CASE STUDY: COMMUNITY BASED INFORMATION SYSTEMS, INDIA
ITC *e-Choupal*

EXECUTIVE SUMMARY

e-Choupal is a web supported initiative offering farmers information, customized knowledge, products and services to enhance farm productivity and farm-gate price realization It is an initiative of the International Business Division of ITC, an Indian Agribusiness Firm, and also aims to be a sourcing network for agricultural commodity purchases from ITC, cutting transaction costs in the chain. The web portal allows farmers to access the latest local and global information on weather and scientific farming practices, as well as market prices, in local languages, without leaving the village. E-Choupal was the winner of the 2005 Development Gateway Award.

1. BACKGROUND

Reason for Establishment

ITC's Rationale and Services to the farmers

Current Unsustainable Situation

1. Small farmer livelihoods: Small farmers are currently utterly unable to compete with global agribusinesses on the free market, and they have no alternate marketing choice other than Government-managed market yards
2. Government subsidies: Increasing Minimum Support Prices through Government agencies is economically unsustainable
3. Inefficient use of inputs: Current use levels of water, fertilizer, and pesticides are ecologically unsustainable. This is especially true in cases where more inputs do not result in higher yields

What will make it sustainable?

1. Not subsidies, but efficient services – Ideally these would be along the lines of meta-markets and would not displace small/ marginal land owners
2. Market linkages for output - Demand driven rather than supply driven value chains
3. Non farm employment opportunities - Services for urban & international customers

Organizer

ITC e-Choupal creatively leverages information technology (IT) to set up a meta-market in favor of India's small and poor farmers, who would otherwise continue to operate and transact in unevolved markets where the rent-seeking vested interests exploit their disadvantaged position. e-Choupal also addresses the value-sapping problems caused by fragmentation, dispersion, heterogeneity, and weak infrastructure.

ITC—a 94-year-old Indian Agribusiness Company with annual revenues of US$ 2.6 billion—has taken on the role of a network orchestrator in this meta-market by stitching together an end-to-end solution. The solution simultaneously addresses both the viability concerns of the participating companies by virtually aggregating the demand from thousands of small farmers, and also the value-for-money concerns of the farmers, by creating competition among the companies in each leg of the value chain.

International Business Division (IBD), a division of ITC started in 1990, is engaged in exports of a range of agricultural commodities. Today, IBD continues to deliver agri-commodities like Feed Ingredients - Soya meal, Rapeseed Meal; Food grains - Rice

(Basmati & Non Basmati), Wheat & Wheat Products, Pulses; Coffee, Black Pepper; Edible Nuts - Sesame Seeds, HPS Groundnuts, & Marine products like Shrimps and Prawns. It is also now sourcing domestic markets in products such as wheat, maize , and pearl millet for its own use as well as for niche customers .

Marketing and Promotion Strategy

E-Choupal basically utilizes information and communication technologies to respond to farmers' needs related to cropping information and commodity prices. It also efficiently procures agricultural produce at prevailing market prices, eliminates non-value-adding activities in the supply chain, and decreases wastage in weighing and procuring crop produce from the field to the factory.

Summary Time Path

E-Choupal is by far the largest ICT initiative in India at present. E-Choupals were born in 2000 from ITC's determination to capture more of the soybean crop, which it processes into oil (to sell in India) and into soy meal for export. Further enhancements have led to the conceptualization of e-Choupals as a two way rural fulfillment channel, and to the establishment of rural supermarkets. The first rural mall, "Choupal Sagar," was inaugurated in August 2004 at Sehore MP to sell FMCG and other products of rural consumption. 3 more "Choupal Sagars "have since been launched and another 30 such "Choupal Sagars " are expected to be completed by April 2006.

Scale- Geography & Size

Farm linkages are present in 14 states covering soy, wheat, rice, marine products, edible nuts and coffee. Over 30,000 villages linked through 5200 e-Choupals are servicing more than 3.0 million farmers. ITC plans to scale up the model to cover 15 states in the next 7 years, reaching 100,000 villages. It plans to diversify into product areas such as horticulture, rice, and cotton. Pilots are also underway to market and distribute other firms' services related to microcredit, insurance, health, agricultural inputs, education and rural energy through the same e-Choupal "channel" infrastructure. Resource Development initiatives, christened "Sunehera Kal (The Golden Tomorrow) are also underway in the e-Choupal catchment areas, covering water & moisture conservation, improved cattle varieties (for superior milk yields), women's self -help groups (SHGs) for micro credit & micro enterprise, improved agri practices etc . All of these support enhanced income avenues.

Relation to Local or National Policy on Information and Communication

ITC e-Choupal has no direct link to policy or governance. Potentially some of its goals could overlap with those of the government, leading to eventual involvement, but currently none exists.

2. OBJECTIVES

The project was initiated with the objective of achieving a win-win situation for both the farmers and the company. On the one hand, a more efficient procurement chain is being created for the company, and on the other hand farmers receive better prices for their produce. Services at the e-Choupals help improve farmers' productivity and crop planning capacities.

Initial goals were to empower & give farmers a choice as follows:

Help enhance farm productivity by bundling together & disseminating:

1. The latest information on district level weather forecasts for short & medium terms.
2. Good practices in farming (generic as well as specific).
3. Quality inputs (seed, herbicide, fertilizer, pesticides etc) in the village itself. (questionable input projects have been an issue in the past)

Help improve price realization for farm produce by making available:

1. Live data on markets such as Location and Buyer-specific prices offered.
2. International market prices of relevant agri-commodities.
3. Historical & Up-to-date information on supply & demand.
4. Expert opinions on expected future price movements.

Help minimize transaction costs in marketing farm produce by

1. More efficient Supply Chain & eliminating non-value adding activities
2. Transparent pricing & weight management practices. (this was a major issue in traditional market yards)

3. STAKEHOLDERS

Rural communities and households

Communities in rural areas are the main users of the e-Choupals.

Rural Service Providers

ITC-IBD manages the entire operation. The franchises are run by sanchalaks, farmers chosen to represent ITC to their communities. ITC –IBD also chooses the samyojaks, commission agents who serve as middlemen and manage the hub warehouses that supply the e-Choupals with products.

Policy-makers and their advisers

The project does not involve policy makers and their advisors.

4. PRODUCTS AND SERVICES

Content

The service provides access to the following types of content through the e-Choupal web site, all of which is in local languages, including Hindi, Telugu, and Kannada.

1. Weather - forecasts from Government Meteorological Departments
2. Scientific farming practices - provided by Agri-universities
3. Market prices at the village - collected from mandis (regional markets)

The website is a dynamic portal in the sense that there is regular updating of the static contents.

Other Products and Services

(a) Farm Inputs such as fertilizers and seeds (screened for quality); (b) **Marketing of Outputs** (convenience, lower transaction costs); and (c) **FMCG** goods and services of daily use.(d) FAQs –Frequently asked questions on cropping issues and e-mail facility to link up with scientists for specific solutions .

5. TECHNOLOGY

IT System Architecture

The e-Choupal is connected either through the local public telecom infrastructure or through VSAT/Wireless connectivity solutions. Smart card technology is used to uniquely identify Choupal users and offer personalized content delivery based on the preferences of the user.

Power: Solar battery charger, UPS, (isolation transformer, spike suppressor)
Connectivity: Dial-up: Dial-up modem
VSAT: Solar battery charger, VSAT modem, antennae

Computer Hardware: PC with Intel Celeron processor, printer

Software

Operating System: Windows 98
Word processor: Ankur (Hindi word processor)
Other: Sunera Kal – Short movie on e-Choupal
Video Clips: – Soil testing

People and Organizations

*Sanchalak*s – These are "Lead farmers" identified from within each village and trained to act as intermediaries between the communities and ITC. Registered Sanchalaks have full access to the e-Choupal portal and they in-turn take the role of lead farmer or knowledge worker for the community. Sanchalaks are usually of median wealth and status in their communities, able to read and write, and are part of an extended family large enough that they can find time to service the e-Choupal. Sanchalaks undergo training on basic computer usage, the functions of the e-Choupal Web site, basic business skills, as well as quality inspection of crops, at the ITC plant nearest their village. A great deal of this training is also centered on getting the sanchalaks comfortable with the equipment. For the sale of products through e-Choupal, the sanchalaks receive product training directly from the manufacturer with ITC involving itself only in product design and facilitation.

Samyojak - Cooperating commission agents. The samyojaks handle ITC's local commissions and act as middlemen between ITC and the sanchalaks, managing warehouse hubs, that each cover 40 e-Choupals. Samyojaks play an especially important role in facilitating the cargo procurement process and also give some inputs into village and sanchalak selection when a new e-Choupal is set up.

ITC has about 15 engineers who provide field infrastructure support to the e-Choupals. They average about one or two calls a day. The vendor provides support for hardware failures.

Process/Methods

The e-Choupal system is designed to gather customer information over time. The sources, structure, management, and use of this data are addressed within the information architecture. The technical details are routine, but the data itself and its potential uses are exciting. Data about the rural customers such as their location, creditworthiness, consumer preferences, financial position, and spending patterns represent the first link between this vast untapped market and urban commerce. Such information will eliminate the "unknowns" of rural engagement and enable planning, marketing, and sales of a range of products.
Information gathering is currently semi-automated. Information on each sanchalak is gathered during user registration. The sanchalak also keeps a record of farmer visits, inquiries, purchases, etc. The Q & A section of the Web site allows for two-way transfer of data that is then stored in a database. The Web site does not currently process live transactions, but ITC has plans to do so in the future.
The Web database tracks Internet usage patterns at e-Choupals. From this database, ITC has gathered information such as peak usage periods, preferred Internet destinations, information most sought after, information least sought after etc. ITC intends to leverage the information gathered to help better understand the behavior of their customers, identify unfulfilled needs, and develop ways to serve them efficiently. Full contents of this site are only made available to registered sanchalaks.

6. FINANCIAL ASPECTS

Business Model

A pure trading model does not require much capital investment. The e-Choupal model, in contrast, has required that ITC make significant investments to create and maintain its own IT network in rural India and to identify and train a local farmer to manage each e-Choupal. The computer, typically housed in the farmer's house, is linked to the Internet via phone lines if available, or by a VSAT connection, and serves an average of 600 farmers in 10 surrounding villages within a five kilometer radius. Using the system costs the farmers nothing, but the sanchalak who hosts each e-Choupal incurs negligible operating costs and is obligated by a public oath to serve the entire community. The sanchalak benefits from increased prestige and a commission paid to him for all e-Choupal transactions as an inherent business model.

Due to the e-Choupal services, farmers have seen a rise in their income levels because of a rise in yields, improvement in quality of output and a fall in transaction costs. Even small farmers have gained. Customized knowledge is offered to the farmers despite heterogeneity. Farmers can get real time information despite their physical distance from the mandis. The system saves procurement costs for ITC. The e-Choupal model is quite different from the other models, as the farmers do not pay for the information and knowledge they get from e-Choupals. The e-Choupal system has exemptions which allow it to bypass the government-mandated trading mandis for procurement, though it still has to pay mandi cess, a local tax. (despite not using any of the facilities the taxes pay for)

ITC is also using the network to sell FMCG (fast moving consumer goods) and other products to the same community. Farmers who come to sell produce at the processing center are cash rich after sales, and are likely to purchase their requirements there themselves. The rural supermarket is able to offer better value for money than traditional shops because of its scale. ITC primarily retails other suppliers' products (more than 120 companies and 10,000 + SKUs covering a wide range –FMCG , agri-inputs , farm machinery , tractors , motor cycles , bicycles , apparel , food items etc.) as well as a much more limited selection of its own products.

Incomes/Revenues

ITC expects the following benefits to offset the costs incurred:

1. Lower transaction costs resulting in lower procurement price. This is of the order of about 1.5-2% of the trade value.
2. Improved and consistent quality: ITC performs laboratory testing of the product samples collected. Based on these results, farmers are given a premium for superior products. ITC is also now able to offer their customers "identity preserved & traceable products" (which was difficult to implement in the past)
3. The ability to offer a rural retailing business, in association with the network.
4. Increased business transactions due to enhanced competitiveness, leading to increased revenues without additional costs.

Costs

Each e-Choupal costs between US$3,000 and US$6,000 to set up and about US$100 per year to maintain.

7. KEY ISSUES & CONCLUSIONS

Benefits

The e-Choupal mainly caters to the agricultural community, unlike other initiatives with multiple interests and target groups. E-Choupal provides the following benefits:

e-Choupal benefits the **farmers** by:

1. Enhancing farm productivity through bundling knowledge with deliveries of farm inputs
2. Increasing farm gate price realization through bundling information with cropping & output marketing decisions and through unbundling produce delivery, cash flow and pricing

e-Choupal benefits **ITC** by:

1. Cutting down the net cost of procurement, despite offering better prices to the farmers by eliminating non-value-adding costs in the value chain
2. Creating new business opportunities e.g. marketing several goods & services to rural consumers and linking non-farm skill-based services of rural origin with the global markets.
3. Offering "identity preserved & traceable" products to select customers (a current test case is ITC's foray into the branded wheat flour segment --all wheat used in the flour is sourced through the e-Choupals, thereby allowing ITC to offer customized products to different customer segments. ITC branded wheat flour (Aashirwad) is now a market leader in the domestic market)

Challenges

Process: appropriate systems for quality testing and pricing; logistics; complex transactions.

Physical: bulk storage and handling hubs.

Technology: IT equipment suitable for rural environment; reliable power source; adequate connectivity; user support (help desk).

Social: selection of appropriate villages; selection of the appropriate sanchalak; building trust in the community; training; securing stakeholder involvement (by Public Oath).

Key Lessons

The 'ITC e-Choupal' model achieves convergence between two apparently parallel objectives, creating 'shareholder value' for investors in capital markets, and enhancing the prosperity of small scale producers in rural areas by leveraging the power of information technology. The 'ITC e-Choupal' model is designed to suit the unique character of agriculture in emerging economies like India, factoring in the new economic imperatives of liberalization, privatization and globalization on one hand and dealing with the key global concerns like food safety and ecological security on the other hand by leveraging the power of Networked Organizations.

Adapting content to local context

The content is demand-led and adapted for the local context.

Building on existing systems

By locating a PC and Internet access at local meeting points, ITC has enlarged the scope and quality of information exchange. Factors contributing to the success of e-Choupal are the partnerships built with academia and NGOs to create and document relevant knowledge about agricultural practices that are useful for farming communities.

Capacity Building

ITC engages in capacity building by giving farmers access to more information and thereby increasing their capacity to use it, and also by giving sanchalaks and samyojaks new levels of experience supplying products and services to rural farmers.

Access and Empowerment

In implementing this project, the interests of a chain of small and medium traders were hurt because of the process of dis-intermediation. However, ITC recognized the

resistance that would be built up if the role of intermediaries were completely eliminated. In introducing e-Choupals, ITC has redefined the role of the local intermediaries from that of procurement to that of facilitation and information gathering. In the process, ITC has ensured that at least a part of the income derived by intermediaries through trading commissions is replaced by commissions or service charges paid by ITC to these traders.

Strengthening participation

Another success factor was the participatory method in which ITC tried to understand the information needs of rural communities.

Realistic use of technologies

The e-Choupal model demonstrates that a large corporation can play a major role in connecting producers to markets and increasing the efficiency of an agricultural system, while doing so in ways that benefit farmers and rural communities as well as shareholders. The case also shows the key role of information technology—in this case provided and maintained by a corporation, but used by local farmers—in helping bring about transparency, increased access to information, and rural transformation. Critical factors in the apparent success of the venture are ITC's extensive knowledge of agriculture, the effort ITC has made to retain many aspects of the existing production system, including maintenance of local partners, the company's commitment to transparency, and the respect and fairness with which both farmers and local partners are treated.

Costs and financial sustainability

Unlike many other experiments in which Internet kiosks have been established to provide information to rural communities, this experiment is completely funded by a private sector company. ITC's e-Choupals face no significant competition from a business perspective. While other industry players have attempted to replicate the e-Choupal business model, ITC retains a strong competitive advantage as a result of its first-mover status, broad multisector experience, extensive partnerships, and large financial resources. A critical factor is that ITC is a large commodity player and therefore has an assured market outlet for the farmers it is addressing.

In addition, ITC as a buyer is bringing direct value to the farmers. All the services are embedded services and the farmers do not pay for them directly (it would be difficult to extract payment for services from the rural communities). The embedded services have long-term impact and the farmer is only likely to go to other buyers if ITC gives him an inferior price (the transparency element of the project ensures that farmers get value for correct weights, get payments on time, and get inputs from authentic sources – invaluable services in the context of rural India)

URL of the service: *http://www.echoupal.com*

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