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Function of Savings and Credit Unions in Laos: From a Village-SCU Survey in Vientiane Vicinity

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Function of Savings and Credit Unions in Laos: From a Village-SCU Survey in Vientiane Vicinity

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Abstract

Savings and Credit Unions (SCUs), a type of self-help group, have been rapidly forming in Laotian villages since the early 2000s. This paper investigates their characteristics, activities, and exogenous determinants of their activity based on an original questionnaire survey. It presents a descriptive analysis of endogenous factors such as member ratios and deposit and loan amounts and exogenous factors such as SCUs' age, location, and village characteristics with descriptive analyses.

The results revealed that SCUs' membership is formed early in their operating history and remains generally unchanged. Loans for production purposes are a larger percentage of SCUs' lending during their early years, shifting to consumption loans in later years. SCUs' performance features differ after five years in operation and in villages that have diversified away from agriculture. Economic diversification and SCUs' sustainability are related to immigrants settling in villages since the Laotian civil war. We conclude that SCUs serve obvious social and economic purposes and that prospects for their sustainability are greater in villages with diversified economies.

1. Introduction

Savings and Credit Unions (SCUs) have been rapidly forming in villages around major Laotian cities since the early 2000s, typically through initiatives by international or local nongovernmental organizations (NGOs). They have emerged as a form of self-help group (SHG) to provide savings and credit services for villagers. Laotian banking sector has not branched deeply into rural areas, and SCUs have contributed to village economies, creating savings opportunities as well as providing emerging cash and business credit.

To examine this phenomenon, we surveyed 105 SCUs surrounding Vientiane from September to November 2008. The paper examines their activities in the Vientiane area, their role in village economies, and what sustains their success.

Limited financial service to rural areas is a major concern in developmental economics. One reason given for the problem of "financial inclusion" is the stubbornness of informal credit. Hoff and Stiglitz (1996) identified information asymmetry and lack of enforcement as central to the problem. They regarded the phenomena of strong informal credit and the limited penetration of formal institutions as reasonable, and they suggested that policy intervention could improve this inefficient market structure.

To overcome "the penetration-entry problem," Helmann, Murdock, and Stiglitz (1996) proposed granting banks a time-limited monopoly for entering rural areas. Teranishi (1994) and Mieno (1998) empirically examined conditions under which formal financial institutions penetrated rural areas in pre-war Japan and Thailand during the 1990s, respectively, finding that expanding operations and reducing costs of formal financial institution takes substantial time. The penetration-entry problem also is an issue in microfinance. Early studies emphasize so called 'innovative methods' kwon in the microfinance field, particularly group lending, for overcoming market shortcomings. They argued that such methods function similar to informal credit to overcome information asymmetry and lack of enforcement. (Stiglitz 1990;Besley and Coate1995).

Costs and subsidies of microfinance are other aspects of the penetration-entry problem. Subsidizing rural financial institutions is sometimes regarded as necessary for building capacity to overcome the uncertainty and inferiority to informal finance when entering rural areas (Hellman, Murdoch, and Stiglitz 1997). Recently, the issue has been discussed with regard to microfinance institutions. McIntosh et al. (2005) argued that socially motivated microfinance institutions engage in a "cross-subsidy" mechanism of

directing profits from lending to affluent clients to lending to poor clients. They advocate a certain form of monopolistic condition rather than competitive markets for improving outreach to poor clients.

Although these issues have been discussed in microfinance literature, few studies of the penetration-entry issue examine SHG-type organizations such as SCUs in Laos. SCUs differ from typical microfinance institutions because they mobilize villagers' member savings and depend less on external funding. Therefore, they usually remain small, informally managed operations. When financial institutions under-serve rural areas, the formation of SHGs and their growth into semi-formal financial entities may indicate the early stages of penetration process into rural areas. SGUs may become formal financial institutions or at least an important platform in a rural financial network.

Although studies of SCUs in Southeast Asia are few, studies of Northeast Thailand offer insights into Laotian SCUs. Ohon and Lapanun (2009) investigated SCUs in Northeast Thailand in the 2000s that were run by the NGOs operating near Vientiane, discussing their activities in the context of social movement. Coleman (1999) examined the same SCUs in the context of microfinance and estimated their impact on consumption or poverty reduction[1]. Shigetomi (1998) examined the emergence of SCUs in the early 1990s based on his field research[2].

This paper seeks a comprehensive picture of CSUs around Vientiane in Laos. From information collected through a questionnaire, we examine their deposits, loans, and membership, and correlate their length of operation and socio-economic conditions in villages they serve. We analyze their function and relationships with village economies through cross-classification.

The paper proceeds as follows. Section 2 outlines the short history of Lao SCUs. Section 3 explains the study's factors and indices. Section 4, the principal part of our analysis, examines the relation between SCUs activities, their longevity, and villages socio-economic conditions. Section 5 interprets findings and concludes.

2. Lao Savings and Credit Unions

2.1 Development History

SCUs were initiated in Laos through collaboration between Lao Women's

[1] The paper denies the effect of enhanced household expenditures after controlling for endogeneity.

[2] These credit unions were crowded out by policy-based banks entering rural areas after the mid-1990s.

Union (LWU) and FIAM, a Thai NGO. The project, named the Small Rural Development Project (SRDP), was established in the mid-1990s mainly to provide bicycles and to excavate underground water in 22 village suburbs of Vientiane. Initially, providing savings and credits was a minor part of the project; pilot SCUs were managed by village-level LWUs and accepted only female members. Pilot SCUs were successful. Numbers of savers and borrowers increased, relationships with village authorities were cordial, and village living standards improved. The SCU model spread and became acknowledged as a tool for village development and women's empowerment. The model was modified to accept savings from males and children, female villagers were organized as management committees, and village elders or party secretaries were sought for advisory committees.

Following this initial success, LWU establish SCUs as independent organizations around 2000. Since then, SCUs have rapidly developed. In Vientiane alone, the number of SCUs rose to 352, the number of members rose from 1,062 to 60,283, and total funds increased from ₭109 million to ₭71.175 million from 1997 to 2007. In September 2011, the central LWU reported that it supervised 3,524 SCUs, was serving 221,368 members, and accumulated funds of ₭337,879.5 million.

However, supervision and operation heavily depended on technical support from donors. Until 2012, the central LWU entrusted supervising and monitoring of SCUs to two NGOs: the SRDP and Women's Empowerment and Capacity Project (WECP). SRDP had operated the project from 1997 to 2010, and WCEP, its affiliate, began these activities in 2002. The project ended in 2012; when the central LWU took over, it decentralized all responsibilities to LWUs in each province. In fact, local LWUs lack expertise and experience managing financial organizations. There is now a serious question whether LWUs are able to independently operate SCUs without any NGOs assistance.

2.2. SCUs in the Laotian Financial System

A decree[3] from the Bank of Lao (BOL), the central bank of Laos, categorizes Laotian microfinance institutions (MFIs) as deposit-taking (DT) institutions, non-deposit-taking (NDT) microfinance institutions, and microfinance projects. The legal status of each is granted in a license by BOL. During the fourth quarter of 2012, BOL indicated that 58 MFIs—13 DT MFIs, 20 "Formal SCUs," and 21

[3] Regulation on Supervision of Non-Deposit-Taking Microfinance Institutions No. 02/BOL dated June 20, 2008.

NDTs—operated under its supervision[4]. These MFIs are regarded as "Formal MFIs" in Laos.

It is noteworthy that SCUs controlled by the LWU—our research targets—are excluded in the BOL's definition of "Formal SCUs" because they do not satisfy requirements for licensing under any formal status. They are usually called "semi-formal financial institutions." Since 2008, BOL has required LWUs that control SCUs to come under its regulation. LWU resists this requirement because it transfers control to BOL. LWU argues that its business model differs from regular MFIs and is more similar to credit cooperatives. LWU worries that being regulated by BOL as an NDT will restrict SCUs' size, harming their financial sustainability. Funding for SCUs comes primarily from members' savings[5].

While their legal status remains ambiguous, LWU-controlled SCUs conduct much of the rural outreach by Laos' small financial institutions. By the end of 2011, SCUs had more than 200,000 savers in 3,524 villages (40% of all Laotian villages) in 15 provinces. Figure 1 indicates that the number of savers in village SCUs is four times greater than that in formal MFIs (49,000). Table 1 indicates average savings per person as an indicator of outreach for formal and semi-formal MFIs. On average, members of LWU-controlled SCUs save less than members of formal SCUs (₭1.5 million vs. ₭1,000 million), suggesting the former reaches poorer savers.

3. Sample SCUs

Our survey covered two districts of Vientiane and SCUs organized by WECP, one of two NGOs covering LWU-controlled SCUs. During the survey period (mid-2008), WECP and FIAM covered nearly all villages in Vientiane and had established one SCU per village. We surveyed 105 village SCUs in Naxaythong and Pakngum Districts, where LWU handed supervision of SCUs to WECP. The questionnaire survey, designed under the semi-structure method, sought village information and information about SCUs' history, current activities, management, and leadership. Employed emulators in the local area conducted interviews at district meeting halls where village and SCU leaders gathered.

3.1. SCUs Activities

[4] In addition, four specialized institutions are included as MFIs in the BOL report: one postal saving institution, one production fund, and two savings cooperatives for government officials.

[5] According to interviews at LWU in Vientiane and the conference on September 2011.

The initial inquiry into SCUs' activities examined the extent of villagers' participation. Table 2 demonstrates rates of participation by members (savers) and borrowers among village residents. Although males are now eligible for membership, members generally are females. Table 2 calculates membership based on female population and total population. As shown, the average participation rate (members per female population) is 57.1%, and the borrower rate (borrowers per female population) is 25.9%. The borrower/member ratio is 50.2%. The indices imply that on average half or more of villages' female residents belong to SCUs and about half of SCUs' female members are borrowers. Table 3 summarizes members' average deposits and loans. The average deposit per member was ₭0.6 million (US $66 at the exchange rate US $1 = ₭9,091). The average loan per borrower was ₭2.2 million (US $242).

Table 4 identifies purpose of members' borrowing: consumption, purchase of durables, and production. Consumption includes general and special purposes (education, medical services, and emergencies)[6]. Note that since general consumption may include borrowing to purchase food, health care, or education, the sub-components can't be completely classified. Production consists of four subcomponents as in the table.

On a disbursement basis (Column 2), 71.2% of loans are for production, including 65.9% for business and agricultural purposes, 4.3% for handcrafts, and 1% for livestock. Consumption accounts for 20.8% and durable goods for 8% of disbursements. On the other hand, measured by number of borrowers (Column 1), consumption lending is relatively important, accounting for 39.6% of borrowers, suggesting that members frequently need small loans for life needs. Demand for credit is divided between uses for production and consumption.

Purchase of durable goods accounts for a substantial percentage of borrowing (Column 3) and includes purchases of housing and vehicles that may represent investment in equipment by small businesses. Borrowing to purchase productive assets includes assets employed in business, agriculture, livestock, and handcrafts.

Information concerning delinquencies (Table 5) is subject due to poor data availability, but delinquency is apparently widespread: 80 of 91 SCUs reported delinquencies, and the average delinquency rate among the 78 responding SCUs is 22.8%.

Table 6 indicates that SCUs on average distribute most of their profits to members as dividends (67.6%). Management committees receive the second-largest percentage (12.2%), and 4.5% of profits are held as retained earnings. The district LWU

[6] As other chapters note, SCUs offer loans for urgent needs at lower interest.

receives 2.0% of SCUs' profits on average. Table 6 also shows that distribution of profits shifts as months in operation increase. As shown by the correlation coefficient for age, young SCUs generally hold a greater percentage as retained earnings, whereas older SCUs distribute more to members and management. This finding suggests that SCUs retain earnings during their early years to increase their equity as financial institutions, departing from SHG organizations to form independent economic entities.

3.2 Factors behind diversity in growth

(1) Lifecycle of SCUs - Differences by Age

We examine four characteristics of SCUs: age, location economic condition and social condition. The age or the number of years/months since an SCU was founded. Figure 2 shows that the ages of sampled SCUs vary between two and nine years; the earliest SCUs were founded in the late 1990s[7]. The average is 5.9 years (70.5 months).

(2) Socio-Economic Condition

a) Location

Table 7 shows two proxies for location: a) travel time to the nearest market and b) travel time to the nearest bank branch by motorcycle[8]. For most villages (Table 7(1)), the nearest market is one of Vientiane's three major markets—Thatlunang, Sikai, or Songpeauy. Average time to reach them by motorcycle is 68.2 minutes. The most remote SCUs are 240 minutes from a market. Most bank branches belong to the Agricultural Promotion Bank (APB); although in some areas cooperatives have established the nearest branch (Table 7(2)). Average travel time by motorcycle is 31.7 minutes and, such as distance to the market, varies among SCUs[9]. The two proxies are highly correlated (correlation coefficient shows 0.737).

b) Economic Condition

We investigated two indicators of economic conditions in villages where sampled SCUs operate. Table 8 shows the percentage of villages that answered our questions about their three and five most prominent livelihoods[10]. Unsurprisingly, rice

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[7] We omitted two SCUs that had been operating less than one year.

[8] In our earlier work on the data, we included travel time to the main road and pavement condition as proxies for accessibility to markets. However, these factors are highly correlated to travel times.

[9] In fact, the two proxies are highly correlated (the correlation coefficient is 0.737).

[10] The questionnaire refined data about primary occupations shown in Table 8 by ordinating their prevalence in each village.

farming dominates alongside other plantations and raising livestock. Over half of the respondents listed trading among their village's three major occupations, and 80% ranked it among the five major occupations. However, less than 20% of respondents identified fisheries, office work, and construction among primary village occupations, suggesting that they are characteristic of certain villages. Handcrafts are cited more often: 35.2% of villages (50%) listed it among their three primary (five primary) occupations.

Table 9 indicates the percentage of village households employed in trading, large enterprises, small enterprises, and family businesses. The number of households engaged in each is small: 3.2% for trading, 0.9% for large and small enterprises combined, and 8.4% for family businesses. However, only a few households in each village are engaged in non-agricultural employment.

c) Social Condition

As indicators of social conditions, we examined ethnic diversity and the percentage of immigrants in each village. However, ethnic diversity is limited among villages surrounding Vientiane: 97.4 % are occupied by Lao Loum, and percentages of Lao Soung and Lao Theung are negligible. We defined "immigrants" as households who had entered villages after 1970[11]. As Table 10 shows, the average percentage of immigrant households is 30.1% among all sampled villages, but the standard deviation is high (34.3%) and the percentage varied from 0% (25 villages) to 100% (nine villages).

4. Function of SCUs and Determinants of their Activities

4.1. Lifecycle

From the observation, we found that the asset accumulation of SCUs generally grow with the setup members, instead of expansion of membership, while major credit usage changes along time.

As noted, the age of sampled SCUs varies from two to nine years. Figure 3 reveals several facts about the relation between SCUs' age and operations. First, membership remains constant across SCUs' lifecycles. Villagers join SCUs shortly after they are established, and membership scarcely changes thereafter. Second, amounts saved and borrowed rapidly increased until around five years (60 months) after SCUs were established. These twin findings suggest that SCUs' deposits and loans expand

[11] The Laotian civil war ended in 1974 when the Pathet Lao and its allies occupied Vientiane. Since then, Pathet Lao have flowed into Vientiane and nearby villages, sometimes founding new villages. Many refugees had entered the area during the war.

only through continued participation by early members, not by attracting membership. Third, after about five years, growth rates seem to vary in Figure 3. Some SCUs expand further, and others become inactive, suggesting that specific factors determine the sustainable growth of SCUs.

Table 11 summarizes relations between SCUs' ages and purpose of members' borrowing, providing hints about what determines SCUs' sustainability. Among several features, a contrast between borrowing for consumption and production is clear. During the initial two years of SCUs' operations, major reasons for borrowing are trade and purchase of durables, while these purposes once become lower since the third or fourth years. Borrowing for agricultural purposes is higher in the third to fifth years. After six years, consumption is villagers' major purpose for borrowing.

4.2. Socio-economic Condition

We found that location matters for SCU activities. As noted, travel time to major markets and bank branches varies. The calculation of correlation coefficient revealed the basic fact that among SCUs younger than five years old, the correlation between age (scaled by month) and travel time to bank branches is positive and significant at 10% confidence (0.269). For the last five years from our survey, SCUs had expanded from remote area.

Table 12 illustrates the relation between travel time by motorcycle to the nearest market and the percentage of loans itemized by purpose. Consumption is the major reason for borrowing among remote villages and a minor reason in villages closer to markets. Borrowing for trade or purchase of durables (production) is greater for villages near markets, declines as travel time increases, and becomes negligible in remote villages[12].

As for the economic condition, we firstly tried to find a relationship of villagers' major livelihoods (Table 13). However, relevant coefficients are weak for all eight livelihoods, and the imprecation is segmented. Among notable findings from the correlation coefficients, the membership rate is low and saving and loan amounts are small in the villages where handcraft making is one of major livelihoods, and the credit size tends to relatively large in the villages where fishery is one of major livelihoods.

In contrast, we clearly found the fact associated with the level of SCUs activity and non-agricultural service activity: the level is strongly correlated with non-agricultural service activities such as trade and running enterprises. As discussed, non-agricultural service activities are unevenly prevailed throughout the Vientiane area,

[12] Villagers throughout the Vientiane region borrow for agricultural purposes.

and even in the villages where such activities are remarkable, only a few households engaging in it.

Interestingly however, we found an apparent distinction in the level of SCUs' activity between such villages and the others. Table 14-(1) compares characteristics against averages for the sample (92 SCUs). It indicates that SCU membership as a percentage of the female population, savings deposits, and that loan amounts are above average in villages containing large enterprises and above average in villages that feature family businesses. All the indices clearly show that SCUs activity is more active in the villages with such non-agricultural service activities. As shown in Table 14-(2), in such villages the credit demand for purchasing durables (equipment investment) and business (working capital) are apparently more active.

Our examination of social conditions by ethnic composition produced no meaningful findings because sampled villages are ethnically homogeneous. However, we uncovered notable correlations associated with immigrants. Table 15 compares non-agricultural employment and borrowing by percentage of immigrant households. First, in villages with higher proportions of immigrants, non-agricultural employment (trade and offices) is more evident than in villages with lesser percentages. In 60% of villages where immigrants are half to three-quarters the population, trade is a major occupation. The data are linearly correlated: the higher the percentage of immigrants, the more evident is trade employment. Moreover, office work is more evident in villages where the immigrant population surpasses 50%.

Second, borrowing for agricultural purposes is common among all villages, but it plummets when immigrants comprise 75%–100% of the populace. Table 15 indicates that automobile lending highest in villages where immigrants are 50%–75% of the populace. Similarly, borrowing for business purposes is predominant in villages where immigrants exceed 50% of the populace. This finding suggests that immigrants generally perform non-agricultural employment; therefore, non-agricultural borrowing is a greater percentage of loans in villages where immigrants dominate the population[13].

4.3. Conditions for Sustainable Growth of SCUs: Cross Observation

We observed that the level of SCUs activities varies after around five years since their establishment. And we also saw that the level of SCUs activities was related to various socio-economic conditions such as village livelihood, location and migrant population. Seeking factors that determine sustainable growth for SCUs, we

[13] However, the loan purpose for automobile and business peaks at the villages in 50-75% migrant population, and is lower in the villages with more migrant percentage.

examined six endogenous and exogenous features of large and small SCUs that were in business for more than five years (Table 16). They included the purpose for loans, profit distribution, primary village occupations, non-agricultural employment, travel time to markets, and immigrant population. Table 16 categorizes SCUs as “larger” or “smaller” based on savings per member. The table’s information is roughly consistent with previous observations.

First, on the operation side, in the smaller SCUs the credit tends to be utilized more for consumption purpose than production purpose, while the tendency is clearly adverse in the lager SCUs[14]. Second, on the socio-economic conditions, in the villages where SCUs are relatively small, villagers engage more on other planation, raising livestock, trading and handcraft as their major livelihoods, while in the villages with the larger SUCs, villager’s actively engages on fishery and office work. Among non-agricultural occupations, a greater percentage of smaller SCUs operate in villages with small enterprises, and a greater percentage of larger SCUs operate in villages with large enterprises. Thirdly, while the migrant population does not show clear difference, the location (the time distance to major market) is apparently related to the size of SCUs; larger (smaller) SCUs are associated with longer (shorter) travel time to major markets.

As conclusion, this cross-observation seems to reveal no clear determinant of growth of SCUs. Rather, it suggests that SCUs older than five years adjust their operational size to their local credit demand.

4.4. Summary of Observation

In villages where non-agricultural activity is notable, SCU members borrow to purchase durable goods such as house repairing, purchase of automobile or motorbike. SCUs in these villages are relatively large. This suggests that these non-agricultural service activities are a key factor for profit earning of SCUs and constant saving and credit demand, and thus the growth of SCUs.

Membership for most SCUs is set during their early years of operation and changes little thereafter. SCUs’ assets generally expand during their first five years of operation, suggesting that although membership within a village is limited, initial members deepen their commitment to SCUs. In this sense, SCUs expand vertically, not horizontally.

Village location and accessibility to markets and bank branches influence SCUs’ inversely: greater accessibility correlates to less saving and lending. This finding

[14] No clear difference appears in distribution of profits.

suggests that SCUs and formal financial institutions are presently substitutes.

As a remarkable finding, the percentage of immigrants in Laotian villages shapes villages' primary occupations and SCUs' deposits and lending. Non-agricultural employment and demand for loans is greater in villages with higher percentages of immigrants. Serving demand for non-agricultural assures SCUs' profit and sustainability.

5. Conclusion

In sum, SCUs play a role in the economies of Laotian villages in numerous ways and assuredly serve social purposes. They provide loans for consumption, medical care, and emergencies, and provide loans for agricultural production. These types of loans directly alleviate poverty by providing working capital and cash for medical expenditures or education.

The SCUs function in multiple ways: for smoothing consumption, matching to constant demand for agricultural production, and non-agricultural service activities. Its role for villagers' small-sized consumption needs is significant as its social purpose. On the other hand, as for the determents of their managerial sustainability, the level of their commitment to non-agricultural service activities is crucial, which is largely determined by the exogenous factors. It is presumed that within one SCU, a kind of inside subsidy from the profitable sections (i.e. credit to non-agricultural service) to non-profitable sections (i.e. consumption, medical care or emergent demand)[15].

For the past decade, SCUs, originally capitalized by member's savings, have retained a portion of their earnings. As a result, SCUs have been formed and emerged as financial entities in rural areas. SCUs could be seeds of a financial network connected to the formal financial system in the future. This may improve penetration-entry of the formal financial system into rural areas. On the other hand, SCUs are adversely affected by proximity to a formal financial infrastructure. In current-day Laos, microfinance has flourished in urban and rural areas, and commercial banks and APB are forming networks. As Shigetomi (1998) witnessed in Thailand during the early 1990s, SCUs might disappear into Laos' formal financial structure. To understand what the emergence of SCUs means for Lao's financial system, we must continue to watch their transformation.

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[15] The function might be comparable to 'cross-subsidy' in the sense of McIntosh et.al (2005)

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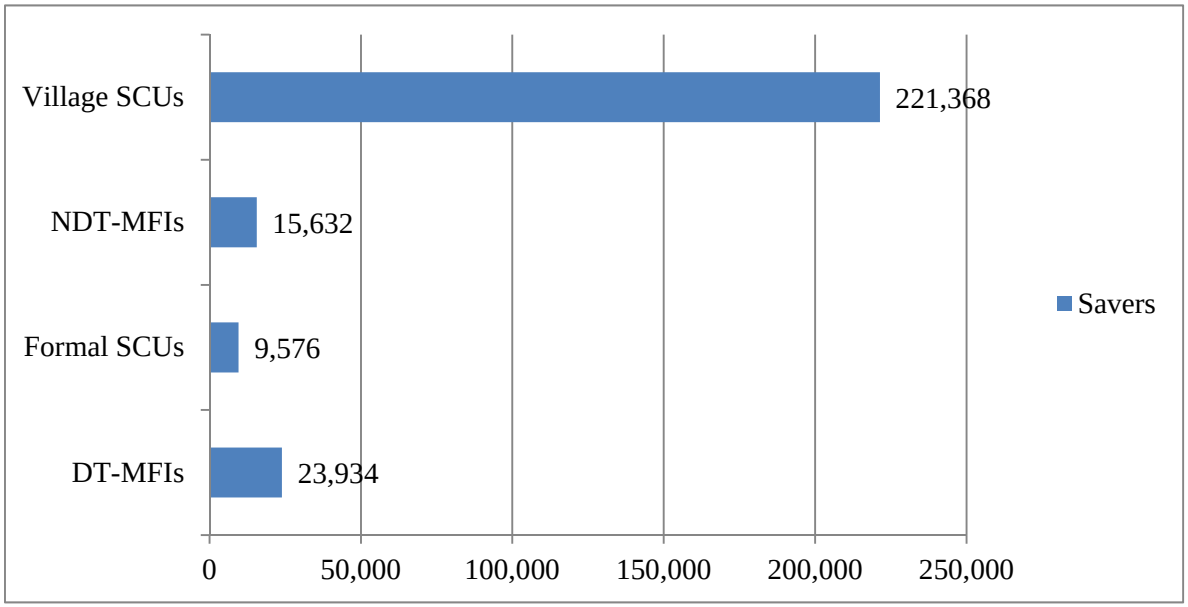
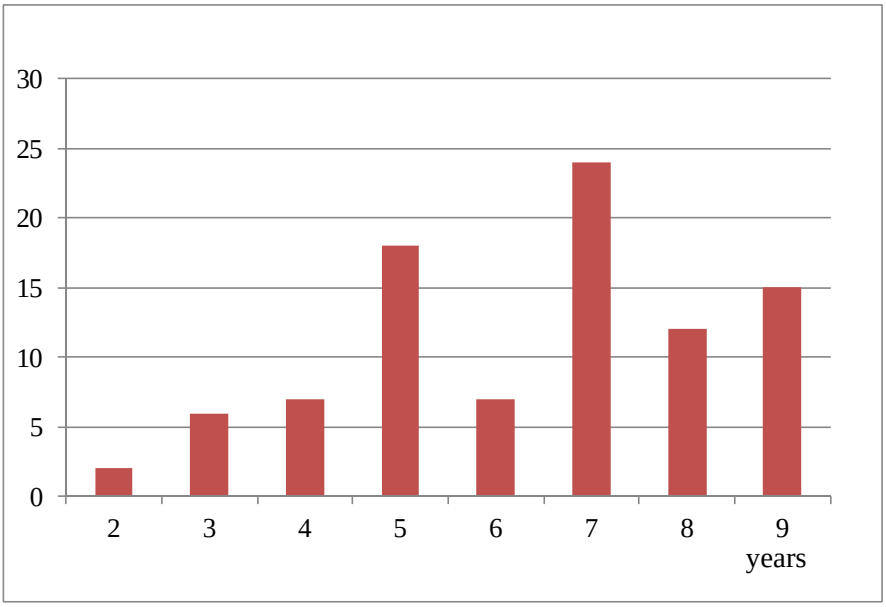
Figure 1 Number of Savers Reached by Formal and Semi-formal MFIs



Note: as of 4th quarter 2011

Source: BOL and LWU

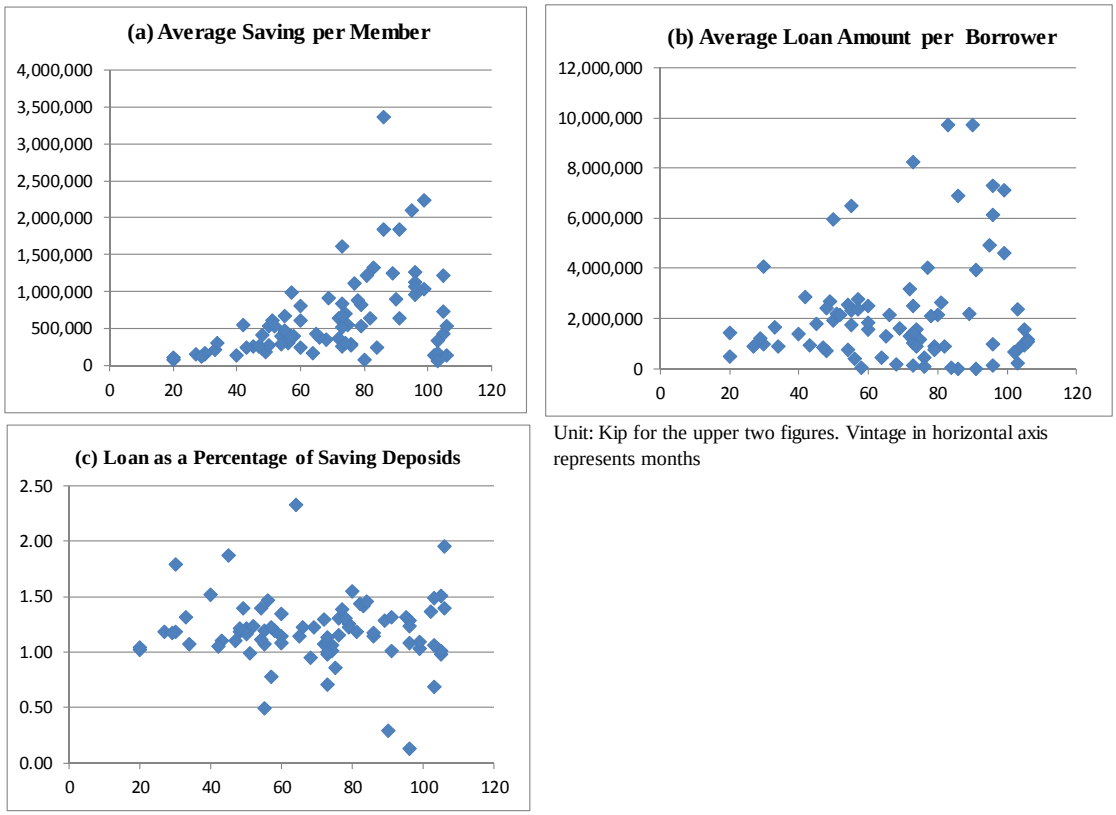
Figure 2.Age of SCUs



Sample	Month			
	Average	S.D.	Min	Max
91	70.5	23.1	19	107

Note: 91 Sample, base year and month are October 2008.

Figure 3. SCUs' Ages and Selected Operationg Statistics



Unit: Kip for the upper two figures. Vintage in horizontal axis represents months

Table 1. Average Savings per Saver by Type of Formal and Semi-formal MFIs

	Formal MFIs			Semi-formal MFIs
	DT-MFIs	Formal SCUs	NDT-MFIs	Village SCUs
Average Saving	1,468.1	1,001.6	980.0	1.5

Note: Unit: Thousand Kip/ saver. As of 4th quarter 2011

Source: BOL and LWU

Table 2 Ratios for SCU Members and Borrowers

	Average	Standard Deviation	Minimum	Maximum
No. Member / Female Population	57.1%	32.9%	5.9%	188.6%
No. Borrower / Female Population	25.9%	16.0%	0.0%	70.9%
No. Member / Total Population	28.4%	16.0%	3.6%	88.0%
No. Borrower / Total Population	13.0%	8.2%	0.0%	36.4%
No. Borrower / No. Member	50.2%	29.2%	0.0%	146.1%

Note. Calculated from 91 available samples

Table 3 SCU Members and Borrowers

	No. Sample	Average	Standard Deviation	Minimum	Maximum
Saving per Member	90	641,413	557,246	59,380	3,362,960
Loan per Member	82	951,790	788,946	419	4,932,735
Loan per Borrower	80	2,212,611	2,217,697	2,564	9,728,283

Note: Unit: Kip

Table 4. Itemization of Lending by Purpose Age

	(1) No. Borrower	(1) %	(2) Disbursement	(2) %	(3) (2)/(1)	(4) Relationship Coefficient with Vintage
Total	10,450		23,081		2,209	
Consumption	4,140	39.6%	4,811	20.8%	1,162	
General Consumption	3,553	34.0%	3,903	16.9%	1,099	0.095
Education	259	2.5%	451	2.0%	1,740	-0.050
Medical Service	40	0.4%	47	0.2%	1,164	-0.125
Emergency Loan	288	2.8%	410	1.8%	1,424	0.082
Durables	366	3.5%	1,837	8.0%	5,020	
Housing, House Repairing	211	2.0%	635	2.7%	3,007	-0.251
Motorcycle	110	1.1%	379	1.6%	3,445	-0.263
Automobile	45	0.4%	824	3.6%	18,304	-0.080
Production	5,944	56.9%	16,433	71.2%	2,765	
Business	1,356	13.0%	7,256	31.4%	5,351	-0.166
Agriculture	3,552	34.0%	7,963	34.5%	2,242	0.126
Livestock	52	0.5%	221	1.0%	4,245	0.057
Handcraft	984	9.4%	994	4.3%	1,010	-0.076

Note (2) Million Kip, (3) Thousand of Kip, (5) vintage is scaled by month

Table 5. Delinquencies

	No. of Sample	Delinquency Ratio			
		Average	Standard Deviation	Minimum	Maximum
Total	91				
Existence of					
(1) No	11				
(2) Yes	80				
(3) Available for the ratio	67	26.6%	25.0%	0.7%	95.0%
(4) Unavailable for the ratio	13				
All sample available for the ratio ((1)+(3))	78	22.8%	2500.0%	0.0%	95.0%

Note. Delinquency Ratio = Number of Delinquent Loans

Table 6. Distribution of Profit

	Average	Standard Deviation	Relationship Coefficient with Vintage
Member	67.6%	2.35%	0.731 *
Management Committee	12.2%	2.33%	0.690 *
Advisory Committee	2.8%	0.36%	-0.054
Social Development Fund	3.5%	1.49%	-0.638 *
Retimed Reserve	4.5%	0.60%	-0.610 *
District Office	2.0%	0.00%	0.000
Others	7.4%	6.10%	
Welfare Fund	4.5%	1.98%	-0.157
Reserve for Study Tour and Education	2.2%	2.19%	-0.562 *
Others	0.6%	1.93%	-0.180

Note. * indicates significant at 5% confidence interval

Table 7.Proximity to Markets and Bank Branches

(a) Travel Time to Nearest Market (Minutes by Motorcycle).

	No. of Sample	Average	S.D.	Min	Max
	87	68.2	55.3	0.4	240
Khuakdin	1	60.0			
Lak52	1	15.0			
Naxaythong	2	5.0			
Nongsa	4	11.3			
Sikai	19	32.4			
Songpeauy	11	9.4			
Thatluang	48	105.3			
Thongkhankham	1	30.0			

(b) Travel Time to Nearest Bank Branch (Minutes by Motorcycle).

	No. of Sample	Average	S.D.	Min	Max
	89	31.7	22.0	0.3	95.0
Agricultural Promotion Bank	82	33.4			
Naxaythong development cooperative	1	15.0			
Rural development cooperatives	1	5.0			
Rural promotion	1	5.0			
Songpeuy Cooperatives	4	15.0			

Table 8.Primary Village Livelihoods (Occupation)

	within	
	Three Major Activities	Five Major Activities
Rice Production	97.8%	98.9%
Fruit Farm	9.9%	11.0%
Other Plantation	53.8%	62.6%
Raising Livestock	75.8%	85.7%
Fishery	14.3%	20.9%
Trading	56.0%	80.2%
Handcraft Making	35.2%	54.9%
Office Work	16.5%	24.2%
Construction Labor	20.9%	39.6%

Note: Percentages indicated by survey responses. Sample = 91.

Table 9. Loans for Non-Agricultural Purposes

	Average	S.D.	Min	Max
Trading	3.2%	10.7%	0.0%	100.0%
Enterprise	0.9%	2.3%	0.0%	12.1%
Large	0.3%	1.3%	0.0%	12.1%
Small	0.6%	1.7%	0.0%	8.6%
Family Business	8.4%	13.9%	0.0%	98.5%

Note: Percentages of households engaged in the indicated occupations. Sample = 89.

Table 10. Average Percentage of Immigrant Households per Village

	Average	S.D.	Min	Max
Rate of Migrants比率	30.1%	34.3%	0.0%	100.0%

Note. Percentage of households among 91 villages responding to the survey. 25 villages reported no immigrant households. Nine villages were populated entirely by immigrants.

Table 11. SCUs' Ages and Loan Percentages by Purpose

	2nd year	3rd year	4th year	5th year	6th year	7th year
Consumption	17.8%	26.9%	21.2%	13.9%	33.7%	35.2%
Durables	12.6%	7.1%	5.4%	5.6%	18.1%	1.3%
Trade	46.8%	19.5%	16.3%	35.6%	14.7%	14.6%
Agriculture	14.1%	27.5%	43.8%	33.3%	19.8%	37.0%
Education	4.2%	6.6%	1.2%	1.6%	0.5%	1.0%
Emergency	1.6%	0.9%	1.2%	0.5%	6.5%	6.4%
Others	2.9%	11.5%	11.0%	9.5%	6.7%	4.4%

Note: In percentage of total loans

Table 12 Travel Time and Percentage of Loans by Purpose

	0-15 min.	15-30 min.	30-60 min	60-120 min.	120-180 min.
Consumption	19.2%	15.1%	29.5%	32.3%	44.3%
Durables	10.3%	4.0%	7.6%	2.2%	0.0%
Trade	29.3%	23.5%	20.0%	22.1%	7.2%
Agriculture	31.7%	40.1%	25.8%	32.6%	39.1%
Education	1.4%	3.1%	10.1%	3.1%	0.6%
Emergency	0.0%	1.9%	0.0%	1.0%	2.9%
Others	8.0%	12.4%	7.0%	6.6%	5.9%

Note: Travel time to nearest market (in minutes) by motorcycle., The Rate to the Total Credit by quantity of total loans outstanding

Table 13. Correlations between Principal Village Livelihoods (Occupations) and SCU Membership, Deposits, and Loans

	Fruit Farm	Other Plantation	Raising Livestock	Fishery	Trading	Handcraft Making	Office Worker	Construction Labor
No. Member / Woman Population	-0.080	-0.122	0.013	0.033	-0.107	-0.312	0.115	-0.076
No. Borrower / Woman Population	0.094	-0.005	0.077	-0.075	-0.016	-0.194	-0.010	-0.137
Saving Amount	-0.154	-0.168	-0.016	0.090	-0.049	-0.268	0.088	-0.134
Loan Amount	-0.138	-0.142	0.003	0.125	-0.097	-0.300	0.115	-0.141
Saving Amount / No. of Member	-0.122	-0.130	-0.148	0.147	-0.113	-0.178	-0.090	-0.204
Loan Amount / No. of Member	-0.104	-0.128	-0.159	0.166	-0.129	-0.148	-0.079	-0.219
Loan Amount / No. of Borrower	-0.117	-0.008	0.055	0.236	-0.215	-0.273	-0.083	-0.145

Note: Principal occupation is a dummy variable. Highlighted cells indicate valid at 5% confidence interval.

Table 14 Non-Agricultural Loans and Village Characteristics

(a) Member Coverage, Deposits, and Loans.

	No. of Sample	Member / W. population	Saving	Credit
All the Sample	92	57.1%	180,137,736	202,313,379
Villages with trade activities by large-sized office	11	70.5%	238,498,909	306,230,455
Villages without trade activities by large-sized office	81	55.2%	172,113,075	188,024,781
Villages with trade activities by 'family business'	64	62.8%	209,064,437	233,318,048
Villages without trade activities by 'family business'	28	44.2%	115,052,661	132,552,875

Note: Unit Kip

(b) Percentage of Non-Agricultural Loans by Purpose.

	No. of Sample	Credit Usage		
		Motor Cycle	Automobile	Business
All the Sample	92	0.38%	0.21%	6.96%
Villages with trade activities by large-sized office	11	0.85%	0.64%	18.14%
Villages without trade activities by large-sized office	81	0.32%	0.15%	5.45%
Villages with trade activities by 'family business'	64	0.32%	0.21%	7.75%
Villages without trade activities by 'family business'	28	0.52%	0.19%	5.21%

Note: family business: trader activities carried only by a family members

Table 15. Immigrant Population and Non-Agricultural Loans by Purpose

Migrant Population Rate	No. of Sample	Existence of Non-Agricultural Activities (Dummy Variable)		Credit Usage		
		Trade	Office Works	Automobile	Business	Agriculture
0%	24	33.3%	8.3%	0.0%	19.6%	34.2%
< 25%	28	57.1%	7.1%	1.1%	15.4%	34.1%
< 50%	19	63.2%	21.1%	1.0%	22.4%	33.2%
< 75%	5	60.0%	40.0%	8.1%	27.5%	33.4%
<100%	5	80.0%	40.0%	5.3%	23.3%	9.1%
100%	10	70.0%	40.0%	2.2%	14.9%	22.4%

Note: Rate to the Total by loan amounts

Table 16. Cross-Category Comparison of Large/Small SCUs (Age > 5 Years).

	Larger SCUs	Smaller SCUs
(1) Purpose of Credit		
Consumption	35.9	42.0
Durable Goods	2.0	2.4
Production	62.1	55.6
(2) Distribution of Profit		
To Member	69.0	68.7
To Committee	13.6	13.4
(3) Village Livelihoods (Oppuation)		
Rice Production	100.0	100.0
Fruit Farm	4.0	6.3
Other Plantation	56.0	62.5
Rasing Livestock	76.0	81.3
Fishery	28.0	9.4
Trading	44.0	62.5
Handcraft	16.0	50.0
Office Work	16.0	6.3
(4) Non-agricultural Activities		
Trading	1.70	1.74
Enterprise	0.63	0.72
Large	0.55	0.15
Small	0.26	0.82
family Business	13.44	13.16
(5) Travel Time to Market	108.0	82.6
(6) Immigrant population	32.5132	38.4348
No. of Sample		
Average Deposits per Member.	1,339,446	387,560

Note: Calculated from 57 ECUs older than 60 months. The terms Larger and Smaller are defined on the basis of average deposits per member (₭805,054). Units are minutes for Block 5. All others are percentages. Definitions for (1) through (6) are the same as in Tables 4, 6, 8, 12, 14, and 15, respectively.