## Effects of Computerization on Saving and Credit Cooperatives in Uganda

By Sonja Kazaneza Riedke (sonja\_riedke@hotmail.com)<sup>1</sup>

### 1. Introduction

In Uganda, less than 30 % of the population has access to formal financial services. This is especially true for the rural and poor population (FinScope, 2010). In the last couple of years more than 1500 saving and credit cooperatives (SACCOs) have been playing a major role in trying to fill this gap by providing financial services to the rural population (Vesperman n.d.). The need is unquestionable, as about 85% of the Ugandan population lives in rural areas, however, providing financial services to this section of the population is accompanied with significant difficulties (Finscope, 2010). The main source of income for 60% of the rural population is agriculture (Finscope, 2010). Hence, the SACCOs largely serve clients which depend on agriculture. This is a very unstable source of income, as unforeseen weather fluctuations can result in poor productivity. Furthermore, high dispersion of customers in rural areas results in high transaction costs for SACCOs, which are then passed on to the clients in form of high interest rates.

The GTZ Financial System Development (FSD) Programme has been working in the Ugandan financial sector since 1998 (GTZ, 2010). One of their goals is to improve the efficiency of SACCOs in terms of reducing the interest rates and therewith to improve the financial services for the poor and rural population in Uganda. Within the scope of this project GTZ FSD Programme equipped eight SACCOs in different regions of Uganda with computers and the FAO-GTZ MicroBanking System for Windows (MBWin) as a mean of improving their efficiency. Both hardware and software were installed during 2007-2008 and accompanied with several trainings for the staff of the SACCOs. New training needs are constantly evaluated and when necessary performed. During the research for my university degree, I was thus wondering to what extent, the introduction of technology improves the efficiency of the SACCOs, or if it could possibly even have a negative impact?

### 2. Background

According to the literature, technology is likely to increase the efficiency, outreach and sustainability of micro finance institutions like SACCOs. "Information and Communication Technologies (ICTs) has been found to promote the dual objective of micro finance - sustainability and outreach to the poor people" (Ssewanyana, 2009:1). Furthermore, he states that management information systems support the loan

 $<sup>^{\</sup>mathrm{1}}$  Ms. Sonia K. Riedke is a student at the ESB Business School in Reutlingen, Germany.

portfolio, transparency, time management and the outreach of micro finance institutions (p.6). In general, microfinance handbooks note that management information systems are essential in order for a micro finance institution to operate efficiently (Ledgerwood, 1999:254). When the first branch within the Grameen bank was computerized, it cut the staff's time spent with paperwork by 70%! (Counts 2008:255). Johnson found that Indian MFIs using standard MIS software spend less staff time and money tasks of record keeping and branch audits than MFIs using EXCEL-based MIS (Johnson 2008).

On the other hand, critical views of computerization are sceptical whether the human resource capacity and experience in developing countries can manage such new technology (FAO 2003). They criticize that many donor organizations provide micro finance institutions with new technology, but fail to provide the training necessary to use the technology effectively (OECD, 1991). "Although technology can be represented by a simple hardware, it is not limited to hardware" (OECD, 1991:32). In order for managers of microfinance institutions to make use of the new technology, they have to be able to interpret the data the system provides. It is important to differentiate between raw data that the system provides and data that is analyzed, understood and transferred into information (Ledgerwood, 1999:170).

The point of my research is to look at the experience in Uganda and analyze whether the computerization of SACCOs has increased their efficiency or instead brought about new problems.

# 3. Data and Methodology

The data used to perform this analysis was gathered during a six week stay in Uganda. Several trips were taken to the mid-north and southern region in Uganda to visit five of the eight SACCOs, including two branches, which are supported by the GTZ FSD Programme. During the visits, the financial reports from 2005-2010 were gathered from all five SACCOs. Moreover, the managers and accountants were interviewed on their experience with the new technologies. The interviews gave insights into the advantages of computerization, but also into the problems and difficulties the SACCOs are facing due to the changes technology brought with it. In addition, it was also possible to look at the different SACCO buildings, their equipment and observe some of their daily transactions.

To assure that the financial data of the different SACCOs is comparable, the audit reports of the end of each financial year were collected. Due to the fact that most of the SACCOs were computerized 2007 or later, it was sometimes very difficult to acquire their financial data from previous years. One also has to mention that the data is not 100% accurate and reliable. This is primarily due to the fact that the manual systems are prone to human mistakes, that transformation errors occur when translating the manual data into the systems and finally because of inaccuracies due to misunderstandings or incorrect use of the

software. The data will be adjusted so that it is comparable between all five SACCOs and will then be used to prepare a trend analysis, with a focus on efficiency.

Apart from the quantitative analysis, the interviews will also be used to further complete a qualitative analysis. The interviews covered a very broad range of topics and were aimed at eliciting an open conversation about the changes, problems and advantages the computerization has bought. The interview questions looked at the impact computerization had on the working time for daily, weekly and also monthly transactions, including front and back office of the SACCOs. Secondly, they looked at the client portfolio – number and outreach. Along with the client portfolio, questions concerning the number of staff members and their education, especially with regards to information and communication technology (ICT) usage, were covered. Lastly, the SACCOs overview of their customer structure, saving and loan portfolio and their financial situation was drawn into focus, to see whether the data is actually transformed into management information for the SACCO. As trust is also a critical issue when it comes to new technology, especially in such rural areas where computers are very rare, this last part constituted a significant part of the interview. Finally, problems and recommendations for the software as well as the need for further training were inquired about.

#### 4. Conclusion / Recommendation

Based on a initial analysis based on observations and answers during the interviews, a few preliminary statements can be noted. All interview partners stated that the daily transactions can now be processed a lot easier and quicker, due to the fact that client information can be accessed very easily and it is no longer necessary to pick out the corresponding ledger card. Therefore, staff is now capable to deal with a lot more clients per day than before. This is also true for the preparation of financial reports, which can easily be printed whenever necessary as the data is now always updated on a daily basis and no longer on a weekly or even monthly basis. Thus, staff members have a better overview over customer structure, loan- and savings portfolios.

Likewise outreach has been influenced positively. Several SACCOs stated that a lot of new clients are coming from further away, because they have never seen a computer and place new trust and confidence in the SACCO in light of the new developments and the professional appearance. Clients feel that it has increased the transparency of the SACCO and it is no longer as easy for employers to "cheat". Finally, also the collection of overdue loans has become a lot easier as staff members now have a daily updated overview of their dispersed loans. Related to this issue, one SACCO pointed out that the system has

become significantly more efficient as penalties for overdue loans are now automatically calculated and charged by the computer.

Nonetheless, the interviews also made evident that several problems accompanied the introduction of computers. For one, all the SACCOs agreed that they feel they need more training to fully understand and use all functions of the system. Several managers stated that they are not able to use all the functions the system offers, such as the back-up system or different financial reports. As mentioned before there is a difference between the data the system is compiled of and the information one can make use of. Moreover, several SACCOs face technical problems, such as slow systems or break downs with no immediate technical assistance in rural areas. A technical breakdown could cause great damage, as three of the five SACCOs are no longer preparing a manual back-up, relying absolutely on the computer. Complete trust and dependence on electronic technology can be very risky if gross chunks of data were lost. In the light of the recorded constraint in applying the back-up system, this risk appears particularly pertinent.

Currently ongoing is the analysis of the quantitative data with the aim of highlighting supporting or opposing evidence of the tentative picture described above. However, it can definitely be noted that the technology has positively influenced the SACCOs by making daily work a lot easier and quicker. Nonetheless, it is also important that as technology evolves, more and more training will have to be performed to ensure the necessary human resource capacity. It is not possible to transfer technology from one country to another and expect the local capabilities to be existent.

"Imitation is an active, creative process, it involves adaptation not adoption." (Metcalfe, 2003:98).

### References

Counts, A. (2008): Small Loans, Big Dreams: How Nobel Prize Winner Muhammad Yunus and Microfinance Are Changing the World. New Jersey: John Wiley & Sons.

Finscope Uganda (2010): Results of a National Survey on Access to Financial Services in Uganda (*draft report, unpublished*).

GTZ (2010): Financial System Development; under: www.gtz.de/en/weltweit/afrika/uganda/16458.htm [11.10.2010]

Ledgerwood, J. (1999): Microfinance Handbook: An Institutional and Financial Perspective. Washington: The International Bank for Reconstruction and Development / The Worldbank.

Johnson, Doug (2008): Management Information Systems in Microfinance Institutions, CMF Focus Note No. 2, Chennai, under http://ifmr.ac.in/cmf/focus\_notes/mis-in-indianmicrofinance.pdf [4.09.2008].

- Metcalfe, S. (1999): Science, technology and innovation policy. In: G. Wignaraja, (ed. 2003): *Competitiveness strategy in developing countries: A manual for policy analysis*. London: Routledge. Ch. 4.
- OECD (1991): Managing Technological Change in Less-Advanced Developing Countries. Paris: OECD
- Sergio C. (n.d.): New and Emerging Technologies: a Challenge for the LDCs in the Decades Ahead, In: OECD (1991): *Managing Technological Change in Less-Advanced Developing Countries*. Paris: OECD Ch. 3.
- Ssewanyana J.K.. (2009): ICT Usage in Microfinance Institutions in Uganda. *The African Journal of Information Systems, [online]*, Vol. 3. Under: www.ajisonline.com [01.10.2010]
- Vesperman, C. (n.d.): Credit unions make a better future in Uganda, World Council of Credit Unions, under: <a href="https://www.woccu.org/functions/view\_document.php?id...Uganda">www.woccu.org/functions/view\_document.php?id...Uganda</a> [11.10.2010].