Promoting gender equality in access to microcredit through flexible lending approaches of female targeting MFIs: Evidence from **Duterimbere MFI of Rwanda**

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Key words

Gender equality, access to microcredit, flexible lending approaches, Female targeting MFIs

Abstract

Access to loans is one of the most important areas of focus by many development practitioners for reducing the existing gender gap in access to productive resources. Microfinance Institutions which target females as key clients were promoted for their lending approaches which avoid previous discriminatory practices that excluded women in the financial system. The current study examines the role of Duterimbere MFI of Rwanda in promoting equality in access to microcredit between female and male borrowers.

The results of the study are generated by analyzing quantitative data collected from 244 females and 94 males using the questionnaire and qualitative data collected from focus group discussions and interviews with key informants. The study findings revealed that Duterimbere has been able to adapt its requirements to the specific needs of poor women. A significant number of poor women have been able to join the MFI through group solidarity, a method that has upgraded their borrowing capacity to the level of getting individual loans on equal basis as male peers. This study recommends further research that should go beyond access to loan and consider the dynamics of power relations about utilization of the loan received by female and male borrowers.

1. Introduction

Microfinance institutions (MFIs) have been introduced in 1970s by development partners as a strategy of promoting economic development through equal access to productive resources. These MFIs were given mandate to provide small loans to the poor who were previously excluded from the financial system by commercial banks. By having access to microcredit, beneficiaries of microfinance were believed to actively participate in the development of their localities through entrepreneurship, increased income and bargaining power in social and political matters (Maes and Foose, 2006).

Gender gap in financial access: Despites this enthusiasm of financial inclusion for both women and men, global empirical research documented that women's access to finance is relatively low compared to men (Triki and Faye, 2013). These researchers have shown that in Africa 4 out of 5 women lack access to an account at a formal financial institution, compared to only 1 man out of 4. This gender gap in financial access is worse in rural areas where women receive only one tenth of the credit given to small farmers and less than 1% of total credit to agriculture. This low status of women results from discriminatory practices that limit their ability to have access to available financial services such as compulsorily collateral as most women are less likely to own assets than men (DFID, 2013).

Elimination of gender discrimination: For promoting gender equality in financial access, Boros, Murray and Sisto (2002) supported the intervention of female-targeting MFIs that focus more on gender concerns and women's specific needs in financial matters as the majority

of previous Microfinance programs had gender neutral policies and targeted women for the high repayment rate and poverty alleviation arguments. The pledge to support women's access to finance is central to international development initiatives such as the launch of the Global Partnership for Financial Inclusion (GPFI) by G20 leaders and their commitment to finance over 200,000 SMEs with at least £5 billion of which 25% of loans should be given to women-headed SMEs (DFID, 2013). African leaders have also decided to take into account women's specific needs in access to finance in the Post 2015 Development Agenda (Report of the African Union Assembly, 2015).

Gender focused Policy interventions: The government of Rwanda also made commitments of promoting women's economic capacity through increased access to finance in a number of development initiatives articulated in different documents namely the Vision 2020, the National Poverty Reduction Strategy Paper and the Decentralization Policy of Rwanda, the overall objective of the National Gender Policy of 2004 (Dejene, 2008). In this regards, the government supported the creation of female- focused microfinance programs whose focus was to serve at least 70% of female clients in their financial services (The National Microfinance Implementation Strategy, 2007). However, despite these initiatives of tailoring financial and non-financial services that match with the specific needs of women, little is known about the extent to which women benefit from the available microcredit programs (Dejene, 2008; Mayoux, 2005; Cheston and Kuhn, 2002; Mayoux and Hartl, 2009). Moreover, little research has focused on the contribution of the MFIs that target women as their primary beneficiaries in reducing the existing gender gap in financial services. This paper addressed this gap by comparing the ability of women and men to have access to microcredit and non-financial services provided by Duterimbere, as one of the female-targeting MFIs that operate in Rwanda. The key research questions addressed during the study included:

- a) How do female-targeting MFIs take into account the specific needs of poor women and men in their requirements of accessing to loan?
- b) How do women and men access to loan and non-financial services offered by femaletargeting MFIs?

2. Literature review

For promoting equal access to microcredit, Gender sensitive MFIs should avoid replicating credit terms developed by other institutions from different contexts, sometimes on gender neutral context with little or no consultation of borrowers. Instead, they should revise their lending methodologies to fit with the business capacities of their clients (Mayoux, 2002; Mayoux and Hartl, 2009). Some of the most pervasive requirements in question include physical collateral requirement, loan amounts which are too small compared to women's business need, compulsory signature of the male guarantor of women's loans, short loan repayment terms that do not match with the productivity plan of the borrowers, and interest rates that are too high (DFDI, 2013).

Adjustment of the collateral requirement: Female-targeting credit programs have a mandate of designing flexible collateral alternatives to better serve poor clients and women in particular (Triki and Faye, 2013). The dominant type of women flexible collateral is the social collateral or group loans whereby women organize themselves into group and members are jointly responsible for the repayment of each other's loans (Boros et al., 2002). Other substitutes of the formal collateral that were developed by female focused MFIs include movable collateral or unconventional collateral such as jewelry and household utensils, warehouse receipts, accumulated savings and micro-leasing loans (Triki and Faye, 2013). From their empirical research on women's access to finance in Yemen, Burjorjee and Jennings (2008) argued that these

women-friendly collaterals have been efficient in promoting women's opportunity to start up or expand their own businesses when they couldn't get such support elsewhere.

Cost of serving poor and rural clients: The interest rates charged by MFIs have been critiqued as being much higher than commercial lending rates, the reason being that MFIs want to offset the cost of serving poor and rural clients (Burjorjee and Jennings, 2008). According to Mayoux and Hartl (2009),the interest rate should be much higher than the cost of service provision for ensuring the sustainability of the MFI. However, these authors also suggest that MFIs must set lower interest rates than the interest charged by money lenders for promoting easy access to their services. Mitra(2009) recommended an interest rate of 15 percent per year as appropriate and sufficient to cover the cost of lending operations in MFIs. He considered MFIs that charge an interest rate that exceeds 15 percent per year as the MFIs that left the micro-credit area and joined the loan-shark area.

Size of loan and women's needs: Concerning the loan size, it was generally argued that women's needs are related to smaller loans offered on group basis as they can't afford to meet the requirements and conditions of accessing larger individual loans (Haq and Safavian, 2013). But this was found to be true only for the initial stage and for poor women (Mayoux, 2005; Goetz and Gupta 1996). There are some women who have business projects necessitating larger loan amounts like men, but face numerous challenges in accessing such loans (GPFI and IFC, 2011). To avoid this risk of discriminating against women accessing to larger loan by ghettoizing them in small loans, Gendered Microfinance Institutions were required to initiate loan graduation programs for facilitating women to undertake more profitable activities (Mayoux, 2005)

Provision of non-financial services: The measure of tackling traditional barriers to loan access was found to be part of the solution of improving women's economic capacity, as poor women need more than access to money. In general, low-income women lack educational and financial skills and this limits their ability to access of the financial system (Driemeier, 2013). That is why non-financial services including financial competency training and business development are needed to enhance women's competency in financial management (UNCDF, 2011). This approach of lending known as "credit plus" or "maximalist lending approach" is in line with the comprehensive approach to poverty alleviation of Hickson(1999), which assumes that very poor clients are basically incapable of running small businesses and hence unable to use financial services before receiving any training from capacity-building programs.

Customer care in service delivery: Staff attitude in dealing with female and male clients has been viewed as one factor that helps the clients to benefit from the available financial services and avoid becoming over-indebted as staff aim at providing adequate information and helping the clients to understand and muster the working conditions of the MFI (Hartl and Mayoux, 2009). Due to the importance of good customer relations, Ledgerwood and White (2006) proposed to incorporate customer care into the objective and philosophy of the MFI and to give it priority in staff training. Another priority issue in promoting good customer relations is the recruitment of female staff, particularly among loan officers of the MFIs. Female loan officers help to deal with different forms of gender stereotypes that female clients face in their relationship with some male loan officers who consider women less entrepreneurial than men (Triki and Faye, 2013). The importance of recruiting female staff is not limited to retaining female clients but also extends to financial benefits. A global study on 339 microbanks in 73 countries revealed that female leadership is positively related to micro bank performance as a result of MFI's female market orientation (Strøm, D'Espallier and Mersland, 2010).

In addition to promoting female staff, previous researchers such as Barros, Murray, and Sisto (2002), Murray (2005), Mayoux and Hartl (2009) suggested that gender sensitive training

must be offered to all staff as both female and male staff may be insensitive to gender issues. Gender training help to change the mindset and attitude of the staff in the ways they view and treat both female and male clients (Murray, 2005). Staff members should be aware of gender differences that exist amongst their clients and be able to understand the consequences of such differences in empowering poor clients in their daily activities (Murray, 2005).

3. Study methodology

This study used structured questionnaire to collect data from male and female beneficiaries of microcredit services offered by Duterimbere MFI. The questionnaire was made up by two different sections. The first section employed a Likert-type scale in which respondents were given a choice of answers that were assigned an ordinal value. This first section provided information relating to the lending approach that takes into account the specific needs of poor women and men in accessing loans. The second section of the questionnaire contained a set of responses that focused on a certain themes and each respondent was asked to indicate his or her choice. This concerned mainly the information regarding the loan amount taken by the respondents and whether the respondents have received any training from Duterimbere MFI. The answers of the questionnaire produced quantitative data that were presented and interpreted in frequency tables and charts. Z-test helped to test whether there was a significant difference on the loan amount obtained by male and female borrowers. This research used also qualitative data that were collected from interviews with key informants selected from the staff of Duterimbere MFI, and Focus Group discussions with some respondents selected from those who have enough experience in the lending program. Qualitative data were collected verbally and recorded through a voice recorder and transcribed later as text. To select respondents, three techniques were combined: stratified sampling, quota sampling and simple random sampling. As a gender sensitive research, sampling that uses multiple techniques was very important for obtaining a sample that is representative of the target population by respecting both geographical and sex specific characteristics for all the groups concerned by the study. This sampling strategy came up with 99 male and 253 female respondents but only 94 males and 244 females gave the answers that were used in this research. The response rate of this research was 96% which is sufficient to allow generalization to the whole population as it was greater than the average response rate of 80 percent for most social research surveys as noted by Bryman (2008).

4. Study findings

4.1 Taking into account specific needs of poor women and men in the requirements of accessing to loan

This study used the questionnaire to collect information related the provision of loan services. Respondents were asked to give their views on how they value different services using a five-point Likert-scale where 1 signified strongly disagree, 2 disagree, 3 indifferent, 4 agree, and 5 indicated strongly agree. The views of respondents are presented in table 1 below:

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Views of respondents Loan conditions		Strongly disagree	Disagree	Indifferent	Avree	Strongly agree	Total
The interest rate charged is	% within males	1.1	3.2	12.8	56.4	26.6	100.0
affordable	% within females	0.0	4.1	19.7	46.7	29.5	100.0
Maximum loan amount is	% within males	1.1	6.4	34.0	45.7	12.8	100.0
convenient	% within females	2.0	9.4	32.8	38.5	17.2	100.0
The collateral requirement	% within males	1.1	3.2	8.5	36.2	51.1	100.0

Table 1: Opinions of respondents about the flexibility of the requirements of accessing to loan

is flexible	% within females	0.4	2.5	12.7	34.0	50.4	100.0
The repayment plan is	% within males	2.1	3.2	9.6	43.6	41.5	100.0
appropriate	% within females	1.2	5.7	13.1	39.3	40.6	100.0
The staffs care about the clients of the MFI	% within males	0.0	0.0	3.2	41.5	55.3	100.0
	% within females	0.0	0.0	2.5	36.5	61.1	100.0

Source: Primary data, 2014

4.1.1 Interest rate

Duterimbere MFI charges a fixed interest rate of 2% per month on group loans and 15% per year on individual loans. The majority of respondents accepted that the interest rate charged by Duterimbere MFI is affordable. 56.4 percent of male and 46.7 percent of female respondents "agreed" with the affordability of the interest rate while 26.6 percent of male respondents and 29.5 percent of female respondents "strongly agreed" with the affordability of the interest rate of the MFI. Similarly, in the focus group discussions, female and male respondents who were members of other financial institutions revealed that they are happy with the interest rate charged by Duterimbere MFI. One man of Muhanga branch said that he was charged an interest rate of 16 % on an individual loan in Goshen Finance before joining Duterimbere MFI. Likewise, one woman from Kigali branch said that the interest rate of 2 per month is common on group loans in different MFI by giving reference to COOPEDU (Cooperative d'Epargne et de Credit Duterimbere) and Inking Microfinance. Despite the dominance of a positive appreciation, some respondents (12.8 percent of male and 19.7 percent female respondents) had an indifferent opinion. Some men who were present in the focus group discussion in Kigali branch said that they do not like fixed interest approach used by Duterimbere MFI as the total interest paid through this approach is much higher than the interest paid through declining balance approach mostly used by commercial banks. These two approaches of calculating interest differ from the principal amount on which the interest rate is applied. In fixed interest approach, monthly installments are calculated on the original loan amount given to the borrower for the whole the term of the loan. But in declining balance approach, monthly installments are calculated on the remaining loan balances.

4.1.2 Maximum loan amount given

The maximum loan amount given by Duterimbere depends on the type of the loan requested by the borrower. For group solidarities, every group member is eligible to a maximum loan of 500,000 Rwf while individual loans depend on the collateral given by the borrower and the viability of his or her business project. Overall, the maximum loan amount given to individual borrowers is fixed at 20,000,000 Rwf (24,800US\$; exchange rate, 1 US\$=806.4 Rwf).

The findings of this research have shown that the majority of female and male respondents were happy with the maximum loan amount given by Duterimbere MFI. Among them, there are 45.7 percent of male respondents and 38.5 percent of female respondents who revealed that they "agree" with the statement that the loan amount given by Duterimbere MFI is convenient and 12.8 percent and 17.2 percent of male and female respondents respectively who said that they "strongly agree" with the same statement. Likewise, participant of the focus group discussion have shown a positive attitude on the loan amount. One woman said:"*We know that the maximum loan amount is 20,000,000 Rwf. But who can have access to that amount among us? Everyone puts on the size of the shoe that fits his or her foot, to mean that everyone takes the loan that matches with the size of his/her business and his/her capacity to repay it (Female participant, women FGD, Nyagatare branch)*"

Despite this positive attitude of the majority of respondents, there is a significant percentage of respondents (34 percent of male respondents and 32.8 percent who were indifferent about the maximum loan amount given). On this concern, the management of Duterimbere MFI revealed that there are some clients who want to get a loan amount that exceeds 500,000 Rfw per borrower on group basis. However the institution cannot offer such amount in order to avoid transferring a huge burden of non-repayment to other group members. On this point he said that: "A loan amount that exceeds 500,000 Rwf must be covered by the collateral as a safety of the borrowed amount" (Male key informant, Musanze branch).

4.1.3 Flexibility of the collateral requirement

The findings of this study revealed that the majority of respondents were satisfied with the collateral requirements of Duterimbere MFI. 51.1 percent of males 50.4 percent of females indicated that they strongly agree with flexibility of the collateral requirement while 36.2 percent of male respondents and 34.4 percent of respondents indicated that they "agree" with the flexibility of the collateral requirement of Duterimbere MFI. In agreement with this, one key informant mentioned that: "Duterimbere MFI has a strategy of relaxing the collateral requirement by developing a variety of loan products that favors every person who is morally credible to get access to microcredit services even in the absence of asset to offer for mortgage. I can give an example of 2 types of loan products that can be easily afforded by poor people without prior assets. One is group loan which is based on social collateral; another is micro-leasing loan where the clients give the leasing material itself as a guarantee (Female key informant, Muhanga branch). This was also confirmed by one female participant of the focus group discussion who said that: 'For the moment, Duterimbere has made life easier for poor entrepreneurs who were constrained by the problem of collateral. The MFI doesn't require much for group loans. We only sign an agreement that every member is responsible for the non-repayment of other group members (Female participant, women FGD, Nyagatare branch).

The only problem that was reported by female participants in their focus group discussion was related to the requirement of the signature of a guarantor. One woman said: "When I was applying for the loan for the 1st time, my husband refused to sign on my loan agreement by saying that I will not be able to manage my business and hence fail repay the loan and leave the burden of repayment to him. Fortunately, as I was applying for a group loan, there was a possibility to replace his signature by any signature of a family member. When I explained the challenge I faced to my parents, they have accepted that my mother can be a guarantor for my loan. I finally got the loan, did my business and completed the repayment. When I was about to apply for the loan for the 2nd time, my husband accepted to sign on my loan application as he has seen that I have the capacity to manage the repayment of the loan and obtain additional profits." (Female participant, women FGD, Musanze branch).

Whereas some female clients have seen the signature of their husband as challenge for their access to loan, the management of DUTERIMBERE MFI has a different opinion on this point: "The signature of the spouse (either male or female) is an indication of a prior consent among family members about the decision to take the loan, which promotes better utilization of the loan and limits defaulting loans". (Female key informant, Kigali head quarter office). Female borrowers also support this point of view. One woman who was in the focus group discussion of Rubavu branch said that: "I remember one day, my husband has taken a loan from Duterimbere MFI to buy a taxi moto. At that time, I was informed because I signed on his loan agreement. After only two months, my husband got sick. As I knew that our house which was given as collateral will be sold if the loan is not repaid, I was obliged to work hard in order to repay the loan. I decided to start a business of mobile forex here at the border of the Republic of Congo and Rwanda. I was even given a name of "Gatara" by my colleagues meaning "light" because of working until late in the evening. I was able to repay the loan and secured the welfare of my family" (Female participant, women FGD Rubavu branch).

4.1.4 Convenience of the repayment plan

The findings of this study established that most respondents were happy with the repayment plan of Duterimbere MFI which is monthly for individual and group loans that are given for various business activities and semi-annual repayment plan for group loans that invested in agricultural projects. 43.6 percent of male and 39.3 percent of female respondents "agreed" with the statement that the repayment plan fits with the profitability of their businesses while 41.5 percent of male and 40.6 percent of female respondents indicated that they "strongly agree" with the convenience of the repayment plan. Female respondents who were members of other group lending mechanisms such as Urwego Opportunity Bank and Vision Finance argued that they have decided to join Duterimbere MFI due to better repayment conditions (1 month repayment period in Durerimbere compared to 2 weeks repayment period offered by other MFIs). They also revealed that Duterimbere MFI has a particularity on group loans invested in agriculture projects where borrowers are asked to pay when their harvests are ready. One female participant said: "The maximum duration for agriculture loans is one year but the repayment is made in two installments of six months. As most crops that are grown in this region are harvested after 4 months, this repayment plan is convenient for being able to get profit and pay back the *loan without delay*" (Female participant, women FGD, Rubavu branch).

4.1.5 Good customer care in the provision of financial services

The study findings revealed that almost all female and male respondents said that the care provided by the staff of Duterimbere MFI was pleasing. 55.3 percent of males and 61.1 percent of females evaluated the customer care of the staffs of the MFI with "strongly agree" while additional respondents (41.5 percent of males and 36.5 percent of females) have chosen "agree" likert scale on the customer care statement. Similarly, the information collected through focus group discussions confirmed that the clients of Duterimbere are well received by all the staff irrespective of their position. One participant said that: "In Duterimbere MFI, there is no discrimination, all clients whether rich or poor, rural or urban, woman or man are given equal treatment. Whenever you ask information or assistance, it is given on time" (Female participant, women focus group discussion, Muhanga branch).

Some of the strategies that help the MFI to promote good customer relations are the recruitment of both sexes in different positions, and gender training offered to all staff members. The Director General of the MFI told the researcher that good customer care starts with gender disaggregated data in staffing whereby the MFI makes sure that there is equal numbers of females and males in all the positions of the MFI. He said that: "We managed to achieve 50% of females in all the positions of the MFI but our target is to go beyond this percentage in some positions like credit officers and cashiers due to the predominance of female clients in our MFI." (Male key informant, Kigali headquarter office). However, Duterimbere MFI recognizes that equal number of females and males in staffing is not sufficient to ensure that all staff members take into account genderbased differences that affect the provision of financial services. The MFI offers gender training to all its staff for enhancing their understanding and commitment to gender issues in service delivery. It was said by one key informant that: "All staff members are trained to be flexible while dealing with female and male clients. We specifically focus on being polite and attentive to the specific needs of women and men in their daily activities. They must ensure that individual client receive enough information and any support needed to enable her/him to easily have access to available services" (Female key informant, Kigali headquarter).

4.2 Access to non-financial services

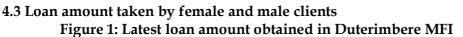
Duterimbere design and offer non-financial services in addition to its core activity of providing loans, for enabling its clients to utilize the loan more efficiently and effectively. Table 2 below shows the number of respondents who were trained:

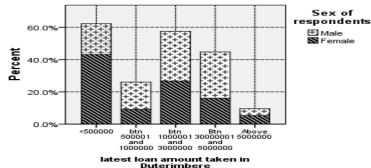
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			Sex of respondents		
			Male	Female	Total
Have you received any Yes		Count	21	119	130
training from Duterimbere MFI	ı	Percentage	22.3%	48.8%	38.5%
	No	Count	73	125	208
		Percentage	77.7%	51.2%	61.5%
Total		Count	94	244	338
		Percentage	100.0%	100.0%	100.0%

Source: Field research, 2014

Table 2 shows that 48.8 percent of female respondents were trained while only 22.3 percent of male respondents received training in Duterimbere MFI. Due to limited funds, Duterimbere MFI prioritizes members of solidarity groups as the most vulnerable category. The coordinator of the lending program said that they have put in place a training program for empowering their clients with SMEs' management skills namely how to make a business plan, how to keep the records of their activities, how to evaluate and decide on a profitable investment activity, how to respect the repayment plan among others. She also explained that in each and every session of the training, gender equality and women's rights issues are discussed in order to promote self-confidence of women and better gender relations within the household as fundamental components of women's empowerment. The importance of training offered by Duterimbere MFI was reflected in the focus group discussion of women held at Muhanga branch where it was noted that business training helped women to expand and diversify their businesses. One woman said that:"I make a local wine known as Kanovera from Pineaple . I was used to sell my wine to neighbors from home. When I was trained by Duterimbere MFI, I got new skills on how I can expand my business. In those trainings, I was also able to meet other entrepreneurs who do the business of food and beer processing and were able to exchange experiences and share the market opportunities. My market has now expanded to other cities such as Huye, Nyanza and Ruhango. In the nearest future, I plan even to go to Kigali".(Female participant, women FGD, Muhanga branch). Men also acknowledge the importance of the training on their businesses. One man said: "I joined Duterimbere MFI with the purpose of taking the loan for expanding my cattle project. I had 3 local cows by that time; When I attended training on modern livestock farming methods, I was able to understand the benefits of modern cattle particularly the quantity of milk got on daily basis. That training helped me to get out from traditional biases that modern cattle are weak. I was also able to know where I can get veterinary services for additional advices. I decided to shift from traditional to modern cattle. I see that the earnings from my project are increasing." (Male participant, men FGD, Nyagatare branch).





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Figure 1 above shows that the loan amount that is in the range of \leq 500,000 Rwf dominates other ranges of loan amount taken by respondents. It also shows that females comprise the majority of the borrowers in this group of small loans as 43 percent of female respondents took a loan that is \leq 500,000 Rwf while only 19.1 percent of male respondents fall in this category. For serving this group of people who don't have guarantees for accessing larger loan amounts, Duterimbere MFI designed a collateral-free group loan product that is offered to solidarity groups. For reaching its objective of serving more women on group solidarity, Duterimbere MFI has a requirement of having at least 2/3 of female members in every group. This helped many women to borrow small loan amounts that match with the need of their small businesses. In support of that, one woman said: *Duterimbere koko ni 'Igicumbi cy'iterambere ry'umugore' to mean that Duterimbere is really a cornerstone for the development of a woman. Before I know Duterimbere, I could not even dream about loan even though I had a need. You can ask me why? Collateral problem.....I believe that if there was no alternative of having access to loan though solidarity groups, some of us could stay outside the financial sector. I thank Duterimbere for thinking about vulnerable women" (Female participant, women FGD, Nyagatare branch).*

Figure 1 also shows that men dominate women in accessing loan amount exceeding 500,000 Rwandan Francs. For instance, 17 percent of male respondents vs 9 percent of female respondents obtained a loan amount that was in the range of "500,001 to 1,000,000 Rwf", 30.9 percent of male respondents vs 26.6 percent of female respondents took a loan that was in the range of "1,000,001 to 3,000,000 Rwf" and 28.7 percent of male respondents against 16 percent of female respondents obtained a loan that was in the range of "3,000,001 and 5,000,000 Rfw.

4.4 Gender difference or gender equality in access to loan services?

The above difference in loan amount obtained by female and male respondents motivated the research to compute the mean of loan amounts obtained by female and male respondents. The results obtained are presented in table 3 below:

Sex of respondents	Mean	Ν	Std. Deviation
Male	2,404,787	94	1872926.368
Female	2,067,868	244	2346862.621
Total	2,161,568	338	2227638.548

Table 3: Loan amount taken by female and male respondents

Source: primary data, 2014

For checking whether statistical analysis support or contest this claim of difference in loan amount obtained by female and male borrowers, the researcher tested for difference in sample means using z test.

Z test was chosen due to the following reasons (Bluman, 2009):

- The samples were independent of each other
- The populations from which the samples were obtained were normally distributed as both sample sizes were greater than 30 according to the central limit theorem
- The true variances of the population were unknown but the sample variances were known

The test statistic is
$$z = \frac{(X_1 - X_2) - (\mu_1 - \mu_2)}{|s_1^2/n_1 + s_2^2/n_2|}$$

Steps followed for testing the hypotheses

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⁰² = .05

a) Data				
s_{1}^{2}	=	1,872,926.368	n ₁ = 94	X ₁ = 2,404,787
$s_2^2 =$		2,346,862.621	n ₂ = 244	X ₂ = 2,067,868

b) Hypotheses

 $H_0: \mu_1 \le \mu_2$ μ_1 represents the mean of loan amounts given to men

 $H_a: \mu_1 > \mu_2$ (Claim) μ_2 represents the mean of loan amounts given to women

- c) Appropriate test statistic: one tailed test as the assumption is that the mean of the loan amounts obtained by men is greater than the mean of the loan amounts obtained by women
- d) Decision rule: With CL = .05, the critical value for one-tailed test is +1.64, we reject H_0 if z > +1.64
- e) Calculation of the test statistic

$$Z = \frac{(\bar{x}_1 - \bar{x}_2) - (\mu_1 - \mu_2)}{\sqrt{\frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}}} = \frac{(2,404,787 - 2,067,868) - 0}{\sqrt{(1,872,926.368)^2}/_{94} + (2,346,862.621)^2}} = \frac{336,919}{244725.13} = 1.38$$

- f) Make decision: do not reject the null hypothesis at $\alpha = 0.05$, since z=1.38 1.64
- **g) Interpretation of the result:** There is not enough evidence to support the claim that loan amounts obtained by men are greater than loan amounts obtained by women. This implies that Duterimbere MFI was able to promote gender equality in access to loan services

In agreement with this finding, the credit officer of Duterimbere MFI Kigali-Nyarugenge city market confirmed that women can get access to larger loans like their male counterparts. She even revealed that the highest loan that was given in her branch is 15,000,000 Rwf which was obtained by a woman to finance her project of growing and selling mushrooms.

The findings of this study established that for most women, the opportunity to have access to larger loans is made possible by their ability to prevail in the lending operations for graduating their businesses and their borrowing capacities: "I joined Duterimbere MFI when group members were given 50,000 Rwf per person and it was in 1998. From that time, I still member. I took many loans on group basis and gradually shifted to individual loan. For the moment (2014), I have a loan of 5,000,000 Frw" (Female participant, Women FGD, Kigali branch). This point of view was also supported by one loan officer who said that: "Provision of small loan amounts is a worthwhile intervention for poor women particularly for those who live in the rural areas. At our branch, the majority of women who are taking loan on individual basis have started on group basis. A loan amount of 500,000 Rwf or less that was given to an individual woman within the group helped them to start or support their small business, remain and being familiar with lending operations and in the long run accumulate enough profits for buying an asset that can be used as collateral for individual loan" (Female key informant, Muhanga Branch).

5. Discussion and conclusion

The findings of this study revealed that Duterimbere MFI played a significant role of promoting gender equality in financial access, mainly by adjusting some of the rigid requirements that limit women's opportunity to loan services. The majority of respondents evaluated the interest rate as being affordable; the maximum loan amount has been accepted as convenient, some respondents revealed that they could not even request the half of the maximum ceiling. The collateral requirement of Duterimbere MFI has been revised to include loan products that are given to clients who could not get access to physical collateral. The repayment plan of Duterimbere MFI takes into account the productive cycles of the investment activities in which the loans of the clients are invested. According to Mayoux (2005), female-targeting MFIs are supposed to adjust financial services such as interest rates, repayment schedules, application procedures, loan size, and so on to better address women's needs, achieve

gender equality and women's empowerment. Similarly, Gobzie(2010) noted that the strategy of promoting equal access to microcredit requires particular attention in the design of financial services. His proposition was that MFIs should concentrate their efforts in simplifying the procedures by staying away from burdensome appraisal processes and other rigid conditions that are compulsory in conservative banks. This coincides also with the suggestion of the Women World Bank (2003) that MFI should design flexible loan amounts and repayment schedules to match the income flows and repayment capacity of the borrowers. In addition to these measures of improving access to financial services, Boros, Murray and Sisto (2002) stated that the process of empowerment requires complementary services such as skills trainings for improving technical and management skills of micro-entrepreneurs. That is why the strategy of relaxing the conditions of accessing loan services of Duterimbere MFI has been combined with the provision of non-financial services for enhancing women's experience in loan services.

The study findings revealed that inclusive lending approaches of Duterimbere MFI, promoted equal access to microcredit. Group loans have been an entry point in the lending programs for many women who could not meet the collateral requirement. Therefore, women's increased experience in the lending programs helped them to upgrade their borrowing capacity and get individual loans on an equal footing to the men. Gupta and Goetz (1996) established that progressive lending enabled women to graduate from group loan to individual loan due to increased experience of managing their businesses and mastering credit procedures of the MFI.

For tackling gender discrimination in loan provision, Duterimbere MFI designed collateral-free loan products such as group loans that meet the need of low income women and leasing loans that respond to the specific need of poor men of having their own motorcycles/automobiles that they use for earning an income in transport services. Moreover, the MFI requires all the clients, women and men, to get the signature of their spouses on their loan contracts for promoting prior consent and better utilization of the loan. Provision of gender training to all staff is also a strategy used by the MFI for promoting the custom of not differentiating the clients in service delivery.

6. Future research agenda

This study left a room for further researches that should take into account the relationship between access to loan services and the process of women's empowerment. It was noted by Longwe(1994) that equality of access to the factors of production including microcredit is at the lower level of gender equality and women's empowerment. This limitation proposes to carry out a forward research on how women invest their loans and how they control their investment activities and the resulting profits.

References

- Bluman, A. G.,2009. Elementary statistics: A step by step approach. New York: McGraw-Hill Higher Education.
- Boros, R., Murray, U. and Sisto, I., 2002. A Guide to gender-sensitive microfinance: Socioeconomic and Gender Analysis (SEAGA) Program.
- http://www.fao.org/docrep/012/ak208e/ak208e00.pdf
- Bryman, A., 2016. Social research methods. Oxford, Oxford University Press
- Burjorjee, D. and Jennings, M., 2008. Microfinance Gender Study: A Market Study of Women Entrepreneurs in Yemen. *Sana'a: Social Fund for Development*.
- Cheston, S. and Kuhn, L., 2002. Empowering Women through Microfinance, Final Draft. *Women's Opportunity Fund/UNIFEM*.
- Dejene, Y., 2008. Rwanda Gender Assessment: Progress towards improving women's economic status. *African Development Bank: Human Development Department*

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DFID, 2013. Promoting Women's Financial Inclusion. Department of International Development, London and East Kilbride, United Kingdom.

https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/213907

- Gobezie, G., 2010. Empowerment of women in rural Ethiopia: A review of two microfinance models. *Praxis: The Fletcher Journal of Human Security*, 25, pp.23-38.
- Goetz, A.M. and Gupta, R.S., 1996. Who takes the credit? Gender, power, and control over loan use in rural credit programs in Bangladesh. *World development*, 24(1), pp.45-63.
- GPFI and IFC, 2011. Strengthening Access to Finance for Women-Owned SMEs in Developing Countries. *International Finance Corporation. Washington, DC*.
- Hallward-Driemeier, M., 2013. Enterprising Women: Expanding Economic Opportunities in Africa. World Bank Publications.
- Haq, A. and Safavian, M., 2013. Are Pakistan's Women Entrepreneurs Being Served by the Microfinance Sector?: Are They Being Served by the Microfinance Sector?. World Bank Publications.
- Hickson, R. 1999. Reaching extreme poverty: financial services for the very poor. *Nairobi: MicroSave-Africa*.
- Ledgerwood, J. and White, V., 2006. *Transforming microfinance institutions: providing full financial services to the poor*. World Bank Publications.
- Longwe, S. H. and Clarke, R., 1994. Women in Development. In *Culture and Youth: Workshop Readings., Longwe Clarke and Associates, Lusaka, Zambia.*
- Maes, J. and Foose, L., 2006. Microfinance and non-financial services for very poor people: Digging deeper to find keys to success. *The SEEP Network Poverty Outreach Working Group. Washington, DC: The SEEP Network.*
- Mayoux, L., 2005. Women's Empowerment through Sustainable Microfinance. Rethinking Best Practice. Discussion Paper, Gender and Microfinance website
- http://www.genfinance.net
- Mayoux, L. and Hartl, M., 2009. Reaching and empowering women: gender mainstreaming in rural microfinance: guide for practitioners. *Rome:(IFAD)*.
- Mitra, S.K., 2009. Exploitative microfinance interest rates. Asian Social Science, 5(5), pp.87-93
- Murray, U., 2005. *Promoting gender-sensitive entrepreneurship via microfinance institutions*. Food and Agriculture Organization of the United Nations (FAO). Gender and Population Division.
- Report of the African Union Assembly, 2015
- Rwandan National Microfinance Implementation Strategy, 2007
- Strom, O., D'Espallier, B. and Mersland, R., 2010. Gender, performance and governance in microfinance institutions.
- https://www.rug.nl/research/events/workshopmicrofinance2010/pdfmicro/stromespalliermersland.pd f
- Triki, T. and Faye, I., 2013. Financial inclusion in Africa. Tunis, Tunisia: African Development Bank.
- UNCDF, 2011. Conference on Women's Economic Empowerment "Growing Women's Businesses: Increasing Access to Finance and Business Services" Remarks by David Morrison http://www.uncdf.org
- Women's World Banking, 2003. What Works? Online Vol.1, No.1.
- http://www.ruralfinance.org/fileadmin/templates/rflc/documents/1160574976361_Customer 20Value_April04.pdf