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An exploration of micro-financing as a way of helping to fund people in developing countries.

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by

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Abstract

Microfinance started in Bangladesh and parts of Latin America in the mid-1970s to provide small loans and financial products to poor people who cannot access to loan from formal banks because of low credit and higher risk. This thesis means to explore if microfinance is a good way to fund people in developing countries. The relationship between gender and loan size and what factors affect financial sustainability were tested in this thesis by t-test and regression. The results reveal that there was no difference between gender and loan size, which means there was no glass ceiling on loan size between men and women. The findings conclude that the breadth of outreach was not a significant determinant of financial sustainability while the depth of outreach and productivity significantly impact financial sustainability of MFIs (Microfinance Institutions). Moreover, the depth of outreach positively impacts the financial sustainability. So, the MFIs will become more sustainable if more is done on promoting depth of outreach.

1. Introduction

In many developing countries, poor people cannot get loan from banking industry because they have low credit and high risk. Microfinance Institutions provide small loans and financial products to these poor people . Apart from small loans, the financial products also include insurance products, checking accounts, savings account, and other products that provided to poor people to improve their conditions. Compared with charity, microfinance is a better way to stop poverty because it doesn't give the money for free, the interest rate makes poor people feel responsible to start their own business. It seems like microfinance not only provide money but also provide an opportunity to be an entrepreneur. More importantly, women in developing countries can explore their talents and start businesses through microfinance (Regoli, 2019). So, microfinance is important in developing countries because it gives individuals who are excluded from formal financial systems access to credit and it can be used as a tool to reduce poverty.

In this paper, I aim to explore if microfinance is a good way of helping to fund people in developing countries. Past researches have analyzed the relationship between microfinance and the poverty reduction and most of them confirmed the role of microfinance on poverty alleviation. However, poverty reduction is just a part, it can't proof that microfinance is a good way to fund people in developing countries. So, in this paper, I will explore this issue in depth based on previous researches.

Firstly, I will analyze the relationship between the use of microfinance and the level of poverty alleviation based on previous researches and data. Moreover, I will explore how microfinance reduce the poverty and what can affect this relationship. Secondly, I will discuss the gender problems in microfinance. The gender problems include if there is a gender gap in loan approval rate or gender bias in loan size. And if there is a difference between gender and the use of loan or the repayment of loan. This problem is important because gender equality should be applied into microfinance in developing countries and it is a significant factor to evaluate if microfinance is an effective way to fund people. Then, I would like to investigate the relationship between microfinance and the status of women in developing countries. Because the microfinance provides women opportunities to be entrepreneurs, the status of women may also change. In addition, microfinance may not only help to improve women empowerment but also changes women themselves, because more women can explore their talents and they have more confidence.

Even microfinance has positive effects on poverty reduction and women empowerment, to proof it is a useful way to fund people in developing countries, it should be sustainable to fund people in the long run. So, in this paper, I will explore what factors affect the financial sustainable of microfinance. Finally, to examine whether microfinance is a useful tool, I will discuss the challenges and opportunities faced by microfinance in developing countries to forecast its prospects and try to give some recommendations about how to cope with these challenges.

This issue is very significant because poverty is still a big challenge in many

developing countries, and how to improve household well-being is every country's desire. So, to explore whether microfinance is a good way to fund people in developing countries is necessary. Because microfinance not only provide loans to people who are excepted from formal banking systems but also help to solve social problems. The analysis of microfinance could help governments and MFI leaders better understand the microfinance market and develop more effective policies and programs to support microfinance.

2. Literature Review:

In the literature review part, I found many previous researches that related to my research questions, the following is the summary of these findings and results.

2.1 The Role of Microfinance on Poverty Alleviation

Ebimobowei et al. (2012) investigated whether microfinance played an role on poverty reduction in Nigeria. According to them, microfinance had an important effect on poverty alleviation, and it was a significant way of reducing poverty in developing countries. However, they pointed that the microfinance itself can't reduce the level of poverty, to ensure that microfinance will play an effective and efficient role of poverty alleviation, the government should provide basic infrastructures.

Same with Ebimobowei at el. (2012), Aigbokhan and Asemota (2011) and Jegede at el. (2011) also analyzed whether microfinance can reduce poverty in Nigeria, and both found the relationship between microfinance and poverty reduction was positive. Jegede at el. (2011) claimed that microfinance was a visible strategy for sustainable poverty alleviation especially by increasing income and decreasing vulnerability, which also promoted people's economic capacity. In addition, they also pointed the importance of government on the performance of microfinance， the government should ensure stable micro-economic environment and low inflation rates to create an enabling environment for microfinance. More importantly, Aigbokhan and Asemota (2011) showed that microfinance played a significant role in social capital formation, because loans were often given out to groups, which encouraged individuals to come together to access the loans. This engendered information share and ensured loan repayment and effective utilization of loans.

However, Mosley (2001) who assessed the importance of microfinance on poverty in Bolivia found something different. He asserted that microfinance really can reduce the poverty but not the extreme poverty, not only in Bolivia but all over the world, "entrepreneurial poor" were not among the poorest. This was because poorer families were more constrained in their choice of coping strategies, and many therefore chose ones that were more likely to jeopardize their long-term income

prospects, notably asset sales and cuts to education for their children. So, compared with other anti-poverty measures, microcredit appears to be successful, relatively cheap in alleviating poverty among those near the poverty line, but ineffective in reducing extreme poverty compared with labor market and infrastructure measures.

2.2 The Challenges and Opportunities of Microfinance

2.21 The gap between supply and demand of microfinance

Sarma and Borbora (2015) who investigated the balance of microfinance supply and demand in India claimed that the demand of microfinance showed an increasing growth, but the supply of microfinance was at a low level. So, the supply of microfinance was highly deficient especially when the size of loan was higher. This was because of the absence of concrete microfinance regulation, so they suggested that the government should put in place credible arrangements to help the microfinance sector and run more smoothly. Similarly, Qatinah (2013) pointed that the significant gaps of microfinance supply and demand still existed in Yemen. The main factors contributing to these gaps were weak regulation and goverance, poor management, lack of product diversification and so on. So, the government needed to have a more effective regulatory mechanism for microfinance institutions and encourage traditional and Islamic Banks to join the microfinance market.

2.22 Other challenges and opportunities faced by microfinance

Both Boateng (2015) and Muhammad (2010) showed some other challenges and opportunities faced by microfinance in Gahan and Pakistan respectively. According to Boateng (2015), many microfinance institutions in Gahan failed because of the internal and external challenges they faced. The internal challenges included high operational/transaction cost, loan default and limitation of labor and institutional capacity-building. While for the external challenges, one of the most fundamental external challenges faced by Ghana's microfinance institutions was the basic infrastructures were not enough. Especially in rural areas, the lack of good roads, electricity, telecommunications and information technology really distorted their outreach. So, the government should improve the social infrastructure and promote the communication technologies in rural areas, because this not only increases the potential markets' size, but also reduces transaction costs and risks for customers and service providers.

Despite the challenges, there were opportunities existing for microfinance. With more than 70 percent of Ghana's population without access to banking services, the huge untapped market for microfinance has been strengthened, which means the spaces for existing microfinance institutions to expand their business scope and for new microfinance institutions to join in are huge. In the same way, Muhammad (2010) also concluded that microfinance faced many challenges, such as poor regulation, increased competition, profitability, stability, and limited management

capacity of microfinance institutions.

2.3 The Relationship between Gender and Microfinance

2.31 The difference between gender and loan size

Agier and Szafarz (2010) who analyzed the relationship between gender and credit conditions pointed that there was no gender difference in access to credit and the denial rate, but in loan size, there was a bias in favor of men, which means that there was a glass ceiling on loan size. Moreover, the glass ceiling existed no matter what the credit officer's gender was. So, the limitation on loan size hurt the women entrepreneurs who need large amount of loans. What's worse, they also showed that with same circumstances, women often faced harsher loan conditions than men, so men always had more choices in terms of accessing economic opportunities.

2.32 Gender and the performance of microfinance

D'espallier, Guerin & Mersland (2013) reported that the focus on women significantly improved repayment, but not overall financial performance because of the higher relative costs. Therefore, the economic impact of better repayment rates is insufficient to translate into better overall financial performance for MFI. The higher relative cost was caused by smaller loan offered by microfinance to women and group-lending strategy toward women. So, they suggested that if loan size offered to women and men were same or the transaction costs related to small loans decreased, MFIs could benefit more from serving women.

2.33 The gender difference and the use of microfinance for children's education

Holvoet (1999) investigated the relationship between gender and the use of microfinance for children's education. He concluded that there was no gender difference if the credit was obtained by direct bank-borrower credit delivery. However, if mothers obtained credit through women's group, girls will have more opportunities to receive education. Moreover, among households that men borrowed the credit, boys had higher gross enrollment rates on average than girls, while the situation was opposite in households that the credit entered through women. So, mothers and fathers had different preference of investment of boys and girls. In general, mothers preferred to invest more in daughters' education or health while fathers cared more about the education of sons.

2.4 The Relationship between Microfinance and the Status of women

2.41 Microfinance and female entrepreneurs

Ashe and Treanor (2011) suggested that microfinance helped no more than half of female borrowers to open stores, and most urban women used the money to grow their own established businesses. About 62% of women use microcredit for

commercial purposes, most of them keep livestock. But some rural women received this money for survival purposes. So, it seemed that microfinance had more positive effect on unban female entrepreneurship.

Mahmood et al. (2014) concluded that microfinance can help women to become entrepreneurs in Pakistan and other developing countries. Moreover, the microfinance was becoming more successful in developing the entrepreneurial potential of women entrepreneurs and increasing the income of their households. However, Leach and Sitaram (2002) claimed that women's micro-enterprises were not commercially viable. This was because the project of microfinance insisted that women worked as a group in high-risk areas of economic activity without a clear strategy for how to sustain their work.

2.42 Microfinance and women empowerment

Sultana et al. (2017) investigated whether microfinance can improve empowerment of women, and they pointed that microfinance brought social and knowledge empowerment than economic empowerment especially through improving confidence, courage and skill development. However, Hunt and Kasynathan (2019) pointed that microfinance did not directly or automatically improve women's empowerment and gender transformation, and microfinance should be reassessed because the evidence showed that the poorest women can not access credit. But Kah et al. (2005) and Hofstetter (2008) all acknowledged the positive effect of microfinance on women status, and they claimed that microfinance not only changed the power of women but changed women themselves.

2.5 The Factors that Affect the Financial Sustainability of Microfinance

According to Kinde (2012), The breadth and depth of outreach, dependency ratio and cost of per borrower all significantly affected the financial sustainability of Ethiopian microfinance institutions, while there was no significant link was found between the capital structure and financial sustainability of MFIs, nor in terms of employee productivity. Different from Kinde, Tehulu (2013) found that the breadth and depth of outreach and mobilizing savings were not important determinants of financial sustainability. Poor management efficiency and portfolio exposure to risk negatively impact the financial sustainability while the financial sustainability of microfinance institutions is positively and significantly driven by the intensity and size of loans. In addition, Hartarska and Nadolnyak (2007) suggested that the involvement of regulators would not directly affect financial sustainability of MFIs, and they found that microfinance institutions with lower leverage were more sustainable.

3. Data and Methodology

I will use some secondary data to analyze the relationship between gender and repayment rate, the relationship between gender and loan size and the variables that affect the performance of microfinance institutions.

3.1 The Discussion of Data and Sample

The first data is obtained from documents.worldbank.org, this data will be used to analyze the relationship between gender and repayment rate.

The second data is obtained from grameen.com, this data will be used to analyze the relationship between gender and loan size, and to explore that if there is a gap between men and women.

The third data is also obtained from the website of Grameen Bank. This data is used to analyze what factors affect financial sustainability of MFIs. So, I use financial self-sufficiency to measure the financial sustainability, the breadth of outreach is measured by number of active borrowers, the depth of outreach is measured by the average loan balance per borrower and the productivity per loan officer.

The sample of the first data is rural men and women in Bangladesh from 2005 to 2010, and the sample of the second data is top 25 items in order of loan amount of Grameen Bank in 2019. The sample of the third data is the performance of Grameen Bank from 2008 to 2017.

3.2 Discussion of Methodology

For the first data, I will use graph and descriptive statistics to show the relationship between gender and repayment rate of microfinance. And I will use t-test to investigate the relationship between gender and loan size. For the third data, I will use regression to analyze the factors that affect financial sustainability of MFIs.

The null hypothesis for the t-test is the mean of loan amount per man is equal to the mean of loan amount per woman. And for the financial sustainability of MFIs, the dependent variable is financial self-sufficiency and the number of active borrowers, average loan balance per borrower, productivity per loan officer are the independent variables. So, the model is $Y=aX1+bX2+cX3$, which Y is the financial sustainability, X1 is the breadth of outreach, X2 is the depth of outreach and X3 is the productivity per loan officer. Ho: the independent variables do not have effect on financial sustainability.

4. Analysis and Findings:

Based on the data I have obtained about Microfinance; I will discuss my results and

findings in the next part. Before discussing and explaining my findings, I would like to provide a brief review about my previous section. I have used three secondary data in this thesis, they were obtained from documents.worldbank.org and grameen.com respectively. The sample of the first data is rural men and women in Bangladesh from 2005 to 2010, the sample of second data is top 25 items in order of loan amount of Grameen Bank in 2019, and the sample of the third data is Grameen Bank from 2008 to 2017. The model I used for the first data is descriptive statistics, and I used t-test and regression to analyze the second and third data. The model of the third data is $Y=aX_1+bX_2+cX_3+g$, which Y is the dependent variable financial sustainability, and X_1 is the breadth of outreach, X_2 is the depth of outreach, and X_3 is the productivity per loan officer.

4.1 Gender and Loan Recovery Rate

As shown in the table below, this table indicate the loan recovery rate of rural women and men in Bangladesh from 2005 to 2010. The loan recovery rates of rural women are always above 80 while the loan recovery rates of rural men fluctuated between 40 and 60. Moreover, the mean of recovery rate of women is 85.33, which is much higher than the 52.74 for rural men. To make it more intuitive, I also drew a chart to show the difference between loan recovery rate of women and men. As shown in the chart below, the orange line indicates the recovery rate of women while the blue line indicates the recovery rate of men. In this chart, the orange line is much higher than blue line, which means the loan recovery rate of women is higher than men. In addition, from this chart, we can see that from 2005 to 2010, the loan recovery rates of women are no more than 90 and the loan recovery rates of men are always below 60.

From documents.worldbank.org, I only obtained the loan recovery rate of rural men and women in Bangladesh from 2005 to 2010, I couldn’t find the data of loan recovery rate in other years, so the sample size is only 6 observations, and I couldn’t do regression analysis to further explore the relationship between gender and loan recovery rate. Even I didn’t investigate the relationship between gender and loan recovery rate, the table and chart indicate that women always have higher repayment rate than men.

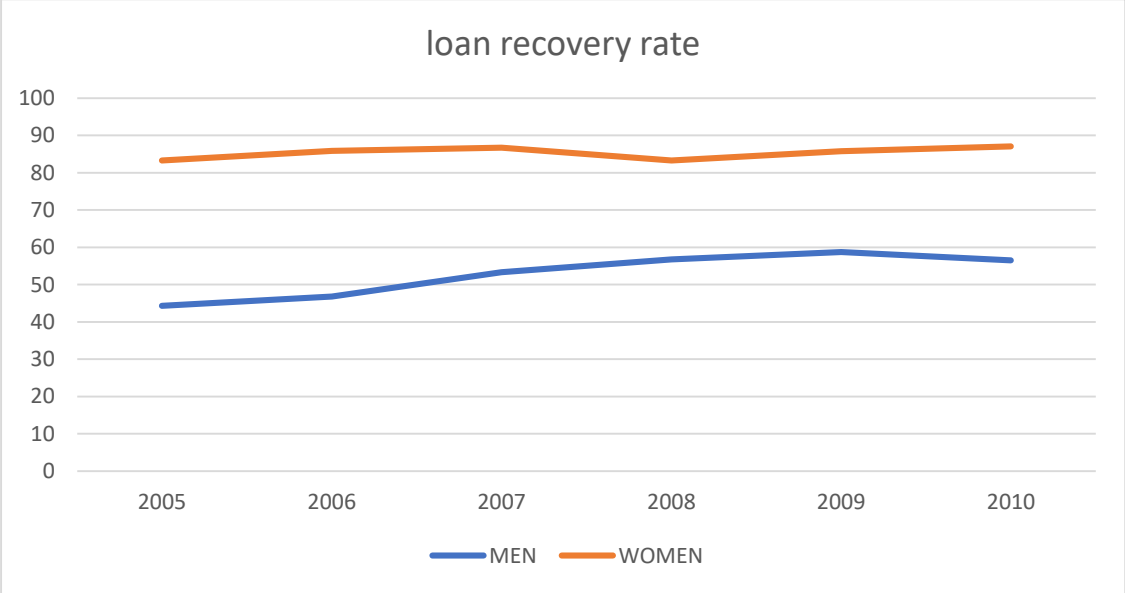
This finding is related to the third research question which is to investigate the relationship between gender and microfinance. The result I have obtained is consistent with part of findings of D'espallier, Guerin & Mersland (2013) who asserted lending loans to women can significantly improve the repayment rate, but they said the financial performance of microfinance institutions would not improve because of higher cost of lending to women. In this data, I didn’t explore the relationship between gender and cost, I only compared the loan recovery rate between men and women. The relationship between gender and cost will be verified

in the third data.

Table 1 Recovery Rate Table

YEAR	2005	2006	2007	2008	2009	2010	Mean
Women recovery	83.3	85.82	86.68	83.28	85.79	87.1	85.33
Men recovery	44.36	46.77	53.34	56.74	58.7	56.52	52.74

Chart 1 Recovery Rate Chart



4.2 Gender and Loan Size

I use t-test to explore the relationship between gender and loan size. The below table is the result I got. The variables 1 is the amount of loan per man and the variables 2 is the amount of loan per woman. As shown in the table, the mean of amount of loan per man is 34837.6849, and the mean of amount of loan per woman is 33725.99392. So, the mean of amount of loan per man is higher than the mean of amount of loan per woman.

This finding is related to the third research question, but this result is to investigate the relationship between gender and loan size. The null hypothesis is that the mean of amount of loan per man is equal to the amount of loan per woman. In this table, the P value of two-tail is 0.89 which is higher than 0.1, so I cannot reject it. So, my

result is consistent with my hypothesis and it indicates that there is no difference between amount of loan per man and amount of loan per woman in Grameen Bank. However, my result is different from that of Agier and Szafarz (2010) showing that there was a glass ceiling on loan size between men and women, under the same circumstances, men can borrow more money than women through microfinance.

The results I obtained are only for Grameen Bank, and I only have 25 observations. So, there is some limitation in my dataset and result, maybe that is why I get different result from Agier and Szafarz (2010). However, in my result, there is no glass ceiling on loan size between men and women, which means there is no relationship between gender and loan size.

Table 2 Result of t-test

	Variables 1	Variables 2
Mean	34837.6849	33725.99392
Variance	81051988.2	1429084918
Observations	25	25
Pearson Correlation	-0.1724848	
Hypothesize Mean Difference	0	
df	24	
t Stat	0.13778052	
P(T<=t) one-tail	0.44578166	
t Critical one-tail	1.71088208	
P(T<=t) two-tail	0.89156332	
t Critical two-tail	2.06389856	

4.3 Factors Affect the Financial Sustainability

The table below is the result I obtained by using Stata. In this table, we can see the relationship between financial sustainability and number of active members, average loan balance per borrower, productivity per loan officer.

Table 3 Result of regression

Linear regression

FSS	Coef.	St.Err.	t-value	p-value	[95% Conf	Interval]	Sig
No. AB	.04	.057	0.71	.507	-.099	.179	

Average Balance	.002	0	4.54	.004	.001	.003	***
Productivity	-.002	.001	-3.47	.013	-.003	-.001	**
Constant	1.501	.198	7.57	0	1.015	1.986	***

Mean dependent var	0.997	SD dependent var	0.031
R-squared	0.789	Number of obs	10.000
F-test	7.468	Prob > F	0.019
Akaike crit. (AIC)	-49.514	Bayesian crit. (BIC)	-48.303

**** p<.01, ** p<.05, * p<.1*

For the results, I used the similar model of Kinde (2012), but the data we used is different. I used the data of Grameen Bank from 2008 to 2017 to test the relationship. Similar with Kinde (2012), I use number of active members to measure the breadth of outreach, the average loan balance per borrower to measure the depth of outreach, and the productivity per loan officer.

The findings are related to the last research question which is used to explore the factors affect the financial sustainability of microfinance institutions. And the hypothesis is there is no impact of breadth of outreach, depth of outreach and productivity on financial sustainability.

4.31 The impact of breadth of outreach on financial sustainability

As shown in the table above, the P value of financial sustainability and breadth of outreach is 0.507, which is higher than 0.1. So, I cannot reject the hypothesis, and it means the breadth of outreach does not significantly affect financial sustainability even at 90% confidence. My results are different from those of Kinde (2012) showing that the breadth of outreach significantly affect financial sustainability and the relationship is positive. However, this result is consistent with Tehulu (2013) who asserted the breadth of outreach is not a significant determinant of financial sustainability.

4.32 The factor of depth of outreach

As shown in the table above, the P value of financial sustainability and depth of

outreach is 0.004, which is lower than 0.01. So, I reject the hypothesis. It means the depth of outreach significantly affect the financial sustainability of microfinance institutions. In addition, the positive number indicate the relationship between depth of outreach and financial sustainability is positive. So, if the depth of outreach increases, the financial sustainability of microfinance institution will also increase. This result is consistent with Kinde (2012) but is different from Tehulu (2013) who claimed that the depth of outreach is not an important determinant of financial sustainability.

4.33 The relationship between productivity and financial sustainability

The P value of financial sustainability and productivity per loan officer is 0.013 which is lower than 0.05, so the productivity per loan officer affect financial sustainability significantly at 5% significant level. And the coefficient is -0.002, which means the productivity per loan officer negatively affect the financial sustainability. If the productivity per loan officer increase, the financial sustainability of microfinance institution will decrease. The result is inconsistent with my hypothesis, and it is different from the finding of Kinde (2012) showing that the productivity positively affects the financial sustainability, and the impact is not significant.

The data I obtained is from the website of Grameen Bank, but I can only obtain the data from 2008 to 2017, which are only 10 observations. Th data from MIX is not available for me because of the copyright. So, the limitation of my data may affect the results, and that may cause the difference from previous researches.

5. Conclusion and Recommendations

In many developing countries, poor people are still excluded from formal banking systems and they cannot access to loans or some other financial products. Microfinance helps these poor people to get loans and even start their own business. So, compared to charity, microfinance is better, because it seems that microfinance not only provides money but also provides these poor people an opportunity to be entrepreneurs. Moreover, it also provides an opportunity for women in developing countries to express their skills and start new business. Many previous researches confirm that microfinance can help to alleviate poverty but because of the limitation of breadth and depth of outreach, the microfinance cannot help extreme poor people.

This thesis investigates the relationship between microfinance and gender. In conclusion, women have higher repayment rate than men and there is no difference between loan size and gender. In addition, the findings show that the breadth of

outreach cannot impact financial sustainability of MFIs significantly, but the depth of outreach and productivity are significant factors that affect the financial sustainability. Based on previous researches and my findings, the government should improve the breadth and depth of outreach of MFIs to make more poor people access to the loan and increase the financial sustainability of MFIs.

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Appendix A

Activity Name	MALE NO	MALE AMOUNT	Average amount per person	Female No	Female amount	Average amount per person
PADDY CULTIVATION	20375	594021379	29154.42351	1038758	22165613171	21338.57277
MILCH COW	16748	519473114	31017.02376	476712	12638541209	26511.90071
LAND LEASE	16649	517222504	31066.2805	598149	16057694909	26845.64366
AGRICULTURE EQUIPMENTS MAKING	17947	481267687	26816.0521	628611	14055844005	22360.16233
GROCERY SHOP	10378	469043943	45195.98603	278522	9943910722	35702.42466
FRAMING	17524	459043943	26195.15767	605432	14100255735	23289.57791
RICE/PADDY TRADING	13108	452227440	34500.10986	547230	13784812235	25190.16179
COW FATTENING	11563	344213232	29768.50575	438978	11183592236	25476.42988
PLANTATION	11189	297807402	26616.08741	425728	9838187976	23109.09307
MISCELLANEOUS BUSINESS	5796	276806315	47758.16339	117876	4276291625	36277.88205
LAND CULTIVATION	9672	231349329	23919.49225	373816	79838187976	213576.1657
VEGETABLES CULTIVATION	6693	187570792	28024.92036	358286	7888763854	22018.06337
CLOTHS TRADING	2980	143798949	48254.68087	58342	2266693593	38851.83218
RABI CROP CULTIVATION	3220	100508898	31213.94348	138716	3115234817	22457.64596
POULTRY RAISING	2511	99900611	39785.18957	88471	2005275452	22665.90693
FISH TRADING	2677	99625030	37215.17744	219133	5733799478	26165.84211
LAND PREPARATION	3058	98763210	32296.66776	68983	1891508323	27419.91973
SHOP TRADING	2405	98590264	40993.87277	53752	1748197077	32523.38661
STATIONERY SHOP	1935	91960772	47524.94677	86143	2813967131	32666.23093
POTATO CULTIVATION	3978	91679381	23046.60156	110155	2400643650	21793.32441
BETELLEAF CULTIVATION	3299	89374846	27091.49621	136493	3069717698	22489.92767
VEGETABLE TRADING	2551	80205259	31440.71305	136199	3492069950	25639.46835
MEDICINE SHOP	1369	69384268	50682.44558	68074	1507723138	22148.29653
POTTERY PRODUCTS	2293	67479605	29428.52377	65877	1529788064	23221.88418
CLOTHS SHOP	1232	63984736	51935.66234	85186	1994213162	23410.1045

Appendix B

	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017
Total assets (In million Taka.)	82,801	103,005	125,397	140,441	158,952	178,937	200,961	220,885	229,361	239,619
Total assets (In million USD)	1,205	1,491	1,781	1,763	1,974	2,301	2,593	2,804	2,920	2,903
Number of offices	2,884	2,911	2,914	2,912	2,914	2,914	2,915	2,914	2,906	2,893
Number of employees	24,240	23,283	22,255	22,128	22,261	21,851	21,807	21651	21,043	18,185
Outreach indicators:										
Number of branches	2,539	2,562	2,565	2,565	2,567	2,567	2,568	2,568	2,568	2,568
Number of members (In millions)	7.67	7.97	8.34	8.37	8.37	8.54	8.64	8.81	8.90	8.93
Number of active borrowers (In millions)	6.21	6.43	6.61	6.58	6.71	6.74	7.03	7.18	7.29	7.23
Number of active borrowers per branch (year-end)	2,448	2,508	2,578	2,566	2,613	2,625	2,739	2,796	2,837	2,814
Number of loan officers	14,000	13,262	12,613	12,537	12,779	12,826	12,800	12,734	12,279	11,922
Percent of women members	0.97	0.97	0.96	0.96	0.96	0.96	0.96	0.97	0.97	0.97
Average loan balance per borrower (Taka)	7,147	8,514	10,034	11,442	11,972	12,522	12,438	13,427	16,230	19,997
Average loan balance per borrower (USD)	104	123	143	144	149	161	160	170	207	242
Loan portfolio										
Loans (Principal Amount) disbursed (In million Tak	62,105	79,408	96,149	108,539	118,609	126,026	133,321	149,227	187,533	234,715
Loans (Principal Amount) disbursed (In million USI	906	1,151	1,366	1,362	1,473	1,621	1,720	1,894	2,388	2,843
Number of loans disbursed (In millions)	7.18	8.25	8.61	8	8.17	7.38	7.48	8.18	8.11	9.29
Total loan outstanding (gross) (In million Taka)	44,412	54,718	66,350	75,294	80,317	84,381	87,491	96,422	118,244	144,505
Total loan outstanding (gross) (In million USD)	646	792	943	945	997	1,085	1,129	1,224	1,506	1,751
Current (Performing) loans (In million Taka)	42,782	52,318	64,354	72,387	76,742	81,291	84,379	93,281	116,279	143,002
Current (Performing) loans (In million USD)	623	757	914	909	953	1,046	1,089	1,184	1,481	1,732
Overdue loans (In milion Taka)	1,236	1,439	633	1,019	1,624	1,496	1,550	1,875	651	472
Overdue loans (In milion USD)	17.99	20.82	8.99	12.79	20.17	19.24	20	23.8	8.29	5.72
Portfolio growth rate	22.22%	23.20%	21.26%	13.48%	6.67%	5.06%	3.69%	10.21%	22.63%	22.21%
Sustainability/Profitability ratios:										
Return on equity (ROE)	21.21%	5.64%	10.74%	8.97%	17.10%	13.65%	4.15%	0.22%	11.82%	17.09%

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Operating self sufficiency (OSS)	112.20%	102.63%	######	######	######	######	######	######	104.53%	######
Financial self sufficiency (FSS)	106.07%	99.21%	99.20%	95.79%	99.62%	99.59%	96.51%	95.80%	101.23%	######
Asset / Liability management ratios:										
Yield on gross portfolio (nominal)	19.03%	19.43%	19.69%	19.80%	19.98%	19.82%	19.70%	19.47%	19.95%	19.94%
Cost of funds ratio	8.56%	8.89%	9.24%	9.07%	9.17%	9.28%	9.01%	8.56%	7.52%	7.50%
Portfolio Quality:										
Portfolio at risk ratio (PAR)	3.67%	4.39%	3.01%	3.86%	4.45%	3.66%	3.56%	3.26%	1.66%	1.04%
Efficiency and productivity ratios:										
Productivity per loan officer	465	509	552	553	553	553	578	594	626	640
Operating expense ratio	10.83%	11.36%	11.24%	10.06%	9.51%	9.88%	10.25%	11.00%	12.63%	10.98%
Personnel expense / Loan portfolio	7.32%	7.71%	7.67%	7.07%	6.65%	6.82%	7.15%	8.23%	10.27%	8.88%
Cost per borrower (In Taka)	707	891	1,044	1,080	1,113	1,210	1,279	1,423	1,874	1,988
Cost per borrower (In USD)	10.29	12.89	14.83	13.56	13.82	15.56	16.5	18.06	23.86	24.08
Portfolio per loan officer (in million Taka)	3.17	4.13	5.26	6.01	6.29	6.58	6.84	7.57	9.63	12.12
Portfolio per loan officer (in million USD)	0.046	0.06	0.075	0.075	0.078	0.085	0.088	0.096	0.123	0.147
Financing structure:										
Capital adequacy ratio	12.02%	10.65%	9.30%	8.79%	8.94%	9.01%	10.65%	8..96%	8.99%	8.92%