# Information Communication Technology (ICT) for Credit Unions and Cooperatives

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#### Abstract

A credit union is a cooperative financial institution that is owned and controlled by its members and operated for the purpose of promoting thrift, providing credit at reasonable rates, and providing other financial services to its members.

### 1 Introduction

The first successful credit unions began in Germany under the leadership of cooperative pioneer Hermann Schulze-Delitzsch. These credit unions would be recognizable today, since they adhered to the basic aspects of the co-operative identity: that is, they were "based on the values of self-help, self-responsibility, democracy, equality, equity and solidarity. In the tradition of their founders, cooperative members believe in the ethical values of honesty, openness, social responsibility and caring for others."



### 1.1 Different from Other Financial Institutions

Credit unions differ from banks and other financial institutions in that the members who have accounts in the credit union are the owners of the credit union and they elect their board of directors in a democratic one-person-one-vote system regardless of the amount of money invested in the credit union.

A credit union's policies governing interest rates and other matters are set by a volunteer Board of Directors elected by and from the membership itself. Credit unions offer many of the same financial services as banks, often using a different terminology; common services include: share accounts (savings accounts), share draft accounts (checking accounts), credit cards, share term certificates (certificates of deposit), and online banking.

Normally, only a member of a credit union may deposit money with the credit union, or borrow money from it. As such, credit unions have historically marketed themselves as providing superior member service and being committed to helping members improve their financial health. In the microfinance context, "Credit unions provide a broader range of loan and savings products at a much cheaper cost [to their members] than do most microfinance institutions".

Successful Credit Unions know that to compete with large banking institutions, it is essential that customer service form the foundation for all business decisions. Never has this been truer than in today's financial services industry with the rise in popularity of branch banking within the local community. Consumer demand for accessibility, convenience and service has challenged many Credit Unions to provide the same full-service offerings at each and every branch location.

### 1.2 Credit Union Challenges

For Credit Unions, the growing requirement to provide members, employees and the community a competitive range of accounts and services has further strained existing resources. Often members are looking for real-time interactions and support for issues that range from a simple request to more complex financial or tax-planning questions. This increased commitment to members, coupled with fewer resources, is at the core of many challenges Credit Unions are facing today, including:

- OPERATING COSTS—how to keep an increasing number of employees up to speed on new products and services without increasing training and support budgets?
- NUMBER OF BRANCHES—how to keep local branch employees connected, trained and informed, as well as manage the hiring and training of new employees?
- COMMUNICATIONS—how to assist employees with dispersed branches and offices effectively communicate with other locations and headquarters, particularly on urgent financial and operational issues?
- COMPETITION—how to thrive in an increasingly competitive market offering improved service and greater product offerings while dealing with decreased market share and lower profit margins?

Overcoming these issues requires Credit Unions to focus on four critical areas:

- Improving the customer experience;
- Making internal communications more effective;
- Cultivating workforce collaboration; and
- Reducing operating costs.

To fill this void, Credit Unions have begun to leverage unobtrusive technologies such as video conferencing to more closely associate with their member base, provide enhanced support and financial expertise to all branches, and provide a measurable level of service differentiation in the community. *The goal is to provide the members with a full service, consistent experience no matter which branch or which location they may visit.* 

### 1.3 Visioning Success

Visual communication solutions provide Credit Unions with an effective means to address key operational challenges. Advances in video technology, improvements in IP infrastructures and the ability to utilize video for revenue generating activities are quickly turning visual communication technology into a business-critical solution for today's more nimble Credit Unions. Visual communication technology provides Credit Unions with specific business-to-employee, customer-facing and supply-chain solutions that deliver on the promise of the real-time enterprise. Visual communication allows Credit Union employees to exchange information more effectively between remote locations,

answer member questions more efficiently, and provide new service offerings and expertise to branch locations to better compete with banking institutions. Integrated, end-to-end solutions helps Credit Unions of all sizes to:

- Streamline the customer acquisition experience;
- Provide an enhanced customer experience;
- Gain competitive advantage through improved decision making and speed-to-market;
- Drive lower cost structures;
- Provide organizational flexibility; and
- Realize substantial ROI for internal and external business applications.

INCREASED SERVICES, IMPROVED EXPERIENCE, TANDBERG DELIVERS Real-time Advisor provides Credit Unions with an unparalleled solution for combining video communication technology, PC presentations and collaboration between members and the staff.

EXTERNAL. Real-time Advisor provides the framework to instantly connect members with the Credit Union's Subject Matter Experts and Financial Advisors, no matter where the member or the expert is physically located. As employees can use visual communication solutions to talk face-to-face with members and coworkers while simultaneously accessing member account information, decisions are made more quickly, and transactions are more efficient, with fewer mistakes.

INTERNAL. Visual communication technology also allows for branch employees to connect with co-workers in other locations for training or to share best practices. Management has leveraged the technology to provide product updates and sales results in a timelier manner. These quick, highly-visual connections are often all that is needed for a branch team to gain the competitive advantage needed to win business in a local market.

A cooperative (also co-operative; often referred to as a co-op) is a business organization owned and operated by a group of individuals for their mutual benefit. Cooperatives are defined by the International Cooperative Alliance's Statement on the Cooperative Identity as autonomous associations of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through jointly owned and democratically controlled enterprises. A cooperative may also be defined as a business owned and controlled equally by the people who use its services or by the people who work there. Cooperative enterprises are the focus of study in the field of cooperative economics. Cooperatives are based on the cooperative values of "self-help, self-responsibility, democracy and equality, equity and solidarity" and the seven cooperative principles. 1. Voluntary and Open Membership 2. Democratic Member Control 3. Member Economic Participation 4. Autonomy and Independence 5. Education, Training and Information 6. Cooperation among Cooperatives 7. Concern for Community.

Cooperatives in India:

- A· Aavin · Amar Kutir · Amul
- C· Campco
- I· Indian Coffee House · Indian Farmers Fertiliser Cooperative Limited
- K. Kaira District Co-operative Milk Producers' Union · Karnataka Milk Federation · Kerala Co-operative Milk Marketing Federation · Krishak Bharati Cooperative Limited
- M· Matsyafed · Mother Dairy
- O· Orissa State Cooperative Milk Producers' Federation Limited
- S· Sant Muktabai Sahakari Sakhar Karkhana · Shri Mahila Griha Udyog Lijjat Papad · Sudha Dairy
- V· Vasudhara Dairy

### 2 Computerizing dairy cooperatives

### 2.1 Open source software improves efficiency of Kenyan dairy cooperatives

Faced with increased competition and fewer subsidies, many Kenyan dairy cooperatives are now using an information management program specially developed to help farming cooperatives run more efficiently.



Dairy production in Kenya, is carried out by small-scale dairy farmers located in rural areas, often with low levels of literacy and very few technology skills. For most Kenyan dairy farmers, their only source of income comes from selling milk. But over the years, many small-scale producers have pooled their resources and built up strong cooperative societies that collect the milk and then sell it on to bulk processors. Some cooperatives belong to an even bigger union that also processes milk from its members before selling the final product in retail markets.

There is, however, increasing pressure on the Kenyan dairy industry as cheap imports compete with locally produced milk. Farmers are further strained since the government stopped providing farm subsidies, leaving farmers to meet the full cost of production. For dairy cooperatives to survive they have to streamline their operations and improve their management processes if they want to have a positive balance sheet and some surplus money to pay dividends to their members.

One way the cooperatives could increase efficiency is to use increase their use of computers. Computers can remove the duplication of efforts often seen in the manual accounting systems and transaction recording. Processing payments by hand is time-consuming especially for cooperatives with many members. Paper transactions can then be difficult to trace, leading to complaints from farmers and, in some cases, a feeling of being cheated. An erosion of trust, questions of accountability and an accounting system that is open to abuse can all cause the collapse of a cooperative.

To combat these issues and improve the efficiency of agricultural cooperatives, open source software developers in Kenya have worked together to develop Coopworks. Development began in 2006 and the programme is now freely available for download. The developers designed the system specifically as a farmers' information management system to help agricultural cooperatives manage their accounts, membership details and production records. The system currently supports dairy cooperatives and developers are now working on a facility to extend the program to coffee cooperatives by mid-2009.

### 2.2 Advances

The program automates daily operations such as member registration, milk delivery, collection, analysis and storage, and can report information much faster and more accurately than the manual systems previously used by many cooperatives. The member management registration process, for instance, can contain more details than the old style member register and administrative staff can now find a single member record in seconds.

The milk delivery module can track daily, weekly and monthly deliveries of milk by any farmer and the system can compile reports based on collection routes, farm location and region. By calling up a particular farmer's production record the cooperative can offer advance credit to that farmer against future deliveries. The system also shows any outstanding loans and can display the farmer's previous repayment record. The development team is working on an addition to the system where members can query their balance via a text message from their mobile phone.

The program can also help the cooperative with disease control planning. If a delivery of milk is rejected for any reason, the problem is noted in the system along with details of the milk's source. Coopworks can show if more supplies have been rejected from a particular farm or region and warn farm managers of a possible disease outbreak. The system can also immediately display the store's inventory and show if cooperative has enough medicine to deal with a possible outbreak.

Access to a reliable and stable source of electricity, however, is the biggest challenge for cooperatives that want to invest in computers and use digital management systems. Tanykina Farmers Cooperative Society, in Kenya's Rift Valley, for example, powers its computers by generator. But due to the high cost of fuel, they can only switch the generator on for a few hours a day to allow the computer to capture the day's transactions. Tongaren Farmers Self Help Group, on the other hand, uses a solar powered laptop.

The cost of acquiring computers presents another major obstacle, especially for small cooperatives. The Coopworks team has been advising farmers to buy refurbished computers but the cost of these machines can also be beyond the budget of some cooperatives and are not always readily available. A third issue limiting the implementation of computerized management systems is the lack of computer literacy in many rural areas. Though Coopworks was designed to fit international accounting practices, each cooperative always has to customize the program to fit in with their in-house working methods. If cooperative staff have limited technical skills adapting the program can be quite difficult. In fact, instead of getting their member statements on time, in some cases, cooperatives have had delays in the process since adopting the system.

### 2.3 Experiences

The system was piloted in five major cooperatives around Kenya. Tulaga Farmers Cooperative Society in Kinangop, north of Nairobi, initially had 800 members. Two years after installing Coopworks their membership has swelled to 3400. Farmers say they joined Tulaga because they were able to get their member statements on time, unlike with the other cooperatives which were not computerized. Significantly, the rapid increase in the number of members did not require additional staff. The society has now purchased their own milk cooler as result of increased revenue due to increased members and the number of extra deliveries.

The next stage in the development of the software is to add an extra function where, for example, reports can be displayed as graphs or charts. Having a more visual representation of important performance indicators such as sales, profit and loss, variations in market prices and stock level reports helps the cooperative explain its management process to members which in turn encourages a much wider involvement in the running and planning of the business.

Extending the program so that it can automatically send and receive text messages from mobile phones will be especially useful. Farmer can query their statements without having to travel to the cooperative's office. Since the telephone numbers of all its members will be stored on a database, the society can send text messages to farmers giving technical advice, market prices, alert them to disease outbreaks or inform them of a meeting.

The Coopworks team also plans to link the system to digital weighing scales which will automatically report back to the farmer via text message to confirm the amount of product delivered at the collection point. The farmer can then verify that the amount is the same as that collected. To achieve this, however, the team is looking for input from software developers around the world and has made the code available for anyone to contribute on the SourceForge website, a site which encourages collaboration on open source software development.

# 3 Conclussion

The introduction of computer software to manage the daily running of cooperatives can bring many benefits to the society as well as its members. The agricultural sector has lagged behind business and education when it comes to the adoption of communication technology, especially in countries where power supply, internet connectivity and computer literacy are major challenges. But information management systems, like Coopworks, can significantly increase the efficiency of a cooperative and help to ensure that it, and the individual farmers, can continue to compete even with the pressures of the modern marketplace.

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