

WOMEN EMPOWERMENT AND SOCIO – ECONOMIC CHALLENGES IN NORTHERN NIGERIA: A LOGISTIC REGRESSION MODEL

UMAR MUSA, MUHAMMAD AHMAD USMAN

Abstract: Enhancing women empowerment is regarded as an indicator and sources of socio-economic development especially in developing countries, but this was impeded due to the socio-economic challenges facing women sub-groups' structure. The aim of the research is to examine the relationship between women empowerment and socio-economic indicators using Nigeria with the particular reference to Kano State in Northern Nigeria. Qualitative and quantitative response data from the total of 50 sample and statistical bulleting were analysis using logistic regression approach. It was identified microfinance credit, entrepreneurial education, access to technology, and saving have positive and significant impacts on women empowerment in Kano State. However, a negative and significant relationship was found with the democratic development under the period of the reviews. The research further identified that the level of entrepreneurship knowledge and access to technology was absent as its coefficient was significantly low under the period of the review thereby need to be improved. Providing entrepreneurship education and skills at early age by organizing seminars, groups participation, schools syllabus and workshop can be regarded as the major import motivation toward women empowerment, this can be achieved by the states as well as federal level and other stakeholders.

Keywords: Women Empowerment, socio-economic challenges, Logistic Regression Model, Nigeria.

1.1 Introduction

Women can be seen as indispensable groups in the development of any given nation either developed or developing. The women constitute fifty five percent in the Nigerian population as per 2003 population census and still constitute lesser participation in the managerial activities in Nigeria due to socio-economic impediments such as illiteracy, poverty, political freedom, discrimination and poor access to certain technological advancements.

Women entrepreneurial activities is becoming increasingly importance due to globalization and technological advancing, but in Nigeria especially in the northern part of country, poverty become an economic problem and matter of the day, evidences from the all statistical data indicates most of the victims are women and are vulnerable to such challenges. Enhancing women empowerment enables women to provides a lasting solution to their outstanding problems and cater their basic need in a given economy.

The subject matter has received lower and outstanding attentions by the researcher and the authority concerned, specification as well as the estimation method; this motivated the need for further study on the subject matter. Therefore the focus of the study is to investigate the nexus between women empowerment and socio-economic challenges with particular attention on enhancing women empowerment using logistic regression model. The sample size is limited to Kano state data in the Northern part of Nigeria. Thus, the paper is constructed into five sections, section two analyses some theoretical and previous empirical findings, while section three focus on the research methodology , section four dwell for estimation and

analysis while section five conclude and summaries the major findings.

2.0 Literature Review

2.1 Socio-Economic Challenges of Women Empowerment

Women empowerment can be seen as a provision of necessary and adequate support or opportunities to women to contribute their potential toward economic development of a particular country. Okafor (2011) identify some challenges and constraints by women in Nigeria, these includes ; (a) lack of access to control of property (b) lack of access to and control over income (c) lack of access to information technology (d) age limit and restriction to family business (t) Inaccessibility to required funds. Yahaya et al. (1999) examines a problem militating against women empowerment leading to poor entrepreneurial activities, the summary the finding includes, literacy; sex-stereotype; rivalry among women; insufficient need for power; religious belief; discriminatory attitudes by males; marginalization of women in politics; and poor economic base.

2.2 Women Empowerment Models

Gobezie, G. (2010) review two women empowerment model for the case of rural Ethiopia, the paper highlights two major models: Group Grantee Lending Model (GGLM) and Community Manage Loan Fund (CMLF) through micro finance banks. The GGLM was developed by Green Bank, under this model individuals are organized to 10 to 15 member to meet monthly and be given credit to the poorest member especially women vulnerable. The a basic benefit of this model it remove main entry barrier for the very poor person such as collateral security, knowledge and experiences thereby women's individual savings plays the critical roles in securing her wellbeing.

While CMLFM model served as an alternative approach which involves the use of existing domestic social networks as a yardstick for the delivery to financial assistance to the targeted groups' specifically extremely poor women in lactated area, therefore CMLF as a user owned and self-managed model offer additional benefit to the poor than the former model.

Isiaka et al. (2013). Developed a women empowerment model based poverty alleviation programs, the model comprises various empowerment indicators such political, economic and social the following figures gives analytical women empowerment model, but the findings from their study indicates a positive relationships between women empowerments and poverty alleviation programs in Nigeria.

Empirical study are vast on women empowerment at different countries using different methodology at different time among which are, Fredric (2013); Dandago (2014); Akinlo et al. (2010); Okafor C. (2011); Lesiele et al. (1999); Spirings et al.(2008); the summary of their findings include among others; that microcredit has significance and positives relationships with women empowerment in Bangladesh; education plays crucial roles and facilitating women empowerment in six Arabs Countries; that lack of access to finance, information, ability women entrepreneurship awareness and freedom are among the factors facing women in Nigeria. And that impact of technological innovation toward women empowerments has not been clearly addressed in the most developing nations.

3.1 Research Methodology

3.1 Research Methodology
The paper adopted logistic regression model, the choice of the techniques stand from the data characteristics used in the research, which involve both qualitative and quantities variables. A sample of 50 respondents was selected randomly to arrive from the qualitative data, while the quantitative data was generated from CBN official statics annual publications.

3.2 Model Specification

The underlying implication behind Logit model is explaining the relationship between women empowerment in relations to other determinants, and can be interpreted as the probability that women are empowered or not given the selected variables. The techniques are log - linear allowed mixture of categorical variables both dependent and independent variables.

Basically seven variables are used. This includes women empowerment index as a dependent variable, the choice of the variables stand from the fact that it is widely used in the empirical analysis, the variable is qualitative data derived from questionnaires distributed to the various respondents. The

respondent to three women empowerment index; decision making measure by working or not; ownership index such past saving and property and mobility indicator. Others independent variables are: Micro finance credits as quantitative data, as a percentages of loan given to women, entrepreneurship education; access to technology such as cell phone, computer, and internet; saving proxied by the level of income or wealth status; and democracy using dummy variable before and after democracy.

The logit model is given as:

Equation one can further simplified as:

The interpretation of the model is that the slope β_1 measure the changes in the L fpr a unit change in X, the intercept also measure value of log odds in favour of every happening if X is Zero (Muktar 2010). According to Gujarat (2012), and Maddala (2004) logit model arises due the fact that the data to be used in the particular study is not normally distributed and provides better fit in the when using ambiguous independents variables.

The research model is specified as:

$$EM = \beta_1 + \beta_2 MIC + \beta_3 EDU + \beta_4 TEC + \beta_5 SAV + \beta_6 DEM + \mu$$

The sign of the parameters is expected to be positive i.e β 's > 0.

Where:

EM = is the women empowerment, MIC = microfinance credit, EDU = entrepreneurship education TEC= Access to technology, SAV= saving, DEM = Democracy, β 's are parameters and μ is the random terms explaining other variables not capture by the presence research.

4.1 Results and Estimation

The results From Table 1.1 depicts descriptive statistics, it was found that microcredits and entrepreneurship education have average mean 17 and 30 percent signifying most of the respondent do not have access to credit and entrepreneurship skills, in the study however, it was found access to technology, saving and democracy have very low mean and standard deviation.

Table 1.1 descriptive Statistics

Variables	Mean	Standard Dev.
MIC	17.01	9.12
EDU	30.01	10.16
TEC	0.18	10.34
SAV	3.22	0.91
DEM	0.24	0.11

Source user work based on survey

The results from table 2.1 shows the logistic regression model of the coefficients interpreted as change in the probability of women more empowered and a unit change in the dependent variables, the dummy democracy implies that the probability of women becoming highly empowered in the presence of democracy. The empirical findings show a positive and significant accepts access to technological and negative relationship with the presence of Democracy.

The findings implies, all thing being equal, the unit probability of women to be empowered. However if a women has access to credit the probability is will increase by 53 %, 0.05 percent for entrepreneurial education, 0.009 percent for technology, and 0.35 percent for women that have saving, while decreases in the case of democracy, indicating the negative impact of democracy on women empowerment under the periods of the reviews, this can be associated the poor participation of women political issues or family constraints matters.

The overall R^2 is 72 percent, showing goodness of fit of the explanatory variables and LR statistic is significant.

Table 2.1: Logistic Regression

Dependent Variables : Women empowerment index			
Variables	Coefficient	S.E	Z-Stat (Prob)
Constant	0.121	0.024	0.002
MIC	0.531	0.310	0.004
EDU	0.051	0.017	0.001
TEC	0.009	0.101	0.521
SAV	0.347	0.014	0.024
DEM	-0.586	-0.010	0.001

$$R^2 = 0.72 \text{ LR sta.} = 14.64 (0.075)$$

Sources: Eviews econometrics software version 8.00 (2015)

4.0 Summary and Policy Implications

The focus of the research is investigates the relationship between women empowerment and socio-economic indicators using Nigeria with the particular reference to Kano State as largest and densely populated area in Northern Nigeria. Qualitative and quantitative response data were analysis using logistic regression approach. It was identified microfinance credit, entrepreneurial education, access to technology, and saving is the major determinants of women empowerment in Kano State. However, a negative and significant relationship was found with the democratic development under the period of the reviews. The research further identified that the level of entrepreneurship knowledge and access to technology was absent as its coefficient was significantly low under the period of the review. Providing entrepreneurship education and skills at early age by organizing seminars, groups participation, schools syllabus and workshop can be regarded as the major import motivation toward women empowerment, this can be achieved by the states as well as federal level and other stakes holder. It was further recommended there need to improve the excess to technological services this will help to utilize the available information where necessary.

Reference

1. Dandago K.I and Muhammad M., (2014), "Entrepreneurship Development Programs and Facilitation of Youth Employment in Kano State, Nigeria". European Journal of Academic Research, 2(1).
2. Domor N., Gujrat and Dawn C.Porter (2012). Basic Econometrics, Fifth edition, McGraw Hill Education Private Limited (India).
3. Domor Gujarat (2012). Econometric By Examples, First Published, PALGRVAVE MACMILLIAN.
4. Graflund Fredric (2013), "Impacts Of Microcredits on Women's Empowerments; A case Study In Tangail Districts, Bangladesh" No 225.
5. Isiaka A.O, Jahari F., and Alas M.H (2013), "The Determinant of Women Empowerments and Its Impact on poverty Alleviation: A Case of Kwara State, Nigeria (A Pilot Study). Asian Journal of Social Science, 2(4).

-
- 6. Lesiele Yahaya (1999), "Women Empowerment in Nigeria: Problems, Prospects and Implications for Counseling" Department of guiding and counseling, University of Ilorin, Nigeria.
 - 7. Okafor Chinonye (2011), "Economic Empowerment and Socio- Economic Challenges facing Women Entrepreneurs in the South – West Nigeria: An Empirical Study." 6(2)
 - 8. Olusegun A. Akanbi (2010), "Role of Governance in Explaining Domestic Investment in Nigeria" Working Paper, No. 168.
 - 9. Spierings, N., Smits, T., and Nerloo, M., (2008), "Micro and macro-level determinants of women's employment in six MENA countries" . NICE working Paper 08 – 104
 - 10. Sarahat S.C. and Chowdhury A.S. (2010). "Microfinance and Women Empowerment: A Panel Data Analysis Using Evidence from Rural Bangladesh" International Journal of Economic And Finance 3(5).

* * *

Umar Musa, Department of Economics, M.Sc. Econometrics Student,
SRM University, Kattankulathur-603203, Chennai, India, umaryms24@yahoo.com,
+91 9176327413

Muhammad Ahmad Usman, Department of Economics, M.Sc. Econometrics Student,
SRM University, Kattankulathur-603203, Chennai, India, rijiyahudu2007@yahoo.com,
+91 8939506720