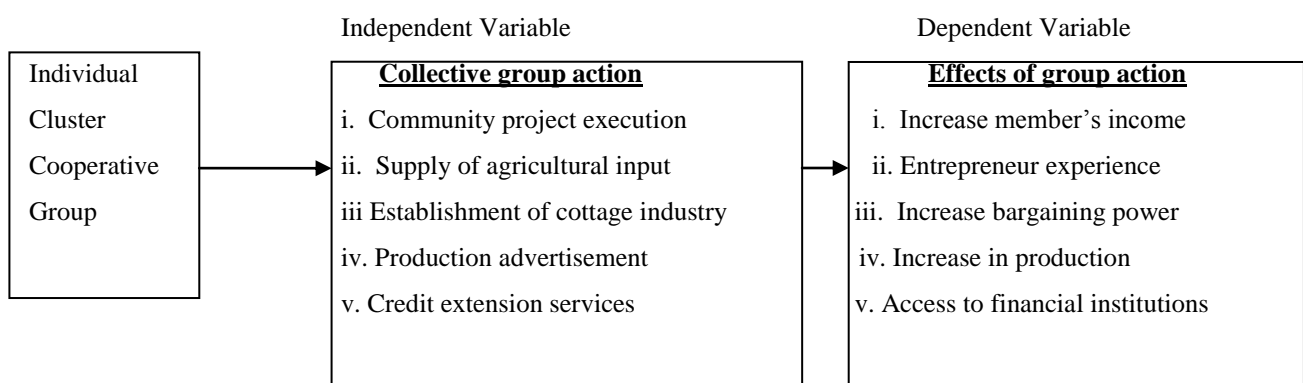
- (i) Employment creation to individual member's of the society.
- (ii) Sourcing and accessing fund for project implementation.
- (iii) Development strategies for Nigeria's co-operative movement to accelerate contribution to the country's economic development and poverty reduction.
- (iv) Co-operative support in campaign for working class political representatives.
- (v) Co-operative serves as a link or intermediaries between members and government.
- (vi) Co-operative serves as model for community mobilization and cluster group formation.
- (vii) Co-operative serves in technology adoption, utilization and feedback.

## 2.5 THEORETICAL FRAMEWORK

This work is anchored on Theory of Group Action and Development. The theory seeks to understand how groups of individual are able to come together in cluster formation to overcome their individual and collective problems (Bray,2008). The theory of collective action has of recent been attracting favourable comment in poverty reduction, it is due to the changing paradigm on establishment of community and rural projects that now emphasize the role of clients as important variable that determines success.

According to Marshal (1988) group action is a collective action taken by a group either directly or on its behalf through an organization in pursuit of its members perceived shared interest, he furthered that it is joint action for the same goal and actions to achieve a common objective, when the outcome depend on interdependence of members. Group action in cluster formation required involvement of a group of people, a share interest within the group; and involvement of some kind of common action which works in pursuit of that shared interest. This action should be voluntary in order to distinguish group action from hired labour. Example of these actions include, group decision making, settling rules of conduct of a group, designing management rules, implementing decision and monitoring adherence to rules. Members can contribute in various ways to achieve the shared goal: money, labour, e.t.c. The action can take place directly by members of the group or on their behalf by a representative or an employee. The co-ordination can take place through a formal or an informal organization.

The theory is structurally illustrated below:



**Figure 1:** Researchers' Conceptual Framework on Theory of Group Action and Development

### 3. METHODOLOGY

The study is limited to five local government areas of Delta State in Nigeria. The local government areas are Oshimili South, Oshimili North, Anaocha, Ndokwa East and Ndokwa West. The research design used for this study is the descriptive survey involving the questionnaire administration built on a five-point likert scale. Questionnaire was administered to 125 respondents selected from each of the five local government areas of the state using simple random sampling technique. The population is a finite one and due to the smallness of the population, no sample size was determined. The content, construct and face validities were tested.

**Table 1:** Population of the Study

| S/N Cluster Groups             | Members |
|--------------------------------|---------|
| 1. Ifunanya Plantain Farmers   | 12      |
| 2. Gan Cooperative             | 15      |
| 3. Akachukwu Poultry Farms     | 21      |
| 4. Sangin (Tomato Sellers)     | 25      |
| 5. Temitosan Agro Co-operative | 20      |
| 6. Aweleka Farmers             | 10      |
| 7. DMCP Staff                  | 22      |

Reliability of the instrument was tested using Spearman Rank Correlation

$$\frac{1-6 \sum d^2}{N^3-N} = \frac{1-6 \times 384}{1953125-1}$$

$$= \frac{1-23064}{1953000} = 0.988$$

The result shows that the instrument was reliable.

### 4 DATA ANALYSIS

#### 4.1 Socio-economic Characteristics of the Respondents

**Table 2:** Summary of Characteristics of Members of the Cluster Groups

| ITEMS                     | FREQUENCY | PERCENTAGE % |
|---------------------------|-----------|--------------|
| <b>AGE:</b>               |           |              |
| 18 – 20                   | 30        | 24           |
| 31 – 50                   | 74        | 59.2         |
| 51 – 70                   | 20        | 16           |
| 71 and above              | 1         | 0.8          |
| Average mean (x) 40 years |           |              |
| <b>SEX:</b>               |           |              |
| Male                      | 53        | 42.4         |
| Female                    | 72        | 57.6         |
| <b>MARITAL STATUS</b>     |           |              |
| Single                    | 68        | 54.4         |
| Married                   | 42        | 33.6         |
| Divorced                  | 11        | 8.8          |
| Widow                     | 4         | 3.2          |
| Widower                   |           |              |
| <b>HOUSEHOLD SIZE</b>     |           |              |

|                                |    |      |
|--------------------------------|----|------|
| 2 – 5                          | 92 | 73.6 |
| 6 – 10                         | 32 | 25.6 |
| 11 – 15                        | 1  | 0.8  |
| 16 and above                   | 0  | 0    |
| Average mean (x) 10.2 persons  |    |      |
| <b>MEMBERSHIP SIZE</b>         |    |      |
| 2 – 10                         | 39 | 31.3 |
| 11 – 20                        | 62 | 49.6 |
| 21 – 30                        | 20 | 16   |
| 31 – 40                        | 4  | 3.2  |
| 41 and above                   | -  | -    |
| Average mean (x) 21 –          |    |      |
| <b>EDUCATIONAL BACKGROUND</b>  |    |      |
| School Certificate             | 31 | 24.8 |
| SSCE                           | 54 | 43.2 |
| B.Sc/H.N.D                     | 36 | 28.8 |
| MBA/M.Sc/PhD                   | 4  | 3.2  |
| <b>OCCUPATION</b>              |    |      |
| Trading                        | 28 | 22.4 |
| Farming                        | 47 | 37.6 |
| Civil Servant                  | 12 | 9.6  |
| Artisan                        | 18 | 8.8  |
| Pensioner                      | 10 | 8.0  |
| Fishing                        | 10 | 8.0  |
| Others                         | -  | -    |
| <b>LEVEL OF INCOME</b>         |    |      |
| ₦ 100,000 – ₦ 500,000          | 42 | 33.6 |
| ₦ 101,000 – ₦ 200,000          | 54 | 43.2 |
| ₦ 2001,000 – ₦ 5000,000        | 18 | 14.4 |
| ₦ 5001, 000 and above          | 11 | 8.8  |
| Average mean (x) N1,250,200.00 |    |      |
| <b>MEMBERSHIP EXPERIENCE</b>   |    |      |
| 1 – 5years                     |    |      |
| 6 – 10years                    | 86 | 68.8 |
| 11 – 15years                   | 23 | 18.4 |
| 16 and above                   | 16 | 12.8 |
| Average mean (x) 13 years      |    |      |

Source: Field Survey, 2013.

As table 4.1 above shows, 24 percent of the cluster groups are between the ages of 18 – 30 while majority percent is between 31 – 50 years. 51 – 70 years has 16% while 71 and above has one respondent i.e. 0.8% with average mean of 40 years.

The table also revealed that majority of the cluster group members is female with 57.6 percent while male has 42.4%. Also majority of the clients are single with 54.4%, married 33.6%, divorced 8.8%, widowed 3.2%. on household size 73.6% are between 2-5, 6-10 has 0.8%, 11 – 15 has only one respondent i.e 0.8%. 11 – 20 has 49.6% followed by 2 – 10 with 31.2%, 21 – 30 has 16% and 31 – 40 has 3.2% as its membership size with average mean of 10.2. On education SSCE has 43.2% followed by B.Sc/HND 28.8, school certificate has 24.8 whereas M.BA, M.Sc/PhD has 22.4, artisan 14.4, civil servant 9.6 pensioners 8%, fishing 8%, Annual level of income of



respondents ranges from ₦101,000 – ₦2,000,000 has 43.2%, N100,000 – N500,000 has 33.6%, N2001,000 – N5,000,000 has 14.4% and N5,001,000 and above has 8.8%. Lastly 1-5years has the highest membership experience with 68.8%, 6-10years followed with 18.4% and 11 – 15years has 12.8%.

**Table 3:** Shows the Distribution of Respondents According to the Activities of CO-operative Cluster Group Approach of DMCP

| S/NO | VARIABLES                                       | FREQUENCY<br>(F) | PERCENTAGE<br>(%) |
|------|---|------------------|-------------------|
| i    | Provision of loan/credit extension              | 125              | 100               |
| ii   | Loan administration                             | 122              | 97.6              |
| iii  | Establishment of small, medium scale enterprise | 125              | 100               |
| iv   | Youth empowerment                               | 121              | 96.8              |
| v    | Skill acquisition programme                     | 93               | 74.4              |
| vi   | Organizing/training/seminars                    | 102              | 81.6              |
| vii  | Promotion/Advisory roles                        | 189              | 71.2              |
| viii | Registry products with regulatory agencies      | 72               | 57.6              |
| ix   | Marketing and distribution of clients products  | 86               | 68.8              |
| x    | Establishment of cottage industries             | 38               | 30.4              |
| xi   | Community health sensitization awareness        | 69               | 55.2              |
| xii  | Product advertizing and positioning             | 54               | 43.2              |
| xiii | Appraisal/approval structures on loans request  | 113              | 90.4              |
| xiv  | Loan monitoring and supervision                 | 124              | 99.2              |
| xv   | Community project execution                     | 103              | 82.4              |
| xvi  | Supply of agricultural inputs                   | 72               | 57.6              |
| xvii | Promotion of adult literacy                     | 102              | 81.6              |

**Source:** Field Survey, 2013.

Table3 shows that provision of loan and credit extension and loan recovery tops the activities of cooperative cluster group approach of DMCP with 100%. Loan administration, loan monitoring and supervision and youth empowerment followed with 122%, 124% and 121% respectively.

Appraisal/approval of loan request, visitation of site, organizing training and seminars and project appraisal has 113%, 102%, 93% and 103%respondents. Promotional roles, registry product and marketing of clients products followed with 89%, 72%, 86%, respectively. Community mobilization and sensitization, product advertising and positioning and establishment of cottage industries are low with 69%, 54% and 38% respectively. Supply of agricultural input has 72 respondents with 57.6%, and promotion of adult literacy with 102 respondents and 81.6% which is a good fit on activities of cooperative cluster group approach.

**Table 4:** Cluster Group and Poverty Reduction

| S/N | Variables                  | Mean<br>(x) | Decision  |
|-----|----------------------------|-------------|-----------|
| i   | Increase income of members | 3.08        | Effective |
| ii  | Better standard of living  | 3.78        | Effective |

|       |  |             |                  |
|-------|--|-------------|------------------|
| iii   | Education of members   | 2.25        | Not effective    |
| iv    | Entrepreneurial experience   | 3.72        | Effective        |
| v     | Good healthy living  | 3.8         | Effective        |
| vi    | Social integration   | 2.69        | Not effective    |
| vii   | Employment guaranteed  | 4           | Effective        |
| viii  | Acquisition of skills  | 3.8         | Effective        |
| ix    | Fullest participation on the community                                     | 4           | Effective        |
| x     | Balancing the needs/welfare of members                                     | 3.12        | Effective        |
| xi    | Increase production  | 3.11        | Effective        |
| xii   | Increase bargaining power of members                                       | 2.42        | Not effective    |
| xiii  | Economics of scope and scale   | 1.64        | Not effective    |
| xiv   | Upliftment from poverty  | 4           | Effective        |
| xv    | Networking opportunities   | 3.32        | Effective        |
| xvi   | Training trainee of members  | 2.38        | Not effective    |
| xvii  | Linkage/collaboration with other development agencies                      | 2.63        | Not effective    |
| xviii | Access to financial institutions e.g. microfinance banks, commercial banks | 3.99        | Effective        |
|       | <b>Grand mean (x) =</b>  | <b>3.21</b> | <b>effective</b> |

Source: Field Survey, 2013

With 3.0 mean rating from 5 point likert scale, > 3.0 above as effective and < 3.0 as not effective. The result from the above table 4 shows the effect of cluster cooperative model to poverty reduction. Meanwhile the grand mean indicates a very large extent to cluster group model and poverty reduction. Social integration with 2.69, education of member 2.25, economic of scope and scale with low 1.64 indicates not effective of on effect of cluster model to poverty reduction. Employment guaranteed, fullest participation of the community and upliftment from poverty tops the effect of cluster group model on poverty reduction with 100% each and the mean i.e 3.21 shows also that there is a very large extent effect of cluster group model on poverty reduction.

#### 4.6 Testing the Hypothesis

The hypothesis are tested using Pearson Product Moment Coefficient correlation calculated thus

$$R = \frac{\sum xy}{\sqrt{[(\sum x)^2](\sum y^2)}}$$

**H<sub>0</sub>1:** There is no significant relationship between cluster groups and poverty reduction.

**H<sub>A</sub>1:** There is significant relationship between cluster groups and poverty reduction.

**Table 5:** Computation of correlation coefficient of hypothesis one

| X   | Y   | X                | Y                | XY      | X <sup>2</sup> | Y <sup>2</sup> |
|-----|-----|------------------|------------------|---------|----------------|----------------|
|     |     | X-X <sup>-</sup> | Y-y <sup>-</sup> |         |                |                |
| 90  | 160 | 23.33            | 93.33            | 2177.39 | 544.29         | 8710.49        |
| 160 | 90  | 93.33            | 23.33            | 2177.39 | 8910.49        | 544.29         |

|                  |                  |        |        |                      |                       |          |
|------------------|------------------|--------|--------|----------------------|-----------------------|----------|
| 30               | 30               | -38.67 | -36.67 | 1344.69              | 1344.69               | 1344.69  |
| 20               | 20               | -46.67 | -46.67 | 2178.09              | 2178.09               | 2178.09  |
| -                | -                | -      | -      | -                    | -                     | -        |
| 120              | 120              | 53.33  | -46.67 | 2488.91              | 2844.09               | 2178.09  |
| 85               | 85               | 18.33  | -36.67 | -672.16              | 335.99                | 1344.69  |
| 30               | 20               | -36.67 | -21.67 | 794.16               | 1344.69               | 469.59   |
| 45               | 45               | -21.67 | 53.33  | -1155.66             | 469.59                | 2844.69  |
| 20               | 20               | -46.67 | 18.33  | -855.46              | 2178.09               | 335.99   |
| $\overline{600}$ | $\overline{600}$ |        |        | $\overline{3500.01}$ | $\overline{19950.01}$ | 19950.01 |

Source: Analysis of Empirical Data, 2013.

$$\begin{aligned} \bar{X} &= 66.67, & \bar{y} &= 66.67 \\ b &= \frac{\sum xy}{\sum x^2} = \frac{3500.01}{19950.01} = 1.18 \\ a &= \bar{y} - b \bar{x} = 66.67 - 66.67(1.18) = 54.7 \\ y &= a + b x = 54.7 + 1.18x \\ r &= \frac{\sum xy}{\sqrt{(\sum x^2)(\sum y^2)}} = \frac{3500.01}{\sqrt{(19950.01)(19950.01)}} \\ r &= 1.18 \end{aligned}$$

The computed result above clearly shows that  $r = 1.18$ . It means that there is a significant relationship between cluster groups and poverty reduction in Delta State.

To test the significance of the coefficient of correlation of the result obtained from hypotheses one. The total percentage of agree / strongly agree is used for z test for significance of the coefficient of correlation.

$$Z = \frac{\bar{x} - NP}{NP(1 - P)} = \frac{300 - 399}{309(1 - 0.83)} = 12$$

$$Z \text{ calculated} = 12 \quad Z \text{ table} = 1.28$$

The above indicates that z calculated is more than z table at 10% level of significance. The null hypothesis ( $H_0$ ) is rejected and alternative hypothesis ( $H_a$ ) is accepted. Therefore there is significant relationship between cluster groups and poverty reduction in Delta State.

#### 4 Summary of Findings Conclusion and Recommendations

Delta state government has recognized that financial empowerment of the rural area is a strong factor to poverty reduction in delta state. So in a bid to evaluate cluster cooperative as a model in poverty reduction in Delta State, the study revealed that;

- Majority of the cluster group members in their active age which impacts positively on their productivity with average mean(x) rate of 40 years.
- Most of the cluster group members are at least educated to school certificate level which is a salient factor.
- There is strong evidence of the effect of cluster cooperative model on poverty reduction with a grand mean (x) of 3.21 which is effective.
- Cluster cooperative groups have a lot of activities which is a panacea to poverty reduction in Delta State.

Based on the findings, the following are recommended:

- DMCP should focus more on training and organizing workshops, seminars etc for its clients.
- More funds should be domiciled for the cluster cooperator for more performance.
- DCMP should spread their activities to curb the challenges encountered in disturbing these funds.
- Policy and guidelines for cluster cooperative group formation should be formulated for effective grouping and their membership size increased.
- Adequate loan monitoring and supervision is needed to guide the cluster cooperative group.

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## QUESTIONNAIRE

**Instruction:** Please tick (√) or supply the needed information where needed.

### SECTION A: Socio economic characteristics of the Respondent

1. **AGE:**
  - 18 – 30
  - 31 – 50
  - 51 – 70
  - 71 and above
2. **SEX:**
  - Male
  - Female
3. **MARITAL STATUS**
  - Single
  - Married
  - Divorced
  - Widow
  - Widower
4. **EDUCATIONAL BACKGROUND**
  - School certificate
  - SSCE / WAEC
  - B.Sc / HND
  - MBA / PhD
  - Others
5. **MEMBERSHIP SIZE**
  - 2 - 10
  - 11 – 20
  - 21 – 30
  - 31 and above
6. **Occupation**
  - Trading
  - Farming
  - Civil Servant
  - Artisan
  - Fishing
  - Pensioner
  - Others
7. **CLUSTER GROUP MEMBERSHIP EXPERIENCE**
  - 1 – 5 years
  - 6 – 10 years
  - 11 – 15 years
  - 16 years and above
8. **CLUSTER GROUP CAPITAL BASE**
  - 100,000 – 500,000
  - 501,000 – 1,000,000
  - 1,100,000 – 5,000,000
  - 5,100,000 and above

**Introduction:** Tick good (√) on the option provided. The options are explained as:  
 Very large extent (V.L.E) 5

- Large extent (L.E) 4
- Undecided (UD) 3
- Small Extent (SE) 2
- Very Small extent (VSE) 1

9. **With the under listed variables, what are your option on the effect/relationship between your cluster cooperative and youth empowerment?**

| S/N    | Empowerment Variables   | VLE | LE | UD | SE | VSE |
|--------|---|-----|----|----|----|-----|
| I.     | Increase income of members  |     |    |    |    |     |
| ii.    | Better standard of living   |     |    |    |    |     |
| Iii.   | Education of members  |     |    |    |    |     |
| Iv.    | Entrepreneurial experience  |     |    |    |    |     |
| v.     | Good healthy living   |     |    |    |    |     |
| vi.    | Social integration  |     |    |    |    |     |
| vii.   | Acquisition of skills   |     |    |    |    |     |
| Viii.  | Fullest participation of the community                              |     |    |    |    |     |
| ix.    | Balancing the needs/welfare of members                              |     |    |    |    |     |
| x.     | Increase production   |     |    |    |    |     |
| Xi     | Increase bargaining power of members                                |     |    |    |    |     |
| Xii    | Economics of scope and scale  |     |    |    |    |     |
| xiii.  | Upliftment from poverty   |     |    |    |    |     |
| xiv.   | Networking opportunities  |     |    |    |    |     |
| xv.    | Linkage collaboration with other development agencies               |     |    |    |    |     |
| xvi.   | Political viability   |     |    |    |    |     |
| xvii.  | Access to financial institutions e.g. micro finance bank, B.O.A etc |     |    |    |    |     |
| xviii. | Training the trainees of members                                    |     |    |    |    |     |

10. **To what extent to do you agree that cluster cooperative have affected employment generation in Delta State?**

- i. To a very large extent
- ii. To a large extent
- iii. To a small extent
- iv. To a very small extent
- v. Undecided
- vi. Not at all

11. **In your opinion what is the extent to which your cluster cooperative have affected positively on food production in Delta State?**

- (i) To a very large extent
- (ii) To a large extent
- (iii) To a small extent
- (iv) To a very small extent
- (v) Undecided
- (vi) Not at all