

Case Study

Fasal Intuit: Improving the earning capacity of farmers

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Executive Summary

Traditionally, the majority of farmers in India access government administered *mandis* to sell/market their produce. These *mandis* were initially encouraged to ensure fair prices, timely payments and minimum transaction cost for farmers. Nevertheless, these farmers continue to suffer from inefficient auction system and inadequate dissemination of market intelligence. Most remain unaware of prevailing market prices till they visit the *mandi*. Further, to save the transportation costs, they travel only to the closest market instead of exploring prices in other accessible markets. In the worst case, farmers are forced to sell locally at the village level at a much lower price.

While the government has made several efforts to strengthen the agricultural sector and enhance opportunities for the Indian farmers, agricultural productivity and marketing are yet to reach its potential.

To improve farmers' access to information, thereby increasing their bargaining power in the market, in 2008 the Global Business Division team at Intuit conceived Fasal, a simple yet comprehensive solution for farmers. Fasal is a free SMS-based service that connects rural farmers with buyers and provides them with real-time price information. Farmers can subscribe to this service by calling the toll-free number 1800 102 8767, and provide details regarding the crop, agricultural land and *mandis* visited, to enable dissemination of personalised information. The mobile technology then uses a patented algorithm to match the farmers with potential buyers.

The success of the model lies in its use of local language, personalised information and financial sustainability. Studies indicate that Fasal has helped farmers increase their income by 15 to 20 percent (Rs. 15,000 p.a.) because of the improved access to timely information. As of March 2012, more than 800,000 farmers are benefiting from this service in Andhra Pradesh, Gujarat and Karnataka. The model is also known as Agrinova and Fasal amongst local farmers. More and more farmers are enlisting for this service. By helping farmers earn more, Fasal is bringing about a change in lives of Indian farmers. Fasal has far reaching implications in India.

This case study intends to highlight the benefits of Fasal as an innovative initiative that facilitates to enhance the condition of Indian farmers. It improves their access to favourable opportunities based on the creation and strengthening of market linkages in rural India.



Methodology

The Governance Knowledge Centre (GKC) research team conducts extensive research to identify initiatives that contribute towards the betterment of public service delivery in India. Fasal, with its focus on creating market linkages and enhancing agricultural income, showcases the potential of improving farmers' situation. Therefore, it was identified as a Best Practice for the GKC.

The document is based on the use of both, primary and secondary research methods. First, secondary resources available online were referenced to study the agricultural scenario and assess the current situation of farmers in the country. Following the background study, a telephonic interview was conducted with the Director and Product Manager at Intuit to enhance understanding about the product design, technological architecture and implementation strategy and address related gaps.

Background

Although the contribution of agriculture towards the Gross Domestic Product (GDP) has plummeted over the years, it remains an important sector for the Indian economy as a dominant part of the population is rural and dependent on agriculture as their primary source of livelihood. Many reforms have been introduced by the government to boost agricultural productivity, improve supply chain and enhance the income of farmers however the challenges are immense and require joint efforts by the private sector, as well. Despite increasing prices of agricultural commodities in urban areas, earnings of the farmers remain low as the absence of proper pricing mechanism and access to timely market information makes them susceptible to fraud. Similar observations prompted Intuit's team to explore the solutions for strengthening agricultural price transparency.

In April 2009, Intuit, provider of business and financial management solutions for small and medium sized businesses, developed a mobile-based agricultural information innovation that disseminates information on price, weather and potential buyer to its subscribers. At first, the model bears similarities to other information subscription programme that use mobile phones to provide prevailing market price and weather information to farmers. However, Fasal is different in its business model as it is a free, yet personalised service for farmers that allows *mandi* agents/large organisations/institutions to directly connect to the farmers with their prices, advisory services and relevant offerings.

The idea of developing Fasal application was exhibited by the team when they visited rural areas to study the problems faced by rural residents. The approach was motivated by Intuit's



deep-rooted foundation in customer-driven innovation. It dedicates significant team resources to spend time with their customer to learn about their challenges, the ecosystems in which they operate and the solutions that impact their lives. Upon the completion of their study, Intuit realised that there is a huge gap, as well as a demand for reliable and actionable data among farmers.¹ Being unaware of the best market price, farmers were compelled to take suboptimal decisions while trading their produce. This included selling locally for a lower price or throwing away spoiled crops that could not be sold in time.

Further, it was identified that knowledge of potential buyers was also limited. As a result, Intuit pioneered an SMS based application platform 'Fasal' to successfully bridge the information gap between producers and buyers of agricultural commodities.

Objective

The key objective of Fasal is to empower farmers with necessary information to help them increase their profit in the market. In addition, the SMS platform encourages linkage between farmers and buyers.

Approximately 800,000 farmers are currently benefiting from this service. Many farmers have the access to mobile phones and can access the Fasal service directly.

Project Design

Key Stakeholders

Intuit, primary stakeholder, is a US-based information technology company that designed, developed and implemented the Fasal programme in India.

Farmers of Gujarat, Andhra Pradesh and Karnataka are currently the beneficiaries of the service. Fasal service has allowed farmers to make important decisions related to marketing their produce.

Buyers/advertisers, such as *Mandi* agents, institutions, organizations, benefit from Fasal as it enables them to reach out to farmers to buy produce or sell agricultural inputs.

¹ <http://fasal.intuit.com/about.html>

Working Design

Intuit has followed a systematic approach to design and develop a sustainable business model based on the users' needs. As an organization, prior to designing any solution, Intuit initiates "Follow Me Homes" programme – where team members engage with customers to understand the problems they face in daily work-life. This stage works as a needs-assessment that enables the Intuit team to generate pragmatic solutions for their customers. For Fasal, the team spent more than 100 hours of 'Follow Me Homes' learning about various business challenges facing agricultural marketing in India. Following this stage, an SMS based innovation was developed to cater to the interests of the distinct target groups.

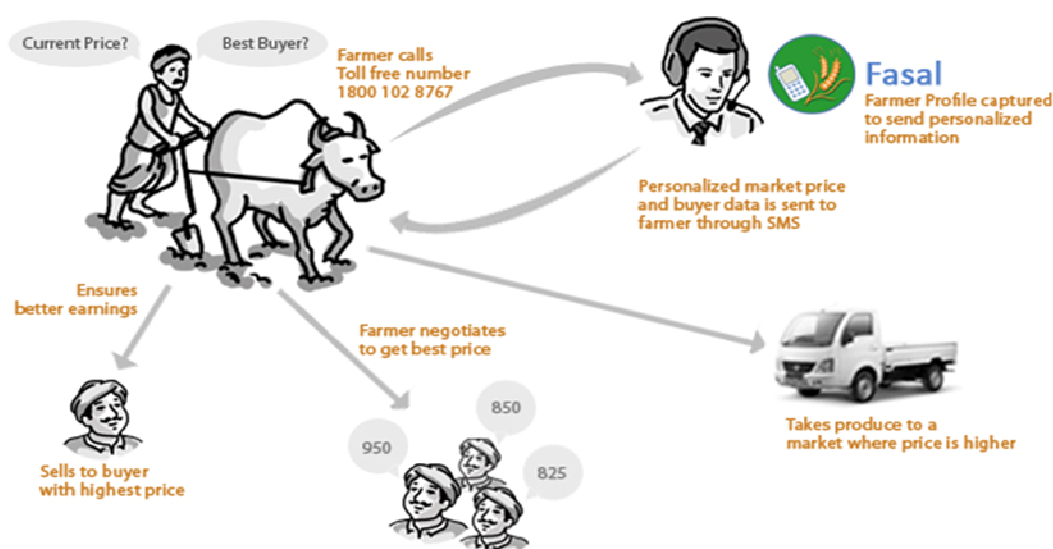


Figure 1: Information flow under Fasal Intuit

Information Flow

A comprehensive, methodical process is used to ascertain a farmer's requirements, and also enlist buyers into the system. Thereafter, a rigorous algorithm is applied to match the needs of the farmers with offerings of the buyers. The flow of information entails following stages:

1. A farmer contacts Intuit through a toll free number to register for the services. The call-centre agent creates an account for the farmer by seeking specific information on commodity grown, current crop season, land size under cultivation and usual markets accessed by the farmer. The farmer's profile is mapped to the market, he visits to sell his produce.

2. Fasal uses a complex and patented matching algorithm based on farmers profile to identify a potential buyer and provides buyer information to farmers through SMS creating an engaged and busy marketplace.
3. Fasal links farmer to the mandi agent/market place to sell his produce directly at the highest rate. SMSs on price are sent to his mobile phone multiple times in a day. Throughout the day, farmers can request real-time price information by giving a “missed call” to the Fasal number.

In less than 60 days, the Fasal team successfully develops a product with matching algorithm, personalized market data system to use farmer data’s to optimize message frequency as well as content and a created user contribution platform. Information provided through Fasal allows farmers to make important decision around selling their crops. Farmers make 15 to 20 percent more money by deciding which market to go, when to visit and negotiate fair price using information given in Fasal SMS.

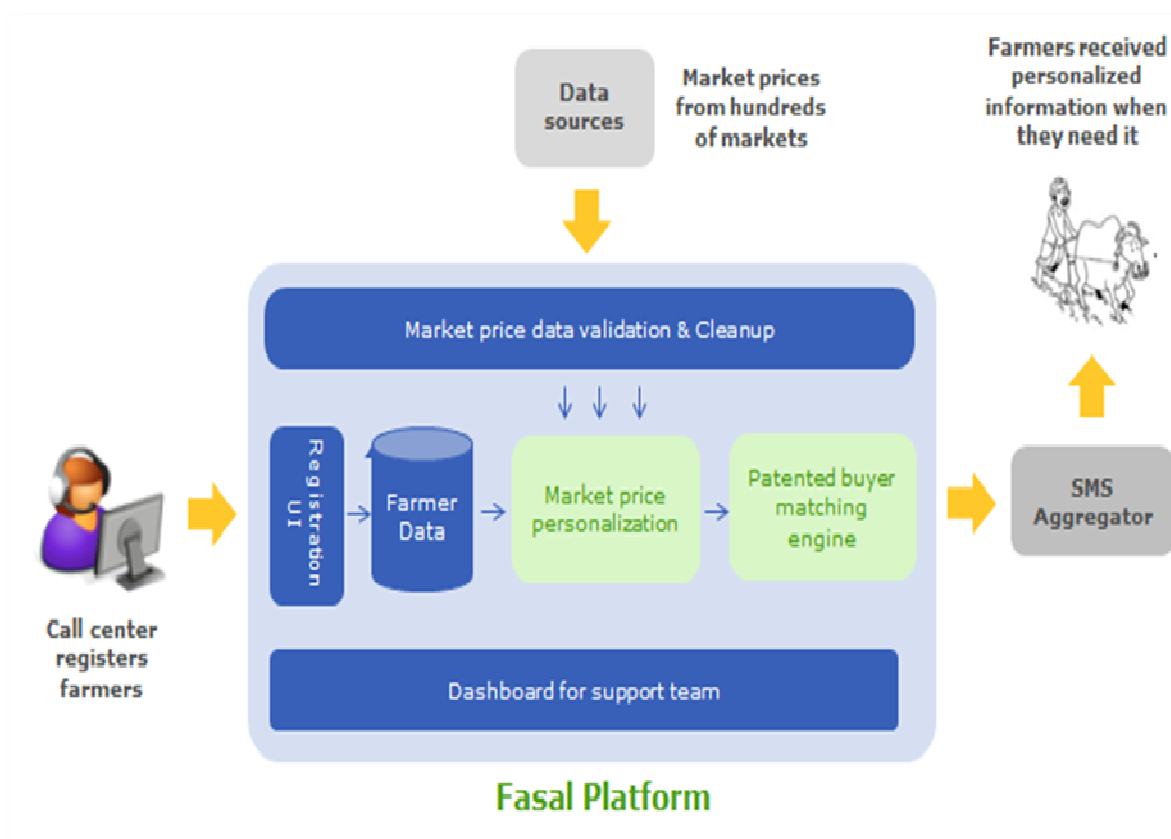


Figure 2: Technical architecture. Source: www.fasal.intuit.com

Financial Model

As mentioned, the service is currently free for farmers and completely funded by Intuit. While there is no revenue generating mechanism, Intuit is exploring sustainable business models so that it can reach out to more farmers across the country.

Due to the efficacy of the service, Intuit maintains a high level of engagement with its customers. This makes Fasal a responsive channel of communication to farmers. With a direct communication route and access to a rich data about their needs, Intuit has built a unique platform to facilitate more value-added services to farmers and help enhance their livelihood.

Achievements

Farmers:

The real problem with majority of farmers was the uncertainty in growing perishable crops such as vegetables as they lacked information on accurate prices across markets accessible to them. They were at the mercy of *mandi* agents. Forty percent of the time, farmers had to discount the prices of vegetables. These transactions were laden with doubt and dissatisfaction.

With Fasal, every farmer gets the prevailing rate from multiple but relevant markets in the form of a personalized SMS message on his mobile phone. The message is tailored for his: a) crop b) location c) time of sale. All this helps to choose the ideal market to get more money for his produce.

The achievements of Fasal to farming communities via mobile technology can be summarized in the following points:

Farmer's experience

"I am using mobile for 8 years now. We recently got to know this scheme from a person in the market who made us fill the form. First they met in the market and visited my village. They collected all the information and now I get SMSs regularly. We benefit from the SMSs since we get to know market rates in advance. After viewing the mobile message, whenever I find higher rate, I go there. The benefit of these SMSs is that when market rates are lower, we can show the SMS rate to the market agent and get Rs 10-15 more. I have also told many farmers about this scheme and given them the number. When they call the toll free number and register their mobile numbers, they too get messages about rates and markets thrice a day-morning, afternoon and evening. From the extra profits we make, we save and use it for family, education for my children and other expenses. At present, I am reinvesting in farming. If I can make a profit of Rs 15,000-20,000 a month, I can build a house, get married".

Source: www.fastcoexist.com

- Farmers can demand fair price and negotiate effectively with buyer as they have access to accurate information.
- Farmers know the right time and right buyer to sell their produce without wasting time on other buyers and markets.
- Farmers are connected to buyers that provide the best price for their produce and earn profits.

More farmers are enlisting for this service. By helping farmers earn more, Fasal is bringing about a change in the lives of Indian farmers. Fasal has far reaching implications in India.

Mandi agents:

With the technical system in place, both farmers and mandi agents are benefiting. Merchants are profiting as they can access market rates in real time. According to a Mandi Agent “[they] used to get two trucks loaded of tomatoes before, now [they] get seven trucks. Since [the] number goes out with SMS, everybody asks [him] for the rate in the market”.

Challenges in Implementation

Initially, the team at Intuit faced challenges collecting reliable market price data from mandis on time. They found it difficult to determine the fair price for more than 30 commodities and over 100 mandis. Without finding out best price, the entire objective of helping farmers to earn profit would have potentially failed. However, Intuit built a social network of price collectors and placed them through all the mandis to get information on prices from buyers. They sent information to caller agents to match farmers’ personalised data with best price available in market and finally the agents sent messages to farmers.

Also, during its implementation phase, Intuit faced challenges in communicating with the

“From the extra money we make, our son will get good education - I got to know about the service from a farmer meeting. I get prices on my phone and let me husband know the prices. We used to sell our Chilli and Brinjal at the village. Now we take our produce to the mandi and get better prices for our produce.”

*Laxmaiah and Renuka
Farmers using Fasal in
Gunukulakondapur village
Karimnagar District
Andhra Pradesh*

Source: www.fasal.intuit.com

farmers in Gujarat and Andhra Pradesh in their native language on crop selection, crop growing patterns, cultural differences and other logistics. To overcome this challenge, linguistic training was imparted to the caller agents to facilitate communication with the beneficiaries.

Conclusion

Fasal shows that existing mobile technologies have the potential to create significant impact on rural economies. Innovative use of these technologies can address significant challenges facing India's rural economy and have a positive impact on its farmers and their families.

A project like Fasal enables effective information dissemination and the empowerment of rural communities. By helping farmers earn more, Fasal is bringing about a change in lives of Indian farmers.

Research was carried out by OneWorld Foundation India (OWFI), Governance Knowledge Centre (GKC) team.

*Documentation was created by Researcher, **Attrika Hazarika***

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References

"Mobile Technology Boosts Farmers Income" January 16, 2012, Farming First.
<http://www.farmingfirst.org/2012/01/mobile-technology-boosts-farmer-income-in-india/>

Intuit. Web. Accessed, March 2012. <http://fasal.intuit.com/about.html>

