



Women participation in Microcredit Services and its Effect on Business Improvement, Household Welfare and Women Empowerment in

Babati, Tanzania

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Abstract

This study was conducted in Babati Town with the aim of assessing the contribution of microcredit services to business growth, household welfare and women empowerment. Specific objectives of the study were to: (i) determine awareness and participation in microcredit services among small scale women traders (ii) identify the factors influencing women's participation in microcredit services and (iii) assess the role of microcredit services in improving business and household welfare. The study enrolled a total of 196 randomly selected small scale women traders. Data were collected using a semi-structured questionnaire and analysed for descriptive and inferential statistical analysis using Statistical Product Solution (SPSS) program version 16. Results indicated that majority of small scale women traders (95.9%) in the area were aware of the activities of the microfinance institutions and, nearly 64% were utilizing the microcredit services. Results also showed that participation in microcredit services by women traders was positively influenced by number of dependents ($p < 0.05$), responsibility of taking care of a family ($p < 0.01$), experience in small scale business ($p < 0.05$) and capital size ($p < 0.05$). However, participation in microcredit services was negatively influenced by short loan repayment period ($p < 0.05$), long loan processing period ($p < 0.01$), and lack of collateral ($p < 0.05$). Overall, microcredit services improved ($p < 0.05$) business and household welfare but did not lead to women empowerment ($p > 0.05$). Based on these findings, recommendations to improve women's participation in microcredit services have been indicated.

Keywords: Microcredit services, women, empowerment



1.0 Introduction

High level of poverty has been a serious problem in Developing countries including Tanzania with prevalence being high among women. About 70 percent of world's poor are women and about 60 percent of women in Tanzania live in absolute poverty (Kato and Kratzer, 2013). Lack of capital, inaccessibility to resource base and lack of voice in society are among the major reasons for the high level of poverty among women. For example, the survey carried out in Tanzania by ILO (2003), showed that only 4 percent of women had access to formal credit sources. As their businesses grew, 78 percent depended even more on their own savings, 25 percent on micro-finance credit, 10.2 percent on bank credit and 1.6% on money from their spouses.

One of the factors for low participation to formal microcredit services among women was non-availability of the services. However, in recent years the number of Governmental and Non-governmental institutions/agencies providing microcredit services to women has increased substantially. These include Small Industries Development Organisation (SIDO), Women Development Bank and Women Development Fund Program Foundation for International Community Assistance (FINCA), Promotion of Rural Initiatives and Development Enterprises Limited (PRIDE), Savings and Credit Cooperative Society (SACCOS) and Bangladesh Rural Advancement Committee (BRAC) (Makombe *et al.*, 1999; Maleko *et al.*, 2013; Kato and Kratzer, 2013).

Despite the increase in the number of institutions offering microcredit to women in the country, the trend on women participation in microcredit servicesits contribution on improving women status is less known. Furthermore, previous studies have indicated that availability of institutions offering microcredit alone might not be adequate to influence women participation in microcredit services (Oyedele and Akintola, 2012; Peprah, 2012; Etonihu *et al.*, 2013; Kifle *et al.*, 2013; Mpiira *et al.*, 2013), implying that women participation is likely to be influenced by many other factors. The objectives of this study were to (i) determine the awareness and participation in microcredit services among small scale women traders, (ii) identify the factors influencing women's participation in microcredit services and (iii) assess the role of microcredit services in improving business and household welfare. Results of this study provide useful insights to the development stakeholders regarding the role of microcredit services on improving women welfare.

2.0 Methodology

2.1 Study area

This study was carried out in Babati Town, the headquarters of Manyara Region in Northern part of Tanzania in September 2013. The study involved four randomly selected



streets namely *Maisaka Kati*, *Old Majengo*, *Oysterbay* and *MjiMpya*. Babati town is located on 4°04'S and 35°045'E. According to the national population census of 2012, the town had a population of 93,108 inhabitants (47,313 males and 45,795 female). Major economic activities are farming, livestock keeping, fishing and informal activities.

2.2 Study design

This study involved a cross-sectional survey where, a total of 196 women involved in small scale women traders were recruited for the study. Nearly equal number of respondents was taken from each street. Estimation of the sample size (n) was performed using a formula $\left(Z_{\alpha/2} \right)^2 p (1-p) / d^2$ as proposed by Fisher *et al.* (1991). Where; $z_{\alpha/2}$ is a critical value based on chosen confidence level, p = proportion of women who participate in microcredit services, $q=1-p$, and d = the maximum error. Since p was not known for the study population, its value was assumed to be 50% as it maximizes the sample size. In estimating the sample size, confidence level and maximum error were assumed to be 95% and 5%, respectively. Data for this study were collected through face-to-face interviews with respondents using a pre-tested questionnaire. Informed verbal consents were asked from respondents before proceeding with the interview.

2.3 Data collection

Data collected from respondents included information on socio-demographic characteristics (age, marital status, level of education and household size); business performed (type of business, years in business and income from the business). Other types of information were related to microcredit services (e.g. awareness and utilization of the services); household welfare (e.g. household consumption expenditure, household assets and household food security) and the overall women empowerment.

Household consumption expenditure, household assets and household food security were used as measures for household welfare. Household consumption expenditure was evaluated based on expenditures on non-durable goods per adult equivalent per year (Langat *et al.*, 2011; Asfaw *et al.*, 2012). Non-durable goods consisted of both food and non-food items. These included food grains (flour), potatoes, cassava (starchy foods), livestock/animal products (e.g. meat, fish, egg and milk), vegetables and other food items (e.g. sugar, salt, cooking oil, onion and fruits), water bills and house rent, clothing (e.g. clothes, shoes and make-up), beverages (e.g. coffee, tea and soft drinks), energy/fuel (e.g. electricity, kerosene, charcoal and firewood) and social activities (e.g. contribution to churches, local organization, education and medical services). The higher the consumption expenditure on above items, the more well-off is the household (Asfaw *et al.*, 2012).



On the other hand, household food security status was evaluated based on respondents' perception on occurrence of different conditions regarding food insecurity at their household in the past 12 months prior to survey. These included: worry about food; unable to eat preferred foods; go to sleep hungry; go a whole day and night without eating; eat foods that really do not want to eat; eat a smaller meal; eat fewer meals in a day; no food of any kind in the household; and eat just a few kinds of foods (Coates *et al.*, 2007; Omidvar *et al.*, 2013). For each item/condition respondents were asked to indicate their responses on the following scales: 0 = no, 1 = rarely, 2 = sometimes and 3 = often; and responses of each respondent for all items were summed up to obtain a total score for occurrence of food insecurity at the household (food insecurity index). The higher the score on the index, the more the household is food insecure.

In addition, women empowerment was evaluated using four broad categories of empowerment which included women control over economic recourses, women's control over household decision making, women's mobility, and women's political awareness. In each area of empowerment, a list of questions (items) was presented in which women were asked to respond based on the following scale: 0 = controlled by other family member, 1 = controlled by husband, 2 = joint control by husband and wife and 3 = controlled by wife (woman). These items were then composed into indices by summing score of the items for each individual. With the above coding, higher values for total score implied that a woman was empowered (Kundu and Chakraborty, 2012).

2.4 Data analysis

Data were analyzed for descriptive statistics such frequencies and percentages to determine the distribution of respondents in various variables under study. Statistical Package for Social Science (SPSS) Software Version 16 was used for the analysis. A Binary Multiple Logistic Regression analysis was used to identify the factors influencing women participation in microcredit services. The analysis was based on the following statistical model.

$$\ln\left(\frac{p}{1-p}\right) = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \dots + \beta_{11} X_{11} + e$$

Where:

Whereby p is a probability of a woman to participate in microcredit services; β_0 and $\beta_1 - \beta_{11}$ are estimated regression coefficients and X_1 to X_{11} are various explanatory variables. A dependent variable (Y) was "If ever accessed/used microcredit services from microcredit institutions for business improvement", with binary response 1 = Yes, 0 = No.



The independent variables included socio-demographic factors (age, marital status, education level, number of dependants, and a person responsible of taking care of daily family needs), business specific factors (current capital size, years in business), and service based factors (interest rate, loan processing period, repayment period and collateral).

Furthermore, t- test analysis was used to compare credit receivers and non- credit receivers on various aspects under study such as income from business, current value of durable assets, household consumption expenditure, household food security, and the extent of women empowerment.

3.0 Results and Discussion

3.1 Socio- demographic characteristics of respondents

Results from Table 1 indicate that majority of respondents (57.1%) were in the age group of 31 to 45 years, and were either married, divorced or widowers (76%). A similar pattern has been reported in previous studies concerning women entrepreneurs (Kato and Kratzer, 2013).

Table 1: Characteristics of the respondents (n = 196)

Variables	Frequency	Percent
Age		
15 – 30	56	28.6
31 – 45	112	57.1
46 – 60	26	13.3
60 +	2	1.0
Marital status		
Married	117	59.7
Single	48	24.5
Divorced	16	8.2
Widowers	15	7.7
Level of education		
No formal education	5	2.6
Primary education	104	53.1
Secondary education	55	28.1
College and above	32	16.3
Household size		
< 5	124	63.3
5 - 10	72	36.7



Furthermore, more than one-third of the respondents (44.4%) had attained at least secondary education, implying that borrowers would find it easy to read and understand conditions related to microcredit services. Findings from Table 1 further reveal that a substantial proportion of respondents (37%) belonged to households with large family size (5 to 10 persons), a very common phenomenon in many Africa countries (Avidime *et al.*, 2010).

3.2 Information related to women owned small scale business

Results from Table 2 indicate that the leading type of small scale business run by women in the area included retail shop/kiosks (26.5%), selling food (20.4%), and selling fruits and vegetables (18.8%). The above findings support the results of a previous study which reported that in every ten small scale business women, one was engaged in food vending (Lukindo, 2007).

Table 2: Distribution of respondents by type of small scale business and years in business performed (n = 196)

Variable	Frequency	Percent
Type of business*		
Saloon	13	6.6
Selling fruits and vegetables	33	16.8
Electronic money transfer	11	5.6
Selling sunflower oil	6	3.1
Pharmacy	5	2.6
Retail shop/kiosk	52	26.5
Tailoring	12	6.1
Food vendor	40	20.4
Grocery	8	4.1
Stationery services	4	2.0
Cosmetic shop	4	2.0
Nursery tree	1	0.5
Selling electronic goods	2	1.0
Selling cereal products	7	3.6
Boutique	7	3.6
Selling second hand clothes	9	4.6
Veterinary shop	1	0.5
Years in business		
Less than 3	41	21.0
3 to 5	95	48.2
More than 5	60	30.8

*Data were based on multiple responses



The results further indicate that majority of respondents (79%) were involved in small scale business for at least three years, indicating that most of those who were interviewed had a good experience with small scale business.

3.3 Awareness to micro finance institutions

Findings from Table 3 reveal that nearly all of respondents (95.9%) were familiar with Microfinance Institutions (MFIs) that existed in the area. The most known MFIs were PRIDE (mentions by 76.1% of the respondents), BRAC (38.3%) and SIDO (37.2%) Furthermore, the major sources of information on MFIs were friends and relatives followed by advertisements. These were mentioned by 80.3% and 45.2% of total respondents, respectively (Table 3).

Table 3: Awareness to MFIs that exist in the area and source of information

Variable	Frequency	Percent
If aware of MFIs that exist in the area (n = 196)		
Yes	188	95.9
No	8	4.1
MFIs that are aware of (n = 188)*		
PRIDE	143	76.1
BRAC	72	38.3
SEDA	15	8.0
SIDO	70	37.2
KUTAYBA SACCOS	15	8.0
BABATI SACCOS	36	19.1
Source of information on MFIs (n = 188)*		
Advertisement	85	45.2
Friends and relatives	151	80.3
MFIs staff	40	21.3

*Data were based on multiple responses

3.4 Access and use of microcredit services from MFIs by small scale women traders

Results from Table 4 reveal that 63.8% of small scale women traders had accessed microcredit services. As high as 67% indicated to have received both loan and training while 32.8% stated that they had received loan services only. PRIDE was the leading MFI offering microcredit services to women in the area followed by SIDO used by 44.0% and 26.4% of study participants that had received the services, respectively. Few respondents indicated to use other MFIs such as BRAC (12.8%), KUTAYBA SACCOS (16.0%) and Babati SACCOS (2.4%). A notable proportion of respondents (40.5%) stated that they received loan services for at least three (3) times through individual-based lending since



MFIs started operating in the area. However, nearly half (47.2%) of the respondents showed concern on the limited amount of loan available (Table 4). For example, 58.8% of total respondents indicated to have received not more than TZS 1,000,000 in their last application with nearly one third (28.2%) receiving less than TZS 500,000 (Table 4).

3.5 Factors influencing women's participation in microcredit services

Factors influencing women's participation in microcredit services were also assessed in this study. A range of factors were considered in this analysis. These include socio-demographic factors, business specific factors, as well as institutional/service based factors (loan conditions). Results from Table 5 indicate variables included in model were good predictors for women's participation in microcredit services (Nagelkerke $R^2 = 0.47$).

3.5.1 Socio-demographic factors

Social demographic factors included in the analysis were age, marital status, education level, number of dependants and responsibility for caring a family. Results from Table 5 indicate that age of respondents had no significant effect on women's participation in microcredit services ($p > 0.05$). This observation is contrary to the findings by Oyedele and Akintola (2012) who found that increase in age was associated with increased chances to participate in microcredit services from MFIs among women. Result from Table 5 further shows that being single, widower or divorced relative to being married had also no influence on women's participation in microcredit services ($p > 0.05$). Results for the effect of education obtained in this study contradict those reported by Etonihu *et al.* (2013) who found that the likelihood for women participation in microcredit services increased with increased in education level. The authors contended that educated women are more likely to understand the benefits of credit in production and comprehend extension information on sources and utilization of credit.



Table 4: Use of microcredit services, source and type of microcredit services by respondents

Variable	Frequency	Percent
If ever used microcredit services (n = 196)		
Yes	125	63.8
No	71	36.2
Source of microcredit services (n = 125)		
PRIDE	55	44.0
BRAC	16	12.8
SIDO	33	26.4
KUTAYBA SACCOS	20	16.0
BABATI SACCOS	3	2.4
Type of microcredit services received (n = 125)		
Both loan and training	84	67.2
Loan	41	32.8
Frequency of getting the service (How many times got the services?) (n = 125)		
1-2 times	75	59.5
3-4 times	37	30.2
More than 4 times	13	10.3
Amount of loan received in last application (TZS) (n = 125)		
< 500,000	35	28.2
500,000 – 1,000,000	38	30.6
>1,000,000	51	41.1
Adequacy of loan (n = 125)		
Adequate	66	52.8
Not Adequate	59	47.2

Findings from Table 5 further indicate that large number of dependants was associated with increased odds for women to participate in microcredit services ($p < 0.05$). Result further revealed that having responsibility of taking care of a family increased chances for participation in microcredit services ($p < 0.05$). A possible explanation for this observation is that a woman in a household with a large number of dependants and /or with the responsibility for taking care of the daily family needs has more pressing financial needs compared to a counterpart without these characteristics.

3.5.2 Business specific factors

In this study, years in business and capital for business were considered as business specific factors in the regression analysis. It is evident from Table 5 that increase in years



in the business and increase in capital size were associated with increased likelihood for women's participation in microcredit services ($p < 0.05$), probably due to due to increased entrepreneurship skills and confidence which are important success factors in business (Peprah, 2012).

3.5.3 Institutional factors

In this study respondents were also asked to indicate whether loan conditions including interest rate, loan repayment period, collateral and loan processing period were barriers for women to participate in microcredit services. Findings from Table 5 reveal that loan repayment period, collateral and loan processing period were the main barriers for accessing microcredit services ($p < 0.05$). Conversely, perception on interest rate by women had no significant effect on women's participation in microcredit services ($p > 0.05$) which is inconsistent with findings in other studies (Etonihu *et al.*, 2013; Kifle *et al.*, 2013; Mpiira *et al.*, 2013). The findings that lack of collateral and short loan repayment period are barriers to accessing microcredit services are in line with several studies conducted in the developing countries (Maleko *et al.*, 2013; Kato and Kratzer, 2013). This pattern stresses the need to soften loan conditions in order to reach more borrowers

Table 5: Logistic regression analysis for women's participation in the microcredit services against various socio-demographic, business and institutional specific factors

Independent Variable	B	S.E	Wald	Sig
Age(years)	-0.015	0.028	0.285	0.593
Marital Status				
Married(Ref)				
Single	-1.365	0.894	2.333	0.127
Widower	-0.315	1.094	0.085	0.771
Divorced	-0.125	1.107	1.265	0.261
Education level				
Primary or lower(Ref)				
Secondary	-0.019	0.477	0.02	0.968
College & Above	-1.573	0.958	2.696	0.105
No. of dependants	0.499	0.208	5.743	0.017
Responsibility of caring family				
Women(Ref)				
Others	-2.55	0.972	6.876	0.009
Years in Business	0.171	0.076	4.99	0.025
Capital for business	0.462	0.185	6.236	0.013
Think that Interest rate is a barrier to access loan				
Yes(Ref)				



Independent Variable	B	S.E	Wald	Sig
No	-0.743	1.196	0.386	0.533
Think that Loan repayment period is a barrier to access loan				
Yes(Ref)				
No	3.678	1.456	6.381	0.012
Think that Collateral is a barrier to access loan				
Yes(Ref)				
No	1.686	0.845	3.976	0.046
Think that Loan processing Period is a barrier to access loan				
Yes(Ref)				
No	1.428	0.538	7.054	0.008

Ref = Reference category; Nagelkerke R square = 0.47

3.6 Effect of microcredit services from MFIs on business improvement, household welfare and women empowerment

3.6.1 Effect on business improvement

To verify whether participation in microcredit services had improved women owned business, current capital size and income per month from business were compared between credit receivers and non-credit receivers. Table 6 indicates that participation in microcredit services improved both capital size and income from business significantly. Women who accessed microcredit services had significantly higher average capital size ($p < 0.01$) and average monthly income from business ($p < 0.05$) compared to those who did not have access to the services. Improvement in income following involvement in microcredit services from MFIs observed in this study is in agreement with findings by Nader (2008) which underline the importance of microcredit services on enhancing small scale enterprises.



Table 6: Average capital size and income from business for credit receivers and non credit receivers

Variables	Credit Receivers		Non – credit receivers		t- value	P- value
	Mean	SD	Mean	SD		
Current capital for business ('000' TZS)	3,573.5	7,304.7	1,602.3	2,778.7	2.184	0.0015
Income per month from business ('000' TZS)	512.3	448.7	398.6	404.9	1.765	0.035

3.6.2 Effect of microcredit services on household welfare

To determine whether involvement in microcredit services from MFIs has improved household welfare, credit-receivers were asked to indicate their perception on ability to meet various household needs. Findings from Table 7 indicate that majority of credit-receivers perceived their ability to meet various household needs had improved following their participation in microcredit services. These include buying food (88.5%), buying other daily household needs (84.0%), paying for children school fees (79.1%), paying for medical services (79.1%), and buying assets (79.1%). These results agree with findings by Kane (2011) in which it was found that 87% of microcredit beneficiaries indicated to be able to afford household nutrition following receipt of microcredit services, while 74% and 70% indicated they were able to afford paying children school fees and paying for medical services following receipt of microcredit services. Furthermore, results of the current study are in line with those reported by Gogadi (2011) who found microcredit services improved access to food among 79.6% of those who had access to the services.

Table 7: Perception on ability to afford various household needs among credit receivers (n=113)

Variable	Decline	Improved	Not changed
Buying food	0(0.0)	100(88.5)	7(6.2)
Buying other daily needs	0(0.0)	95(84.0)	13(11.5)
Paying for children school fees	0(0.0)	86(79.1)	20(17.0)
Payment for medical services	0(0.0)	86(79.1)	17(15.0)
Buying assets	0(0.0)	86(79.1)	23(20.4)

Figures in brackets are percentages



As shown in Table 8, the average household consumption expenditure on non-durable goods was significantly higher for credit receivers compared to non-credit receivers ($t = 2.26, p < 0.01$). Similarly, the average household consumption expenditure per month per adult equivalent was higher for credit receivers than that of non-credit receivers by 23.8% (i.e. TZS 113,403 vs. 91,576). It is also evident from Table 8 that utilization of microcredit services enhanced asset acquisition among credit receivers. Average value of assets for credit receivers was almost twice as much compared to that of non-credit receivers ($t = 1.612, p < 0.05$).

To determine whether participation in microcredit services improved household food security, credit and non-credit receivers were compared on average score on food insecurity index. In this regard, respondents were asked to indicate their perception on occurrence of different conditions regarding food insecurity at their household in the past 12 months. Findings from Table 8 show that there was a significant difference between credit receivers and non-credit receivers on average score for index for food insecurity ($t = -2.93, p < 0.05$). Indeed, credit receivers had relatively lower average score on food insecurity index compared to non-credit receivers. In line with the findings of the present study, Thuita *et al.* (2013) found that Food Diversity Score (FDS) (an indicator of food security) for the two groups (microcredit receivers and non-credit receivers) was significantly different ($p < 0.01$) with higher average value for microcredit receivers compared to non-receivers.

Table 8: Household consumption expenditure, current value of durable asset from business and score on the index for food insecurity

	Credit-receivers	Non credit receivers	t - value	p- value
	Mean (±SD)	Mean (±SD)		
Household consumption expenditure per month per adult equivalent on non durable goods (TZS)	113,402.8 ±69,916.4	91,576.2 ±55,563.7	2.256	0.008
Current value of asset got from business ('000 TZS)	9,008.2 ±7,942.5	5,035.8 ±4,782.2	1.612	0.046
Score on the index for household food insecurity	10.78 ±2.33	12.28 ±5.01	-2.93	0.04



3.6.3 Effect microcredit services on women empowerment

This study also assessed whether participation in microcredit services improved women empowerment. Respondents were asked to give scores to different items related to women empowerment. These items covered four broad areas of women empowerment as shown in Table 9. Results showed no significant difference between the two groups on average score on different aspects of empowerment as well as overall empowerment ($p>0.05$) indicating that women's economic gain does not necessarily lead to empowerment (Table 9). The findings of this study are nevertheless, contrary to those reported in the previous studies who found that microcredits increased women autonomy as well as control over household economic resources and participation in household decision (Pitt *et al.*, 2003; Kato and Kratzer, 2013). The observed discrepancy is likely to be due to other underlying factors including socio-cultural variations that exist between places.

Table 9: Scores on women empowerment indices between credit receivers and non-credit receivers

Broad areas of empowerment	Credit-receivers	Non credit receivers	t-value	p-value
	Mean (\pm SD)	Mean (\pm SD)		
Control over economic recourses	14.0 \pm 3.6	13.82 \pm 4.1	0.381	0.386
Control over household decision making	16.5 \pm 4.2	16.42 \pm 4.4	0.92	0.464
Mobility	12.10 \pm 2.9	11.75 \pm 3.3	0.770	0.458
Political awareness	7.1 \pm 2.5	7.24 \pm 1.9	-0.510	0.295
Overall empowerment	49.7 \pm 11.9	49.23 \pm 12.9	0.243	0.406

SD = Standard deviation

4.0 Conclusion and Recommendations

Majority of the small scale women traders in the area were aware of existence of MFIs in the area. Significant predictors for women participation in microcredit services from MFIs were: number of dependants, years in business, capital size, loan repayment period, loan processing period and possession of collateral. Participation in microcredit services among small scale women traders was positively influenced by the number of dependants and high responsibility of meeting family needs. Access to microcredit services was also positively influenced by experience in small scale business and capital size, but negatively influenced by short loan repayment period, long loan processing period, and lack of collateral. This study has shown that access to microcredit services among women contributed to improved business (capital size and income from business), household



welfare (household consumption expenditure, household assets, household food security) among credit receivers did not lead to women empowerment. Since lack of collateral was a major constraint in accessing microcredit services, establishing group lending structures among small scale traders is recommended as a strategy to reach more borrowers, improve income and the overall welfare of small scale women traders.



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