ICT based Customer Care Solution for Poor Farmers
ICT services for Agricultural Development in Bangladesh

Access to useful, accurate and timely agriculture information are some of the crucial factors for farmers that lead to higher yields and reduction in potential losses for them. Farmers generally seek out agricultural information from a variety of sources such as government appointed extension officers, input retailers and peer farmers. However, due to limited knowledge and availability of information, none of these sources are fully able to provide answers to every query of every farmer. To meet this huge and much required information gap, Katalyst started working in the ICT sector in collaboration with relevant private and public sectors since 2004. Katalyst worked with an objective to improve the ICT market system in order to ensure that relevant and timely agricultural information reaches to all farmers across Bangladesh whenever they need it.

Initially, Katalyst focused on setting up Rural Information Centres (RICs) in partnership with local private organisations to provide internet based communication. Katalyst had facilitated the development of a web-based agriculture portal where agro-experts provided solutions to farmers’ most common agriculture problems. Following the success of the RICs, Katalyst partnered with Bangladesh’s largest telecom operator Grameenphone (GP) to launch Grameenphone Community Information Centres (GPCIC), in 2006. By the end of 2008, GP launched 500 GPCICs in all upazilas or sub-districts throughout the country, further bringing agriculture information closer to the farmers nationwide. The RICs and GPCICs were located in sub-districts, which was not very convenient for most farmers since they mostly interacted with information sources that were located much closer to their villages or unions.

The Project

Agri-business for Trade Competitiveness Project (ATC-P), branded as Katalyst is one of the largest market development initiatives in Bangladesh. Working together with various market actors, the project generates new income-opportunities for small and poor farmers. Katalyst is co-funded by the Swiss Agency for Development and Cooperation (SDC), the UK Government, and the Danish International Development Agency (Danida). It is implemented by Swisscontact under the umbrella of the Ministry of Commerce, Government of Bangladesh.
ICT services for Agricultural Development in Bangladesh

Access to useful, accurate and timely agriculture information are some of the crucial factors for farmers that lead to higher yields and reduction in potential losses for them. Farmers generally seek out agricultural information from a variety of sources such as government appointed extension officers, input retailers and peer farmers. However, due to limited knowledge and availability of information, none of these sources are fully able to provide answers to every query of every farmer. To meet this huge and much required information gap, Katalyst started working in the ICT sector in collaboration with relevant private and public sectors since 2004. Katalyst worked with an objective to improve the ICT market system in order to ensure that relevant and timely agricultural information reaches to all farmers across Bangladesh whenever they need it.

Initially, Katalyst focused on setting up Rural Information Centres (RICs) in partnership with local private organisations to provide internet based communication. Katalyst had facilitated the development of a web-based agriculture portal where agro-experts provided solutions to farmers’ most common agriculture problems. Following the success of the RICs, Katalyst partnered with Bangladesh’s largest telecom operator Grameenphone (GP) to launch Grameenphone Community Information Centres (GPCIC), in 2006. By the end of 2008, GP launched 500 GPCICs in all upazilas or sub-districts throughout the country, further bringing agriculture information closer to the farmers nationwide. The RICs and GPCICs were located in sub-districts, which was not very convenient for most farmers since they mostly interacted with information sources that were located much closer to their villages or unions.

The Project

Agri-business for Trade Competitiveness Project (ATC-P), branded as Katalyst is one of the largest market development initiatives in Bangladesh. Working together with various market actors, the project generates new income-opportunities for small and poor farmers. Katalyst is co-funded by the Swiss Agency for Development and Cooperation (SDC), the UK Government, and the Danish International Development Agency (Danida). It is implemented by Swisscontact under the umbrella of the Ministry of Commerce, Government of Bangladesh.
In late 2008, Katalyst collaborated with another leading telecom operator, Banglalink, to develop a helpline based agriculture information service for farmers known as “Krishi Jigyasha 7676”. This was a pioneering service in the telecom industry where farmers could dial and get connected with experts who could respond to their queries and solve their problems. This helpline successfully responded to problems related to poultry, fishery, livestock, vegetable/fruit and flower farming and benefited a large number of farmers. Krishi Jigyasha 7676 was a strategic project of Banglalink to tap into the rural markets which mostly comprised of farming households.

Shortly after the launching of Banglalink’s Krishi Jigyasha 7676, Grameenphone, Robi and Airtel launched similar helpline services for farmers in 2010, 2014, and 2015 respectively. Katalyst also collaborated with public sector agency Soil Resource Development Institute (SRDI) to develop Fertilizer Recommendation Software (FRS) which was launched in 2014. Using this software, farmers can receive information and learn about appropriate fertilizer doses for their particular soil type and crops. FRS was developed after conducting extensive soil tests throughout Bangladesh to identify the specific fertilizer requirements for farmers in the different regions, based on the different soil types. This software is used by existing agriculture helplines and rural information centre to disseminate fertilizer related information among farmers.

Although helplines benefited farmers by providing them useful agriculture information in a timely manner, these services was predominantly used by large farmers. On the other hand, with little credit balance on their mobile phones, it posed to be an expensive option for most rural farmers, where they would need to spend their entire credit balance calling the helplines. This meant that the rural farmers would call the helpline services only when they have tried and failed to receive useful information from all other sources. Hence, it was obvious that there was an acute need for yet another service that could meet the agriculture information demands of all smallholder farmers at an even lower cost.

Based on this reality, in Phase 3, Katalyst decided to collaborate with agriculture input companies to develop a low cost agriculture information service for rural farmers. Since farmers are the core customers for business for input companies, they were considered to be the ideal leverage agents for this initiative. Together with input companies, Katalyst developed a missed call based customer care solution, where the cost of the calls was borne by the input companies. The input companies were ready to bear this cost since for multiple benefits. It gave them the opportunity to provide reliable agro advice to farmers, promote their portfolio of products, retain existing and attract potential new customers all at the same time. Moreover, the interaction with farmers through the customer care solution, further helped the input companies to gather valuable business insight and information regarding farming products.

**Farmers reached through Krishi Jigyasha 7676:**

914,713 calls served during 2008-2012
Introducing the innovative Missed Call based Customer Care Solution

In 2015, Katalyst collaborated and co-designed a free of charge helpline service for farmers with one of the leading seed companies called, Metal Agro Ltd. The helpline is a “missed call” based customer care service for farmers, which is operated by full time call centre agents with a dedicated unit comprising of representatives from agro input companies with sound knowledge in agriculture.

The missed-call based customer care solution simply requires the farmers to place a missed call in a long code number, which is then followed by a “call back” from the call centre agents of the agro input company. The agro input company does so by using a customer management software that registers the missed calls and has an IP phone based dialer (using internet). The IP phone call rates are cheaper (45paisa/minute) compared to regular calls using telecom operator simcards (60paisa/minute). The cheaper call rate was one of the key factors that convinced the input company to come on board. The customer management software also enables the input company to store and regularly update a comprehensive set of agriculture content and data in the software, which is accessible too and used by the call center agents to provide demand based information solutions to the rural farmers. The customer management software also allows the input company to produce system generated reports giving insights on region specific problems faced by farmers, their upcoming cropping plan and more.

The missed-call based customer care model soon became a more affordable solution for a large number of smallholder farmers in Bangladesh compared to any other paid ICT based services. With as high as 34% of repeat callers shown in the system generated reports, it indicates that the farmers are extremely satisfied with the service.
Following the success of the pilot, Katalyst worked with other major aqua-chemical and agriculture input companies namely, Eskayef Bangladesh Limited, EON Group, Petrochem Bangladesh Ltd., ACI, Mollika, Lalteer and Supreme Seeds to replicate this solution in their respective business models. This service allows the companies to build a relationship with their existing customers by providing them information on proper cultivation techniques, which ensures them greater yields and as a result helps the companies to retain their customers for future business. With this easy low cost solution, the input companies can also expand their customer base by attracting potential new customers. The service also allows them to promote their brands to a large number of farmers and helps to develop farmer databases and profiles that enable the companies to plan their promotional activities and develop their distribution channels more effectively.
Following the success of the pilot, Katalyst worked with other major aqua-chemical and agriculture input companies namely, Eskayef Bangladesh Limited, EON Group, Petrochem Bangladesh Ltd., ACI, Mollika, Lalteer and Supreme Seeds to replicate this solution in their respective business models. This service allows the companies to build a relationship with their existing customers by providing them information on proper cultivation techniques, which ensures them greater yields and as a result helps the companies to retain their customers for future business. With this easy low cost solution, the input companies can also expand their customer base by attracting potential new customers. The service also allows them to promote their brands to a large number of farmers and helps to develop farmer databases and profiles that enable the companies to plan their promotional activities and develop their distribution channels more effectively.

**PROMOTIONAL ACTIVITIES**

<table>
<thead>
<tr>
<th>INPUT COMPANIES</th>
<th>PROMOTIONAL ACTIVITIES</th>
</tr>
</thead>
<tbody>
<tr>
<td>NIGHT MEETINGS</td>
<td>HAAT ACTIVITIES</td>
</tr>
<tr>
<td>FARMER MEETINGS</td>
<td>RETAILER TRAINING</td>
</tr>
<tr>
<td></td>
<td>PACKET PRINTING</td>
</tr>
</tbody>
</table>
Impact on Farmers

Call reports from the service indicate that the type of information sought from the helpline is largely on cultivation techniques, input usage and disease prevention. The average number of calls landing to the helpline range from 1,500-2,500, based on seasonality, number of call centre agents and promotional activities conducted by the companies.

The service has not been confined to the farmers only, but has also been promoted widely among retailers and dealers through trainings organized by input companies to sensitize them on the benefits of using the service as well as promoting it among other farmers.

Impact on the Agriculture Input Companies

The customer care solution was adopted by Metal Agro Ltd. and integrated into their business model as a mean to benefit farmers with agro advice, promote their products and a research tool to obtain necessary market information for expanding and strengthening their business.

In 2016, Metal Agro Ltd. also invested additional financial resources of its own and recruited additional service providers to run their services more efficiently. The company also signed a maintenance contract with the software developer to ensure that they continue to provide uninterrupted and more efficient services to the rural farmers. Furthermore, they also printed the customer care phone number on the packets of their popular products and organized courtyard meetings to promote this service to other farmers.

An impact assessment conducted in 2016 showed that the information received by farmers using this service has a usage and benefit rate of 97% and 60%, respectively with an average income increase of BDT 5,200. Since the service is free of cost, farmers have showed a very high uptake of it. The service specially helps female farmers with timely information as it reduces their dependence on their male counterparts who used to obtain information on their behalf from various information sources.

BY MARCH 2017, THE MISSED CALL BASED CUSTOMER CARE SOLUTION IS EXPECTED TO REACH APPROXIMATELY 152000 FARMERS

We want to promote the customer care solution to a large number of farmers. The service is not only for our customers, but also for all farmers- even those of our competitors. We believe that our interaction with them will eventually help us increase and retain our overall customer base.

- KBD. Afzal Husain, General Manager, Metal Agro Limited
Following Metal Agro Ltd.’s adoption of this model, other major aqua-chemical and agriculture input companies also replicated the customer care solution and started promoting this service among large population of farmers. In addition to benefitting farmers with relevant and timely agriculture information, these companies are also using this service to disseminate agriculture information to other actors in the value chain, such as input dealers and retailers. The farmer database produced by the software is used by the companies to design their future awareness activities as well as monitor seed distribution during relevant seasons.

The missed call based customer care solution has been successfully integrated into the business models of the input companies, which Katalyst partnered with in Phase 3. Majority of the companies are now signing a maintenance contract with the software developers to ensure the solution runs efficiently. On the other hand, the software developers are also updating the software with improvements to meet the individual demands of input companies.

The input companies are continuing to promote their customer care solution in various regions to reach a large base of farmers, retailers and other stakeholders. The companies also hope to improve their business processes and strategies in the future by studying the system-generated reports of the customer care solution in depth.

Katalyst has been organizing series of knowledge sharing workshops, with the agricultural input and software companies. These workshops share the experiences and success stories of the missed call based customer care solution model to enable other input companies to replicate it in their own businesses.

"This software has allowed our company to build an agriculture knowledge bank which helps us to manage our many years of knowledge and experience in the sector. We believe this solution will greatly benefit the farmers, since it allows us to cater to their queries as per their specific demands."

- Partha Sarathi Roy, General Manager, Marketing, Petrochem Bangladesh Limited
"Last season, I cultivated cucumbers in my 7 acres of land. Several weeks later, in the seedling stage, my cucumber plant leaves were crippling and turning toxic yellow.

I was invited to a meeting organized by Metal Agro Ltd. where I heard about their free customer care solution. The next day, I called and explained the symptoms to them. I was advised to use a particular insecticide and apply vitamin on the plants for healthy output.

Not only the advise from Metal solved my problem, but it also increased my yield. Last season, I cultivated over 4,500kgs of cucumber and made a profit of BDT 21,000."

-Habibur Rahman Haidar, age 38

"I was desperately seeking for a reliable information source and that is when I heard about Metal’s missed call based customer care solution. Last year, I cultivated bitter gourds on my 15 acres of land. Only few weeks before harvesting, I saw signs of stunted growth. On the advice of my fellow farmers, I applied fertilizers in my field but the changes were meager. Upon contacting Metal’s field representative I got their customer care solution number. I placed a missed call to them from the field and within minutes I received a call back from their representative. They listened to my problems and prescribed me a hormone to spray on my bitter gourds. In the following week, I saw that my bitter gourds were growing healthily again.”

“...In the absence of other credible sources of information. The Metal’s customer care solution saved my livelihood. I use it regularly and suggest my fellow farmers to avail this service when they are in need.”

-Abdur Rahman, age 30.
"I don’t buy vegetables from the market. The little that we grow in our backyard is enough to feed my small family. Last season when there was an insect attack on my pumpkin plant, I called Metal’s helpline service. In the past, I had to ask my husband to go to the bazaar to solve my agriculture problems. Now, I don’t have to rely on him anymore. I can just give a missed call and receive information on my mobile phone. Metal even provides this service free of charge which is very convenient for us.”

- **Samira Khatun, age 28**

"Farmers come to me for several kinds of information on cultivation techniques and disease prevention. However, there are often times that I am not able to fully respond to their queries. There are so many issues- new kinds of pest attacks, soil conditions, etc. that are beyond my knowledge. I came to know about Metal’s customer care solution in one of their retailer trainings. It is free of charge and it gives information on a variety of agriculture issues. Now, whenever I am not able to answer their queries, I tell them to call the helpline. Often I call on behalf of them.

- **Md. Sohel Rana, age 31**