

e- Choupal: The Power of ICT for Farmers' Empowerment in India

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e- Choupal is an example that reveals the key role of Information and Communication Technology (ICT) in providing and maintaining by a corporate entity but used by local farmers to bring transparency to increase access to information and to catalyze rural transformation. In Hindi language 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. The e-Choupal which attracted global attention is a supply chain innovation that is local to India but has wide applications across the nations. Its services today reach out to over 4 million farmers growing a range of crops – soybean, coffee, wheat, rice, pulses, shrimp – in over 40,000 villages through 6,500 kiosks across ten states – Madhya Pradesh, Haryana, Uttarakhand, Karnataka, Andhra Pradesh, Uttar Pradesh, Rajasthan, Maharashtra, Kerala and Tamil Nadu.

The Indian Tobacco 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 agro-export division, Indian Tobacco Company procures various agricultural commodities.

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 market (mandi), where a larger trader buys the produce. The market traders then operate through brokers to negotiate sales to companies such as Indian Tobacco Company. This long supply chain results in high procurement costs for Indian Tobacco Company 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.

Following are the chief features of e-Choupal:

- Customer focused
- Can be used for multi commodities and series of transactions
- Once verified it is easily scalable
- Uses local people and transform them their potential as leaders
- Prompts local talent and entrepreneurial abilities for innovative outcomes
- Making use of existing institutions, legal framework and reduced transaction time
- Use of technology by digitally disadvantaged groups.

Conceptualization of e-Choupal is based on responses of following questions and facts:

- What is the best corporate business structure model for rural India?
- Does it require a new breed of leaders?
- What are the challenges that these leaders are facing?
- Will they have to work within new organizational structures?
- There exist numerous intermediaries in the value chain of commodity business.
- A more effective business channel must be able to leverage the physical transmission capabilities of these intermediaries.

- e- Choupal have strengthened the basic business by enabling reduction of costs in the supply chain and deliver superior product/ services to the customers like real-time information on monsoon, prices and better farming practices.

RELEVANCE OF E-CHOUPAL IN INDIAN AGRIBUSINESS SCENARIO

Agro Business Division (ABD) of Indian Tobacco Company, one of India's largest exporters of agricultural commodities conceived e-Choupal as comparatively efficient supply chain aimed at delivering value addition to its customers across the nations on a sustainable basis. This model has been particularly developed to respond to the challenges posed by the unique features of Indian agriculture which is characterized by fragmented farms, weak infrastructure and the involvement of several intermediaries, among others. e- Choupal also unshackles the potential of Indian farmer who has been trapped in a vicious cycle of low risk taking ability – low investment – low productivity – weak market orientation – low value addition – low margin – low risk taking ability. This made farmer community and Indian agribusiness sector globally uncompetitive, despite rich and abundant natural and human resources.

This techno – market led business model can enhance the competitiveness of Indian agriculture and trigger a positive cycle of higher productivity & quality, higher incomes, enlarged capacity for farmer risk management and larger investments.

In addition, a growth in rural incomes has the latent demand for industrial goods so necessary for the Indian economy. What is significant is the social good it brings in the wake to the small and marginal farmer. It points out several issues which have been addressed. Even while set up of e-Choupal in India, Indian Tobacco Company have offers from international organizations to replicate this in Africa and other developing countries.

THE MODEL IN ACTION

Appreciating the imperative of intermediaries in the Indian context, 'e- Choupal' leverages Information Technology to virtually cluster all the value chain participants, delivering the same benefits as vertical integration does in mature agricultural economies like the USA. E-Choupal makes use of the physical transmission capabilities of current intermediaries – aggregation, logistics, counter-party risk and bridge financing – while disinter mediating them from the chain of information flow and market signals.

With a judicious blend of click & mortar capabilities, village internet kiosks managed by farmers – called Sanchalaks (directors) – themselves, enable the agricultural community access ready information in their local language on the weather and market prices, disseminate knowledge on scientific farm practices & risk management, facilitate the sale of farm inputs (now with embedded knowledge) and purchase farm produce from the farmers' doorsteps (decision making is now information based).

Real- time information and customized knowledge provided by 'e-Choupal' enhance the ability of farmers to take decisions and align their farm output with market demand and secure quality & productivity. The aggregation of demand for farm inputs from individual farmers gives them high quality inputs from established and reputed manufacturers at fair prices. As a direct marketing channel, virtually linked to the market system for price discovery, 'e-Choupal' eliminates wasteful intermediation and multiple handling. Thereby it significantly reduces transaction costs. 'e-Choupal' ensures world-class quality in delivering all specified goods & services through several product / service specific partnerships with the leaders in the respective fields, in addition to the Company's own expertise. While the farmers benefit through enhanced farm productivity and higher farm gate prices, Indian Tobacco Company benefit from the lower net cost of procurement (despite offering better prices to the farmer) having eliminated costs in the supply chain that do not make value addition.

DEVELOPMENT ADVANTAGE

The phenomenal success of e-Choupal is due to managerial vision, innovative business model, relevant training, execution excellence and larger development goals. Launched in June 2000, e-Choupal has already become the largest initiative among all Internet-based interventions in villages of India. Think of an illiterate farmer in a remote village in Madhya Pradesh sitting at a desktop wired up to the WWW through a small VSAT link, powered by a tiny power generator by the side, and surfing away to glory downloading invaluable information about weather forecasts and sowing trends.

Indian Tobacco Company's e-Choupal project is a winner—for farmers who get better remuneration and for the company as it assure quality inputs for its business. The e-Choupal system gives farmers more control over their choices, a higher profit margin on their crops, and access to information. By providing a more transparent process and empowering local people as key nodes in the system, Indian Tobacco Company increases trust and fairness. The increased efficiencies and potential for improving crop quality contribute to making Indian agriculture more competitive. Despite difficulties from undependable phone and electric power infrastructure that sometimes limit hours of use, the system also link farmers and their families to the world. Some directors track future prices on the Chicago Board of Trade as well as local market prices, and village children have used the computers for schoolwork, games, and to obtain and print out of their academic test results. The result is a significant step toward rural development.

SUPPLY CHAIN EFFICENCY FOR FARMERS THROUGH ICT

ITC's Agro Business division - has set up Internet access kiosks in villages of India to enable farmers to retrieve marketing and agricultural information. This enables them to make better informed decisions and sizably increase their income by aligning farm output to market demands.

The kiosks builds on three elements: an Internet-enabled computer located at a "focal point farmer," an Internet connection via phone lines or a very-small aperture terminal (VSAT), and dedicated services through the echoupal.com portal. One Internet connection serves 10 villages, reaching 600 farmers on average. The portal provides farmers with information on best farming practices, market prices, weather forecasts, news and question and answer section which enables interaction with the Company's agricultural specialist services.

The portal supports them to better manage risks such as soil contamination or salinity, through access to technical information. It also provides the link to integrated rural service centers serving 40 e-Choupal each, where farmers can sell their produce and buy seeds, fertilizer, supplies and consumer goods.

KEY LEARNINGS AND CRITICAL SUCCESS FACTORS

India is second most populated country in the world. Agriculture is backbone of Indian economy. It contributes around 26 percent of the total GDP. Agriculture provides livelihood to about 65 percent of the labor force and accounts for 8.56 percent of India's exports. The fragmented farms are constraining the risk taking of Indian farmer locking him up into a vicious cycle of low investment, low productivity, weak market orientation, low value addition, low margin and low risk taking ability.

The e-Choupal model demonstrates that corporate entities can play a major role in recognizing markets and increasing the efficiency of an agricultural system, while doing so in ways that benefit farmers and rural communities as well as stockholders. The case also shows the key role of information technology – in this case provided and maintained by Indian Tobacco Company, 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 Indian Tobacco Company's extensive knowledge of agriculture, the efforts it 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.

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 directors. A video showing farmers using the kiosks has helped speed acceptance and adoption of the technology among other farmers. To be specific following benefits are perceived and derived from e-Choupal:

- Greater interface with farmers needing skills to be culturally sensitive and open to generate new ideas.
- Based on greater understanding of villagers and their activities.
- Shifts from hierarchical and conventional management techniques and adopted altogether new ways of distributed leadership in the organization.
- Application of technology to lowest echelon, computer and internet was used as the main component for implementation of the project.
- Trust building between farmers and Indian Tobacco Company for the project without third party intervention.
- Selection of directors on the basis of certain parameter i.e. education, age, family size, caste, political and other affiliations.
- Impart of operational knowledge of computer and internet by company employees, enabling farmers to perform their activities efficiently and effectively.
- Local participation resulted into increased rural income, win-win situation, cost reduction, customization and market led business.

FUTURE STRATEGY

ITC recognizes the limitation of today's e-Choupal as a vehicle of procurement efficiency. Not every crop lends itself to such an intervention. In crops such as soy where value can be maximized, followers will soon imitate Indian Tobacco Company and eliminate the company's competitive advantage. Indian Tobacco Company's vision for e-Choupal extends many generations as e-Choupal evolves into a full-fledged orchestrator of a two-way exchange of goods and services between rural India and the rest of the world. The soy e-Choupal is "Wave 1," with several more to follow.

Wave 2. The source of value in this generation will be identity preservation through the chain. This is a significant source of value in crops such as wheat, where the grade of the grain determines its end use. The ability to separate different grades from field to consumer will command a price premium. E-Choupal in Uttar Pradesh has already started wheat procurement.

Wave 3. This wave takes identity a step further by building the concept of traceability into the supply chain. This is vital for perishables where the traceability will allow Indian Tobacco Company to address food safety concerns and once again provide a value that the customer is willing to pay for. Shrimp is a good example of a crop for which Wave 3 will be important. Company's intervention in such products will occur higher level of production. The company will define standards that producers must adhere to and work with farmers to ensure product quality. Farmers in turn will get the best price from Indian Tobacco Company because the corporation commands the traceability premium.

Wave 4. The first three waves fill institutional voids while Wave 4 creates institutions. The first three waves apply to environments in which the company is the sole buyer in the e-Choupal channel. In commodities where the underlying markets have reached a high degree of efficiency, such basic sources of value will not exist. In crops such as these, e-Choupal will serve as the market-place where multiple buyers and sellers execute a range of transactions. A good example of this is coffee. Indian Tobacco Company's source of value will be the sunk cost of the IT infrastructure and the transaction fees.

Wave 5. While the first four waves related to sourcing from rural India, the fifth wave elaborates the rural marketing and distribution strategy. This is not the same as the rudimentary distribution of agro inputs that is being done today. Indian Tobacco Company plans to bring together knowledge of the customer, knowledge of the business, deployed infrastructure, its reputation, and experience gained over the first four waves, with an organization of people, processes and partners. This base will allow the Company to bring value-added products and services to villages of India.

Wave 6. After the sourcing of goods from rural India; Indian Tobacco Company's last wave has the ambitious vision of eventually sourcing IT-enabled services from rural India. Telemedicine, eco-tourism, traditional medicine, and traditional crafts are some of the services that can be sourced from villages of India. While still some way to go, it is an agenda that inspires scale of the vision and potential impact on development in rural India.

CONCLUSION

The e-Choupal has applied information and Communication technology to the advantage of India's small, marginal and resource-poor farmers who have hitherto operated and transacted in unorganized markets. The e-Choupal model is adaptable to any agricultural and quality related activities in rural areas. Consequently the supply chain efficiencies / revenue models vary across commodities and geographies. E-Choupal is considered to be the most successful initiative to transform rural India through use of ICT and involvement of farmers in learning. The success of e-Choupal has opened up a new path to corporate in India and globally that how blend of technology and culture may enable win-win experiences.

The model shows that a large corporation can combine a social mission and an ambitious commercial venture; that it can play a major role in rationalizing markets and increasing the efficiency of an agricultural system. Distance, social discrimination and formal regulations often keep small and resource-poor farmers out of the market. The e-Choupal scheme initiates a reversal in this trend and empowers the farmers. Besides, e-Choupal has favorably impacted the supply-chain activities related to agriculture, produce quality and volumes have risen, prices of farm inputs have declined, quality of input has risen and prices of farm output have risen. Small and poor farmers have been the principle beneficiaries as their cost of transactions has declined and incomes have risen. What is more significant is that, the farmers have typically derived these in their locales.

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