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## Computer Aided Processing in the MF-Industry: Loan Tracking - the Case of SUMS in South Africa

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**University of Cologne**

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**Arbeitsstelle für Entwicklungsländerforschung**

**COMPUTER AIDED PROCESSING IN THE MF-INDUSTRY:  
LOAN TRACKING: THE CASE OF SUMS IN SOUTH AFRICA**

**by**

**Stefan Karduck**

**June 2002**

## **Abstract**

SUMS S-U Management Service Limited acts as a service provider for MFIs and realizes a very efficient way of loan tracking by taking full advantage from computer aided processing. This process relies on customized Microsoft and Crystal products serving three main purposes:

1. Providing loan officers with accurate and up-to-date client information via the Internet.
2. Searching for defaulters in the client-database once a month. If clients in arrears are detected the system generates and posts warning letters automatically as well as informs the loan officer who is responsible for that client.
3. Delivering performance statistics on individual as well as on an aggregated level.

The case of SUMS is generalized to discuss the benefits of (1) using an outsourced specialist and (2) pool client databases for efficient loan tracking – both in terms of time and costs.

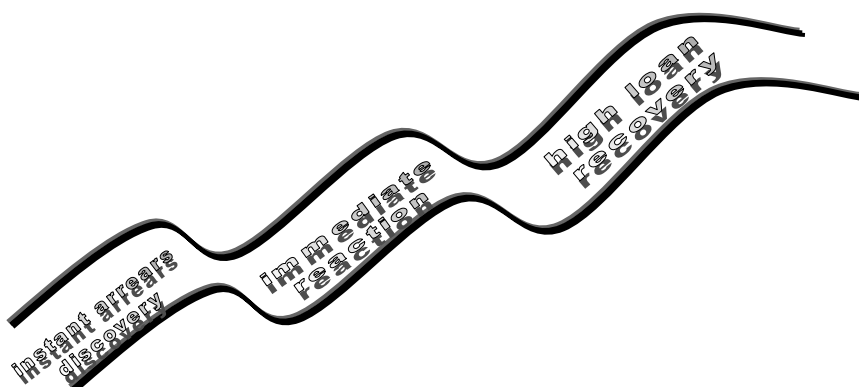
## **Acknowledgement**

This paper relies on the insights provided by Barry Coetzee (Managing Director) and Angelique Breedt (Operations Manager) from S-U Management Service Limited (SUMS), introducing me to the ideas and backgrounds as well to the technical requirements and realizations of SUMS management facilities.

## **Rationale**

Since most MFIs are situated in areas with relatively low labor costs and high unemployment rates it may be questioned why to advocate computerized processing. But even though streamlining cost efficiency regarding labor expenses is the most prominent reason for computerization we are heading for another – perhaps equally precious value: *time*.

In terms of effective loan enforcement, *time* plays a crucial role: The shorter the period from arrears to action, the higher the credit discipline and the probability of loan recover.



This raises two questions:

*How to recognize arrears as early as possible?*

*How to react as soon as possible?*

In the case of a MFI with several branches or outlets, a third question arises:

*How to distribute the information about arrears as quickly as possible throughout the organization so that loan officers can take action?*

This paper will cite the example of S-U Management Service (SUMS) demonstrating how computer aided loan-tracking can work. From there we will take a look at how under-computerized MFIs or MFIs without access to appropriate human resources could benefit from this technology.

### **S-U Management Service (SUMS)**

SUMS, which is based in Cape Town is *not* a MFI. SUMS offers a variety of management services focusing on transaction processing and administration (see the company's home page at <http://www.sums.co.za>). Among its business' is the administration of South African Land Bank's microfinance 'Step Up'-project:

Loans ranging from R250 to R18,000 (US\$25 to US\$1,750, 10 May 2002) are given to resource-poor individuals and farmers for any income generating activity at a fixed monthly rate of 2%. The only requirements are: Applicants must be at least 21 years of age, hold a South African Identification Document, have a Post Bank or commercial bank account and a postal address for correspondence.

According to [www.landbank.co.za/devprojects/default.html](http://www.landbank.co.za/devprojects/default.html).

The loan scheme works like this: To take that first "Step Up " requires a deposit of just R50 – which would garner for the lender an initial loan of R250, redeemable by six payments of R50 each; when it is re-paid, Step Two is a R500 loan with six payments of R100 per month;

Step Three is R 750 at six, monthly repayments of R 150; right up to Step 14, which is a loan of R18 000, re-payable at R1000 in a minimum of 24 months.

Borrowers can step up the loan ladder faster than the minimum pace required, thus making them eligible straight away to take the next step. However, if they fail to re-pay in the stipulated period, their climb ends right there –they stay where they are and will have to apply for the same loan again.

Jonathan HOBDAV: *Investing in the Poor*, Acumen, 4/2001, [www.sums.co.za/archive.htm](http://www.sums.co.za/archive.htm), 02 May 2002.

In terms of outreach

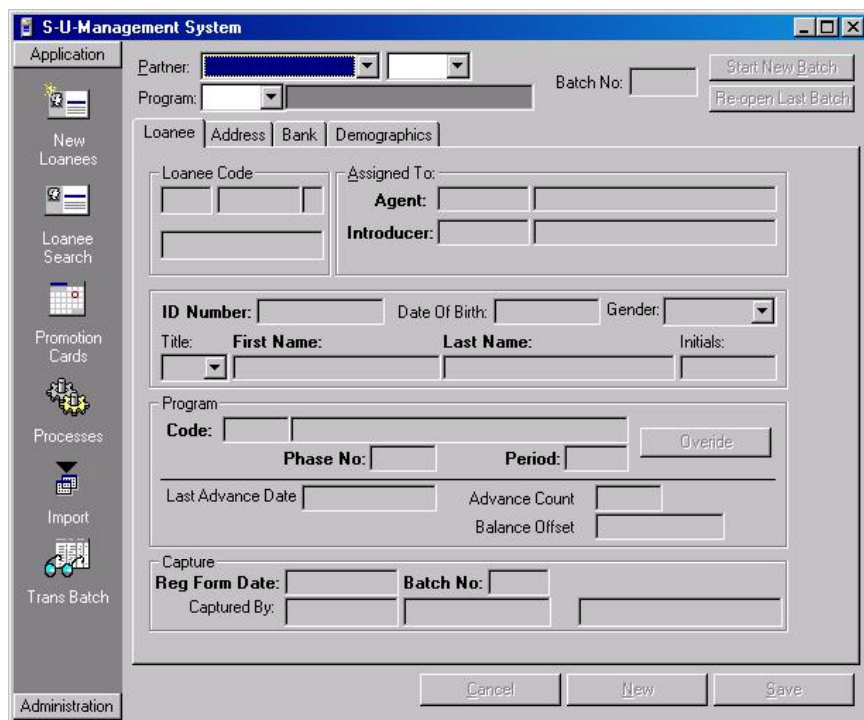
- 28 branches
- 236 points of contacts (agents) for clients
- around 92 000 handled clients (actual)

throughout the country.

SUMS comes into action only after a loan is approved (minimum criteria) receiving the clients data on the 'Step Up Loan Agreement' form (see Annex) by a specialised courier service. This

data is then captured on the SUMS computer system (see figure 1) – in principle everything concerning editing and changing data can be done by SUMS staff only. This ensures on the one hand low error rates and on the other hand a high security level since every single entry or change to the data is recorded together with staff's name. So every action can be tracked back.

figure 1: Screen of SUMS' computer program



## Processing

SUMS computer system is custom made upon an infrastructure provided by Microsoft (SQL Server, Transaction Server, Visual Studio) and Crystalreports. Mentioning all different aspects of the software would go far behind the scope of this paper – more information can be obtained from Barry Cotzee ([barry@sums.co.za](mailto:barry@sums.co.za)).

The main concept of administration is threefold:

- (1) Serving information to agents and loan officers: A simple internet access is enough to log on to the data base and provide all agents and loan officers with real-time data on clients social data, actual repayment performance, repayment history etc. This data can be used by the agents for preparing client contacts or further loan approvals (next step in the loan scheme, see above).

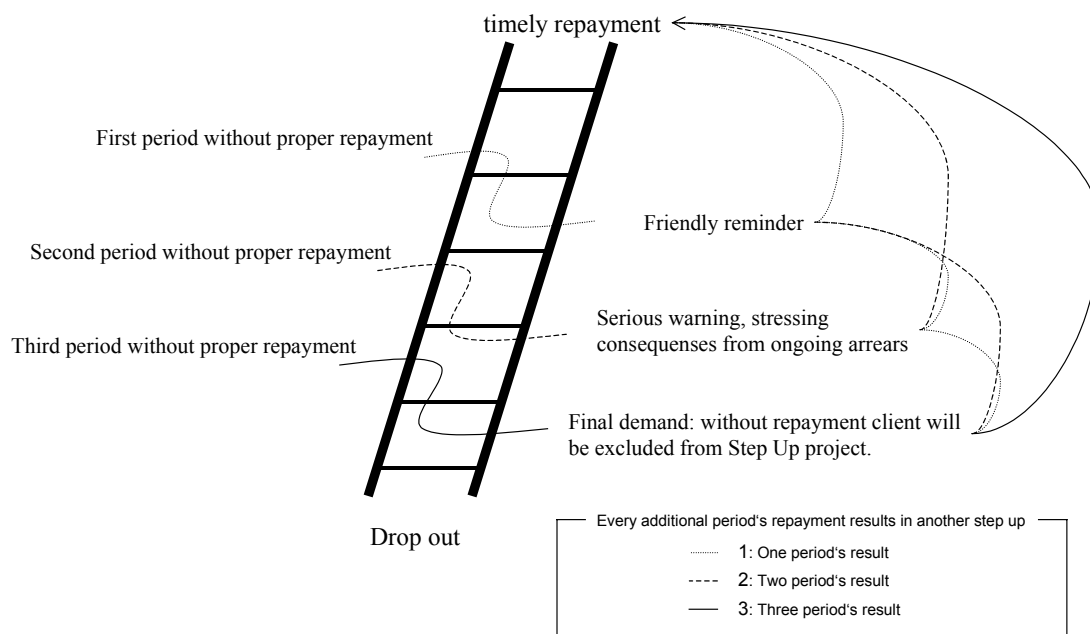
(2) Administering arrears tracking: This – in my opinion – is the core application leading to enormous advantages in terms of efficiency:

The operator runs a process four times per month to download some 30 – 40 000 small repayments to a centralized bucket account at a Commercial Bank. This information is electronically identifiable and reconciled to the individuals loan account. This process provides for the funding of the loan disbursements. The system automatically runs a process once a month (from the 7<sup>th</sup> to the 9<sup>th</sup>) to check for the status of defaulters against a matrix holding the defined rules of the product. The level of warning for defaulters is based on the percent repayments made in relation to the percent repayments that should have been made by a certain time period in their loan phase.

The default letters begin with a "Friendly reminder" for the first two months lapsed payments, followed by a "Serious warning" and then a "Final Demand".

Each letter clearly states what is owed by the client to date and by which date, which amount should be paid. This enables a client to move from a "Serious warning" to either no warning if they are completely up to date or a "Friendly reminder".

**figure 2: Reminder ladder**



As the client has missed payments, extra interest, administrative and default letter charges have been levied. All these charges will negatively influence the client's

outstanding balance. The letters also therefore assist the client in stating what amount of additional payment could be paid by the client to help them move back into a corrected position.

In addition to these posted warnings the system posts a report on the web for the attention of the loan officer who attends the client in arrears giving a clear statement of the loans in arrears. The loan officer can take action at branch level and record it back to the system. This means that the loanees track record is not only recorded in terms of loan discipline and maybe enforcement measures but also includes the loanees reaction to a physical or telephonic follow-up. Another “side-effect” is that loan officers’ actions are traceable now as well.

- (3) Delivering statistics on individual as well as on a aggregated level. For both approaches the question of risk management is probably most interesting. (2) already showed the application of these statistical facilities on the individual level since the system’s reaction towards defaulters is based on the analysis of a single loan history. In the same way this analysis can be used if it comes to whether to approve a further loan to a client or not.

It got clear up to now that this system collects a huge number of individual loan records. This wealth of data can be tapped by the system as well by performing comprising statistics – eg. to answer the question whether the general concept of the ‘Step-Up’-ladder can be considered to be successful one can look at the overall number of loans being in line with the project’s requirements.

Loan officers can access both individual and comprising statistics via the Internet making it easy for SUMS to keep loan officers updated all the time resulting in a tremendous drop in numbers of call-ins from loan officers asking for information they now have instant access to.

- (4) Delivering accounting information for Sums’ own financial systems and for the funder, Land Bank.

The accounting system is separate from SUMS’ loan administration system. This acts as a check since the transactions in the loan book must agree to those processed in the accounting system.

SUMS’ system provides accounting reports via a spreadsheet (Excel). These reports are then used for reconciliation purposes against the physical transactions.

When cash is disbursed the funder receives reports reconciling the total loan book to its total funding since inception and the shortfall that now has to be funded because of cash being disbursed. This reports provide an audit trail for the funder.

Repayment receipts are deducted from advances to be made so that the funder only has to fund the net amount.

## **Outlook**

Beside the software you need some pre-requisites to apply the described method:

- (1) A technical infrastructure including power supply, PCs, telephone networks, reliable courier/mail service.
- (2) Skilled human resource to operate the system.
- (3) Clients need a postal address.

While (3) is beyond any MFIs' influence (1) and (2) are not that much a problem for bigger MFIs. If it comes to small MFIs SUMS marks the way: Outsourcing. Remembering that SUMS is not a MFI itself but offering management service to MFIs, this approach can be generalized. One conceivable setting could be that donor agencies step in to provide the necessary service for several MFIs for a transitional period. The fees they charge clients for reminder letters as well as administration fees would pay the agencies – just like SUMS.

This is expected to generate great reward in terms of organizational efficiency allowing participating MFIs to focus on their core business: And since the positive effects of computerization grow with the number of clients to be managed at a time outsourcing means additional benefit due to pooling clients from several MFIs.

Externally funded MFIs using this kind of service will enable their donors to install an instant reporting system since all client data is processed through their machines anyhow. Whether this is of advantage or not must be discussed, but is again beyond the scope of this paper – donors' responsibility for their actions could be raised but might be paid off with additional dependency of participating MFIs. The alternative to a donor driven service management would be a commercial service provider right from the beginning.



# Annex

## Step Up Loan Agreement form



### STEP UP LOAN AGREEMENT

BRANCH \_\_\_\_\_  
 AGENT'S NAME \_\_\_\_\_  
 AGENT'S CODE NUMBER \_\_\_\_\_

CLIENT'S SURNAME \_\_\_\_\_  
 FIRST NAME/S \_\_\_\_\_  
 ID NUMBER \_\_\_\_\_  
 CONTACT TEL. NUMBER \_\_\_\_\_  
 PHYSICAL ADDRESS \_\_\_\_\_  
 Postal Code \_\_\_\_\_  
 POSTAL ADDRESS \_\_\_\_\_  
 (Not agent's address) \_\_\_\_\_  
 Postal Code \_\_\_\_\_  
 NAME OF CLIENT'S BANK \_\_\_\_\_  
 BRANCH CODE \_\_\_\_\_  
 ACCOUNT NUMBER \_\_\_\_\_

LEVEL OF EDUCATION *Standard passed* \_\_\_\_\_

LANGUAGE	Eng.	Xhosa	Zulu	Sotho	Afrik.	Other
WHAT DO YOU PLAN TO DO WITH YOUR LOAN?	Start Business	Expand Business	Payment of Debt	Education	Personal	Other
HOW WERE YOU INTRODUCED TO THIS PROGRAMME?	Friends/Family	Radio	Newspaper/Magazine	Agent	Loan officer	Other

NAME OF NEXT OF KIN \_\_\_\_\_  
 ID NUMBER \_\_\_\_\_  
 RELATIONSHIP TO CLIENT \_\_\_\_\_  
 TEL. NUMBER \_\_\_\_\_  
 PHYSICAL ADDRESS \_\_\_\_\_  
 Postal Code \_\_\_\_\_  
 NAME OF EMPLOYER \_\_\_\_\_  
 TEL. NUMBER \_\_\_\_\_  
 CONTACTABLE ADDRESS \_\_\_\_\_  
 Postal Code \_\_\_\_\_

**GENERAL INFORMATION**

PROXIMITY TO FNB	0 - 10 km	10 + km	30 + km	60 + km	90 + km
PROXIMITY TO CLIENT'S BANK/TELEBANK					

I hereby agree to join the STEP UP loan programme of the Land Bank in terms of the schedule with terms and conditions printed overleaf. I agree that the interest and fees shall be debited to my loan account and capitalised monthly. I promise to make all my repayments to Step Up according to the schedule. I clearly understand that I must put my deposit and loan repayments directly into the account of Step Up at any branch of First National Bank and that I should not pay any money in this regard to any employee or agent of the Land Bank or any other person.

[APPLICANT'S SIGNATURE] \_\_\_\_\_ [AGENT'S SIGNATURE] \_\_\_\_\_ [LOAN OFFICER'S SIGNATURE] \_\_\_\_\_  
 DATE \_\_\_\_\_ DATE \_\_\_\_\_ DATE \_\_\_\_\_

104071



SUMS COPY

FOR OFFICE USE ONLY

BRANCH  
 \_\_\_\_\_

- ATTACHED TO THIS FORM
- R50 deposit slip stamped by FNB
- Certified copy of client's ID - (by agent or branch)
- Photocopy of client's Telebank card or confirmation of bank details
- Recent printed proof of Postal Address

LAND BANK  
 OFFICIAL  
 STAMP