INCLUSIVE INNOVATIONS PROFILE



Operating Model

Shree Kamdhenu Electronics Private Limited (SKEPL) recognized the need of an Automatic Milk Collection System (AMCS) in early 1995 in order to ensure transparency, trust and error-free operations in the milk collection process. The enterprise provides dairy equipment and electronic weighing scales to dairy farmers through dairy co-operatives and milk unions. It is an ISO 9001:2008 certified enterprise that integrates the electronic weighing scale with quality testing equipment such as electronic milk tester or milk analyzer, and data processor or computer. SKEPL delivers products and services under the brand name of AKASHGANGA.

SKEPL leverages technology to provide customized solutions for milk collection. Some of the products and services include nano-based (hand held device) milk collection systems, solar operated milk collection systems, daily SMS-based milk quality reports, USB drive-based data transfer for integrating with payment gateway, financial accounting software (with regional language support) to draw up to balance sheet. General Packet Radio System (GPRS) and File Transfer Protocol (FTP) based data transfer from collection point to chilling plants or bulk milk coolers or dairy plants.

SKEPL allows milk cooperative members to test the product for 2 months. This trial period allows the customers to test the machines and get familiar with the modern methods of calibration of milk quality and quantity. The milk co-operatives that are interested in adopting the technology on a permanent

SKEPL has over **25 service centers** with trained personnel and a presence in over **17 states in India**.

basis can purchase the machines after this test phase. Farmers test the product and share feedback with other farmers — and SKEPL leverages this word-of-mouth marketing to increase sales of its



product. The enterprise has also explored other avenues for business development, such as participation in government tenders. It engages with local communities such as milk unions in Nepal for business development activities in the country.

The enterprise educates its customers regarding the significance and use of the electronic machines. It provides practical training to customers and allows them to experience the difference between the traditional and electronic method. This helps in building trust with the customers. SKEPL also customizes the solution as per farmers' requirements. For instance, quality reporting requirements are different across Indian states such as Gujarat and Maharashtra; therefore the solutions provided are also different. The enterprise supports its customers regarding the best use of the product, and according to the enterprise, customers can recover the cost of the product within 6-7 months if they follow the suggestions of SKEPL.

Financial sustainability

SKEPL incurs most of its operational costs in human resource management, and most of the capital costs in technology development. Its sources of revenue include annual contracts with the milk unions, and fees obtained for after-sales service support. The enterprise has raised money from two investors - Aavishkaar and Grassroots Business Fund. The price range of the solution ranges between USD 1050 and USD 1800, based on the configuration, with the enterprise making a gross profit margin of around 20 percent on each AMCS.

Impact

SKEPL works with nearly 7000 partners, each impacting at least 300 farmers. Therefore, the enterprise has directly impacted nearly 2.1 million small dairy farmers in India. The intervention has eliminated low payment to farmers and adulteration of milk, thereby increasing farmers' income.

The enterprise was the implementation partner in a project funded by Department for International Development (DFID) through a Poorest Area Civil Society (PACS) program. SKEPL provided manufacturing, installation and maintenance services for Automatic Milk Collection Units (AMCUs) installed at village cooperative societies as part of the project. The model demonstrated that the investment made through the program ensured 26 percent increase in income for the dairy farmers, reduced their challenges in selling the milk and increased transparency at the collection point. Dairy farmers used to receive an average of INR 3114 (USD 47) per month by pouring milk into the Dairy Co-operative Societies (DCS). With this intervention, the amount increased to INR 3981 (USD 60) per month. There was also an average 20 percent increment in the amount of milk poured into the DCS by an individual dairy farmer, and around 6 percent increase in the rate of milk because of the improvement in the quality of milk and good dairy practices.

Challenges and Lessons

Skilled manpower is a key challenge for SKEPL, given that rural semi-skilled labor is migrating to periurban and urban areas to work in malls and quick service restaurants. Another important challenge is capital and management of its funds. SKEPL lacks collateral securities and finds it difficult to avail working capital loans for its business. To manage funds and raise working capital, SKEPL's promoters have had to provide personal assets as a collateral security. SKEPL addresses the issue of human resource management by providing appropriate compensation and growth opportunities to its people.