

## CHAPTER 7

### CONCLUSION AND SUGGESTIONS

#### 7.1 Conclusion

The aims of the study are to learn about the role of small financial institutions toward agricultural investment, the efficiency of the operation, and factors that influence the efficiency of the microfinances operation, including the efficiency of productivity and factors that influence the productivity of agricultural household members. The last objective is to learn about the quality of life and factors that influence the quality of life in the agricultural household members. The conclusions of the study are as follows:

#### **The role of the microfinance in agricultural investment**

Microfinance plays the greatest role in production as a main financial resource for production. In an overall picture, such a role is at a moderate level, and the role in providing production inputs and training on production to its members is moderate as well. When comparing between the production group and the credit union, it is found that both groups are in the medium range, but the credit union has higher scores than the production group in every aspect in the production role except the financial resource for production role in which the credit union role is high and the production group's is moderate.

The role in marketing is the second most important role next to the production role. Overall, this role is low. Mostly, the microfinance works as a medium for

publication for the members. Secondly, it is a medium in negotiating between members and investors/companies. The role in teaching and training on marketing, including distribution/ shelving channels are both at the end of the rank. When considering these roles between the production group and credit union, it is found that the credit union plays a greater role, as its level is moderate, while the production group's is low.

The last role is in product processing. Generally, microfinance has little role in this category. Mostly, it is a financial resource in product processing rather than a resource for teaching and training. It is also equipment rental service. In addition to that, the credit union has higher average value than the production group. However, when considering the overall picture of the microfinance role in agricultural investment, it is found that the role is small. The microfinance has a moderate role in production, higher than its role in product processing and marketing in which its roles are small. Moreover, it is noteworthy that the microfinance focuses on being the financial resource more than teaching and training its member in all three aspects.

### **The effectiveness of the microfinance operation on the efficiency of productivity in the agricultural household**

Both the efficiency in production in the agricultural household members and its average values in productivity are low. In both the credit union and the production group, the household members have similar amounts of proportion in their efficiency.

Mostly their efficiency level is in low lowest level. The greatest figure of the efficiency in production of the agricultural household is at only 8.52%, 2.76% in high, 8.27% in moderate, and the low and the lowest are at 18.30 and 62.16%, respectively.

It is found that firstly, most agricultural households (64% of the sample groups) have decreasing return to scale, and secondly, it is the households with constant return to scale and the ones with increasing return to scale at percentages of 21.55 and 14.53 respectively. The households whose level of efficiency is low-lowest, or 58% of the sample groups, have decreasing return to scale.

The results of the study of the factors that influence the productivity efficiency in the agricultural household members in the upper-North region found that the efficiency of the microfinance operation has no significant effect on the household's productivity. The significant statistical variable that can explain the efficiency of productivity in the sample groups of agricultural households in the upper-North region with 0.01 significance is the total of the loan. The ones with 0.05 significance are the age of the head of the household, the farm size (rai), sole livestock farms lastly the variable with 0.10 significance is the sole plantation farm ( $Z_{61}$ ). The effects of the factors the possibility of the efficiency in production of the agricultural household member, considering the Marginal effect with statistical significance respectively are as follows:

If the total loan ( $Z_{12}$ ) amount of 100,000 baht is different, this will decrease the efficiency in production of the agricultural household equals to 0.0107.

If the farm is a sole livestock farm ( $Z_{62}$ ), this will increase the efficiency of production equal to 0.178.

If the age of the head of a household ( $Z_2$ ) is 1 year different, this will increase the efficiency of production equal to 0.0028.

If the size of a farm (rai) ( $Z_5$ ) is one rai different, this will decrease the efficiency of production equal to 0.0024.

If a farm is a sole plantation ( $Z_{61}$ ), this will increase the efficiency of production equals to 0.0471.

The results of the analysis of the model of microfinance efficiency found that the difference in the efficiency of microfinances is high; from the highest values (0.81-1.00) to the lowest values (lower than 0.21). By looking at the overall picture, the efficiency is low with only an average of 0.464. The majority are at 0.21-0.40 to 34% of the sample groups. However, the group with the highest efficiency is 21% of the sample groups. It is noteworthy that the credit union has higher efficiency than the production group: 38.71% of the credit unions. have the highest efficiency compared with only 26.09% of the production groups. Moreover, most of the production groups have low-lowest efficiency (62.32%) and also the average efficiency of the credit union is higher than the production group. (0.531 and 0.434 respectively,)

The size of business or microfinance production found that most of them (69%) have decreasing return to scale. Almost all of the credit union's production is in this range, and 59% of the production groups is on the DRS period as well. However, 32% of the production group is operating in the increasing return to scale because the loans granted to members are still low. But the group deposits the operational funds with the bank, and therefore the production group should expand its business by lending more to its members in order to gain profit from the members who borrow to expand their production.

For the factors that influence the level of efficiency of microfinance, analyzed with the Tobit model, these found to be a model with 8 describable variables out of 10. There are 7 out of these 8 variables which can describe the level of efficiency of microfinance. There is a factor with a confidence level at 0.01 and a factor which has

no influence on efficiency, the transparency of management which is an opinion from committees. ( $X_9$ ) This is a result of the fact that there is confidential operational information that cannot be open to all members, or it may affect the operational process, such as the amount of interest rate decreased or the extension period for paying back debts including the amount of debt payment decreased monthly for some members who may encounter financial crises. The variables which influence the operational efficiency significantly consist of a proportion of net profit/total assets which reflects their ability in asset management as an important source of efficiency, the committee's ability in money management, the average loan for each member reflecting the ability in debt management, the proportion of net profit/shared funds, and the proportion of member's deposits/loans. The factor of savings from the size has only a small influence on the efficiency as one can see from the fact that there are 100 members in microfinance ( $X_1$ ) increased, yet the efficiency of microfinance operation is increased by only 0.007.

### **The quality of life of the agricultural household member**

Most of the farming households have moderate economic security at a percentage of 90.98 of the total farming households, which means their income and savings are of similar amounts as their debts. Next are the households with low economic security, at 8.52%, which are the ones whose income and savings are lower than their debts. The last group is the households with high economic security, at 0.05 %, whose income and savings are higher than their debts.

In regards to food security, most farming households' security is moderate; they have enough food for their family consumption only equals to 95.24%. The rest are at

a percentage of 4.76 having high food security meaning they have a high amount of food not only for consumption, but also for storage until the following year or for sharing to others. None of the household has insufficient food for consumption.

For the education security aspect, most agricultural households have moderate education security, meaning they receive the compulsory education at a percentage of 73.43. Next is the one with high security, higher than compulsory education, at 14.04%, and last group is the one with low security, lower than compulsory education, at a percentage of 12.53.

Lastly is the housing security aspect, it is found that most households have moderate security, meaning they have enough living space and the houses are mostly half wooden and concrete, or wooden houses with a high basement ceiling which is moderately stable at a percentage of 68.42. Next is the household with high housing security with a wide living space, and their houses are concrete buildings, which are highly stable at a percentage of 31.80. The last group is the households with low housing security, whose living space is small and crowded. Their houses are wooden, similar to a hut with low stability, at a percentage of 0.50.

The analysis of the relationship between the efficiency in productivity of agricultural households and the quality of life with estimation from the Ordered Probit model, it is found that the efficiency of farming households, age of the head of a household, and household accounts can describe each rank of the quality of life in farming households with statistical significance. The changes in the productivity efficiency in a household will affect their quality of life; their chance of having a high quality of life is increased, and the chance of having a low and moderate quality of life is likewise decreased. This summarizes that the farming household whose

efficiency in productivity is high also helps their quality of life to be higher as well. While the household accounting, which is one of the sufficiency economy ideas as it helps control and manage income and expense in a household, also supports the quality of life; however, the efficiency of microfinance operations has no significant influence on the farming household.

## **7.2 Suggestions**

### **7.2.1 Suggestion on policy**

The results of the study have suggested ways to improve the efficiency of productivity in agricultural household members of microfinance groups as follows:

1) The farming household should have either a sole livestock farm or a sole plantation with only one kind of crop. Since farmers have limited factors for their operation, if they produce many kinds of production, the limited resources will have to be shared. Excessive diversity results in some of the products not receiving sufficient production inputs and, as a result, producing a lower quantity of products than desired.

2) Households should spend the money from loans carefully especially when spending it for a different purpose than the loan's objective, which may cause the farmers higher debt than necessary.

3) Farming households should become members of a credit union because it is well-supported both in operational funds in the form of low-interest loans and continuous training in management from the Credit Union League of Thailand Limited (CULT).

Moreover, the study has suggested more ways to improve the efficiency in microfinance operation in the upper-North region as follows:

- 1) Microfinance groups should aim to manage the groups so that the proportion of net profit/total assets is increasing.
- 2) They should increase the amount of the average loan per member.
- 3) They should increase the proportion of net profit/shared funds.
- 4) They should decrease the proportion of members' deposit/loans.
- 5) They should increase the number of members.
- 6) They should offer support to enable the committee's money management.

In terms of quality of life, the study found that the efficiency in productivity and household accounts influence the quality of life in the farming household. This means that the farming households that produce effectively will also have an increase quality of life. Moreover, the household accounting, which is a way of sufficiency economy, helps a household to understand their economic condition and adjust their spending and investment which affect the quality of life eventually. Therefore, the teaching and training about the management of a household's production inputs, sharing resources among different professionals, and marketing are highly necessary to agricultural households, and the government should support this issue.

In addition to the results of the study, the following can reflect the difference in operation efficiency of both microfinance groups: Credit union are supported continuously by a private sponsor, Credit Union League of Thailand Limited (CULT), in organizing and management, including being a center of facilitation for its members. Conversely production groups are supported by a government sponsor, the Community Development Department, for organizational purposes only. It is then only successful quantitatively. Therefore, the government agency should have a clear policy on the organization and development of microfinance, and the agency directing



the group in following the government regulations should help to protect the members' benefits, but leave the role in organizing and management to private sectors which are usually more effective.

### **7.2.2 Suggestion for further study**

This study is done with only agricultural household members of production groups and credit unions. Moreover, this study uses cross-sectional data. Therefore, for the next study, it is suggested that one should expand the sample group to those farming households who are not a member of any microfinance and compare with the results in this study, including using time series data to analyze the influence of the efficiency of microfinance operation on productivity, and may add more geographical and social variables of the farming households in such a model as well.