

KEY RECOMMENDATIONS

Partnerships matter.

Telecommunication companies are best to leave content provision to the specialists. When content comes from specialized information providers, customers value the information more. Such providers are best in generating customizable, relevant and timely information. This can be a win-win solution for both.

Build, Advertise and they will come

Mobile based agricultural information services, need greater visibility. Proactive awareness building by companies will help popularize the service. Telecommunication operators need to view such services as potential revenue generators by themselves rather than as teasers to increase their subscriber market share.

Voice is still King

With lower literacy levels, small farmers prefer voice based solutions more than text based solutions. If it is text based, then use of local languages remains key. Text also allows for advice to be stored and used later. Irrespective greater access requires more awareness

INTRODUCTION

While it has been declining in recent years, agriculture's share of a country GDP continues to be high in South Asia (18.7% in Bangladesh, 17.5% in India, 12.8% in Sri Lanka, 20.8% in Pakistan). With large segments of the South Asian population still dependent on agriculture for their livelihoods (the sector employs 44.5% in Bangladesh, 52% in India, 43% in Pakistan and 32.7% in Sri Lanka), allowing them to engage more effectively in agricultural markets remains paramount. Effective engagement in agricultural markets translates into farmers having the means to utilize market price information in their livelihood decisions and being able to leverage their physical commodities to improve and smoothen their incomes. The latter would mean farmers having the ability to engage in financial instruments such as forward contracts. Furthermore they would be able access to crop insurance and loans using either their forward contracts or their harvested commodities as collateral (e.g. commodity backed financing using warehouse receipts).

The first step in this process is having accurate and timely market price information. This decreases information asymmetry and allows farmers to increase their bargaining power in market transactions. ICTs are particularly suited to addressing this need and it has been generally recognized by developmental organizations as well as private sector players. This is evident by the

multitude of projects in South Asia that are ongoing (eChauupal, RML, and others in India, GGS in Sri Lanka).

AGRICULTURAL VAS

With the number of urban subscribers peaking, telecommunication companies are looking toward the rural front for the next wave of subscribers. Furthermore with the budget telecom network business model squeezing their profit margins, Value Added Services (VAS) represent further revenue streams in a market where voice is commoditized.

Since 2008, multiple operators in India have started agricultural information services targeting rural subscribers. Most of the agricultural VAS includes a mix of crop advisory information, weather updates and market price information.

Business Models

A variety of business models are being employed, mostly as partnerships between telecommunication companies and other organizations. With some farmer organizations especially fertilizer cooperatives having millions of members, telecommunication companies are seeing them as a viable partner in order to increase their subscriber numbers. For example IFFCO Kisan Sanchar Ltd. (IKSL), a joint venture between Bharti Airtel and IFFCO (a fertilizer

cooperative with over 55 million farmers) even issues specialized branded SIMS for IFFCO members (Airtel has over 1.5 million subscribers of this specialized IKSL package) which includes free agricultural VAS. But operators are even getting into joint ventures with specialized VAS companies as seen by Mandi on Mobile (BSNL & OnMobile) and Mandi Bhav (Tata Teleservices and Impetus Technologies). Only one example exists of a VAS company going at it alone which is service provided by Reuters Market Light (RML). RML has chosen to specialize in information collection and sending customized content for each of its subscribers. But even they have in some regions partnered with an operator (Idea Cellular's Idea Krishi subscription plan).

Most operators are using agricultural VAS as a teaser to increase their rural subscriber base and reduce churn. They have for the most part treated the potential of the VAS itself to generate additional revenues as a second priority. Hence some of the services are being offered for free by operators. When it is paid service, it is generally via a time-based subscription model (one month, 3 month, 6 month or 1 year subscriptions). Pricing varies from service to service but generally between the range of INR 15-100 per month. Usage based pricing is also available on some services (e.g. Mandi on Mobile) but is less common.

Technology

Agricultural VAS are being delivered using a variety of technologies. The most common technology choice is SMS and IVR, but they are also available (depending on the specific service) via WAP, USSD and even as phone application. When delivery is text based most services cater upto 9 local languages. Given lower literacy levels amongst farmers, it is not surprising that voice based solutions are preferred over text. Further more local language support is not always available and the default delivery language is mostly Hindi.

Customized, relevant and timely content

Farmers see value in such services only when the information provided by these services is timely and relevant to their own specific produce. Generic crop advice is not valued high. Even with respect to market prices they want accurate prices from the markets of their choice which varies from farmer to farmer. Customized content therefore is more the forte of specialized VAS companies like RML. Their market price information for example (which they collect themselves) are viewed to be more accurate and their customized crop advise and weather updates were found to be valued more than the generic

information available via services such as those offered by IKSL.

THE WAY FORWARD

It is clear that voice based solutions such as IVR are more suitable for small farmers with low literacy levels. However voice based solutions is costlier to implement. Even when text is used as the delivery mechanism, the use of local language fonts remains key. The current 9 local languages supported by the services are not enough, but incorporating additional local languages may require special Unicode supported phones which may be costlier.

Telecom operators on their side need to prioritize such services as potential revenue sources by themselves. There is demonstrated demand for such services and it remains in the interest of the operators to raise awareness about such services and advertise them prominently.

While operators have a competitive advantage in distribution and sales, content remains their weakness. Hence operators need partnerships with specialized information providers with a keen sense of the farmers' information needs. The nature of this relationship needs to be mutually beneficially and while this area is still new there are enough business models that can be tried and tested. Apple's App Store model for example has been extremely popular and mutually beneficial to both developer as well as Apple. A similar approach could work here.

From the point of view of small farmers, such agricultural information services are just the first step towards more effective market engagement. What is further needed are access to finance, insurance and storage. ICTs and mobiles in particular can play an important role in connecting relevant stakeholders. m-Money services have the potential to bring micro-finance facilities to such small farmers. Even mobile based micro-insurance schemes for small farmers are currently available in places like Kenya (Kilimo Salama). Innovative services coupled with innovative business models can go a long way towards making agricultural markets in developing countries more efficient and thus help move millions of small famers out of perpetual poverty.

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