E-CHOUPAL: ITC’S RURAL NETWORKING PROJECT

I. Abstract

In Hindi (an Indian language spoken in most parts of Northern and Central India), a choupal is a village gathering place. The e-choupal initiative—whereby a choupal is equipped with a computer and Internet connectivity—is the brainchild of a large agricultural processing company in India, the Indian Tobacco Company (ITC). The initiative was conceived to tackle the challenges posed by certain features of Indian agriculture, such as fragmented farms, a weak infrastructure, and the involvement of numerous intermediaries. Although the primary objective of the project was to bring efficiency to ITC’s procurement process, an important byproduct is the increased empowerment of rural farmers where e-choupals have been established.

The e-choupal initiative directly links the rural farmers with the company for the procurement of agriculture and aquaculture products, such as soybeans, coffee, and prawns. Traditionally, these commodities were procured by such companies as ITC from mandis (major agricultural marketing centers in rural areas of India), and a long chain of intermediaries was involved in buying the produce from farmers and moving it to the mandis. Through e-choupals, these farmers can directly negotiate the sale of their produce with ITC. The PCs and Internet access at these centers enable the farmers to obtain information on mandi prices and good farming practices, and to place orders for agricultural inputs, such as seeds and fertilizers. This access to information helps farmers in improving the quality of produce and obtaining better prices. Elected from the village itself, a literate farmer acts as the interface between the illiterate farmers and the computer.

The e-choupal model has been effective in the short term. However, because of multiple variables that affect productivity, a long-term assessment of the system’s productivity and efficiency levels needs to be undertaken.

II. Background

The ITC group of companies has a yearly turnover of Rs 7.5 billion (US$162 million), and its activities span tobacco and cigarettes, paper and packaging, paperboard, hotels and tourism, information technology, and agricultural exports. For its agri-export division, ITC procures various agricultural commodities such as soybeans, coffee, and oil seeds. Typically, a farmer sells his produce to a small trader called a kaccha adat, who sells the produce to a larger trader called the pakka adat, who in turn takes the produce to a local mandi, where a larger trader buys the produce. The mandi traders then operate through brokers to negotiate sales to companies such as ITC. This long supply chain results in high procurement costs for ITC and in lost profit opportunities for the farmers. Because this long supply chain is a very time-consuming system, it also results in deterioration in the quality of the products.

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The e-choupal system was introduced by ITC in June 2000. A choupal was converted into an e-choupal by setting up a computer and Internet connectivity. An investment of Rs 40,000 is needed to establish an e-choupal with dial-up connectivity. If a VSAT (Very Small Aperture Terminal) has to be mounted, the investment moves up to Rs 100,000. E-choupals are operated by a sanchalak (operator), a literate person who is elected from among the farmers of the village. He acts as an interface between the computer and the illiterate farmers, and retrieves information on their behalf.

While ITC covers the cost of equipment, the sanchalak pays for day-to-day operational costs, such as electricity and Internet charges. These costs vary from Rs 3,000 to Rs 8,000 (US$60 to US$160) per year. Training is given to the sanchalak, who also doubles as an ITC salesman. He is paid a commission of 0.5 percent per ton of processed product. ITC spends an average of Rs 5,000 (US$100) annually on the support and maintenance of each e-choupal—training, maintaining a help desk, addressing equipment and software complaints, and repairing and replacing broken equipment.

Information that can be accessed from an e-choupal includes crop prices, weather, scientific farming practices, farmer peer groups, and soil-testing services. This online information is made available in Hindi. For the farmer, the selling process works as follows: The farmer carries a sample of his produce to a local kiosk and receives a spot quote from the sanchalak. If the farmer accepts the quote, he can then transport the produce directly to an ITC collection center and get payment within two hours.

The material handling systems at the ITC collection center ensure that tractors, trolleys, or trucks can directly unload their produce without spilling any grain, and a modern weighbridge ensures precise weighing. The transportation cost is reimbursed to the farmer. If the farmer is located in a remote area, he has the option of selling his produce to the sanchalak or to a nearby collection center. The farmers prefer this system to the mandi system, where they had to wait for hours, or even days, before the produce was sold. In addition, transaction costs such as bagging, transportation, loading, and unloading had to be incurred by the farmers. Commission agents at the mandi used a small weighing scale that was inaccurate and resulted in less revenue in proportion to the produce. Moreover, the wastage level was higher, because the agents tended to throw away some grain while evaluating its quality.

The intermediaries are not removed from the value chain. Their roles are redefined to samayojaks (coordinators), who assist ITC in setting up new e-choupals by conducting village surveys and by identifying the best sanchalaks. They manage the physical transportation of sales made at the e-choupal, collect price data from local auctions, and maintain records. These coordinators earn a 1 percent commission on product processed. Initial resistance to joining, because of commissions as low as 1 percent, was overcome once the increased volume of transactions became apparent.

ITC coordinates its activities with institutions such as the national meteorological department and several universities to build useful Internet content, and also with companies supplying agricultural inputs (fertilizers and seeds) to enable e-commerce.

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1 VSAT is a small terminal that can be used for one-way or interactive communications via satellite.
Such companies take orders and market their products on the e-choupal Website. ITC has also collaborated with an insurance company on a pilot basis, to provide insurance services specially designed for the landless, marginal farmers in more than 100 villages in the state of Madhya Pradesh.

III. Impact/Results

The project has come a long way since its inception, and is today recognized as India’s largest Internet-based initiative, covering 1,300 choupals, linking 7,500 villages, and serving almost 1 million farmers. Madhya Pradesh is host to 1,045 e-choupals, spread over 6,000 villages covering 600,000 farmers. E-choupal has also established its presence in other states, such as Uttar Pradesh, Andhra Pradesh, and Karnataka. ITC, which exports US$140 million worth of agricultural commodities, sourced US$15 million worth of commodities from e-choupals in 2001. The substantial quantity (120,000 metric tons of various commodities) already procured through this channel has resulted in overall savings of more than US$1 million. These savings are shared between ITC and the farmers.

Web-enabled, real-time data on crop prices gives farmers an accurate picture of the prices they can expect from ITC and from different mandis. This information enables them to become informed decisionmakers and thereby sell their produce at a price that gives them a higher profit margin. With the participation of agricultural supplies companies in e-commerce, the farmers now can also conveniently order agricultural inputs.

Although the prices offered by ITC are not higher than those at the mandi, the farmer chooses ITC because the transactions are done closer to home and the practices of weighing and quality assessment are more efficient and transparent. Farmers save on travel time and costs and incur less wastage. Their savings have been estimated at Rs 400 to Rs 500 (US$8 to US$10) per ton of soybeans. It is important to note that the final decision to sell their crops to the mandi or to ITC rests with the farmers themselves.

The farmers can transact with the company directly and deal orders on the Internet. In the process, the farmers save about Rs 250–500 per ton, depending on their location relative to the collection center. ITC gains in terms of assured supply and savings of more than Rs 200 per ton by avoiding the transportation of the crop from the mandi to the collection center and other intermediary costs in the supply chain.

Altogether, more than Rs 1 billion (US$21 million) in transactions have occurred so far, and the company plans to extend the initiative to 15 other states across the country over the next few years.

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2 Insurance services are currently provided by ICICI Prudential life, a private sector insurance company. The Life Insurance Corporation of India, which has a 10.43 percent share in ITC, plans to offer group insurance policies that will provide comprehensive benefits in terms of life insurance, pensions, and disability income, as well as lump-sum survivor benefits to landless agriculture workers.
IV. Key Elements of Empowerment

**Information**

Access to information through e-choupal has reduced the dependence of the farmers on the traditional agricultural intermediaries. It has also enabled them to align their agricultural output with market demand. E-choupals enable transparent listing of various “mandi” prices, giving the farmers a fair chance to choose where to sell their produce to gain a better price, thereby increasing their bargaining power. Historical data and figures on supply, expert opinion on future price movements, information on farming practices and techniques, soil testing, virus testing, and weather information also contribute to the empowerment of the farmer.

**Inclusion/Participation**

The e-choupal model involved farmers in the design phase of the project. In some cases, farmers have also contributed to the content on the Web to ensure user-friendliness. The sanchalak who operates the computer is also a farmer selected from the village itself. Farmers actively access information for crop prices in mandis, and get inputs on soil testing, best farming practices, and expert advice from the system.

**Accountability**

The e-choupal system considerably reduced transaction costs for the farmers. The weighing techniques under the system are accurate and transparent, and farmers are paid in proportion to the quantity of their produce, unlike the mandi system. In addition, quality measurement is more open as results are immediately available to farmers.

**Local Organizational Capacity**

This initiative has created an organization at the local level that is transparent and accountable in its operations.

V. Issues and Lessons

**Challenges**

Familiarizing first-time users in remote areas of rural India with the Internet presented a challenge. When the e-choupal concept was first proposed, there was initial hesitation by the farmers, but no direct resistance. Farmers learned quickly; the basic training planned for two days was accomplished in just four hours by the very first batch of sanchalaks. A video showing farmers using the kiosks has helped speed acceptance and adoption of the technology among other farmers.
ITC also had to surmount regulatory barriers. The Agricultural Produce Marketing Committee Act (APMC Act) prohibits the purchase of specified commodities (including several that ITC deals in) from any source other than government-designated mandis. ITC has overcome this challenge by convincing the political and bureaucratic leadership of various state governments that the “spirit” of the act (to benefit the farmers) is better served through e-choupals. As a result, some states have amended the act (such as Uttar Pradesh), while others have allowed specific exemptions for such new business models.

Rural India faces the problems of infrastructure bottlenecks such as outdated telephone exchanges, frequent electricity outage, and unreliable Internet connectivity. ITC had to overcome these challenges. It managed to get some telephone exchanges upgraded. VSAT links were established in other areas. Several e-choupals use backup batteries recharged with solar panels.

Another challenge is to build personalized content, catering to individuals with a wide range of income levels and information needs.

**Key Factors for Success**

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.

In implementing this project, the interests of a chain of small and medium traders were hurt because of the process of disintermediation. 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. This has helped ITC in overcoming any resistance from these traders.

Instead of creating an entirely new mechanism of direct procurement, ITC has chosen to strengthen an existing institution in rural areas, the choupal, which serves as the focal point for the exchange of ideas and information by word of mouth in rural communities. By locating a PC and Internet access at such 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. Another success factor was the participatory method in which ITC tried to understand the information needs of rural communities.
**Outlook**

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 products such as horticulture, rice, and cotton. A plan to market and distribute other firm’s services related to microcredit, insurance, health, and education through the same e-choupal “channel” infrastructure is also underway. Such a scale-up would require very large investments, of the order of US$200 million.3

**VI. Further Information: References and World Wide Web Resources**

**References**


**Web Links**


ITC-IBD (International Business Division of the Indian Tobacco Company), e-Choupal Website. URL: http://www.echoupal.com


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