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Cooperation in collective actions: Enforcement spillover and repayment behavior within the informal saving groups in Tanzania

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Introduction: This document gives a snapshot of the cross sectional data collected from the field for the research titled above. The research focused on the Accumulating Savings and Credit Associations (ASCA) which have been promoted by development agencies in Tanzania. The research assesses the spillover effects of other punishment on enhancing repayment behavior of members of these groups. By other punishment, I am referring to those punishments not related to an offence of defaulting (e.g. penalties for lateness on meeting attendance). The main research question was "do other punishments address repayment problems within the informal financial self-help groups? In other words, this study concentrates on the spillover effects of other punishments on repayment behavior. Therefore, the objective of this short report is to provide descriptive information of all data collected in the field. This is necessary because, the main research report utilizes limited number of collected data.

Socio-economic characteristics of ASCA members

Table 1 which includes continuous variables highlights demographics and other variables characterizing individual members of ASCAs. The average age was about 40 years indicating that ASCAs are mostly composed of elderly people with a wide variation within the sample as reflected by a large standard deviation. ASCAs requires individuals who can save, and consequently not suitable to dependants. With regard to the education level, on average, individual members have attended 6 years of schooling, with limited variations between them. In fact most members have attended primary schooling with limited number proceeding to higher level education. This is somehow consistent with other studies; where educational attainment is found to be low in poverty stricken areas.

As the research site was in the urban area within the commercial capital, it also surprising to find that 19 percent of the respondents did not had a chance to attend formal education. Most ASCAs' members have been living in the same areas for a number of years (12 years on average). This confirms that ASCAs are composed of people who have known each other for a number of years. The average monthly income is TShs 141,477 (equivalent to US\$ 88 or US\$ 76 with respect to monthly expenditure). The standard variation is high, an indication of wide variation of monthly income levels within IIala district. Figure 1 displays information from the binary variables on gender and marital status by concentrating on the percentages. Majority of members are married (about 70 percent).

Figure 1 further show ASCAs to be dominated by women both in terms of composition and meeting attendance. That is 92 percent of members are women. As the research team attended most of the weekly meetings, we found that most male members are absent from these meetings. The overall average meeting attendance was 13 with 4 and 23 being the minimum and the maximum attendance respectively. The main source of income is small business which is characteristics of 87 percent of ASCAs' members. Other sources of income make up the remaining 13 percent. These other sources include farming, remittances from family and friends and employment.

Table 1: Socio-economic characteristics:Continuous variables.

	Mean	Standard Deviation
Age (years)	40.26	10.81
Education (years)	6.60	3.66
No. of years living in the area	12.26	8.87
Monthly income (TShs)	141,476.5	118,801
Monthly expenditure (TShs)	121,843.3	92,535.4

Exchange rate in 1 US\$/TShs 1,600

Figure 1: Socio-economic characteristics (binary variables). The first two bars contrast gender, the second two contrast marital status, the last two bars compares sources of income.



Indicators of social capital

Three proxies for social capital were adopted. These include (i) Civic engagement (ii) Networks, and (iii) Trust. The questionnaire was structured in such a way that social capital can be addressed in terms of its role i.e. contribution in attaining certain results, in particular on cooperation in collective actions.

Networking within ASCAs: Ties between members of individual groups are used to measure the extent of networking between members nested within the same group i.e. sets of the relationships between members within a group. The questionnaire consisted of 10 variables representing "networks". On average members of ASCAs have 4 friends in the groups whom were friends prior to group formation. This variable is exogenous because it refers to situations prior to group formation. Members connections in terms of friendships is also reflected by the variable "talk often" where on average each member interacts frequently with about 5 fellow members. The question on "talk often" required ASCA members to mention the number of fellow members whom they interact frequently even on matters not related to ASCA.

It is however, not common to have many relatives in the same group. On average each ASCA's member has 1 relative in a group in which he/she belongs. Most members live within the same ward (that is about 17 in each group), with each member having 3 fellows living within the same street. There are however, limited business joint ventures as well as limited peer mentoring between members in their entrepreneurship activities. These conclusions are the outcome of the questions i) the number of fellow group members sharing a business with the respondent ii) the number of fellow members whom you have been requesting or give business advices.

Maintaining multiple memberships: It is

common for ASCA members to maintain multiple memberships in other informal and formal financial institutions. For instance, about 35 and 19 percent of ASCA members are also members of ROSCAs and other ASCAs respectively. Furthermore, Figure 2 also shows that 41 percent of ASCA members have bank accounts and 9 percent are engaged into the semi formal financial cooperatives SACCOs.



Figure 2: Multiple memberships in other informal and formal financial institutions

Descriptive statistics

Variable	Mean	Standard Development	Min	Max
No. of friends within the same group	4.25	4.37	0	30
No. of relatives within the same group	0.78	1.27	0	15
No. of fellow members living in the same street	3.09	3.17	0	24
No. of fellow members living in the same ward	17.44	11.34	0	29
No. of fellow members attending the same mosque/church	2.77	3.31	0	20
No. of fellow members in the same political party	5.62	7.98	0	50
No. of fellow members doing same businesses	1.25	3.85	0	29
No. of fellow members whom you have requested advice	1.28	2.01	0	20
No. of fellow members whom you have given advices	1.70	2.65	0	20
No. of fellow members whom you talk often	5.01	5.72	0	30

Table 2: Networking within the groups

Civic engagement: Questions on civic engagement covered three subcategories (i) civic (ii) electoral (iii) political voice. Looking at Table 3 most members have made monetary or in-kind donation in the community. It is common for Tanzanians to support each others on events such as marriages, death, sickness and traditional ceremonies. In fact, most marriages are financed by contributions from relatives and friends. Furthermore, about 73 percent have engaged with other people in their communities discussing community problems, ranging from security issues, political, drainage, roads and environmental issues. However, there are limited contacts with the police, which may be a result of the following (i) the local government is effective i.e. resolving most of the issues rather than reassigning them to the police (ii) people have lost confidence in the police force

(iii) limited criminal events necessitating reporting to the police. The second reason might be significant as recent surveys have ranked police as the most corrupt public institution. The indicator on contacting police is closely followed by 29 percent of members having provided unpaid labor, on activities such as cleaning mosques (for the case of Muslims) and churches (for the case of Christians). There is high participation in voting, as a result of the recent 2010 ended national election, which was considered to be a highly competitive one since the introduction of multi party elections. Considerable percentage of group members have also been actively engaged in election campaigns either by being part of the campaigning team or attending campaigning meetings. However, political voice, which is more of a process than an event (as voting), appears to be limited exercised by ASCA members.

Table 3: Civic engagement

	Yes	No.
<u>Electoral</u>		
Voting	93.9%	6.1%
Engaging in election campaigns	56.6%	43.4%
Civic		
Contacting an influential person	43.3%	56.7%
Discuss with community member about a problem	72.7%	27.3%
Report a problem to the police	30.4%	69.6%
Contribute unpaid labor to a voluntary group	28.5%	71.5%
Contribute financially to a community issue	93.4%	6.6%

Descriptive statistics

Political voice		
Contacting journalists	11.9%	88.1%
Participating in demonstration	30.3%	69.7%
Contacting member of parliament/Councilors	45.8%	54.2%

Trust: Using trust as a proxy for social capita is based on the belief that individuals in a group can easily reach agreements and conduct transactions when trust is high. As demonstrated by Figure 3 and 4, this research applied two questions to measure trust. About 66 percent of ASCA members believe that they trust each other on matters related to lending and borrowing, while 31 percent indicating limited trust. Only 3 percent do not trust each other. On the other side, 56 percent of ASCA members indicated that the trend of trusting each others is increasing overtime while only 3 percent consider it to be deteorating (Figure 4). The survey question focused on trust on savings and lending and not on other aspects.

Figure 3: Trust levels (Do members generally trust one another in matters of lending and borrowing?)







Indicators of cooperation

Cooperation within the groups: The

questionnaire captures 6 indicators of cooperating activities between groups' members. These can be divided between economic cooperation (repayment and savings behaviors) and social cooperation (supporting each others in the case of emergencies, social events etc). Table 4 shows that, supporting each other during emergencies (sickness, death events etc) dominates support to social events (weddings etc). Both kinds of supports are commonly practiced in Tanzania.

Another indicator of cooperation is the fulfillment of the collective agreement for each member to purchase shares on weekly basis. Table 5 shows that on average members are purchasing 4 shares per week. Frequencies of meeting attendance can be one of the indicators of cooperating behavior. The question posed to individual ASCA members was for them to recall the number of weekly meetings they did not attend in the past three months. Generally there is good meeting attendance. On average, members have participated in 85 percent of the required weekly meetings during the past 3 months.

Maintenance of multiple memberships is a common phenomenon. Members of ASCAs are at the same time members of other ASCAs, ROSCAs, political parties, sports clubs, welfare groups, religious organizations, cooperatives, women groups etc. Table 4 confirms that on average ASCA members are members of about 2 more groups (not necessarily ASCA only). It is important to highlight that, because all ASCA set a maximum number of shares individuals members can purchase per week, this rule forces those with higher savings capacity to maintain membership in more than one ASCA.

Descriptive statistics

Table 4: How members cooperate with the groups

Variable	Mean	Standard Deviation	Min	Max
No. of times assisting fellow member during emergency	3.60	2.97	0	20
No. of times assisting fellow member in their social events	2.21	2.85	0	20
No. of times helping fellow member with a productive tool	0.94	2.03	0	16
Percentage of weekly meetings attended	0.85	0.13	0.17	1
Average no. of shares purchased every week by each member	4.09	1.13	1	5
No. of groups to which a member belongs	1.74	1.22	0	5

Figure 5: Members perceptions on the level of cooperation within their groups



The survey also investigated the perceptions of ASCA members on the level of cooperation within the groups to which they belong. Figure 3 demonstrates the results; showing that 43 percent of ASCA members considering that cooperation within their groups to be very high, followed by 36 percent who consider otherwise. It goes to 56 percent when high and very high categories are combined. Because ASCAs maintain both financial intermediation roles and welfare function, the cooperation aspects in this particular survey question was wide in the sense that it refers to all aspects in which members interact as a group.

Cooperating outside ASCA: The survey also investigates the level of cooperation of ASCA members with the outside world. The survey question was "how many times in the last 12 month have you joined other people in the community (neighbors, friends, leaders etc) to find a solution to a challenge/problem facing your community? Figure 6 shows that 40 percent have never done that followed by 25 percent who have done it in several occasions. Overall about 60 percent have engaged with the community at least once in the past 12 months. An interesting avenue for further analysis is whether the experience in cooperating with the outside world is transmitted to cooperation within ASCAs.





• Lending activities

In principle, loans provided by ASCA are intended to support members in their business or social purposes (for education and health purposes). Though taking loans from the group is always encouraged (because it is one of the income generating schemes for the groups i.e. the group is earning an interest income), not all members have borrowed. Table 5 shows that only 12 percent have yet to borrow from the groups in which they belong. Furthermore, 25 percent of the respondents have repaid late and 85 of those who have taken loans have used it to finance their own business activities. The remaining 15 percent have used the loans for other purposes such as children education, repaying other loans etc. It should be known that even if a loan applicant declares the use of loan to be business, it is however difficult for ASCA

leaders to verify. The main concern for the group is for borrowers to repay the loan on schedule. Majority of ASCA members (about 71 percent) have received training on savings and credit management. These trainings are provided by NGOs responsible for mobilizing the formation of these groups. Most of these trainings are conducted during the first few weeks after groups have been established.

Table 5: Lending activities

	Yes	No
Is punishment for default credible? ¹	80.41%	19.59%
Whether a member has ever taken a loan	88.12%	11.88%
Repaid loans on schedule	75.55%	24.45%
Loans used to facilitate business	85.42%	14.58%
Training on savings and credit	70.5%	29.5%

¹ with respect to other punishments, 67 percent of ASCA members had experienced these types of punishments compared to 33 percent.

Indicators of wealth

Apart from monthly income and expenditure as described earlier, the survey gathered information on ownership of various assets. These include land, house, TV, video/DVD, radio, air condition, telephone handset, fridge/freezer, motorcycle, car, bicycle/bajaj, traditional fishing boat, washing machine, cooker (gas, electrical, charcoal), tractor, water pump, farming tools, animal and food store, animals (chicken, goats, cows, ducks, pigs, rabbits etc).

On each items, the respondent chose the type and specified the quantity. Table 6 gives information on the wealth situation. On average ASCA members owns 3 assets. When wealth indicator 2 is referred to (in which items are aggregated per individual) the average ownership is 4 with large variation between individuals as shown by a high standard deviation.

Table 6: Indicators of wealth

Variable	Mean	Standard Deviation	Min	Max
Indicator 11:	3.15	1.82	0	8
Indicator 2 ² :	4.22	3.96	0	36

¹ No of items owned. I counted each type of asset as 1, not the number of items per the type of asset i.e. even if a member owns 2 cars the count is 1 as "owning" a car rather than the number of cars he/she owns.

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² The sum of the number of items within each type of assets i.e. for a member owning two cars, the count is two.