



CALL CENTERS FOR AGRICULTURAL INFORMATION

INTRODUCTION

Call centers have long been a familiar component of the service industry, from retail to technical support. The basic premise is simple: individuals who want information on, for instance, the status of an order they have placed call a phone number (usually toll-free) to speak with either a live representative or voice mail system. They generally receive a response to their query in either real-time or as a callback. In recent years, this model has been adapted to provide farmers with a wide variety of agricultural information and advisory services based on local demand.

This paper examines some of these call centers, including their functionality and business models. The primary focus is on models that have potential within the sub-Saharan African context. In addition, this paper will also look at how call centers may be used to further address agricultural development challenges in the future.

THE CHALLENGE

Providing farmers with locally relevant and specific information can be an extremely expensive and time consuming process. Traditional agricultural extension projects send trained agricultural experts into the field. The model is a powerful means of information sharing, yet there is a limit to the number of farmers a given extension agent can reach. Even more innovative models, such as Grameen's Community Knowledge Workers (CKW) program, where trusted community members are trained to use a smart phone to access a content database, also face challenges of scale. A farmer needs convenient access to a CKW before they can receive the information they desire.

A FEW RESPONSES TO THE CHALLENGE

There are a number of examples of call centers being used for agricultural information or advisory services, although the majority appears to be from India. The examples provided below are not meant to be an exhaustive list, but rather a selection of different types of responses to this challenge.

One of the earliest examples of agricultural call centers was started by the Department of Agriculture and Cooperation (DAAC), under the auspices of the government of India, which established the **Kisan¹ Call Centre (KCC)** in 2004 to complement its extension workers. Given the increase in both public and mobile telephone availability, and a decrease in the number of extension workers, the government was looking for a way to continue to provide the agricultural information and advisory services that farmers depend on. Since its founding, the government has established 25 KCCs across the country that operate daily between 6am and 10pm. Farmers nationwide can call a toll-free number during these hours to receive answers in their local language to questions on disease and pest control, crop and livestock information, market information, government programs, and organic farming, among other topics.

Callers are first greeted by call center agents, all of whom are trained agricultural graduates, who ask for basic information about the farmer and the details of their query. That information is fed by the agent into a remote database, which is available to national and local policymakers, presumably to help inform

future policy based on need. The agent then consults a knowledge management system (known as KKMS²) for an appropriate answer. The Directorate of Extension claims that 98 percent of all calls are addressed at this level. In the event that an agent is unable to find the right answer, however, the call is forwarded to a subject area expert for response. If an answer still cannot be found, requests are sent to senior department officials via email. Callers then receive a call back as soon as the question can be answered.³

Building off of this concept, in 2009 the **Indian Society of Agribusiness Professionals (ISAP)** established its own Kisan Call Centre in Madhya Pradesh state on behalf of the state DAAC. The ISAP model expands upon the original KCC with a number of unique features. Recognizing that farmers at any given point are likely to be facing more than one challenge, the ISAP KCC has a variety of experts on call (including agronomists, horticulturists, entomologists, veterinarians, and a farm machine expert) who are able to provide a more comprehensive response to all queries. In addition, ISAP requires each expert to spend at least three days per month with farmers to keep them connected to the reality on the ground.

ISAP has also developed a more robust data management system to track farming trends, which captures the exact location and time of each call. This tracking ability serves as an early warning response system by tracking calls related to pest attacks and epidemics. The software recognizes trends and generates early warning reports that are

² <http://dackkms.gov.in/KKMS/>

³ <http://vistar.nic.in/training/features.asp>

¹ Kisan means farmer in Hindi.

shared with the DAAC so that they can notify the public as appropriate.⁴

Also in India, **IKSL**, a joint venture between IFFCO (a large fertilizer cooperative with 60 million farmers) and telecom companies Bharti Airtel and Star Mobitel, runs a **Helpline** for users of its Green SIM Card. Subscribers to the Green SIM receive five free one-minute voice messages each day in their local language on topics such as crop management, market rates, weather forecasts, government schemes and more. As part of this service, subscribers can call the IKSL Helpline to ask experienced professionals for solutions to agricultural problems they are facing.

All of the agricultural content for IKSL exists within an Integrated Information Management System, which was developed as part of a GSMA Foundation grant provided to IKSL. The system tracks the location of its users and the topics of any calls they have made to the Helpline to better customize their future experience. According to a usage survey cited by the GSMA Foundation, 74% of Helpline callers “have implemented or plan to implement the information received.”⁵ It is not yet clear, however, what substantive impacts IKSL is having on farmer yields or income.

Meanwhile, in Kenya, the country’s largest provider of business process outsourcing (BPO) services, **KenCall**, has also expanded into the business of agricultural call centers. As a private sector firm that operates call centers for global corporations, KenCall was unique in that it already had the infrastructure necessary to launch an agricultural call center. Building on this capacity, the company launched the **M-Kilimo** (aka Kenya Farmers’ Helpline) service as a CSR initiative in late 2009 with a grant from the Rockefeller Foundation through the GSMA Development Fund. The service, which recently completed an 18-month pilot phase, provides farmers with

⁴ Email from Rajeev Dar, ISAP Chairman, on 9/27/11.

⁵ <http://gsmworld.com/documents/iksl-case-study-v2.pdf>

real time answers on a wide variety of topics related to agricultural information.

Similar to the other models, M-Kilimo is staffed with trained agriculture experts with access to a content management system, which enables them to respond to questions in real-time. Questions that cannot be answered immediately are sent out to subject area specialists and a return call with the answer is provided within 24 hours. The service is available in English, Swahili and other local languages.

Like the models from India, M-Kilimo is also free, although standard calling fees do apply. KenCall plans to commercialize the service, although it is unclear if the service will be financially self-supporting without ongoing donor funding. It is unclear, however, how much progress has been made in this regard to date. That said, the lessons learned from the M-Kilimo pilot are already being used to scale up the approach with support from the Bill & Melinda Gates Foundation through the GSMA Foundation.⁶ This new initiative will work with mobile network operators (MNOs) and other partners to support the launch of Farmer Helplines in an additional 11 countries in sub-Saharan Africa plus India.⁷

More recently, the Grameen Foundation launched a 6-month pilot of its new **Farmer Call Center (FCC)** in Uganda in January 2012. The service is currently available to farmers in more than 20 districts throughout Uganda during business hours on weekdays and has been logging about 300 calls a month so far. Farmers using the MTN network call via short code and pay 90 Ugandan shillings per minute (approximately US \$0.03).⁸ Farmers on other networks

⁶ <http://www.rockefellerfoundation.org/what-we-do/current-work/developing-climate-change-resilience/grants-grantees/african-agriculture-climate-change>

⁷ The countries being targeted in sub-Saharan Africa are Ghana, Mali, Mozambique, Tanzania, Burkino Faso, Kenya, Malawi, Niger, Nigeria, Rwanda, Uganda and Zambia.

⁸ Presentation by Charles Ssemwogerere, a Grameen Foundation customer service representative.

must dial a phone number and pay for the call based on their network provider’s standard rates.

Calls are routed through an interactive voice response (IVR) and automated call distribution (ACD) system to five agricultural specialists who are able to provide support on a broad spectrum of agricultural topics, such as crops, livestock, weather, market information, input suppliers and other farming advice in four languages. The specialists have access to a searchable agricultural database which has content from both local and international sources, which has been packaged, reviewed and customized to meet local farmers’ needs. The system generates daily, weekly and monthly reports ranging from traffic trends, performance reports, query escalation and resolution reports, and summaries of the answers to frequently asked questions. Like the ISAP model, this information also has the potential to be used as part of an early warning system.

COMING SOON

The initial interest that these types of call centers have generated is perhaps behind the expansion of the concept elsewhere. In June 2011, **Vodafone** announced a joint cooperation protocol with the Egyptian Ministry of Agriculture and Land Reclamation to provide the framework for launching a call center for farmers. With partners Quick Serve and the Agricultural Research Center (ARC), Vodafone plans to distribute one million mobile phone SIM cards to farmers for free. Once launched, farmers with these SIM cards will be able to access agricultural crop and veterinary information from ARC specialists at no extra charge.⁹

While in Ghana, **Esoko**, the firm best-known for its market information system (MIS) platform, has expressed interest in setting up a farmer helpline as well. During the first phase, which is due to be launched in 2012, Esoko helpline advisors will primarily assist callers to configure and use existing Esoko mobile

⁹ <http://www.ameinfo.com/268622.html>

alerts. Expansion to advisory services will occur in phase two, during which Esoko anticipates being able to provide support on disease treatment, new growing practices, fertilizer application, market access, weather, and information on buyers/sellers. They will provide these services in five local languages plus English.

THINGS TO CONSIDER

Whether or not any of these models is sustainable or scalable remains to be seen. There are, however, a few factors that should be considered when assessing the potential of call centers for sustainability and scale.

For the most part, all of the call centers highlighted in this paper require a significant amount of relevant knowledge, such as a reliable content database and trained agricultural specialists to take calls, as well as a physical location to operate from. Probably the most crucial of these inputs is the quality of the content. Without a strong content database and agents with at least a minimum baseline knowledge of agriculture, a call center would likely not prove helpful to farmers. The quality of this content and whether answers provided are relevant, actionable and deliver results will ultimately determine the rate of repeat usage. Any mission or project that is considering working with a call center will want to closely examine content quality and its relevance to farmers.

In addition, it is important to consider the dynamism of the database that is being used. Databases that can only provide information in one direction (i.e. to farmers) are limited in their potential value added impact. On the other hand, more dynamic databases, such as those designed by ISAP or Grameen, have the potential to be used differently by multiple types of end users. By tracking and aggregating information on the time

and nature of each call, they can produce an additional layer of value. For instance, as is the case with ISAP, by aggregating farmer call data and feeding the information to government agencies, the call center has the potential to provide an early warning system as a public service.

Call center business models require close consideration if the centers are to be sustainable and scalable. Part of the sustainability solution may lie within the public sector. For instance, the KCCs in India are seen as a public service that is paid for by the government in the same way that it supports extension services. Many agriculture ministries provide agricultural information and extension services which may be deployed through call centers in order to increase efficiency and scalability.

Both IKSL and KenCall were able to attract initial philanthropic grant funding to establish their content management systems. Ultimately, both projects expect to be able to financially sustain their call centers, although their ability to generate enough revenue from other sources to do so remains to be seen.

Projects interested in supporting similar private sector, free-to-the-user call centers must consider how they will eventually achieve sustainability. The most promising approaches would likely focus on advertising agricultural inputs on the systems or selling user intelligence or other information to agribusinesses. For example, information compiled by the services can potentially be sold to manufacturers and agri-dealers. This intelligence could be used by agribusinesses to more effectively target their advertising and offers to match demand, and therefore they may consider paying for it.

These systems could also be supported by charging farmers a small per minute

or flat fee for subscribing to the services. There are no currently successful examples of these fee-based agricultural information models achieving sustainability at a large scale, but the model is worth further consideration. The results of Grameen's pilot will provide some insight into this, although additional experimentation with appropriate price points will likely be necessary.

Finally, it is important to consider whether a call center is the right solution to the challenges facing farmers in the geographic area you are planning to work. It could be that other approaches, such as radio call-in programs, extension workers, or targeted SMS messaging are more cost effective in some circumstances. Other peer-to-peer approaches may also be worth considering. For instance, Digital Green in India is using peer-created videos to convey agricultural information and advice. In addition, Mobile instant messaging (MIM) platforms such as MXit and Jamiix can also be used to share information with farmers via mobile chat, although internet-enabled phones are required for this capability.¹⁰

¹⁰ <http://ictupdate.cta.int/en/content/view/full/5601>

RESOURCES

Saha, H.S., Roy, R. & Hussain, M.M. "[Capacity Planning and Dimensioning of an Agricultural Call Center.](#)" (IJCIT, 2012)

Saha, A. Sakib, S.R. Saquib, N. , & Hussain, M. "[Planning of an Agro Call Center and Impact on Agricultural Growth.](#)" (ICIME, 2010)

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