How to Advertise a Speech-Based Service to Offline Populations: A Case Study from Pakistan

Maryam Ayub

Information Technology University, Punjab, Pakistan
maryam.ayub@itu.edu.pk

Sacha St-Onge Ahmad

Information Technology University, Punjab, Pakistan
sacha.ahmad@itu.edu.pk

Muhammad Bilal Saleem

Information Technology University, Punjab, Pakistan
bilal.saleem@itu.edu.pk

Agha Ali Raza

Information Technology University, Punjab, Pakistan
agha.ali.raza@itu.edu.pk

Mustafa Naseem

ATLAS Institute, University of Colorado, Boulder
mustafa.naseem@colorado.edu

Jay Chen

New York University, Abu Dhabi
jay.chen@nyu.edu

Abstract

This paper describes the advertising strategies adopted to promote our speech-based health hotline named *Super Abbu* (literal translation: "Super Dad") for creating maternal health awareness amongst expecting low-literate and low-income parents in Pakistan. Right after the service went live for the first time on December 31, 2017, in a span of 3 weeks Super Abbu reached 4,662 users who made 9,424 successful calls on the hotline. We advertised the service in phases and through different advertisement channels. We report the data of the first 3 weeks after the launch and discuss in detail the course of events and channels through which the service was advertised across Lahore and nearby districts. We subsequently present the most successful and effective mode of advertisement (i.e., robocalls) that attracted the highest number of users to date and which is also cost-effective in the long run and can be replicated globally for similar services.

Author Keywords

Maternal health awareness; IVR; advertising channels; user acquisition; ICTD; HCI4D; low-literate audience

ACM Classification Keywords

H.5.m. Information interfaces and presentation (e.g., HCI) H.1.m Miscellaneous

Introduction

Pakistan being a developing country still has a long way to go when it comes to provision of and access to basic healthcare facilities for more than half of its rural population [1]. With the emergence of ICT and mobile-based interventions in the recent past, interactive voice response system (IVR) based mobile services have emerged in the country and some have materialized into viral trends such as Polly [2] and Healthline [3] . Inspired by these initiatives we proposed Super Abbu (initially named 'Suno Abbu') [4] (accepted at last year's HCIxB); a free health hotline for low-literate, low-income expectant parents in Pakistan specifically targeting the fathers as they are mostly the decision makers [5] and the breadwinners in the local culture. Super Abbu [4] uses the same missed call concept as Polly [6], thus making the system free of cost for the users. The users can ask doctors questions, listen to questions asked by other callers, and listen to or share experiences related to pregnancy and birth care. Users can also vote up, down or report content and can also share their feedback.

Studies have shown that although the use of ICT interventions is gaining popularity in the developing world, there are certain factors beyond technology that render them successful which include cultural norms, language, capability of the people [7] and also their literacy and affordability. We wanted to know (a) if the service would attract a large user base after its launch and, (b) to determine the approach through which we could attract the low-literate and underprivileged population to a free IVR based service that provides maternal health awareness. Keeping that in perspective the specific research questions of this paper are:

- What is the best mode to disseminate the service to our target audience, out of the popular available mediums such as flyers and electronic media?

- Which medium would prove to be the most cost-effective and the best in terms of its degree of coverage to our target users?

This information will also be crucial to determine whether Super Abbu could be scaled-up to educate, induce behavior change and retain a much larger user base for an extended period of time while at the same time becoming self-sustainable. Therefore, we devised a strategy to promote and advertise the hotline through multiple advertisement channels to ensure widespread coverage and sequentially asses what channel generated the most number of users. The proposal for this hotline initially got seed funding and a certain proportion was allocated for the marketing budget with a target to reach 20,000 users for the service. The allocated budget was utilized for some mediums of our campaign, while for others the institute's internal resources were utilized.

Preliminary focus groups were conducted with several low-literate individuals across Lahore including house guards, workers, laborers and men working at barber shops etc. They were asked about which cable television channels they watch most often, radio channels they listen to, the village they come from and the mode of transport they use to travel. These preferences helped us in deciding our advertising

Figure 1: *Super Abbu* Cricketer Flyer (Flyer-1)

Figure 2: A rickshaw with Super Abbu banner spotted on the road

Figure 3: A screenshot taken from the *Super Abbu* video campaign

strategy that would draw and attract the largest number of our target users.

Building up on the success of Polly, we developed a real-time monitoring system that reports statistics on number of calls and users. This helped us calculate and report the statistics of users and callers from each one of our advertising mediums. The following section expands on the description of events and strategies used to advertise and promote Super Abbu with results from the first three weeks after its launch on December 31st, 2017 till January 20th, 2018. We only mention the yield in the form of number of users and not on the basis of behaviors or retention. We also discuss the cost incurred and the resources utilized for each medium of advertisement.

Project Goals and Objectives

- To gather a large user base for Super Abbu and to promote the hotline nationwide.
- To advertise Super Abbu in phases through various channels while measuring service uptake and yield through each channel.
- To identify feasible and cost-effective methods to attract users from our target population and to propose a model that is replicable globally.

Methodology and Advertisement Plan

We devised a campaign to advertise Super Abbu through 9 different mediums, namely: cable TV network, the Local Radio network, robocalls, flyers (three different versions: flyer-1, flyer-2 and flyer-3), banner advertisements on Polly, advertisements on rickshaws and social media. 9 local landline numbers were acquired for Super Abbu and each number was

deployed for each marketing channel. This was formulated to track the channel being used by a caller when a call is placed with the service (see **Table 1**). The idea was to look at the uptake of the service based on the mode of advertisement, the number of users attracted through each one of the channels and the user behavior patterns. The following sections expands on the details of each channel:

Sr.#	Advertising Channel	*Super Abbu* Phone No.
1	Flyer-1	(+92) 423-8900800
2	Flyer-2	(+92) 423-8900801
3	Flyer-3	(+92) 423-8900802
4	Robocall	(+92) 423-8900804
5	Banner Ad on *Polly*	(+92) 423-8900805
6	Rickshaws	(+92) 423-8900806
7	Cable TV Ad	(+92) 423-8900807
8	Radio	(+92) 423-8900808
9	Social Media	(+92) 423-8900909

Table 1: The 9 advertising channels used for *Super Abbu* with each channel assigned with a unique local landline number

Audio Banner Ad on Polly:

Considering the popularity of the viral entertainment based IVR service *Polly* [2] that amassed 2,032 users and 10,629 interactions in 3 weeks, we decided to make it live again so that we could place our audio banner ad on it. A 28-second banner ad went live on Polly for the first time on December 31, 2017 thereby denoting the launch of Super Abbu. The banner ad directs users to Super Abbu in 3 ways: 1) when a user places a call with Polly a banner ad is played that asks the user to press 1 to enter into Super Abbu 2) if user skips option 1 and enters into Polly's main menu instead, a simple prompt about Super Abbu (to become

a Super Abbu, press 5) plays after the main menu and 3) the main banner ad played after dialing the Polly number also narrates the Super Abbu number assigned for Polly users. Out of the 970 active Polly users, 691 moved to Super Abbu within the first 3 weeks. This count includes users who were directed to Super Abbu by all three modes. The only challenge was that if a user chose to stay within Polly and make full use of it, the airtime cost of Polly was being borne by Super Abbu's budget as well. The airtime cost incurred for running Polly for 21 days was USD 851.

Cable TV Advertisement:

Keeping in view the power of celebrity endorsements and cricket's popularity across the country and across wealth brackets, a famous Pakistani cricketer was chosen as the front face to appear in the cable TV advertisement. The celebrity appears in our 60-second video advertisement shot at a barber shop where he introduces the service to two men indulged in a conversation where one is worried about the well-being of his newly expecting wife (see **Figure 3**). The ad ends with a testimonial from the cricketer endorsing the service. The advertisement went on air for the first time on January 8th, 2018. It was broadcast on two movie channels on two popular local cable TV network providers in Lahore. Scrolls of the ad in Urdu text also began the same day on the two popular cable movie channels. The cable ads were on-aired for seven consecutive days in total during the first three weeks. The cable TV campaign generated 69 successful calls with Super Abbu from 42 users in three weeks. There was no production cost incurred in filming of the video ad since the institutes' internal media team was used to shoot and act in the video.

Robocalls:

27,796 robocalls were made during the span of three weeks and the duration of each recorded call was 36 seconds. Robocalls were sent to beneficiaries of previous government-led projects in the sectors of education, health, vocational training and child immunization. Calls were made every day from 9 a.m. to 10 p.m. 16,009 users answered the calls and out of those 1,179 users transferred to Super Abbu directly through the robocall. An additional 2,723 users called the number back. Each robocall can be fragmented into three parts: 1) celebrity endorsement 2) robocall question 3) Super Abbu introduction (a description of the services available on the hotline). This is followed by the option to press 1 to enter Super Abbu or to call back later for free on the number the call was received from. **Table 2** transcribes and formulates the content of a robocall where each call chronologically includes one of the five questions. The total airtime consumed by robocalls for 21 days amounts to 214,871 pulses which incurred us a cost of USD 757 (1 pulse = 15 seconds; charges per pulse = PKR 0.39). **Figure 4** represents the pattern of total users and calls received through robocalls against Polly.

Rickshaws:

On January 9th, 2018, 100 rickshaws were branded with single 3x4 feet Super Abbu flexes in Lahore as shown in **Figure 2**. These ads have generated 110 successful calls to Super Abbu from 62 users. The cost incurred on the rickshaw ads was approximately USD 316 for advertisements for a month.

	Robocall Content	Male Voiceover	Time (seconds)
1	Celebrity Endorsement	*My name is Mushtaq Ahmad and I have complete faith in the Super Abbu hotline*	5
2	Robocall Question 1	*Greetings! Do you know what happens if a baby does not cry right after birth?*	6
	Robocall Question 2	*Greetings! Do you know what dangers blood deficiency in a mother can cause to her baby?*	6
	Robocall Question 3	*Greetings! Are you aware of the fact that both men and women should get themselves medically checked before getting married?*	6
	Robocall Question 4	*Greetings! Do you know what threats premature birth can cause to a baby?*	7
	Robocall Question 5	*Greetings! Do you know what physical changes a mother undergoes during pregnancy?*	6
3	Super Abbu Introduction	*You can now get answers to all such questions while sitting at home. Dial the free Super Abbu hotline and ask questions about pregnancy and delivery from experienced doctors. Moreover, listen to experiences shared by other parents for your own awareness. To enter Super Abbu now press 1; to forward this to someone press 2; or dial the number that you got this call from for free.*	24

Table 2: Transcription of the content of a Robocall from Urdu to English text. Each call includes one of the 5 questions.

Flyers:

Flyer distribution started on January 1st, 2018 and continued throughout the first three weeks after the launch of Super Abbu. Three versions of the flyer were used for Super Abbu. Flyer-1 included a picture of the same Pakistani cricketer from the cable TV ad and robocall endorsement along with the official logos of the provincial government and the researchers' institution. (**Figure 1**). Flyer-2 was without the cricketer's picture but included the same logos from the first flyer. Flyer-3 included the cricketer's picture but no logos. All three flyers were assigned to different numbers to assess user response. All promotional material contained statements in Urdu text illustrating a 'free hotline' that provides easy access to basic healthcare information to expecting parents while sitting at home and where they can also listen to experiences of other parents and share their own. The results reveal that flyer-1 contributed to 41 successful calls from 18 users, flyer-2 brought in 116 successful calls by 45 users while flyer-3 generated 63 successful calls from 42 users.

Radio Advertisements:

Radio advertisements were aired on January 8, 2018 for two days on two local radio channels. They were broadcast from two districts in the province of Punjab approximately 161 and 345 miles away from Lahore. On each day, five 60-second and twelve 25-second ads aired from 7 am to 9:59 am in the first time slot. The same schedule was repeated in the second time slot from 5pm to 9:59 pm on the same day. The radio ads attracted 11 users and 13 successful calls were made on the hotline. The 60-second radio ad was an audio recording of the same cable advertisement while another 25-second ad was recorded by a male narrator and the total airtime cost incurred was USD 204.

Social Media Advertisements:

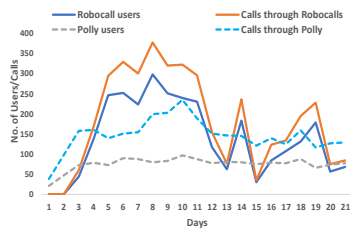Social media advertisements began on January 5th, 2018 through a Facebook ad campaign where the

Figure 4: Total number of robocall users and calls plotted against total Polly users and calls, through the span of 3 weeks. The dotted lines represent the Polly users and calls. Polly was indicated as a better medium in terms of user retention and engagement.

target audience was set to reach 2,900,000 men spread across the cities of Lahore, Faisalabad, Gujranwala, Multan, Rawalpindi and Sialkot. The allocated budget was set for USD 18 for 7 days and the ad reached an estimate of 16,000 people. The social media number generated 8 users who made 10 successful calls on the hotline. This platform amassed very few users, which strengthens the fact that our target users mostly do not have access to internet broadband and other mobile based applications.
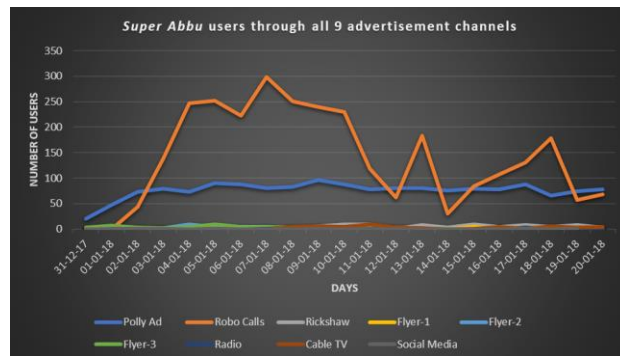

Figure 5: Super Abbu users through all the 9 advertisement channels in the first 3 weeks of launch. The drops in the Robocall line depict the instances where the calls were not answered by callers. For every unanswered call, we try calling again 3 times after every 7 hours between 9 am to 10 pm every day. Minimal occurrence of users can be seen through the other 7 channels against Robocalls and Polly.

Discussion and Future Work

The findings of our campaign strategy suggest that robocalls are the most successful in attracting new users to a telephony service followed by Polly as a successor (see **Figure 5**). However, an imperative aspect to note is that users from robocalls were people who had, at least once, signed up to receive benefit

from a government-led technology-based intervention (e.g. middle school e-learn intervention) and exclude a vast majority of our target population who has never heard of, or registered with any such service. Moreover, preliminary results reveal that Polly has proved to be a better medium in terms of user retention and engagement, however we have not reported a detailed analysis which we plan to report in a subsequent publication. Furthermore, although Polly has helped route a significant number of quality users from its sizeable user base to Super Abbu, this channel is currently still unique to Pakistan and also has high airtime costs. To duplicate this method of collecting users for a hotline in other countries, Polly would have to be translated and launched first. Additionally, we have not surveyed these users predominantly but deduced their behaviors and their acceptance towards such mobile-based interventions through studying the user behaviors of Polly users. Moving forward, we would like to carry out further research on user behaviors and acceptance towards maternal health specific mobile-based interventions. We also plan on carrying out telephonic user surveys after this campaign to gather qualitative findings on how well each advertising medium was received. We believe that HCIxB workshop will provide an exceptional platform to share our insights and discuss our findings with field experts, as we hypothesize that this model of advertising is replicable globally for all such interventions targeting the underserved and low-literate populations worldwide. We also look forward to discussing further avenues in terms of user retention, cost-effectiveness and self-sustainability of the service in the long run.

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