

Chapter 5

Empirical Results

This chapter presents the results of the impact assessment analysis on the single impact equation (3.2) shown in Chapter 3. The impact assessment is applied by using the regression approach. It is separated into three groups: impacts on the household's annual income, impacts on the household's monthly expenditure, and impact on the household's consumption of rice. The dependent variables are changed into logarithm by using a Weighted Least Squares (WLS) method to avoid the heteroskedasticity problem. It is interpreted that the unit change in independent variables affects the percentage change in dependent variables.

Firstly, the data collected in northern Chin State is quantified by using Ordinary Least Squares (OLS) regression to test whether the hypothesis on the effects of microfinance on household income and expenditure, is accepted or not.

All the villages in both the treatment and control villages are allowed to participate in the Chin-MFI. Thus, access to microfinance is exogenous. Furthermore, comparisons between members and non-members in both the treatment and control villages, allows us to avoid self-selection and non-random program placement, as this is controlled automatically. Moreover, according to the household list from Chin-MFI, the household density is very low: less than twenty households as a minimum and 400 households as a maximum in the villages.

Hence, household outcomes are uncensored, that is, the household annual

income and household monthly expenditure are non-zero variables; Ordinary Least Squares (OLS) is applied for an estimation of the impact of microfinance membership.

The following outlines the nature of the variables for the data analysis.

5.1 Description of Variables

5.1.1 Dependent Variables

Household income is taken on an annual basis, since the agricultural households receive income on a variable frequency basis in a year, and it is easy to calculate. There are eight categories of income: agricultural income, breeding, trading, labor in India, home business, government staff or skillful staff, and remittances. For the data analysis, the total annual income is used.

Household expenditure is divided into four main groups: rice, health, education and social, and on a monthly basis. Among them, expenditure on rice is expected to be significant. On the other hand, total monthly expenditure is also used for the data analysis.

5.1.2 Independent Variables

The number of loan cycles in months, is used as the membership variable instead of using dummy variables 0 and 1.

Household characteristics variables are the age of the household head, the gender of the household head (1 = female, otherwise = 0), the number of students, the number of children under five, the number of local workers, the number of overseas workers, and the number of dependents.

The variables on village characteristics, such as availability of electricity, secondary school, type of road, distance to town, wage rates and prices of piglets and

chickens, are also collected. However, only distance to the town proves to be different, whilst the others are almost the same, according to the survey data. Thus, only the variable on distance to town can be applied.

5.2 Impact of Microfinance on Household Total Annual Income

The result shows that the overall model is significant at a 99 percent level, and with a positive effect (R-squared = 0.289; p-value = 0.000) with the intercept 12.5030.

The type of household head, which is the dummy independent variable (Female = 1; Male = 0) is highly and negatively significant at 99 percent level of confidence interval (-0.6430; p-value = 0.0020) with the annual income. It implies that the female household head has to struggle more when compared to her male counterpart. The household annual income is likely decreased by 6.4 percent.

The distance to marketplace, which is an important variable for the analysis, shows that there is a negative relationship with income, with a large significance level (-0.0310, p=0.0030). In Chin State, it cannot be assumed that the village which is closest to town might have more income compared to one that is far away, because the longer the distance from the main townships of Hakha, Falam and Tedim, the closer to the India border the village is, where people have seasonal job opportunities.

It can also be linked with the qualitative analysis. The majority of the Chin-MFI borrowers also use the loan for their labor work on the India border. Before they go there, they buy rations on the way. The minimum duration the worker stays there are about three months and a maximum of around six months. The labor work in India makes a lot of money when compared to agricultural work in the village. Some people use the loans not only for their labor work, but also for trading. The loan provided by

the microfinance program is also enough for some poor families to buy food rations to work in India, as mentioned above.

Out of the dummy variables, the different sources of income include income from agriculture (0.6640; p-value = 0.0000), which has positive relationship with the annual income of 99 percent confidence, and income from home businesses and remittances, which have a 95 percent and 99 percent level of (0.4640; p-value = 0.0120) and (0.9480; p-value = 0.0000) respectively. Additionally, the monthly base income from working in government service is also significant, at 95 percent (0.4300; p-value = 0.0260).

It is not a surprise that income is highly reliant on remittances, since the emigration rate is very high in Chin State. In the survey area, almost all of the household have a member who works in other countries, mostly in Mizoram in India.

Income from home businesses has also a strong positive relationship with household income. In Chin State, the majority of young women have a weaving business at home, especially in the villages near the capital, Hakha Township. Chin fabric is very expensive and popular. On average, one suit for a man costs about 150,000 Kyat, which is around 1000 US Dollars. Chin people also value their traditional fabric.

The number of loan cycles in months, which is also described as the membership variable, is insignificant. The coefficient also tells that there is no relationship between loan cycles and improvement of income. This implies that the borrowers do not benefit significantly from the Chin-MFI. One possible reason for this is the small size of the loan amounts provided by the Chin-MFI.

The size of loan provided to a household is only just enough to buy a pig, for

a household in the animal husbandry business. The life span of the loan is twelve months and when it is due, it is expected to be repaid according to the repayment schedule. In order to repay the loan, it is likely that this same household would have to sell the pig and obviously that would leave little profit for them, and sometimes even cause a loss.

Moreover, and worst of all, the pig might die due to some disease, a lack of food, poor husbandry techniques, or due to sudden and extreme changes in the weather. In this case, the household would have to borrow loans from other private sources or from individuals, in order for to repay the loan.

It can be concluded that Chin-MFI membership is not statistically significant according to the quantitative data analysis. However, it can be said that it has contributed to the borrowers lives for some aspects of their expenses, such as for household repairs, food security and education, because the loan use is flexible.

It is also found that in some villages, the households that obtain loans are nearly all successful in their businesses, especially those who invest in a home based business, an orchard business, or those who perform businesses in India.

The loans are most useful and meaningful to those households that have already invested in a business. Only a few of these kinds of household exist in the survey.

Table 5.1: Effect of Chin-MFI Membership on Household Total Annual Income

	Coefficient	Std. Error
(Constant)	12.5030 ***	0.3730
Distance to the nearest market place (town)	-0.0310 ***	0.0100
Age of household head	-0.0030	0.0070
Education of household head	0.1060	0.0650
Female household head	-0.6430 ***	0.2070
Number of members working in other countries	-0.0400	0.0930
Number of household members working in village	0.0420	0.0480
Number of students	-0.0020	0.0380
Number of under five children	-0.0830	0.0610
Number of dependents	-0.0450	0.0610
Source of income (Agriculture)	0.6640 ***	0.1490
Source of income (Breeding)	0.0360	0.1320
Source of income (Trading)	-0.3630	0.2910
Source of income (Home business)	0.4640 **	0.1840
Source of income (Government service)	0.4300 **	0.1920
Source of income (Labor in India)	0.1310	0.1770
Source of income (Remittance)	0.9480 ***	0.1940
Number of loan cycle in months	0.0000	0.0020
R-squared = 0.290		

***, **, * describe the rejection of null hypothesis at the significant level of 99 percent, 95 percent and 90 percent respectively.

Source: Author's survey data.

5.3 Impact of Microfinance on Household Total Monthly Expenditure

The overall data is significant to 99 percent, with R-squared of 0.258. It can be seen that the representing variable of the Chin-MFI membership is highly significant at 99 percent, with 0.003; p-value = 0.0070. Therefore, it can be implied that if one month of a loan cycle is increased, household monthly expenditure is likely to increase by 0.03 percent.

To be more precise, the following figure shows the perception of borrowers regarding the changes in expenditure after participating in the Chin-MFI program. It can be seen that 34 percent of members agreed that they could spend more on the household business sector, especially for agriculture and pig breeding. According to the survey, the majority of members themselves identified that they could buy farm equipment such as fertilizer, pipe and seeds in good time, because of the Chin-MFI loan. However, twenty percent of the members perceived that their expenditure was unchanged. Eighteen percent of members were able to spend more on food, whereas twelve percent agreed that their housing condition has improved.

Chin people tend to value their houses more than other ethnic groups in Myanmar. Thus, the expenditure on house repairs seems relatively high. Regarding expenditure on food, a significant number of borrowers used their loan to borrow rice from the grocery shops in the villages. Thus, the poor households were convinced that they could spend more on food. The other main expenditures were on education for the children, and health.

The total expenditure is positively correlated with the number of students and the number of dependents in the households, at a 99 percent significance level with 0.135; p-value = 0.0000 and 0.119; p-value = 0.0010, respectively. It can be

implied that expenditure is increased by the number of dependency groups in the families.

There is a negative relationship with distance to town and monthly expenditure, at 95 percent level significance, with -0.012 ; $p\text{-value} = 0.0420$. The closer to the town, the less expenditure is likely to be. Since the transportation is poor in Chin State, it is possible that by being one kilometer closer to town, expenditure will decrease by 0.1 percent.

Households which have an income from breeding and from remittances, spend a lot more. These two variables are statistically significant with 0.166 ; $p = 0.0310$ and 0.231 ; $p = 0.0410$, at a 95 percent significance level, whereas the source of income from the laboring business in India is significant at a 90 percent level, with 0.187 ; $p = 0.0680$.

Table 5.2: Effect of Chin-MFI Membership on Household Total Monthly Expenditure

	Coefficient	Std. Error
(Constant)	9.941 ***	0.216
Distance to the nearest market place (town)	-0.012 **	0.006
Age of household head	0.002	0.004
Education of household head	-0.026	0.038
Female household head	0.039	0.12
Number of members working in other countries	0.042	0.054
Number of household members working in village	0.032	0.028
Number of students	0.135 ***	0.022
Number of under five children	0.048	0.035
Number of dependents	0.119 ***	0.035
Source of income (Agriculture)	0.011	0.086
Source of income (Breeding)	0.166 **	0.076
Source of income (Trading)	-0.033	0.168
Source of income (Home business)	0.083	0.106
Source of income (Government service)	0.173 *	0.111
Source of income (Labor in India)	0.187	0.102
Source of income (Remittance)	0.231 **	0.112
Number of loan cycle in months	0.003 ***	0.001
R-squared = 0.258		

***, **, * describe the rejection of null hypothesis at the significant level of 99 percent, 95 percent and 90 percent respectively.

Source: Author's survey data.

5.4 Impact of Microfinance on Household Per Capita Consumption of Rice

The dependent variable which can indicate food security, household monthly consumption on rice, is statistically significant at 99 percent (R-squared 0.252), with other explanatory variables.

Membership of Chin-MFI has a strong positive relationship with per capita rice consumption as expected, at a 99 percent significance level. It can be explained that a one month loan cycle can increase household expenditure on rice by 0.2 percent (0.0020; p-value = 0.0050). According to the survey records, the majority of the poor households depend on their village grocery store, where they buy rice on credit terms. The debts are repaid when they have money available, or by taking out loans from other private sources, such as from friends and relatives. Moreover, right after clearing their debts, the debt cycle starts again, with another purchase of rice on credit terms. This is very burdensome for the families, and the situation might exist throughout their life time.

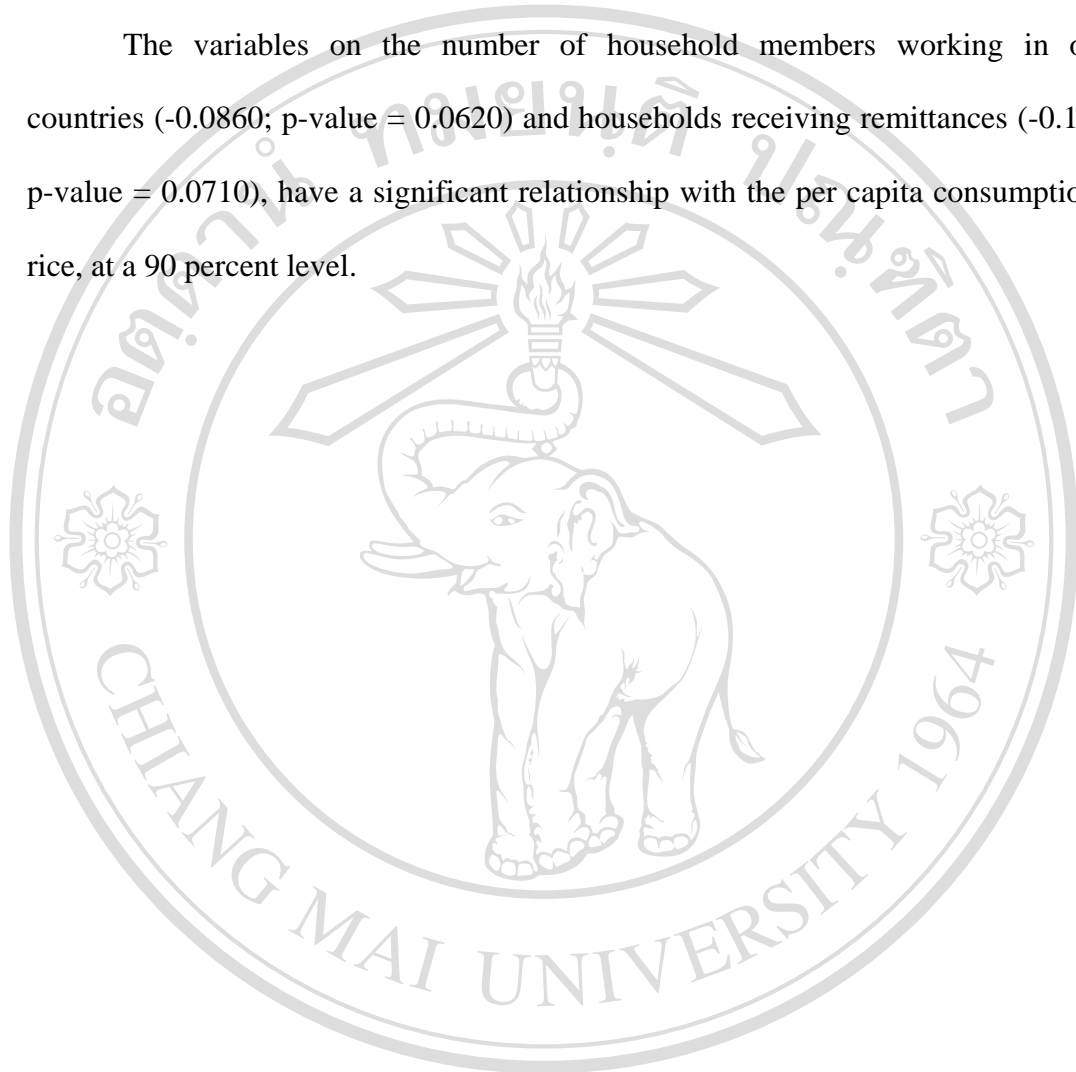
Nevertheless, as an antidote to this issue, the Chin-MFI provides short term small loans to these poor households and the burden is immediately lifted and the problem solved for a short while. Thus, the Chin-MFI mainly solves the daily problems and issues of the poor households, with respect to their struggles to obtain food.

The negative relationship between the number of children under five and the number of dependents in the household (-0.1150; p-value = 0.0000, and -0.0850; p-value = 0.0050) shows that the more dependency groups there are in the family, the more that per capita consumption is likely to decrease.

The age of the household head (0.0070; p-value = 0.0370), and those

households which have laborers working in India (0.1820; p-value = 0.0380), are statistically significant at the 95 percent level.

The variables on the number of household members working in other countries (-0.0860; p-value = 0.0620) and households receiving remittances (-0.1740; p-value = 0.0710), have a significant relationship with the per capita consumption of rice, at a 90 percent level.



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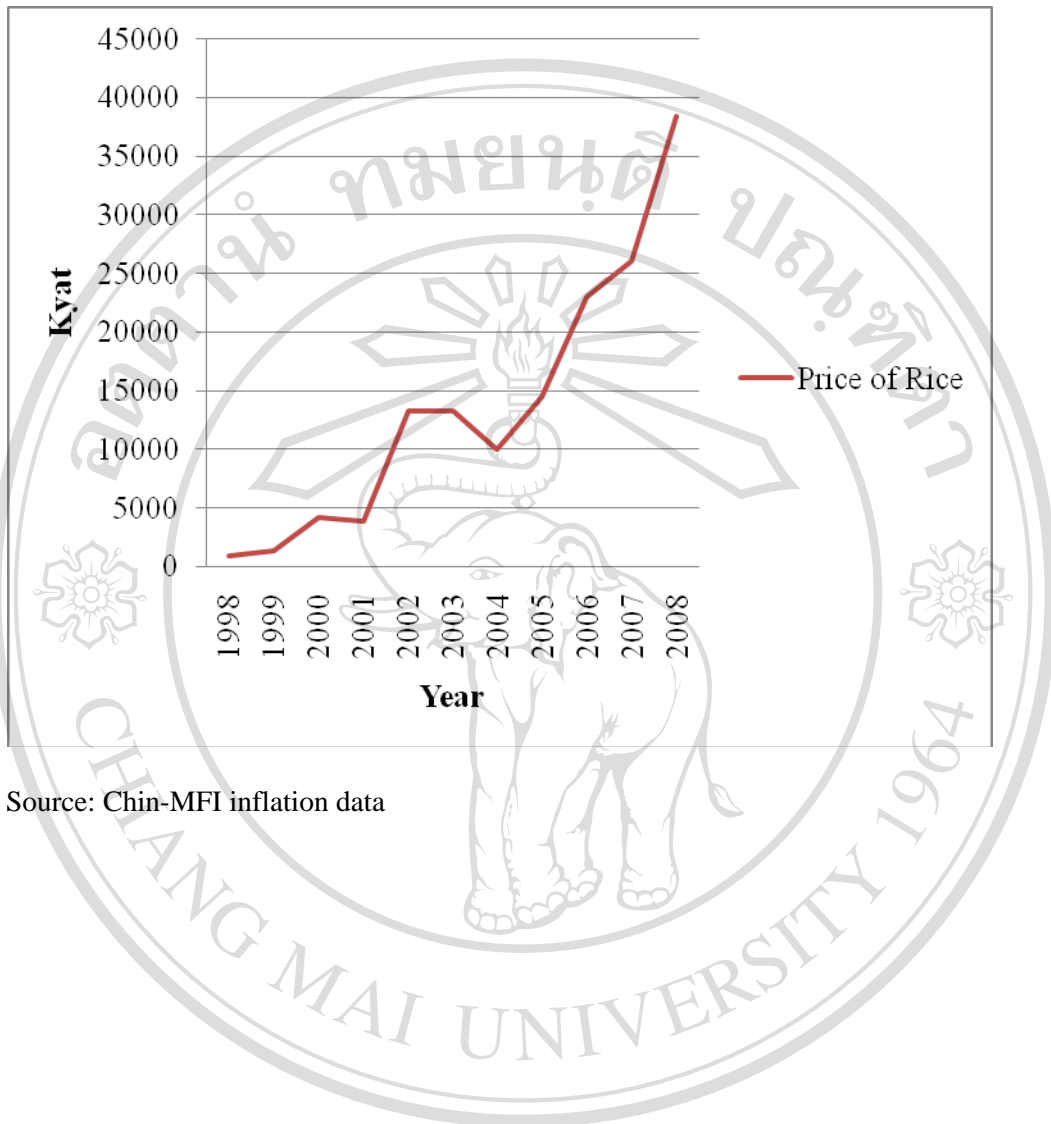
Table 5.3: Effect of Chin-MFI Membership on Household per Capita Consumption of Rice

	Coefficient	Std. Error
(Constant)	8.4390 ***	0.1840
Distance to the nearest market place (town)	-0.0080	0.0050
Age of household head	0.0070 **	0.0030
Education of household head	-0.0100	0.0320
Female household head	0.0890	0.1020
Number of members working in other countries	-0.0860 *	0.0460
Number of household members working in village	-0.0850	0.0240
Number of students	-0.0270	0.0190
Number of under five children	-0.1150 ***	0.0300
Number of dependents	-0.0850 ***	0.0300
Source of income (Agriculture)	-0.0570	0.0730
Source of income (Breeding)	-0.0300	0.0650
Source of income (Trading)	-0.1020	0.1430
Source of income (Home business)	0.0990	0.0900
Source of income (Government service)	0.0420	0.0940
Source of income (Labor in India)	0.1820 **	0.0870
Source of income (Remittance)	-0.1740 *	0.0960
Number of loan cycle in months	0.0020 ***	0.0010
R-squared = 0.252		

***, **, * describe the rejection of null hypothesis at the significant level of 99 percent, 95 percent and 90 percent respectively.

Source: Author's survey data.

Figure 5.1: Price of Rice in Northern Chin State (1999 – 2008) Kyat/Unit



Source: Chin-MFI inflation data

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Table 5.4: Descriptive Statistics for the Whole Sample

N = 246

Variables	Minimum	Maximum	Mean	Std. Deviation
Distance to the nearest town (kilometer)	1	22	7.5	6.763
Price of chicken (Kyat per 1 viss) 1 viss = 1.43 kilogram	4,200	7,000	5,392.68	1114.262
Price of piglet (Kyat per 1 piglet)	25,000	35,000	29,000	3622.973
Wage rate (Kyat per day)	1,000	2,000	1,402.44	362.297
Bus fare to Kalaymyo, the nearest market place	1,500	7,000	3,384.15	1937.754
Gender of the respondent (Female = 1; Otherwise = 0)	0	1	0.6	0.491
Age of the household head	21	64	42.86	10.343
Education of the household head 0 = Illiterate 1 = Primary 2 = Secondary 3 = High school 4 = Bachelor degree	0	4	1.78	1.124
Type of household head (Female = 1; Otherwise = 0)	0	1	0.11	0.308
Number of household members	1	16	6.53	2.618
Number of oversea workers	0	5	0.47	0.811

Table 5.4: (Continued)

Variables	Minimum	Maximum	Mean	Std. Deviation
Number of local workers	0	8	2.56	1.435
Number of students	0	8	1.88	1.661
Number of under five children	0	5	0.91	1.088
Number of dependents	0	5	0.71	1.071
Household annual income from agriculture	0	5,000,000	262,000	590944.074
Household annual income from breeding	0	500,000	64,100	112661.455
Household annual income from trading	0	600,000	12,000	64583.425
Household annual income from home business	0	1,440,000	37,400	154193.52
Household annual income from government skillful staff	0	1,824,000	116,000	252556.185
Household annual income from labor	0	9,000,000	85,200	594625.114
Household annual income from remittance	0	1,500,000	116,000	301210.158
Household total annual income	5,000	9,320,000	693,000	852060.473
Per capita total income	625	2,330,000	126,000	186084.015
Per capita total income (Per adult)	833	4,660,000	327,000	409142.502
Household monthly expenditure on health	0	60,000	1,670.33	6242.159
Household monthly expenditure on rice	1,250	75,000	25,400	12555.604

Table 5.4: (Continued)

Variables	Minimum	Maximum	Mean	Std. Deviation
Household monthly expenditure on education	0	100,000	4,720.93	10912.16
Household monthly expenditure on social activities	0	50,000	927.24	3730.628
Household monthly expenditure on consumer goods	0	150,000	17,600	20694.208
Household total monthly expenditure	5,000	230,000	50,300	29858.698
Per capita total expenditure	845	36,000	8,381.13	4866.431
Per capita expenditure on rice	500	15,000	4,189.22	1959.563
Do you have other loans apart from Chin-MFI within 12 months? (Yes = 1; No = 0)	0	1	0.5	0.501
Frequency of non Chin-MFI loan	0	12	0.82	1.971
Number of Chin-MFI loan cycles	0	13	2.28	3.149
Initial loan amount of Chin-MFI	0	70,000	14,300	22627.589
Latest loan amount of Chin-MFI	0	200,000	31,800	36511.492
Future loan	0	1	0.5	0.501
Future loan amount		2,000,000	109,000	231775.995

Source: Author's survey data

Table 5.5: Descriptive Statistics for the Non-Member Households

N = 113

Variables	Minimum	Maximum	Mean	Std. Deviation
Distance to the nearest town (kilometer)	1	22	8.87	8.902
Price of chicken (Kyat per 1 viss) 1 viss = 1.43 kilogram	4,200	7,000	5,053.1	916.522
Price of piglet (Kyat per 1 piglet)	25,000	35,000	27,700	2586.982
Wage rate (Kyat per day)	1,000	2,000	1,274.3	258.698
Bus fare to Kalaymyo, the nearest market place	1,500	7,000	2,610.6	1080.952
Gender of the respondent (Female = 1; Otherwise = 0)	0	1	0.53	0.501
Age of the household head	21	64	43.7	10.485
Education of the household head 0 = Illiterate 1 = Primary 2 = Secondary 3 = High school 4 = Bachelor degree	0	4	1.8	1.219
Type of household head (Female = 1; Otherwise = 0)	0	1	0.14	0.35
Number of household members	1	14	6.47	2.479
Number of oversea workers	0	5	0.51	0.867

Table 5.5: (Continued)

Variables	Minimum	Maximum	Mean	Std. Deviation
Number of local workers	1	7	2.29	1.341
Number of students	0	8	1.98	1.768
Number of under five children	0	4	0.81	1.093
Number of dependents	0	5	0.88	1.135
Household annual income from agriculture	0	5,000,000	223,000	690220.59
Household annual income from breeding	0	500,000	50,600	101534.08
Household annual income from trading	0	300,000	7,699.1	42279.023
Household annual income from home business	0	1,440,000	43,900	178382.49
Household annual income from government skillful staff	0	1,380,000	148,000	271756.05
Household annual income from labor	0	1,040,000	50,000	160167.32
Household annual income from remittance	0	1,200,000	74,200	216447.81
Household total annual income	5,000	5,000,000	597,000	714461.22
Per capita total income	625	600,000	104,000	116751.63
Per capita total income (Per adult)	833	1,700,000	314,000	334807.91
Household monthly expenditure on health	0	60,000	1,695.6	7245.311
Household monthly expenditure on rice	3,500	75,000	24,500	13024.527

Table 5.5: (Continued)

Variables	Minimum	Maximum	Mean	Std. Deviation
Household monthly expenditure on education	0	50,000	2,909.3	8226.635
Household monthly expenditure on social activities	0	10,000	500	1961.687
Household monthly expenditure on consumer goods	0	100,000	18,100	20372.873
Household total monthly expenditure	5,000	130,000	47,700	28164.682
Per capita total expenditure	845	24,500	7,819.7	4524.758
Per capita expenditure on rice	500	10,000	4,020.5	1801.308
Do you have other loans apart from Chin-MFI within 12 months? (Yes = 1; No = 0)	0	1	0.58	0.495
Frequency of non Chin-MFI loan	0	12	1.54	2.676
Number of Chin-MFI loan cycles	0	0	0	0
Initial loan amount of Chin-MFI	0	0	0	0
Latest loan amount of Chin-MFI	0	0	0	0
Future loan	0	1	0.35	0.478
Future loan amount	0	2,000,000	110,000	283152.014

Source: Author's survey data

Table 5.6: Descriptive Statistics for the Member Households

N = 133

Variables	Minimum	Maximum	Mean	Std. Deviation
Distance to the nearest town (kilometer)	2	13	6.33	3.83
Price of chicken (Kyat per 1 viss) 1 viss = 1.43 kilogram	4,200	7,000	5,681.2	1187.061
Price of piglet (Kyat per 1 piglet)	25,000	35,000	30,100	4010.694
Wage rate (Kyat per day)	1,000	2,000	1,511.3	401.069
Bus fare to Kalaymyo, the nearest market place	1,500	7,000	4,041.4	2242.872
Gender of the respondent (Female = 1; Otherwise = 0)	0	1	0.66	0.475
Age of the household head	21	64	42.15	10.207
Education of the household head 0 = Illiterate 1 = Primary 2 = Secondary 3 = High school 4 = Bachelor degree	0	4	1.77	1.042
Type of household head (Female = 1; Otherwise = 0)	0	1	0.08	0.265
Number of household members	1	16	6.58	2.739
Number of oversea workers	0	4	0.44	0.762

Table 5.6: (Continued)

Variables	Minimum	Maximum	Mean	Std. Deviation
Number of local workers	0	8	2.78	1.479
Number of students	0	5	1.8	1.566
Number of under five children	0	5	1	1.08
Number of dependents	0	5	0.56	0.995
Household annual income from agriculture	0	3,500,000	295,000	491479.042
Household annual income from breeding	0	500,000	75,500	120516.667
Household annual income from trading	0	600,000	15,600	78716.235
Household annual income from home business	0	1,000,000	31,900	130626.929
Household annual income from government skillful staff	0	1,824,000	88,800	232642.519
Household annual income from labor	0	9,000,000	115,000	795321.948
Household annual income from remittance	0	1,500,000	152,000	354722.718
Household total annual income	6,000	9,320,000	774,000	948641.859
Per capita total income	1,200	2,330,000	144,000	227958.263
Per capita total income (Per adult)	2,000	4,660,000	338,000	464419.873
Household monthly expenditure on health	0	37,500	1,648.9	5270.553
Household monthly expenditure on rice	1,250	60,000	26,100	12141.077

Table 5.6: (Continued)

Variables	Minimum	Maximum	Mean	Std. Deviation
Household monthly expenditure on education	0	100,000	6,260.2	12585.339
Household monthly expenditure on social activities	0	50,000	1,290.2	4719.927
Household monthly expenditure on consumer goods	0	150,000	17,200	21030.755
Household total monthly expenditure	9,750	230,000	52,600	31160.516
Per capita total expenditure	1,667	36,000	8,858.1	5107.348
Per capita expenditure on rice	625	15,000	4,332.6	2080.604
Do you have other loans apart from Chin-MFI within 12 months? (Yes = 1; No = 0)	0	1	0.43	0.497
Frequency of non Chin-MFI loan	0	4	0.21	0.565
Number of Chin-MFI loan cycles	1	13	4.21	3.193
Initial loan amount of Chin-MFI	2,000	70,000	26,500	24994.838
Latest loan amount of Chin-MFI	3,000	200,000	58,800	29609.237
Future loan	0	1	0.62	0.486
Future loan amount	0	1,000,000	108,000	177979.38

Source: Author's survey data

5.5 Income Generation Activities in Chin State

In Chin State, the traditional way of cultivating paddy and crops started with land preparation which involved cutting down wild forest trees and ignited them. The land will be used for not more than five seasonal years. After utilizing the land for five years or less the land was abandoned and the same land preparation process will be repeated in another wild forest.

Theoretically, according to their experience, the abandoned land can be fertile again after fifteen years or more and can be reused. But preferably wild forest land is to their satisfaction.

Thus, due to this hill-side shifting cultivation system, nowadays the matured wild forests are scarce. Moreover, weather changes and seasonal disorders, land erosion, lack of fertile land were the effects that caused by the classical way to approach to cultivation.

Furthermore, the farmers who could afford capital have moved into animal husbandry business. But the poorest of the poor people, mostly have traversed to the neighboring country's territorial town like Mizoram, India and the earnings created were well enough for them to have savings that enable them to develop home based vegetable gardens. Due to weather changes, seasonal disorders and lost of fertility, the annual yield of maize have dropped in the Chin States.

Regarding paddy cultivation and if we go into calculation, the cost of cultivating paddy may be even more than that of buying rice from other sources. But as they would like to maintain and keep on with their tradition, most of households still continue to cultivate paddy at least for their household consumption even though if it is not feasible.

On the other hand, some other households bought rice that has been traded from Kalaymyo. The households in the regions are the consumers of personal care products and vegetable traded from Kalaymyo.

During the time of this research, the households in the Chin villages were very keen to go for a large scale pig breeding farms. Cause by chance, there was a huge demand of pig for the pre-preparation of the world's Olympic festival that was going to be held in China. Even the buyer's representatives and brokers came to their village sites and have approached them.

However, as there were no such big pig breeding farms in the Chin States the opportunity was lost and worst of all they did not have enough capital to go for a large scale pig breeding business.

In general, the households bred just a handful of pigs at home and sold out when they were fully grown. Indeed, that was not of much benefit to them.

The Village Peace and Development Council (VPDC) allocated land for cultivation to each household. As mentioned earlier, the land will be utilized just for five years, and then will be abandoned and shifted to another place. Those who could afford money will get the best land that is favorable to inlet water.

The Chin State economy is based on agriculture and farming. The annual yield of crops is in declination trend. Out of the worst, there are not enough fertilizers to enrich the soil. Therefore, production is insufficient for the households as such they have to import agricultural products from the neighboring country, China. Thus, if the agriculture and farming business is not feasible anymore and that just gives them negative impact on their economy it is worthwhile to encourage them to move into other businesses.

5.6 Perception of Chin-MFI Loan Users on the Progress of the Households

The qualitative analysis on the perception of members regarding the progress of their households by participating in the Chin-MFI program has been interpreted. Since data on the value of land and the value of household assets is omitted in this study, the perception of the microfinance loan users is important, to prove whether borrowers benefit from the microfinance loan. In the analysis, the real name of the interviewees is not mentioned.

A graduated and skillful staff man who has four family members; two local workers and two under five children is one of the drop-out members of Chin-MFI. He is a project staff from World Vision, the international non-governmental organization and his salary is 50,000 Kyat per month. Furthermore, he has a grocery store attached with his house. The reason for him to apply loan was to set up his grocery store for his wife. According to the interview by the researcher, it can be analyzed that he could able to access the initial capital for his home business. Since he is a skillful staff, he has regular income i.e., he has low risk on loan compared to those who do not have regular income. The amount of loan he borrowed from Chin-MFI was 50,000 Kyat.

“I set up the grocery store because of the Chin-MFI loan. My wife runs that business on her own, since I am a staff member at World Vision. I was responsible for applying for the loan on our house, and both I and my wife managed it. I stopped borrowing money, because it was enough for me. I do not want to apply for a loan if it is not necessary. I do not like to have a burden because of a loan. I think the interest rate from Chin-MFI is a little high for me. A Chin-MFI loan is good for those who have a regular income. However, compared to other money lenders in the village, it is a small amount.”

Although the return that he gained from the loan was insignificant, since the loan amount was small, it can be said that he received the initial capital needed to set up a new business for his family, by applying for a Chin-MFI loan.

There are more than 100 horses in one of the sample villages, according to the in-depth interview with the village head. It costs 5,000 Kyat to hire a horse to go to India. About 40 households in that village own horses. People do not go to India in the summer. In October, it costs only 2,000 Kyat per horse, since few people go to India then. The horse owners gain more benefit than those who go to India by themselves. Some of the horse owners do not have enough capital for agricultural activities. The price of a horse is between 100,000 and 300,000 Kyat.

In that village, a loan is needed to grow peanuts in May and October respectively. The majority of people grow maize and peanuts, since growing sunflowers is labor intensive, and requires the farmer to hire cows. The most indebted period in the village is from June through to August.

It is found that onion, garlic and tomato provide lots of profit in a drop-out village. Thus, the amount of investment in agriculture is high when compared to the other villages. The villagers are not interested in the Chin-MFI program, because the loan amounts are unattractive for them.

“In order to buy fertilizer for my garden, I applied for a loan. As for me, pig breeding was not successful because the loan amount was small. The loan could not meet the cost. The interest had to be paid monthly, although onions and tomatoes can only be harvested after six months growth. I only applied for a Chin-MFI loan because there is no money lender in the village”.

“I took out a loan for fertilizer three times. The monthly interest rate was

difficult. I got money in from the garden only after six months. My condition improved a little after the MFI loan. Of course, I have other loans apart from the one from Chin-MFI. I have to pay five percent interest and I borrowed 50,000 Kyat”.

“Because of the loan, I can use fertilizer for my garden. I thought that the interest rate was high at the time, and it is now difficult for me to get a loan the second time. Piglet breeding is easy to invest in, and easy to gain a profit from. I used both of my loans on piglet breeding. During the MFI-loan, I did not have any other loans”.

“I used all of my loans to buy fertilizer for my garden. I stopped borrowing money, because it was difficult for me to pay the interest. My condition has stayed the same, if I compare before and after the Chin-MFI loan”.

Although they are not satisfied with the interest rate, they are convinced that a microfinance loan is better than any other loan providers in the village, when compared to their interest rates.

“I applied for a loan three times to buy fertilizer for gardening. In my garden, I grow tomatoes, onions and garlic. Since the interest rate is high, it is difficult for me to reimburse the loan when I am out of income.”

“Since the loan amount was small, I could only buy a piglet. Food for pigs is difficult to come by. I could live without a loan so I gave it up. Poor transportation is a major constraint for me in terms of business activities. My household’s condition has not changed. Because of inflation, the return was less. The loan amount was small, but I bought fertilizer. I can stay without loan”.

“I used the loan for pig breeding and agriculture. I applied three times and received very little. So, no more loan. I stopped the loan because I felt that the benefit

I got from the program was not significant”.

It can be seen that the demand for the Chin-MFI program is not equal with the supply. Both the borrowers and the MFI have to deal with the barrier of inflation, which is a major constraint. For the sustainability of the institution, if it encourages saving in the borrowers, it cannot reach operational sufficiency, because of market inflation. The external and uncontrolled inflation causes the MFI.

The following conversations are from in-depth interviews with drop-out members.

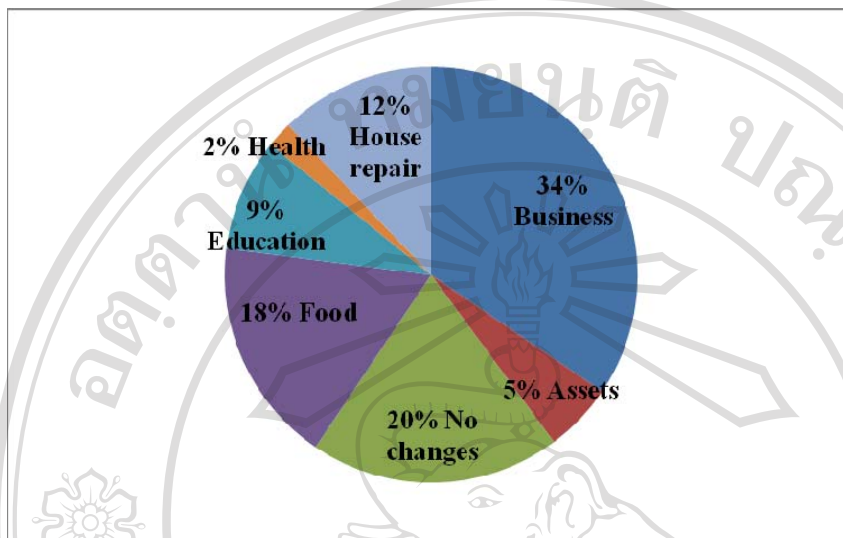
“I can get money in September and October by selling maize, peanuts and other crops. I get 50,000 Kyat to 60,000 Kyat once a year. Since the interest amount is deducted from the loan amount, the investment amount is a little decreased. Besides, my project on chicken breeding has failed. However, I would like to try again”.

“I used a loan on education for my children and for pig breeding. I gained some profit by selling pigs, but it was difficult for me to pay the interest rate monthly, because I could only sell my pigs once a year”.

“It took two or three days to form a group. I had to give up borrowing money, because others did not want to join the group. I sold garlic around November and I got 50,000 Kyat”.

It can be noted that the procedure required to form a group to apply for a loan, is also one of the barriers for the borrowers, since it takes time to form a group.

Figure 5.2: Perception of Chin-MFI Members on the Improvement after Joining the MFI Program



Source: Author's survey data

Regarding the future loan users, the following table shows that 83 member households out of 133 in the treatment group planned to apply for a loan from the Chin-MFI, as well as from other sources, such as relatives and friends in the village. Likewise, 39 households out of 113 from the control group were likely to apply for a loan within twelve months. Overall, 122 households out of 246, almost 50 percent of the sample households, rely on loans. Thus, the demand for Chin-MFI is clearly high.

In the survey, it was also found that a member or more of almost every household of the northern Chin worked abroad, but that these households still took out loans. The remittance receiving households also bought food on credit from home grocery stores, during times when their remittance was uncertain. At the time of setting up the debts, the debtors repaid the capital and on top of it, gave food items to the creditors, like sugar, condensed milk and pork, in order to show their appreciation and gratitude.

Most of the household members who worked abroad, said that there were no jobs, or only temporary jobs, available in Chin State, and that moreover, the low salaries and wages were inadequate to cover their household expenditure. Nevertheless, if we take remittances into consideration, incomes also varied depending upon the inflation level of the Myanmar currency, which fluctuates very often and generally rises. Therefore, the households did not have a consistent flow of income.

The current economic situation in Myanmar, which is still in the middle of financial crisis, has recently made this situation worse, with foreign workers the victims hardest hit. The Government, as well as the private sector, have had to find ways to seek a recovery, but the global economy is in recession.

However, a relatively self reliant country like Myanmar has suffered less. Due to these unpredictable and unforeseen circumstances, the future of the remittance receiving households' economic status remains uncertain, as there is no guarantee that overseas jobs will still exist.

Hence, to avoid these uncertainties, the remittance receiving households should be encouraged to save some portion of their remittance and to invest in certain businesses that are productive in their own region. By doing this, the income for them will be guaranteed in the long term, and the Chin-MFI will remain a contingency for these businesses in case of difficulties.

Table 5.7: Number of Future Loan Users

	Number of loan cycles	Future loan users
Member households (n = 133)	1	7
	2	15
	3	26
	4	5
	5	5
	6	2
	7	6
	8	2
	9	6
	10	4
	12	1
	13	4
Total		83
Non-member households (n = 113)	0	39
Grand total		122

Source: Author's survey data

5.7 The Strategic Situations of Microfinance Institutions and their Borrowers

The behaviors found within the strategic situations of microfinance institutions and their lenders, can be placed into a mathematical format in accordance with game theory.

The main objective of the microfinance institution is to provide credit to the poor, in order to allow them to develop income generating activities, and thus to improve the welfare of their households.

The current situation in northern Chin State is that the loan amounts

provided by the institution are insufficient, though most of the borrowers have used the loans for their own consumption. Evidence from the qualitative analysis carried out as part of this study, shows that borrowers would like to have a loan sufficient to do business.

In light of this finding, the institution could implement two strategies, these being 1) to increase the loan amount, or 2) to leave the loan amount unchanged whilst the borrowers either (i) use the loan for income generating activities, or (ii) use the loan for their own consumption.

If the institution increased the loan amount and the poor used it for income generating activities, then since the borrowers gain the profits and benefits, the social and economical goals of the institution would be achieved. At the same time, the borrowers' welfare would be improved.

It is possible to identify the above situation in a mathematical way, as both of the players will get a ten score, since each will gain mutual benefits (a 10,10 score).

If the borrowers use it for their own consumption, they will receive a score of five, while the institution will receive minus-five (a 5,-5 score). Even though the borrowers' welfare is not improved through income generating activities, they will fulfill their daily consumption, whereas the institution will have failed to achieve its goal.

If the amount that the microfinance institution provide remains unchanged, that is, an insufficient loan amount, then even though the borrowers may use the loan for income generating activities, the return they receive will be not enough to improve their welfare. However, the institution will still be able to reach its goal by means of a number of income generating activities. In this case, a five score will be attained for

the borrowers and a ten score for the institution (a score of 5, 10).

If the borrowers use the loans for their own consumption, both of them will receive no benefits, and so a zero score for each will be attained (0,0).

Figure 5.3: The Strategic Situations of Microfinance Institution and its borrowers (loan size and utilization of loans)

		Microfinance Institution	
		Increased loan amount	Unchanged loan amount
Borrowers	Used loan for income generation	$(10, 10)$	$(5, 10)$
	Used loan for consumption	$(5, -5)$	$(0, 0)$

Source: Created by author

It can be seen clearly that the strategy that the microfinance institution unchanged the loan amount and borrowers used loans for the income generation activities dominated to increased loan amount with income generation activities.