

An Innovative ICT Approach to Evaluate and Enhance Service Delivery of Government of Tamil Nadu's Advisory Messages

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POLICY BRIEF

The Department of Agriculture, Government of Tamil Nadu is currently delivering agricultural advisory voice messages directly to the mobile phones of farmers of five delta districts through a 'PUSH' mechanism (Typically, a user will 'PULL' in information as and when needed from information providers. In contrast, a new 'PUSH' approach depends on the service provider - Government and non-Government - pushing information to the user without a specific request for each item, after the user has registered with the provider and indicated willingness to receive such information.) However, merely pushing information to the end-users without understanding how that information is being received or how the services can be improved is of little use. Our research comprised of building a system that not only delivered messages through a 'PUSH' mechanism but also had a real-time feedback mechanism built-in which allowed for the users to immediately provide us with their responses.

The study showed that Information and Communication Technologies (ICT), especially the innovative use of mobile technology can help in gathering and implementing the feedback, through what we believe is a unique and so far, under-utilized approach and, in dramatically reducing the time and costs involved in carrying out such feedback efforts.

Policy measures that recognize this potential and make it a part of the Government ICT schemes as they are being conceived and operated will go a long way in increasing the productivity and effectiveness of these schemes.

SUMMARY OF FINDINGS/ RECOMMENDATIONS

1. Incorporate a real-time feedback mechanism for 'PUSH' services:

Though the benefits of "PUSH" services lie in the proactive approach, it is important to measure its value adds to the end beneficiaries (farmers). Incorporating a real-time feedback mechanism gives the platform an edge for capturing feedback from farmers in real-time which otherwise will remain a challenge.

2. Utilize feedback received for better targeting of messages and better service delivery:

When a real-time feedback mechanism is implemented

during delivery of services, the responses can be captured and analyzed almost immediately. Based on the specific requirements that the feedback throws up, the messages can be better targeted and the service delivery improved.

3. Come up with evidence aiding policy measures that make the feedback mechanism part of Government schemes and services, even in planning stages:

Rather than include a feedback mechanism as an after-thought in Government services, making this a part of the schemes as they are being planned will go a long way in

making them more productive and effective. Innovative mobile technologies can offer such schemes benefits of cost savings, the ability to communicate with end-users in their local language, facility to customize feedback questions as per demands of the region and scalability, amongst others.

Our study demonstrates the power of two-way voice services over mobile phones today, which when combined with innovative methods, can serve to deliver information as well as seek feedback; feedback that can be used in a timely and effective manner.

THE RESEARCH

I INTRODUCTION

The Government of Tamil Nadu has undertaken a programme to partially fill the existing information gaps for farmers by using ICT tools (Department of Agriculture, 2012). The pilot project of relaying agricultural advisories by means of a 'PUSH' voice-message system to the mobile phones of farmers in five delta districts (Thanjavur, Thiruvarur, Thiruchirapalli, Nagapattinam and Cuddalore) was started in August 2012 and presently covers around

0.2 million farmers. The Cauvery Delta Zone in the state of Tamil Nadu is a major rice producing zone in the country and the above mentioned districts cover a large fraction of the delta zone (Agro Climatic Zone Profile, 2009).

A mechanism of gaining feedback on different aspects of this service was embedded in the 'PUSH' messages itself. Our study established that such a technique adds

to the agility of service-delivery and improves the service even while it is being deployed.

Based on our research, it is proposed that feedback, evaluation and modification can be made part of the ICT service delivery itself, enabling better-targeting and better delivery of services.

II METHOD

The system was initially built only to deliver messages and did not have any mechanism of obtaining feedback from farmers about whether the information was found to be useful. To make the messages truly useful to farmers, it was believed that feedback on timeliness, relevance and importance of personalized information, would be desirable. Further, if this feedback was to be used to modify the content and delivery of the messages, it had to be obtained and analysed in real-time.

To achieve this, an Interactive Voice Response (IVR) system was introduced into the same system, to seek feedback from farmers in an innovative way – by including questions at the end of the messages so that farmers could provide instant responses; responses that could be recorded, analysed and reported to the Department of Agriculture. The feedback received could be used to deliver more relevant messages.

Prior to implementing feedback using the IVR system, an exploratory study was carried out to understand the time, cost and resources needed to seek feedback from farmers using a more traditional method – manual survey over the phone.

Three districts were chosen for the survey; the total number of farmers included in the survey was 147,117. Out of this, every 200th farmer was contacted on a random basis; the total number of farmers surveyed was thus 167. A pre-determined questionnaire consisting of 19 questions was administered to them. The survey was administered in the local language, i.e. Tamil, over the phone and was conducted from: September 24, 2012 to October 12, 2012. This meant a total of 3 weeks, with each farmer taking about 10 minutes to respond to the questionnaire.

Following this, the more innovative attempt was made to gain an understanding of whether farmers found the information contained in the message useful. In the month of October 2012, two messages containing information on Government schemes were to be relayed to farmers by the Department of Agriculture. The duration of the first message was of 40 seconds and it was decided to deliver this message to all farmers with a feedback question inserted at the end. The question was asked in Tamil, through an IVR prompt and the response recorded by requesting users to select specific keys on their Dual-Tone-Multi-Frequency (DTMF) keypads. This message along with the question was relayed to 130,421 farmers from five districts over five days beginning 24 September, 2012

to 28 September, 2012, with 80338 farmers having heard the entire message.

III RESULTS AND DISCUSSIONS

The comparison of costs, time taken and other relevant parameters for the two methods of obtaining feedback is presented below.

Table 1. Comparison of feedback methods

Parameter	Traditional	IVR
Number of respondents	167	4216
Time taken to gather responses	21 days	5 days
Cost (INR)	19740	1250

(1 USD = INR 60 approximately)

The savings in cost, time and the availability of error free data are some of the very obvious advantages of using the IVRS feedback method. More importantly, it allows for better targeting of messages by understanding what farmers want, enables communication in the local language, provides fine-tuning of delivery to ensure maximum reach to farmers and since it uses voice technology, can be scaled across States with different languages.

Though the implementation and understanding of such a feedback mechanism is still in its nascent stages, there is no doubt of its transformative potential. The need of the day is to have policy measures that will make such a feedback mechanism an integral part of Government schemes and services, even as they are being conceived and planned.

SOURCES

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