



a) Case Study Summary Information

1. Title of case study:

ITC eChoupal : A Profitable Rural Transformation through Web-based Meta-market for Indian Farmers

2. Details of the person preparing the case study:

Name and title of person preparing the case study: V V Rajasekhar, Chief Information Officer

Organization submitting the case study: ITC Limited

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3. Status of project(s):

Operational

Completed

4. Location and population of the project area

Location (village, district, etc.) Villages in India

Population of the project area Over 2.5 Million

5. Type of application / service (check one or more boxes)

Multipurpose telecentres, community development, tele-administration

E-governance, tele-administration

- Support for small business, e-business
- E-health
- Tele-education, e-learning
- ICT training
- Emergency support / disaster mitigation
- Environmental monitoring / protection
- Radio or TV broadcasting
- Others (please specify) _____

6. Type of technology (Check one or more boxes)

- Wired local loop: Copper, optical fibre, etc.
- Wireless local loop
- Fixed wireless access
- Mobile wireless access
- Satellite two-way communications: VSAT, GMPCS, etc.
- Radio LANS and IP-based related networks
- Terrestrial voice, data, sound or television broadcasting
- Satellite voice, data, sound or television broadcasting
- Hybrid or combined technologies
- Others (please specify) _____

7. Organizations involved in the project:

ITC Limited orchestrating the project with multiple partners from civil society, private sector and government agencies

8. -150 word summary of the project indicating its expected social /economic impacts

ITC eChoupal, enabled by internet technologies, charts a focused corporate agenda to create a global demand led competitive value chain and to open rural markets as future growth drivers, It enmeshes simultaneously a social agenda to bring global resources, knowledge and practices to villages so as to enable farmers gain control over higher income opportunities while fostering fair & transparent processes with respect for people and local communities.

ITC eChoupal, goes beyond basic information provisioning and orchestrates knowledge extension services (farm management, risk management), availability of farm inputs and consumption goods (screened for quality, price, local pick-up), and choice of output channel (market access assurance, convenience, lower transaction costs) at farmer's doorstep through an interlocking partnerships of specialized agencies.

In four years, 4300 ITC eChoupals created across 6 states (MP, UP, Karnataka, AP, Maharastra, Rajasthan) are reaching out to over 2,500,000 farmers engaged in 8 agri-commodities in 25000 villages with the farmers output price realizations up by 20%, while delivering extraordinary shareholder value as, our market share is up from 8% to 12% and transaction costs are down to 2% from 8%.

With the digital infrastructure and associated human and organization capacities, ITC eChoupal has become rural India's largest internet based intervention and is surging towards the vision of servicing 100,000 villages by 2010 reaching out to 10 million farming households enhancing rural quality of life and making rural India a competitive source and destination for products and services in the global economy.

b) Detailed project description and analysis

Please address each of the 7 elements indicated below, providing 1-2 single space pages for each, and treating separately each sub-element (e.g. 1.a.) which is appropriate.

Preferably, please provide the description and analysis in electronic format.

1. Overview of the project's targets and objectives

- a. Brief description of the country/region: geography, terrain, climate, demographics, socio-economic situation

72% of Indian population lives in its 640,000 villages. Agriculture is the only source of livelihood for a large majority of these people. While Indian agriculture progressed considerably since the days of Green revolution, most of the farmers – each of whom own just about a hectare of land – remained poor. Because they are small, they do not have bargaining power when they buy farm inputs or sell their produce. Because they live in hinterlands, they do not have access to real-time information on prices and weather or news that impact their incomes. And because the agro-ecological and resource circumstance of each one is different from that of others, it is unviable for any market mechanism to bring them customised knowledge to improve their farm yields. The infrastructure in rural India – physical, social and institutional – is also weak, compounding these problems even more.

While the organized market players find the aggregate size of rural Indian market very inviting, none venture to service the needs of the individual farmers directly, because it is unremunerative for each of them to do so. Some do attempt, but give up quickly as the customers do not find those offers attractive, because the complementary products from other players are not available at the same time. In fact, the only real option for most farmers is a

local middleman, who offers them a complete solution – credit, inputs, market access – but appropriates larger profit for himself by blocking information flow and market signals because he is in a privileged position of being the sole source of information and the sole counterpart for transaction.

Government interventions like trained agricultural extension workers in each village to disseminate best farming practices, and open auction system for better price discovery of farm produce were of great help in this backdrop. But these institutions were more appropriate for the supply-driven value chains in an era of food shortages, and are not able to facilitate a smooth transition to the demand-driven value chains required to compete in the new globalizing economy. And the small farmers continue to live in poverty.

- b. Objectives and implementation details of the project applications (basic telephony, e-business, e-administration, e-education, e-health, ICT training etc),

ITC eChoupal creatively leverages information technology (IT) to set up a meta-market in favour 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. eChoupal also sidesteps the value-sapping problems caused by fragmentation, dispersion, heterogeneity and weak infrastructure.

Through digital opportunities created for people in remotest hinterlands, ITC eChoupal enabled online price discovery and virtually clustered the farmer community using Internet technologies to aggregate the farm produce at the village through a sanchalak (a farmer himself), and bring the produce directly to the processing plants eliminating several non-value-adding supply chain costs.

A novel rural distribution platform has been built on the foundation of the above procurement network (Internet Access + Sanchalak) to offer an unique value to rural consumers and participating companies. The farmers and rural consumers benefit in terms of the assured quality, wider choice, convenience of shopping in local market and fair price. The participating companies benefit from the greater market access, lower risks, reliable market/consumer feedback, lower capital and operating costs with better inventory management.

- c. Financing and partnership aspects of the project.

ITC – a 94-year-old, for-profit, Indian agri-business company with annual revenues of US\$ 2.6 Billion – takes on the role of a Network Orchestrator in this meta-market by stitching together an end-to-end solution. The solution simultaneously addresses the viability concerns of the participating companies by virtually aggregating the demand from thousands of small farmers, and the value-for-money concerns of the farmers by creating competition among the companies in each leg of the value chain.

ITC eChoupal is an integral part of ITC's competitive strategy to create shareholder value. The creation of shareholder value is enmeshed with the economic empowerment, market linkage needs and enhanced modal incomes of India's agrarian communities. The mutuality and the strategic fit make it possible for ITC to scale up the initiative to a significant size.

The ITC eChoupal model demonstrates that a large corporation can play a major role in reorganizing markets with inter-locking partnerships with multiple service providers and increasing the efficiency of an agricultural system, while doing so in ways that benefit farmers and rural communities as well as shareholders equitably.

2. Infrastructure and regulatory environment

- a. Infrastructure components: Pre-existing telecommunication facilities, transport access, electricity supply, distance to the nearest local exchange and/or IP network, human resources, security

At an operational level, one thing that the project has learnt in the beginning itself is that there are no off-the-shelf technology solutions for deployment in rural India. State-of-the-art technology requires localization to overcome the challenges of poor infrastructure and the digital divide that exists in rural India.

Managing the vagaries and non-availability of computer-grade local power is a continuous challenge posed on the project management. WE sought to address the problem through uninterruptible power supplies (UPS) facilitated by renewable power sources such as Solar energy.

Connecting the Last Mile, as the Internet is the primary medium for the choupal, local public telecom infrastructure has been upgraded as a project activity. Despite this the reliability and quality of internet user experience provided was far below the acceptable level. The alternatives to dial-up access were analyzed and huge investments (currently a 3500 VAST network) were made in VSAT connectivity.

User interfaces in the local language, and as far as possible are iconic and intuitive for the first-time computer users. Substantial share of time and energy is spent training the operators to become comfortable and to be confident to operate the computing and connectivity infrastructure.

Smart card technology is being leveraged to uniquely identify a choupal user and offer personalized content delivery based on the preferences of the user.

The equipment is housed in the premises of a lead farmer's (the operator) residence. A social contract, in the form of a public oath swearing occasion substitutes for the written contract for asset custodianship.

- b. Regulatory components: Universal service obligations, licensing conditions, frequency availability (for radio-based projects), other regulatory issues

India has a comprehensive and active regulatory framework and agencies for telecom space. While the increase in teledensity is rapid, India has a long way to progress to achieve universal coverage.

Many of the private telcos and erstwhile state telcos are grappling with the challenge of connecting rural India profitably.

- c. Other factors which influenced the operating environment (manufacturers, standards etc).

The connectivity network is supported by Solar powered UPS for power support. The infrastructure and practices are hardened to ensure smooth functioning of the infrastructure in an hostile and challenging environment in the remote villages.

3. Technical description of the project(s)

- a. Architecture, main technical characteristics, frequencies (for radio-based projects), power consumption, performances (capacity, reliability, quality of service), network management, etc.,

The internet access, the lifeline for all activities in the eChoupal, are enabled through VSATs. The Ku Band VSATs are broadband capable and are operated with the hub station at Noida (UP, India).

The VSATs are found to be reliable and quality of service norms are define for data and webcasting applications.

The network management is provided as a service by the services provider for software distribution, remote diagnostics and network performance.

- b. Installation and deployment: network planning, subscriber management, etc.,

The installation and deployment of VSATs are very fast and typically a team of 2 persons can install VSATs in 10 villages (despite the poor transport and power conditions).

- c. Interconnection to national networks/backbones,

The VSATs are connected only to the internet connecting leased line at the hub station. Current regulation does not allow inter-connection with PSTN or any other network.

- d. Cost of the equipment, cost per line and cost of the operation of the system.

The scale of deployment has given the project, the scale advantages for managing total cost of ownership. The cost per equipment will be at USD 1600 and cost of operation on per annum basis will be at USD 350.

4. Technical description of the services provided

- a. For each service delivered (POTS, “IP telephony”, etc.): mode (data type and bit rate) and quality (voice quality and bit error rate)

The services offered on the network are high speed internet access, web casting for agri-related video streaming, chat and email services.

- b. Cost of each terminal and cost of the service for the user.

The cost of above services is totally free for the end customer. The value unlocked in agri-related value space, as explained in the earlier section, pays for the creation of infrastructure.

5. Effectiveness and sustainability of the project

- a. Effectiveness and benefits of the project for the targeted user groups,

ITC eChoupal brings the power of scale to the small farmer, relevant & real-time information despite distances, and customized knowledge despite heterogeneity leading to higher incomes to the farmers through increased yields, better quality and lower transaction costs. The increased efficiencies and improved crop quality contribute to making Indian agriculture more competitive. Most importantly, by providing a more transparent process and empowering

local people as key nodes in the system, ITC increases trust and fairness in information and transactions.

Free access to Internet is also opening windows of rural India to the world at large. Many Sanchalaks track futures prices on the Chicago Board of Trade and other global exchanges directly, in addition to the prices provided on eChoupal sites. Local language news and entertainment portals are part of the websites surfed regularly. All the Sanchalaks have become proficient in using email facility. Net based chatting among the Sanchalaks is increasing. Village children have used the computers for schoolwork, games, and to access their academic test results.

ITC eChoupal is now being regarded as a reliable delivery mechanism for resource development initiatives. Its potential is being tested through pilot projects in water management and cattle health management with the help of non-governmental organizations.

b. Profitability of the project,

Industry benchmark has effectively been changed to a 'direct from farmer' retail procurement model from the traditional aggregation by intermediaries ex-mandis (market yards). In fact, the local state Government has amended its regulatory act to facilitate the new marketing channel in view of its potential impact on the economy.

The concept is equally applicable to any agricultural & allied activity in rural India. While the basic character of agriculture is the same across India, value chains of different crops have their own intricate dynamics. So are the socio economic characteristics of different regions. These complexities must be factored in, while operationalising e-Choupal. Consequently the supply chain efficiencies / revenue models vary across commodities & geographies.

The business model parallelly has also opened up an entirely new and more effective channel for distribution of a range of goods & services into rural India (packaged consumer goods, home appliances and certain other services besides the obvious farm inputs ; life and general insurance products).

c. Specific strategies to respond to the needs of women, youth, handicapped and other marginalized or socially disadvantaged groups

ITC eChoupal aims to build stronger bonds & relationships within villages & rural India. These would cover those activities which would have a positive impact on livelihoods and will eventually result in capacity building , better productivity , skills enhancements and eventually higher incomes and a better quality of life . Participation & sustainability are the key drivers underpinning these initiatives.

ITC is partnering with various NGOs for the delivery of such services. The Sanchalak (of e-choupal) plays a pivotal role in terms of ground level needs assessment & also in terms of group mobilization , implementation support etc.

The initiatives undertaken are :

- a) Livestock management -- (A.I & cross breeds for higher utility)
- b) Water management & Soil conservation -- building water bodies --check dams, farmponds, community wells, farm bunds , etc.
- c) Improved agri practices : Vermicomposting etc
- d) Capacity building: Livelihood programmes (chikankari work) , SHGs , micro finance etc.

- d. Aspects of the project, which could be strengthened to enhance its effectiveness or sustainability.

The project investments are paid back through unlocking efficiencies in the agri-business value chain and by overlaying the network with other services such as distribution of goods and services. The business model effectiveness will increase manifold if the communications services related to voice and video are permitted by regulation and at a nominal license fee.

6. Social and human development impacts

- a. Overview of social and human development needs
- b. Role and commitment of the project in addressing these needs

ITC eChoupal is a transformational and sustainable model that delivers societal interests enmeshed within creation of shareholder value. The essence of ITC eChoupal model's reason for sustainability therefore, its scalability, is the underlying philosophy that business model endurance is a result when corporate professional and managerial acumen is brought to bear to enable wealth creation and its equitable distribution amongst all stakeholders and thereby improve the economic well being and competitiveness of total value chain.

The model aims to empower the rural consumer / farmer with the freedom of choice. The community and personalized individual needs are delivered through a network of inter-locking partnerships with firms and agencies with specialized competencies.

People competencies required to bring about a sustainable change are assessed and the gaps resolved through a variety of development inputs. Challenges arising out of poor telecom connectivity, lack of power infrastructure etc are being addressed through innovations and 'best of breed' applications of technology.

- c. Socio-economic benefits for, and impacts on the community(ies) and/or at a wider level, including support for gender equity and the needs of marginalized and disadvantaged populations
- d. Means foreseen to enhance future contributions to human and social development.

ITC eChoupal has expanded to encompass the entire village community and pilots conducted, in partnerships with the best in class service providers, civil advocacy groups and government agencies, in watershed development, animal husbandry, building human capacities, education, healthcare, citizen services and gender empowerment, are being scaled up rapidly.

Partnerships, globally and locally, need to be deepened and networks strengthened to reach the goal of 100,000 villages by 2010 while delivering sustainable value to all the stakeholders to achieve its vision of enhancing global competitiveness of Indian agriculture and quality of life in rural India.

7. Other observations

- a. Unexpected results and lessons learned,
- b. Anticipated near/long-term project challenges and reorientation.
- c. Additional information considered useful

Resource flows are the results of entrepreneurial resourcefulness, and competitive enterprises create successful economies. Resourcefulness provides a positive attitude to economic development. This attitude requires suitable market accessories such as eChoupal that spur economic activity and then raise the modal incomes of millions of households in thousands of agrarian communities leading to very large-scale development (VLSD)

IT, e-commerce and virtual networks have a substantive impact on the resourcefulness of the frontline actors in the farm economy. There is also a surge in the resourcefulness of traditional institutions that will have to do their best to extend their relevance and survival by coordinating the economic activities of the frontline actors in the networked farm economy. These work towards enhancing the profitability of whole communities of enterprises.

The joint impact on the frontline actors and the coordinating institutions should be of interest to those that have held the view that development and the scaling up of poverty reduction are functions of the availability of resources. IT shuffles the role of independent and dependent variables in the economics of the VLSD of poor economies. IT emphasizes the importance of resourcefulness and de-emphasizes the importance of resources.

Interestingly, eChoupal has also reversed the traditional sequence of development. The traditional sequence - social, political and economic empowerment, in that order - has a potential death valley in the form of the community's inability to link with markets and attain economic sustainability. By contrast, economic empowerment happens first in the eChoupal model. Political empowerment and social empowerment follow economic empowerment in the eChoupal model.

This new paradigm underscores the critical role that for-profit private enterprises like ITC can play – as a Meta-market Orchestrator and as Anchor Participant – in scaling up poverty reduction.

THANK YOU FOR YOUR COOPERATION
