The Impact of Microfinance on Women Empowerment: A Case Study of the Family Bank, Gezira State, Sudan (2016-2017)

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Abstract

The impact of microfinance on women's empowerment remains debatable. While some studies suggest that microfinance helps women increasing their income earning abilities, leading to greater power within the household, others think that it may also lead to a more vulnerable position for woman. This study aims to empirically evaluate the impact of microfinance on women's empowerment in Gezira State taking the Family Bank, Wad Medani Branch as a case study. A sample of 117 women who are clients of the bank were randomly selected for data collection. Descriptive statistics were used to analyze the main features of women under study. Then, the impact of microfinance on women's empowerment is examined and analyzed through a cross sectional impact methodology, referred to as the control group method. Microfinance borrowers are compared to (soon -to-be microfinance borrowers) and the difference between these two groups is attributed to the acquisition of microfinance. An econometric analysis is then employed on the data gathered via the questionnaire. The results confirm that microfinance has a significant positive impact on women's empowerment. Furthermore, the variables of women social status, education level and number of children in the household have a positive significant effect on the level of women empowerment in the study area. The, results emphasized that there is a room for empowerment through the microfinance programs, therefore, this study recommends for more improvements in various aspects related to the arrangements and provision of the microfinance from the financial institutions side.

Keywords: Women, Empowerment, Microfinance, Sudan

1. INTRODUCTION

Microfinance has a potential contribution to women's empowerment and gender equality. Through their contribution to women's ability to earn an income microfinance programs have potential to initiate a series of 'virtuous spirals' of economic empowerment, increased well-being for women and their families and wider social and political empowerment (Mayoux, 2006).

Microfinance is expected help poor women to take up income generating activities which will improve their economic situation. In addition to the improved income earning ability; it has been increasingly promoted for its positive impact on women empowerment. Theories assume that microfinance leads to women's empowerment by enabling women to earn an independent income sources and contribute economically to their families, which is supposed to give them more power within their household. Also, microfinance is seen as a tool for enabling women to engage in more flexible life and free themselves from household restrictions and get contact to the outside community. More contact to the outer community, together with the formation of networks with other women, is expected to give them to more power.

It has been confirmed that, microfinance would open up chances for self-employment, in addition its contribution to the improvements of the situation for the entire household. Furthermore, microfinance positively affects the social situation of poor individuals by promoting self-confidence and expanding the capacity to play a more effective role in the society (Dobra, 2011).

The idea of Family Bank in Sudan was initiated by the private sector which represents the Business of Women Coalition of the Alliance of Work, and some civil society organizations in Sudan. The owners are interested in poverty issues; the State government of Khartoum therefore, sets up financial institutions specializing in poverty alleviation. It provides services to the economically

active poor individuals, as well as providing integrated financial services for this group, as a mechanism to remove them from the cycle of poverty (Alawad, 2010).

Although the status of the Sudanese women has greatly improved over the last decades, however gender inequality still exists in some aspects in the society (Mustafa, 1997). The objective of this paper is to investigate the main features of women situation in Gezira State including their socio-economic characteristics and to evaluate the effect of microfinance on women empowerment in the Gezira area through studying the case of Family Bank.

The following sections of the paper explain the methodological approach, then display and discuss the results and finally set the study conclusion and recommendation.

2. METHODOLOGY

Data and information used in this paper were collected from two sources. The primary source was a survey through questionnaires. The questionnaire used in this paper is based on questions for measuring empowerment used in other studies such as Graflund (2013), Bali (2007) and Hashemi, Schuler, and Riley (1996).

The survey covers 117 women who are clients of the Family Bank were randomly selected to represent the study population. Eighty four of them were classified as microfinance borrowers who had already received microfinance from the bank, while thirty three of the respondents have been accepted into a microfinance program but not yet received the loan; this group is defined as soon-to-be microfinance borrowers. In this paper, microfinance borrowers are used as treatment group, while soon-to-be microfinance borrowers are used as control group. The empirical material was gathered during the year 2017. The respondents are distributed into three localities in Gezira State (North of Gezira, Umalgura and Greater Madani).

In addition to the primary source of information, secondary data were also compiled from published and unpublished materials related to the topic, available documents and annual reports of the Family Bank, Bank of Sudan and Ministry of Social Affairs besides the internet websites as well.

2.1 Data Analysis:

The analysis in this paper comprises a descriptive and regression analysis. The descriptive part describes the main socio-economic features of the study population, through manipulating personal information regarding the socio-economic variables of age, number of children, monthly expenditure and age at marriage. In addition, the descriptive analysis covers average empowerment indicators for the two groups, the indicators are separated into four groups including, decision-making power in the household, ownership of assets, voice, and mobility.

A Multiple Linear Regression was applied to determine the effect of microfinance and some selected variables on women empowerment and a comparison between the two groups of women under study in this aspect was then made.

2.2 The Empirical Model:

The questionnaire was conducted with both microfinance borrower and soon-to-be microfinance borrowers from female clients of the bank. From the data gathered via the questionnaire, the relationship between microfinance and women's empowerment is analyzed through a cross sectional impact methodology, referred to as the control group method. The quantitative data analysis has been conducted comparing microfinance borrowers with soon-to-be microfinance borrowers using the data gathered from the questionnaire. For more explanation, both the treatment group and the control group have been accepted into a microfinance program. The difference between the two groups is that the treatment

group, microfinance borrowers, has received microfinance and the control group, soon-to-be microfinance borrowers, has not yet received the loan but is about to within a short period of time. To estimate the effect of microfinance on empowerment this study constructs a multiple linear regression model with the ordinary least squares (OLS) method.

Women's empowerment is defined within four subgroups: decision-making power in the household, ownership of assets, voice, and mobility each one of them has a definition:

Decision-making power in the household is defined as ability to make and influence process of reaching decisions. Ownership of assets; is the attribute of an economic good. The voice is the freedom of expression, while mobility is the freedom of movement. The definitions and examples of empowerment indicators subgroups used within this study are presented in table (1) below.

Table 1: Empowerment indicators subgroups

Subgroup	Definition	Example
1. Decision-Making power in the household	The ability to make and influence process of reaching decisions	Make small purchases without consulting husband
2. Ownership of Assets	The attribute of an economic good	Land ownership in her own name
3. Voice	The freedom of expression	Comfortable giving opinion in public
4. Mobility	The freedom of movement	Ability to visit the local markets

Source: adapted from Graflund (2013)

2.3 Model Specification

Women empowerment is measured through an empowerment index. The index is built on the empowerment indicators, which in turn are derived from the client's answers on the thirteen empowerment questions in the questionnaire. To measure the respondent's answers to these questions; *yes* answer is transformed to a one and a *no* answer is transformed to a zero. The values for each of the thirteen empowerment indicators are then summed into an aggregate index with one point increments from zero to thirteen. An individual with a high aggregate empowerment index score is considered to be more empowered than an individual with a low aggregate empowerment index score (Graflund, 2013).

Equation (1) below defines the multiple linear regression model with ten independent variables and the empowerment index as the dependent variable.

$$\text{Empowerment index} = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5 + \beta_6 X_6 + \beta_7 X_7 + \beta_8 X_8 + \beta_9 X_9 + \beta_{10} X_{10} \tag{1}$$

Where:

α Constant

$\beta_1 \dots \beta_{10}$ Coefficients

X_1 state of finance (Received the loan or not yet)

X_2 No. of times of getting Microfinance

X_3 Place (Urban or Rural)

X_4 Age

X_5 Education

X_6 Women own business

X_7 Household expenditure

X_8 Social status (married or unmarried)

X_9 Age at marriage

X_{10} Number of children

3. RESULTS AND DISCUSSION

3.0 Socio-economic Characteristics of Women in Gezira State:

The socio-economic characteristics of women analyzed include variables of age, number of children, monthly expenditure and age at marriage (table 2).

3.1 Women socio-economic characteristics:

Table 2: Women socio-economic characteristics, Gezira State, 2016/2017

Description	Microfinance Borrowers		Soon to-be-Microfinance Borrowers		Total	
	Mean	**S.D**	**Mean**	**S.D**	**Mean**	**S.D**
Age	42	10	40	10	41	10
Number of Children	3.3	2.2	2.3	2-4	3.03	2.3
Monthly Expenditure in thousand SDG	1.9	0.83	1.39	12.59	1.72	0.81
Age at Marriage	21.92	7.48	17.76	2.48	20.74	8.95

Source: Author's survey

Table (2) gives information about some selected socio-economic characteristics of the sample of the microfinance borrowers and soon-to-be microfinance borrowers. Microfinance borrowers tend to be older and have slightly higher monthly expenditure. Also, they have large family size compared to soon-to-be microfinance borrowers and all of women in the sample have at least one child. Soon-to-be microfinance borrowers get married on average at younger age than microfinance borrowers.

3.2 Empowerment Indicators:

Table 3: Distribution of women groups by empowerment indicators subgroups, Gezira State, 2016/2017

	Microfinance borrowers		Soon-to-be microfinance borrowers		All	
	Mean	S.D	Mean	S.D	Mean	S.D
1. Decision Making Indicators						
Make small purchases without consulting husband	1.00	0.00	0.97	0.17	0.99	0.09
Have a say in whether to purchase major goods for the household (e.g.: TV)	0.99	0.11	0.97	0.17	0.98	0.15
Have a say in whether to work outside home	0.85	0.36	0.85	0.36	0.85	0.36
Have a say in whether to buy or sell property	0.32	0.47	0.30	0.47	0.32	0.47
Have a say in how many children to have	0.94	0.24	0.76	0.44	0.89	0.32
2. Ownership of Assets Indicators						
Land ownership in own name	0.18	0.39	0.12	0.33	0.16	0.37
Personally own property and/or valuables (eg: jewelry)	0.23	0.42	0.21	0.42	0.22	0.42
Have independent savings	0.33	0.47	0.27	0.45	0.32	0.47
3. Voice Indicators						
Comfortable giving opinion in public	1.00	0.00	0.97	0.17	0.99	0.09
People in the village listen to her ideas and opinions	0.96	0.19	0.85	0.36	0.93	0.25
4. Mobility Indicators						
Ability to visit local markets	0.99	0.11	0.97	0.17	0.98	0.13
Is a part of social assemblies in the neighborhood	0.71	0.45	0.58	0.50	0.68	0.47
have been in position in the social assemblies	0.29	0.45	0.15	0.36	0.25	0.43

Minimum = 0   Maximum =1

Table (3) presents results of the four empowerment indicators for the two surveyed groups; the indicators were separated into the four subgroups and they are corresponding to the questions on empowerment in the questionnaire. To be able to measure respondent's answers to these questions a *yes* is transformed to a one and a *no* is transformed to a zero. In other words, a respondent given a one is seen as more empowered than a respondent given a zero.

Microfinance borrowers are seen to be more empowered compared to soon-to-be microfinance borrowers. This is seen via the higher value of the mean of every empowerment indicator as shown by the table (3) above. Also, the majority of both microfinance borrowers and soon-to-be microfinance borrowers show low empowerment levels in the aspect of mobility and assets ownership because of their low levels of income.

3.3 Results of the Multiple Linear Regression Analysis:

The model under consideration regresses women empowerment index against variables considered as the main socio-economic factors affecting women economic positions and activities.

Table 4: Summary of the multiple liner Regression model

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
	0.66	0.44	0.37	1.24

The selected variables explain 44 percent of the variability in women empowerment index (table, 4), other factors not included in the model might affect women empowerment including the high level of inflation which negatively affect their real income and hence the level of empowerment. The whole model suggested relationship is statistically significant as shown by the *F* high value (table, 5).

Table 5: ANOVA table results

Model		Sum of Squares	df	Mean Square	F	Sig.
	Regression	98.912	10	9.891	6.475	0.000
	Residual	126.790	83	1.528		
	Total	225.702	93			

Table 6: OLS results of the multiple linear regression model

	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.883	1.117		3.478	0.001
State of finance (received the loan or not yet)	2.098	0.455	0.417	4.608	0.000
No. of times getting Microfinance	- 0.08621	0.100	- 0.079	-0.860	0.392
Location	0.181	0.299	0.054	0.606	0.546
Age	- 0.02248	0.018	- 0.140	-1.265	0.210
Education level	0.501	0.207	0.288	2.420	0.018
Own business	0.396	0.327	0.128	1.212	0.229
Expenditure	0.00006687	0.000	0.039	.394	0.695
Social status	0.610	0.232	0.240	2.622	0.010
Age at marriage	-0.005185	0.019	- 0.026	-.280	0.780
Number of children	0.181	0.072	0.253	2.526	0.013

Source: Author's calculations

In general, the OLS results in table (6) above shows that microfinance seems to have a significant positive effect on women's empowerment. Although the magnitude of the effect depends on the set of controls used, the microfinance has increased the level of empowerment. A combination of women's increased economic activity and control over income resulting from microfinance is found to improve women's decision-making power, ownership of assets, mobility, and voice.

The individual characteristics are: age, age at marriage, education level, own work and social status, while household characteristics are: expenditure and number of children.

Three of these independent variables are statistically significant at the 5 percent level. In terms of magnitude, the empowerment index is expected to increase, on average, with 2.09 points if the respondent has received microfinance holding all the other independent control variables constant.

The pattern of estimates and significant level across different sets of independent control variables indicates that the estimate for microfinance on women's empowerment is considerable.

The independent variables that are significantly related to the women empowerment are: the respondent's education level, social status and number of children in the household.

Age is negatively related to women empowerment, it may be the case that older women are dependent on their husbands and sons for support. On the other hand, well educated women are expected to be more empowered since they have the ability to take their own decisions. This can be observed from the positive relationship between the education level and the empowerment index. The social status of women is positively related to the empowerment, unmarried woman (widow,

divorced or single) has more decision making power within the household since she is in most cases the head of the household.

Women own business or work have a positive effect on empowerment, this is because a woman with her own work is more likely to have control on both her income and a potential microfinance.

A large number of children in the household bring in general; a higher domestic workload for the women, but this is not the case within this study, large number of children might help women by taking some burden of the domestic workload especially if they are at a higher level of age.

Furthermore, it was expected that the number of times of microfinance acquisition is going to have a positive impact on women empowerment. The results in table (6) tell us that the number of times of getting microfinance is positive but not significantly correlated with women empowerment, this might be that the initial microfinance given would enhances women's motivation to generate income. The additional microfinances given over the years bring marginally less value to women's empowerment.

4. CONCLUSIONS AND RECOMMENDATIONS

This study tries to figure out how microfinance programs would affect women empowerment taking the Family Bank of Gezira state as a case study. The study has developed an index for women empowerment. Then the index was regressed against microfinance acquisition and some other selected variables among two groups of microfinance borrowers and those who are ready to join a microfinance program but have not yet benefited from it.

From the model we can conclude that women who have benefited from microfinance are highly educated and with large family number would be more empowered, particularly if they are heading their families. Well educated women are more powered because they have the ability and courage to access financial institutions and achieve all procedures of loan acquisition, which is considered one of the main problems that hinder loan access especially for females. Number of times of getting loans was expected to have a positive impact on empowerment because of the gained experience, however, women who get loans for the first time seem to be more motivated for their new enterprises.

From banks and financial institutions side, more attention should be given to the arrangements and provision of the microfinance programs. Policy makers and microfinance practitioners who aim at using microfinance for empowering women need to expand their activities beside credit provision to include training, workshops and awareness creation among them.

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