Providing Financial Services to Poor Farmers through a Local Trader: An Indonesian Case Study

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Abstract: This case study presents an agricultural microfinance model developed by Koperasi Serba Usaha – Swadaya Dian Khatulistiwa (KSU-SDK) in the Regency of Pontianak (West Kalimantan, Indonesia). KSU-SDK relies heavily on local traders to select borrowers, set loan terms and enforce loan repayments at the community level. Analysis of KSU-SDK’s approach is based on 10 Best Practices in Agricultural Microfinance formulated by Christen and Pearce (2005). We show that while local traders seem to be successful in managing loan portfolios since they do not default on their loans, many questions remain regarding the way they interact with the farmers.

After the ethnic conflict between the Madurese, Malay communities in the District of Sambas (West Borneo, Indonesia) in 1999 and 2000, the government of the Province of West Kalimantan resettled more than 1,100 Madurese families in the villages of Tebang Kacang and Bhakti Suci (Regency of Pontianak).

Farmers in these two resettled areas plant corn and rice as prime commodities, but face problems at the production and marketing levels. These factors contribute to low annual family income, estimated to be Rp 5,000,000 (around US$ 550) in 2006, with 39% coming from farming activities.\(^2\)

Since 2005, Yayasan Swadaya Dian Khatulistiwa (YSDK), with financial support from CRS-Indonesia, has implemented a project which aims at stabilizing food production and incomes in both communities by providing, among others, training in corn and rice production and easing access to markets by collaborating with local traders. YSDK has also identified that the limited access of farmers to credit restricts the development and expansion of farming activities in both areas. As a consequence, since February 2006, Koperasi Serba Usaha – Swadaya Dian Khatulistiwa (KSU-SDK), the microfinancial arm of YSDK, pilots an agricultural microcredit program in the locality of Tebang Kacang, where the local trader is responsible for selecting borrowers, setting loan terms and enforcing loan repayments at the community level.

\(^1\) Marc-Antoine Adam is a CUSO Canada volunteer in Pontianak (West Boneo, Indonesia).
\(^2\) Information provided by Yayasan Swadaya Dian Khatulistiwa (YSDK).
This case study describes and reviews KSU-SDK’s approach to agricultural microcredit in Tebang Kacang during its first 10 months of operation (February-November 2006). We also analyze the performance of the program based on the 10 best practices in agricultural microfinance published by Christen and Pearce (2005).

1. KSU-SDK’s Approach

As illustrated in Figure 1, KSU-SDK provides 10-month loans to the local trader, who, in turn, provides farm inputs and cash loans to farmers. Both types of loans are reimbursed by the farmers at the end of the harvest season, when they sell their production to him. If the harvest fails, the local trader seizes collateral such as livestock, gold, etc. The payment of monthly interest on the loan is fully covered by the local trader.

To mitigate the risk of farmers defaulting on their loans, YSDK provides them with technical assistance to improve farming practices in corn and rice production, as well as training in farm and household financial management. YSDK also assists the local trader by linking him with markets and helping him to improve post-harvest management, by financing the construction of a warehouse and corn dryer.³

KSU-SDK justifies its strategy of providing loans to farmers through a local trader as he is much more able to get around information asymmetry problems and to manage the loan portfolio, since he lives in the community and is a farmer himself. In addition, the local trader already acts as moneylender and helps farmers to finance their farming and non-farming activities. However, his lending capacity is limited, since his income is highly seasonal. In the past, KSU-SDK has disbursed loans directly to farmers, but most of them failed to repay their loans.

³ According to Yaron and McDonald (1997), sustainability of the agricultural microfinance program depends on the profitability of agricultural production and the extent to which yield, marketing and price risks faced by farmers can be managed.
2. Review and Analysis of Financial Transactions Conducted by the Local Trader

During the first 10 months of the program, Tebang Kacang’s local trader borrowed Rp 10,000,000 (US$ 1,100) from KSU-SDK. During the term of the loan (10 months), he disbursed Rp 41,989,260 (US$ 4,600) in loans to 156 farmers, using his own capital and the loan taken from KSU-SDK (Table 1).

**Table 1: Loan Disbursements in Tebang Kacang: Scale and Outreach**
*(February-November 2006)*

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of borrowers</td>
<td>156</td>
</tr>
<tr>
<td>Number of loans disbursed</td>
<td>229</td>
</tr>
<tr>
<td>Value of loans disbursed</td>
<td>Rp 41,939,260</td>
</tr>
<tr>
<td>Average loan size</td>
<td>Rp 183,141</td>
</tr>
<tr>
<td>Average amount borrowed by farmers</td>
<td>Rp 268,841</td>
</tr>
</tbody>
</table>

*Source: Data collected by KSU-SDK*

A total of 229 loans were disbursed for an average loan size of Rp 183,141 (US$ 20) or Rp 268,841 (US$ 30) per farmer.⁴

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⁴ At present, no data are available for the calculation of financial indicators on sustainability and profitability, operational efficiency and portfolio quality of the program. The main reason is that KSU-SDK does not manage the loan portfolio at the community level. This is the responsibility of the local trader and he is not required to provide the data needed to calculate such indicators. We can only assert that the local trader has successfully reimbursed his loan after the 10-month period.
Figure 2: Purpose of the loans in Tebang Kacang
(July – November 2006)

Source: Data collected by KSU-SDK

Regarding the purpose of the loans, 42% of those disbursed between July and November 2006 were for agricultural purposes (fertilizer loans) (Figure 2).^5^

On the other hand, 29% were taken to finance household expenses, such as house improvements, 14% to cover health expenses, and 10% to pay school expenses.^6^

In the next section, we will analyse KSU-SDK’s agricultural microfinance approach based on the 10 best practices in agricultural microfinance developed by Christen and Pearce (2005).

3. Analysis of KSU-SDK’s Agricultural Microfinance Program Based on the 10 Best Practices in Agricultural Microfinance

Christen and Pearce (2005) showed that successful agricultural microfinance lenders rely on 10 different practices to mitigate the risks associated with lending to farmers. How does KSU-SDK’s program perform in comparison to these 10 best practices?^7^

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^5^ Data were available for a limited number of farmers.

^6^ The data provided by KSU-SDK do not allow us to know the purpose of the loans disbursed to the local trader.

^7^ For more information on the 10 best practices in agricultural microfinance, please refer to Appendix 1.
a. Repayments are not linked to loan use

Loan repayment by the local trader to KSU-SDK is not linked to its use, since KSU-SDK does not supervise the way the loan taken is used by the local trader and how it is disbursed to the farmers. What matters the most to the cooperative is that the local trader repays his loan on time.

In relationships between farmers and the local trader, the latter distributes loans for different purposes and they are repaid at the end of the harvest season, when the farmers sell their crops to him. However, if the harvest fails, the farmers can reimburse their loans with other assets (such as livestock, gold, etc.). In these cases also, the repayments are not exclusively linked to loan use.

b. Character-based lending techniques are combined with technical criteria in selecting borrowers, setting loan terms, and enforcing repayment

KSU-SDK gives the local trader the entire responsibility of selecting borrowers, setting loan terms and enforcing repayment. For example, to set the size of farm input loans, the local trader uses informal technical criteria, such as the area under cultivation (Figure 3), in addition to other criteria such as credit history of the farmers, trust and the amount of collaterals possessed by the borrower. Moreover, the fact that YSDK provides training to farmers reduces the risk that they will default on their loans.

Regarding loan terms and repayment enforcement, loans are reimbursed once the farmers sell their production to the local trader or through the sale of collaterals. The fact that the loans are reimbursed at the end of the harvest season shows that the local trader sets flexible loan terms. The present situation also shows that the local trader remains “unsupervised” in the way he selects borrowers, sets loan terms, and enforces repayment. KSU-SDK can not control or influence the way the local trader interacts with the farmers, since it is not present in the community. De Aghion and Morduch (2005) note that if a bank or a microfinance institution has concerns beyond just getting its money back from the moneylender (in our case, the local trader) (e.g. if the bank also cares about who is borrowing and the moneylender’s enforcement
tactics), it will need to monitor him. In such cases, the advantages of linking with the moneylender, such as lower administrative costs, are undermined.\(^9\)

**Figure 3: Relationship between loan size and area planted by the farmers**

![Chart showing the relationship between loan size and area planted by farmers.]

*Source: Data collected by KSU-SDK*

c. **Savings mechanisms are provided**

In its current approach, KSU-SDK does not provide any savings mechanisms to farmers. Data from YSDK’s *Survey on Household Economic Management 2006* show that farmers save mainly by buying gold, livestock or planting slow-maturing crops (e.g. cassava). Also, remittances received by farming from family members working in other provinces or outside the country are managed by the local trader.

However, savings by buying animals or planting slow-maturing crops are not secure. As a matter of fact, as mentioned by Christen and Pearce (2005), these assets are not liquid and, most of the time, can be turned into cash only at a significant discount, when the farmers need money quickly. Moreover, they are not safe (e.g. animals can die), in addition to not being

\(^9\) At present, KSU-SDK only asks the local trader to provide, every month, the names of the borrowers, the size of the loans disbursed and the purpose of the loans.
divisible (in case the saver needs only a small part of the value represented by the asset). Finally, according to Nagarajan and Meyer (2005), providing farmers with a safe and secure place to deposit savings may be more important than credit for farm households that need smooth consumption in the absence of insurance markets.

d. **Portfolio risk is highly diversified**

KSU-SDK provides credit in urban and rural areas, which allows the credit cooperative to diversify its portfolio risk. The loan to the local trader represents around 1% of the total loan portfolio.

e. **Loan terms and conditions are adjusted to accommodate cyclical cash flows and bulky investments**

The farmers usually reimburse their loans at the end of the harvest season, which respects the farmers’ cycle of income. The middleman has to reimburse the loan every 10 months.

f. **Contractual arrangements reduce price risk, enhance production quality, and help guarantee repayment**

No contractual arrangements exist between farmers and the local trader regarding prices and production quality as well as between the local trader and urban wholesalers.

Farmers who take a loan from the local trader are bound to sell their harvest to him, which limits their capacity to eventually sell it to another trader at a better price. As a consequence, the current microfinancial approach may unduly reinforce the position of the local trader inside the community, since he is the only one among three local traders identified in the community who provides access to credit on such a scale.

Analysis of trading costs and margins (Table 2) for marketing corn between Tebang Kacang and the city of Pontianak reveals a situation where no one is making excessive profits and the local trader faces high transportation costs.
Table 2: Corn Marketing in the City of Pontianak: Trading Costs and Margins (January-December 2006) *

<table>
<thead>
<tr>
<th></th>
<th>2006</th>
<th>% of selling price</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Farmer</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Input and labor costs</td>
<td>Rp 1,075</td>
<td></td>
</tr>
<tr>
<td>Buying price</td>
<td>Rp 1,386</td>
<td>22%</td>
</tr>
<tr>
<td>Margin</td>
<td>Rp 311</td>
<td></td>
</tr>
<tr>
<td><strong>Local Trader</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Buying price **</td>
<td>Rp 1,420</td>
<td></td>
</tr>
<tr>
<td>Selling price</td>
<td>Rp 1,885</td>
<td></td>
</tr>
<tr>
<td>Gross margin</td>
<td>Rp 464</td>
<td></td>
</tr>
<tr>
<td>Transportation costs</td>
<td>Rp 110</td>
<td></td>
</tr>
<tr>
<td>Packaging</td>
<td>Rp 27</td>
<td></td>
</tr>
<tr>
<td>Post-production costs</td>
<td>Rp 5</td>
<td></td>
</tr>
<tr>
<td>Net margin</td>
<td>Rp 322</td>
<td>17%</td>
</tr>
</tbody>
</table>

*The trading costs and margins calculated are based on data provided by YSDK.
**To sell 1 kg of corn, the local trader has to buy 1.025 kg because he loses 1.5% of stock during storage and 1% during delivery.
Source: YSDK Agricultural Program

g. **Financial service delivery piggybacks on existing institutional infrastructure or is extended with technology.**

By partnering with the local trader for the provision of loans to farmers, KSU-SDK has been able to reduce its transaction and operational costs. However, if KSU-SDK wants to track how loans are enforced by the local trader at the community level or wants to expand its microcredit program, by providing savings or a wider range of loan products, it is far from certain that this approach will be as effective.
h. **Membership-based organizations can facilitate rural access to financial services and be viable in remote areas**

KSU-SDK has opted to collaborate with the local trader, who works with each farmer individually. Moreover, YSDK can help him to improve its business activities by linking him to the markets. This strategy reduces the risk, for KSU-SDK, that he and the farmers will default on their loans.

i. **Area-based index insurance can protect against the risks of agricultural lending**

No insurance is offered by KSU-SDK to the farmers.

j. **To succeed, agricultural microfinance must be insulated from political interference**

Until now, the current program remains insulated from the risk of political interference.

4. **Conclusion**

In this short case study, we have presented an agricultural microfinance model developed by KSU-SDK, which uses a local trader, who is also a resident and a farmer in the community he is working with, to provide farming input loans and cash loans to farmers. Disbursing loans through a local agent has allowed the credit cooperative to reduce information and monitoring costs.

The approach has been a financial success for KSD-SDK, since the local trader has reimbursed his loan after 10 months. The reasons behind this success can be found in the 10 Best Practices in Agricultural Microfinance developed Christen and Pearce (2005):

1. The repayment of loans is not linked to their use at the local trader and farmer level.
2. The local trader is a farmer and a local resident which allows him to tackle better information asymmetry problems.
3. Loan terms and conditions accommodate the cyclical cash flow of farmers and local traders.
4. KSU-SDK portfolio risk is highly diversified.
5. KSU-SDK delivers its financial services by partnering with local traders which has contributed to reduce operational and transaction costs.
Another key element is that YSDK provides different training and technical supports to farmers and the local trader, which mitigates the risk of default on loans, for both farmers and the local trader.

At the same time, however, we have shown that the current approach gives the local trader the responsibility of selecting clients, of fixing the size of the loans and of enforcing loan repayment. Does he accomplish these tasks optimally and fairly? Also, the fact that the farmers are bound to sell their harvests to him may reduce their bargaining position, even if until now their profit margins are still acceptable. Finally, will the approach remain viable if KSU-SDK decides to expand its microfinancial activities in the area or range of financial services, especially in savings mechanisms?
Appendix 1: 10 Best Practices in Agriculture Microfinance

1. Repayments are not linked to loan use.

Emerging agricultural microfinance models tend to delink loan use from repayment sources, which means that even if a loan is supposed to be used to produce a specific crop, the borrower’s entire household income is considered when judging repayment capacity. By delinking loan use and repayment, successful microlenders have far more forcefully stressed that repayments must be made regardless of the success or failure of a particular production activity. This approach has dramatically increased repayment rates.

2. Character-based lending techniques are combined with technical criteria in selecting borrowers, setting loan terms, and enforcing repayment.

To decrease credit risk, the Consultative Group to Assist the Poor (CGAP) emphasizes that successful agricultural microlenders have developed lending models that combine reliance on character-based mechanisms — such as group guarantees or close follow-up on late payments — with knowledge of crop production techniques and markets for farm goods.

3. Savings mechanisms are provided.

By having access to basic deposit facilities, farming households are much more able to cover agricultural and household expenditures, make the interest payments needed to service credit obligations, and respond to emergencies in a timely fashion. Different microcredit initiatives have shown that rural poor people will save if given the opportunity to do so. All rural households, regardless of their income level or sources, can use deposit facilities to enhance their ability to manage liquidity and build capital assets.

4. Portfolio risk is highly diversified.

Microfinance institutions that have successfully expanded into agricultural lending have tended to lend to a wide variety of farming households, including clients engaged in more than one crop or livestock activity. In doing so, they have ensured that their loan portfolios and the portfolios of their clients are better protected against agricultural and natural risks beyond their control. Moreover, successful microfinance institutions tend to limit agricultural lending to less than one-third of their portfolios.
5. **Loan terms and conditions are adjusted to accommodate cyclical cash flows and bulky investments.**

Crop cycles produce irregular cash flows that make regular loan payments difficult at certain times of the year. Aware of that reality, successful microfinance institutions have promoted flexible payment options on loans, which means that loans are adapted to the cash flows of agricultural activities, and have incorporated an agro-economic component of loan analysis to do so, while not neglecting the multiple other potential sources of income of borrowing households. It is important to note that this flexibility relates only to how loans are structured, not the seriousness given to their repayment. To adapt products to fit agricultural cycles, monitor their uptake and performance, and improve their design over time, financial institutions need an adequate management information system (MIS) and a client feedback system to provide information on products, service levels, and client needs and opinions. Product adaptations should be introduced only after careful market research, which is backed by data from both MISs and client feedback systems.

6. **Contractual arrangements reduce price risk, enhance production quality, and help guarantee repayment.**

When the final quality or quantity of a particular crop is a core concern, for example, for agricultural traders and processors, contractual arrangements that combine technical assistance and the provision of specified inputs on credit have worked to the advantage of both the farmer and the market intermediary.

7. **Financial service delivery piggybacks on existing institutional infrastructure or is extended with technology.**

Client dispersion, together with poor transportation and communications infrastructure, can make conventional branch structures unviable, increase the costs of moving cash and conducting loan analysis, and make client monitoring more difficult. Responses to these challenges fall into three categories:

a. **Partnering with local institutions** that already have infrastructure in rural area financial entities, such as rural banks, or with non-financial entities, such as clinics, schools, lottery outlets, post offices, pharmacy chains, or agricultural input suppliers.
b. Developing alternative delivery mechanisms. Flexible alternative delivery mechanisms, such as mobile banking or renting space from other entities, can lower the costs of providing financial services in remote, sparsely-populated areas.

c. Exploiting technology.

8. Membership-based organizations can facilitate rural access to financial services and be viable in remote areas.

Even if membership-based organizations have a mixed track record in managing financial services in rural areas, they can be viable, even in remote areas, because they can make use of voluntary or semi-voluntary staff, draw on community knowledge when making loan assessments, use community peer pressure to ensure loan repayments, and rely on low-level institutional systems and infrastructure. Thus, such organizations, formal or informal, can expand rural access to loans, savings, and other financial products. In addition, producer (farmer) associations can lower transaction costs for credit providers because it is easier for these providers to deal with a single group rather than numerous individual, scattered farmers. And for agribusiness buyers that also provide inputs to farmers, dealing with organized groups of small farmers reduces the cost and complexity of distributing inputs, collecting crops, and keeping records.

9. Area-based index insurance can protect against the risks of agricultural lending.

Area-based index insurance — which provides payouts linked to regional levels of rainfall, commodity prices, and the like — holds more promise for protecting lenders against the risks involved in agricultural lending. Microfinance institutions that insure small farmers and assume the related risks must be very careful. When the insured event is relatively rare, all is well, and premiums can be an attractive income source. But a catastrophic event — even on a local level — may put a microfinance institution at risk of bankruptcy and non-compliance with its obligations to insured clients. Insurance is by nature a product best built on the back of risk diversification over the largest possible group of insured clients and the broadest range of circumstances that can affect claims.

10. To succeed, agricultural microfinance must be insulated from political interference.

Source: Adapted from Christen and Pearce (2005)
Bibliography


Nagarajan, G. and R. L. Meyer. 2005. *Rural Finance: Recent Advances and Emerging Lessons, Debates, and Opportunities*, Department of Agricultural, Environmental, and Development Economics, The Ohio State University, Columbus, OH.