

Chapter 3

Research Methodology

3.1 Research Design

The research design of this study was constructed according to the methods used by Coleman (1999). The quasi-experimental survey design was applied to control the self-selection bias and endogenous program placement issues. This method was used by Sengsourivong (2006), for an impact study in Laos.

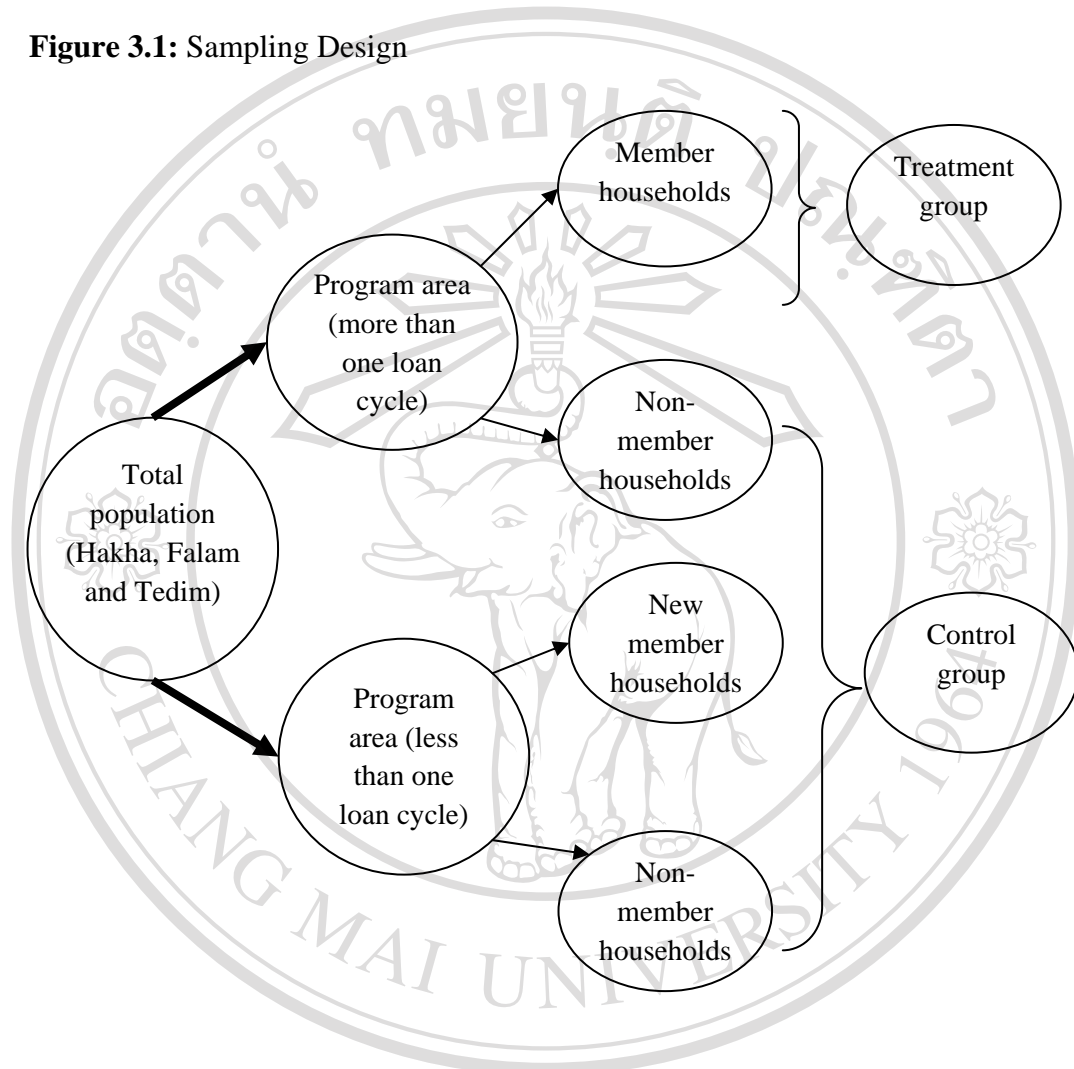
According to the data from Chin-MFI, there were 7750 member households in the program villages, with 4100 members at the time of this study. Since the length of the program implementation is more than twelve years, it was difficult to identify the control group. Thus, non-members from the old village credit schemes, as well as new members and non-members from the new village credit schemes were identified for the control group.

First, the old village credit schemes which had more than one loan cycle, and the new village credit schemes which had less than one loan cycle, were classified according to the data from Chin-MFI. Afterward, members and non-members in both of the groups were identified. Out of them, sample households were randomly selected.

In total, 246 households were selected as the overall sample size. Among them, 133 were member households, whereas 113 were new and non-member households. Secondary data, such as general information about Chin-MFI and

profiles of the villages, village credit systems and number of group members, were collected from Chin-MFI reports.

Figure 3.1: Sampling Design



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Regarding the primary data collection, both member and non-member households were interviewed using a household survey questionnaire, which included questions on household characteristics, detailed income and expenditure, the credit patterns used for the income generating activities, and saving patterns. The data on village characteristics, such as availability of schooling, the prices of goods and access to market place, were collected through in-depth interviews with the village authorities and villagers.

The basic household welfare indicators used for this study are household annual income, household monthly expenditure and monthly consumption on rice. The expenditure on rice consumption will be highlighted in this study, since the price of rice in Chin State is significantly higher than in the other States and Divisions in Myanmar.

The effect of participating in the microfinance program on household welfare indicators can be proved by the following equation, which was constructed by Coleman (1999).

$$Y_{ij} = \alpha_0 + \alpha_1 X_{ij} + \alpha_2 V_j + \alpha_3 LC_{ij} + \mu_{ij} \quad (3.1)$$

Where;

Y_{ij} = outcome variables

X_{ij} = household characteristics

V_j = village characteristics

LC_{ij} = number of loan cycles in months

μ_{ij} = error representing unmeasured household and village characteristics

Y_{ij} represents the household welfare indicators such as household annual income, monthly expenditure and consumption on rice which are the continuous dependent variables.

Since the villages were selected according to their different stages of program implementation (the number of loan cycles in months), the non-random program placement problem is thus controlled. The number of loan cycles of the members is able to prove the benefit that the household gained from the program. It is assumed that the larger the loan cycle, the more benefits that the household gained.

In the first stage, the descriptive statistics for the variables are constructed

for the whole sample, as well as for the treatment group and control group respectively. Secondly, the effect of independent variables on the outcome variables is proved by using the Ordinary Least Squares regression method. In this case, since the dependent variables are the amount of money, the data may be highly skewed. Thus, the equation of the regression analysis is transformed into the following semi-log form.

$$\ln Y_{ij} = \alpha_0 + \alpha_1 X_{ij} + \alpha_2 V_{ij} + \alpha_3 LC_{ij} + \mu_{ij} \quad (3.2)$$

$\ln Y_{ij}$ = the log of household welfare indicators

Although Coleman (1999) and Sengsourivong (2006) addressed the price of land as reflecting the wealth of the household, It is omitted in this study since it is not appropriate to apply it. One of the indicators on housing conditions, such as availability of electricity, is also not reliable, since the whole country except the new capital Nay Pyi Daw, cannot access electricity on a regular basis.

The perception of the members on the benefits that they gained from the program, is completed by using the participatory approach. The key variables used for the qualitative study are the progress on educational expenditure for the children, health expenditure and housing conditions, after participating in the microfinance program.

The study population, Chin is one of the ethnic minority groups in Myanmar. The mutual trust among villagers is strong, so that a microfinance program based on the group-lending method, as well as mutual-guarantees among the community, is not difficult to implement.

Since young people have migrated to other countries, due to lower development levels and communication constraints within Myanmar, most of the

people left in the villages are the elderly and children. Chin families value housing and clothing more than food consumption. Most people depend on fire wood for cooking, because of the lack of electricity. Wood consumption is also high in Chin State.

3.2 Utilization of Chin-MFI Loan

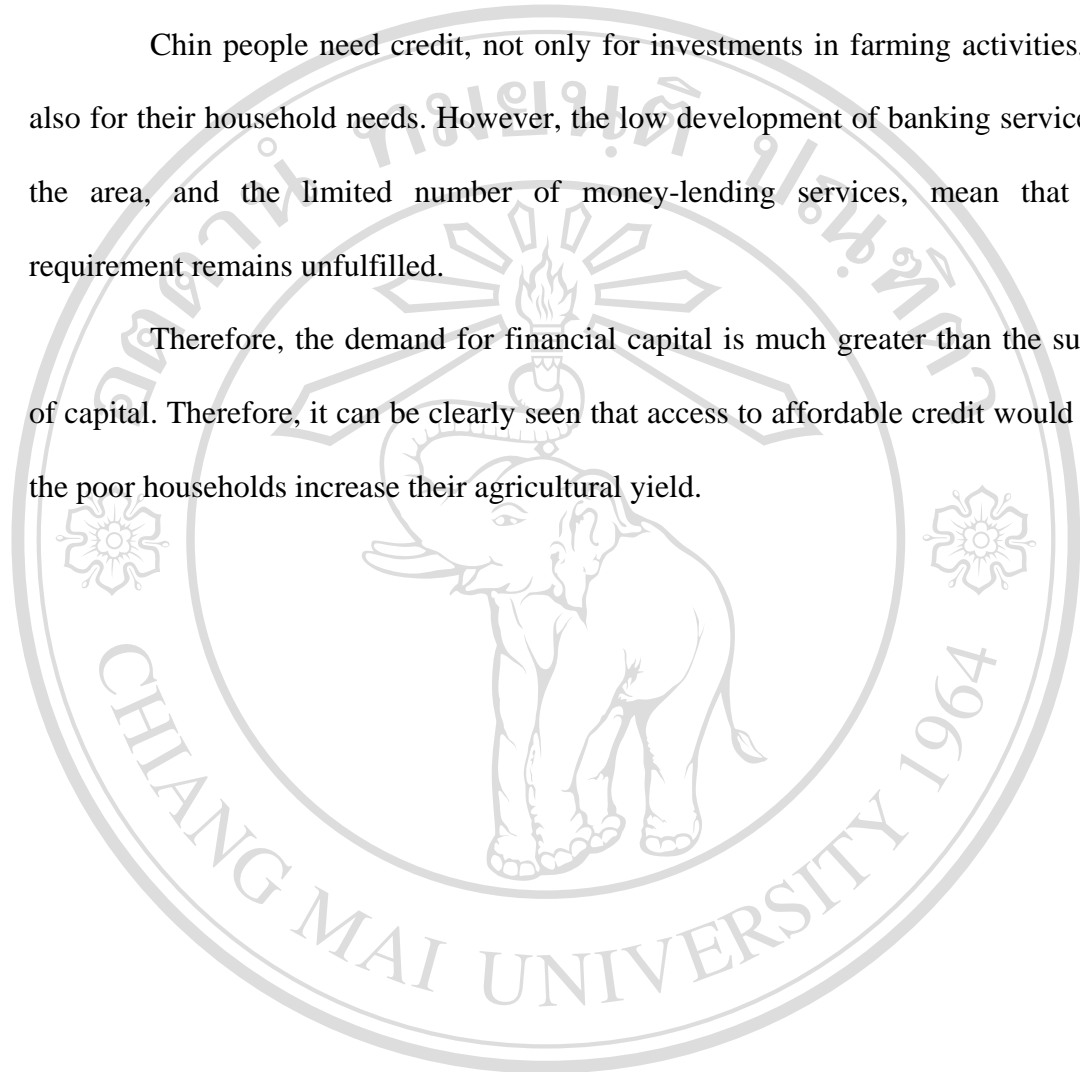
Agriculture is the main economic activity in northern Chin, as mentioned above. Pigs, chickens and goats are raised for on-farm activities, and horses are used for transportation. According to Chin-MFI, 80 percent of the loan portfolio is used for pig breeding in the villages. The agricultural and livestock products are sold in nearby town markets and sometimes, to India. The farming system in Chin changed from a permanent to a shifting-cultivation system 30 years ago. Agricultural inputs, such as fertilizers, seeds and farming tools, have to be imported from lower Myanmar. The quantity that farmers can produce is not large. Furthermore, most farmers have to rely on agricultural products for their daily consumption. Since rice production from their own farm is often not enough for family consumption, the poor have to substitute this with maize and other crops to survive. Regarding the movement of goods and people, they also face constraints in terms of the market and the infrastructure, since they are hill tribe people.

Most villages cannot grow rice, due to the lack of a water supply, or due to the high gradient of the land. Apart from on-farm activities, people work on orchid collection, as temporary labor on the Indian border, on road construction and weaving fabrics to gain an income. Geographical location is the major constraint for Chin people regarding the movements of goods and people to the market. The ability to share market information amongst the poor is also limited, due to the scattered nature

of the villages and towns. Moreover, they face financial constraints in terms of stimulating their economic activities.

Chin people need credit, not only for investments in farming activities, but also for their household needs. However, the low development of banking services in the area, and the limited number of money-lending services, mean that this requirement remains unfulfilled.

Therefore, the demand for financial capital is much greater than the supply of capital. Therefore, it can be clearly seen that access to affordable credit would help the poor households increase their agricultural yield.



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