



Case Study
IFFCO Kisan Agriculture App
Evolution to Data Driven Services in Agriculture

OCTOBER 2016



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Published October 2016



This publication is the output of a project funded by UK aid, Department for International Development (DFID), for the benefit of developing countries. The views expressed are not necessarily those of DFID.

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Executive Summary

India is now the fastest growing major smartphone market in the world.¹ By 2020, it is estimated that mobile internet penetration rate will reach 44% of the population. While voice will remain the primary channel for Agri VAS delivery, the GSMA estimates that 25 million Agri VAS users will access rich media content by 2020. With increasing smartphone adoption creating a base of potential new mobile internet users, there is a significant opportunity for service providers to extend the value proposition of value added services (VAS) beyond basic voice and text channels. For the rural population, the ability to access and use rich media content² can help address literacy issues and deliver information in a more personalized and engaging way.

“IFFCO Kisan Agriculture App” is one of the pioneering mobile data driven services in India, providing a ‘one stop shop’ information portal with access to agriculture content. It aims to help Indian farmers make informed decisions through customized information related to their needs. The app, also available through an online portal,³ is managed by IFFCO Kisan, a subsidiary of Indian Farmers’ Fertiliser Cooperative Ltd (IFFCO), the largest organisation in India responsible for the production and distribution of fertilizers for farmers through a cooperative network.

The app broadens IFFCO Kisan’s mobile product range. IFFCO Kisan first launched Green SIM, a packaged service offering available exclusively on the Bharti Airtel’s network, which provides agricultural information through Outbound Dialling messages (OBD), SMS and a farmer helpline to support rural customers improve their farming practices. This service is the result of a partnership between IFFCO and Bharti Airtel, the largest mobile network operator (MNO) in the country with over 265 million subscribers, equivalent to 25% market share,⁴ of which the MNO estimated 121 million were from rural areas by end of Q1 2016.⁵ Though the app, unlike the Green SIM, is not currently driven by commercial objectives, the ability to provide rich media service (i.e. mobile application), reflects the organisation’s strategic effort to seek opportunities for broader level of engagement with progressive farmers.

This case study provides an overview of IFFCO Kisan’s product evolution from an Agri VAS to rich media, highlighting key considerations for service providers expanding their current value proposition to a data driven service.

Year Launched	2015
Business Model	Advertisement
Targeted Device	Feature/Smartphone
Primary Delivery Technology	Apps
Products & Services	Pull voice and text content
Market Deployed	India
Number of Users (October 2016)	170,000

1. GSMAi Global Trends Report, <http://www.gsma.com/globalmobiletrends/>
 2. Rich Media is a term derived from digital advertising that describes advanced features like video, audio or other elements that encourage users to interact and engage with the content.
 3. www.iffcokisan.com
 4. GSMA intelligence
 5. TRAI, The Indian Telecoms Services Performance Indicator, http://www.trai.gov.in/WriteReadData/PIRReport/Documents/Indicator_Report_05_August_2016.pdf

Key insights

- **IFFCO Kisan has targeted existing Green SIM users to drive uptake of the app.** IFFCO Kisan identified nearly 700,000 from the total Green SIM user base who are smartphone owners and consumers of data. IFFCO Kisan sent promotional OBD messages followed by SMS with the app's download link to the Google Store page. The campaigns resulted in 60% unique clicks.
- **The IFFCO Kisan app rollout represents a strategic direction for the organisation with a future outlook for monetisation.** The app was launched to strengthen the range of services offered by IFFCO Kisan to its farmer base and provide smartphone users a more complete content offering.
- **The app's biggest challenge is its low user retention.** Nearly 80% of users churn out after two months from downloading the app. There is a significant opportunity to increase engagement within the user base that becomes idle, namely by introducing reminders/notifications.
- The overall content offering has expanded threefold since the app launch. **Four modules, "Market Rate", "Gyan Bhandar" ("Crop library"), "Profile" and "News" represent over 75% of the most accessed content.**
- IFFCO Kisan relies on both above the line (ATL) and below the line (BTL) marketing activities for the dissemination of its app. **Over 80% of downloads are generated organically, through social media, search optimization engine (SEO) and word of mouth.** Though the app is a strategic initiative for IFFCO Kisan, activation campaigns have been carried out and to date 11% of the users come from field activations (i.e. via usage of referral codes).
- **As for the Agri VAS, Bharti Airtel continues to gain direct and indirect benefits from its partnership with IFFCO Kisan.** An estimated 200,000 new rural connections are activated per month on the core Green SIM service, with 60% of customers staying on Green SIMs for longer than 12 months.



Introducing IFFCO Kisan

IFFCO Kisan (IFFCO Kisan Sanchar Limited – IKSL) is a joint venture established between IFFCO, venture capital firm Star Global Resources, and Bharti Airtel.

Background on Green SIM

Launched in 2007, the Green SIM service provides subscribers with 3-4 daily voice messages (OBD) and one SMS with agricultural content from IFFCO Kisan. Customers also have access to a helpline (dialling 534351) that is charged at regular network rates, where they can speak directly with agricultural experts. Having reached over 3.6 million users with 1.8 million active to date, the Green SIM is the largest Agri VAS deployment globally.⁶

The service continues to be marketed, mostly through IFFCO Kisan’s 20,000 retail locations and kisan mitras (“farmers’ friends”) selling the Green SIM to groups of farmers across India and educating them on its usage.

Evolution to IFFCO Kisan app

In September 2015, IFFCO Kisan launched “IFFCO Kisan - Agriculture App”, a content centric app marketed as a complementary product to the Green SIM service. The app provides access to a broader content offering, which a standard voice and text based service is not able to support, such as a library of pictures and videos with crop information. For this new product, the organisation is primarily targeting progressive farmers, who are defined as individuals pursuing farming as a business and who are receptive to new technology practices.

IFFCO Kisan’s vision is not to steer away from the Green SIM service, but rather to strengthen its product range and demographic reach by offering a more complete offering of mobile agricultural services that serve both the literate and illiterate rural population.

The app is downloadable for free through the Google Play store for all data enabled mobile devices (2G and 3G). By October 2016, the app totalled 170,000 users, of which 10-20% are estimated to be active.

FIGURE 1

IFFCO Kisan’s mobile agriculture product evolution



6. GSMA mAgri Deployment Tracker

The app supports eleven languages across India including English. The states of Maharashtra and Rajasthan make up nearly 30% of the user base. Better internet connectivity, larger proportion of progressive farmers and higher number of trained IFFCO marketing associates on the mobile app in these states have been identified as main reasons for this higher uptake.

Competitive Environment

IFFCO Kisan has benefitted from an advantageous positioning in the Agri VAS market due to its virtuous partnership with Bharti Airtel on the Green SIM. By entering the mobile app space, IFFCO Kisan has been exposed to a tougher competitive landscape. RML, an agricultural research and VAS provider formerly known as Reuters Market Light, launched the first app with agricultural content for the Indian market in 2014. Recently rebranded as RML Farmer (Krishi Mitra), the service offers a wide range of real time information to farmers which provides a similar content value proposition as the IFFCO Kisan

app. Another prevalent agricultural app is Kisan Suidha, a government led app launched in March 2016 offering a portfolio of agricultural information including extreme weather alerts and market prices of commodities in the nearest market.

IFFCO Kisan has been able to leverage its strengths to become one of the top discoverable applications in the agricultural domain:

- 1. Recognition and positive association of the IFFCO brand as a 'Farmers' Friend':** User research with farmers has revealed that when asked why they downloaded the application, positive association of the IFFCO Kisan brand was key.
- 2. Strong content offering:** IFFCO Kisan app stores information on 75 different crops catering to 108 agro climatic zones, a strength it was able to leverage from the existing Agri VAS content management system.

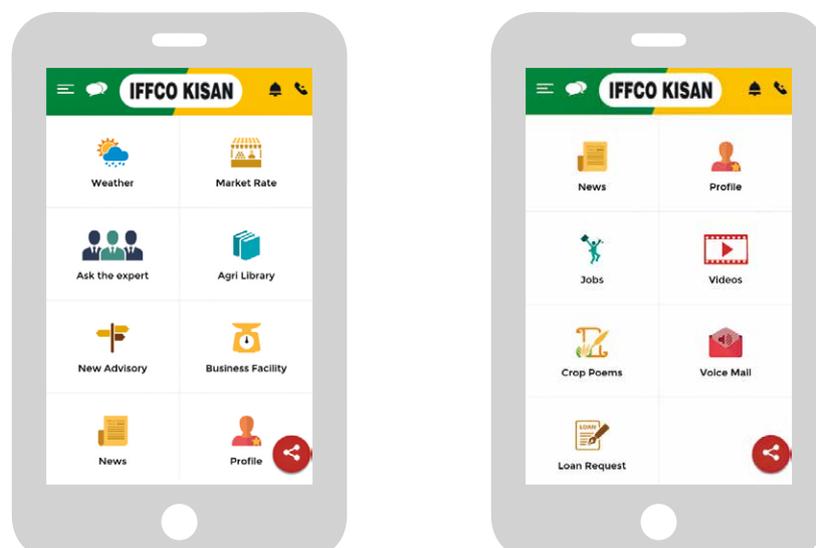


"I downloaded the IFFCO Kisan App by searching on the Google Play store and decided to install because of IFFCO brand name"

Saurabh Kumar

FIGURE 2

Screenshot of IFFCO Kisan app main menu



Partnership background and business model

IFFCO is the largest organisation in India responsible for distribution and production of fertilizer for farmers through a cooperative network, totalling 40,000 societies. It is estimated that IFFCO has the ability to reach 55 million farmers across the country, roughly just over 40% of the total agricultural population in India.

A critical success factor for the growth of the Green SIM service has been the partnership established between IFFCO and Bharti Airtel, the leading MNO in India. In 2007, both entities entered a joint venture that has yielded a sound business model. IFFCO Kisan benefits primarily from OBD and SMS at no cost, which allows farmers to receive free information and access to an IFFCO Kisan led agricultural expert helpline at standard network rates. This in turn helps IFFCO's brand association in improving farmers' lives.

Bharti Airtel benefits primarily from increasing rural market share and reduced churn through the offering of an Agri VAS that is highly relevant to the rural customer base. In addition, Bharti Airtel benefits from IFFCO's extensive network of marketing associates, who sell the Green SIM at retail locations and from IFFCO's network of kisan mitras (respected local farmers who act as service ambassadors in targeted farming communities). The provision of free localised content that is relevant to the end user has been the unique selling proposition for the continuous growth of Green SIMs sales.

IFFCO Kisan has a revenue share for each Green SIM activated at an IFFCO distribution outlet or by a kisan mitra selling the Green SIM at the price of INR 50 (-1 USD), the same price of regular Airtel SIM card. It also derives revenue from airtime recharge commissions. Together, these two revenue streams represent IFFCO

Kisan's main source of income. For Bharti Airtel the main business drivers are indirect benefits. By 2014, the MNO had recorded an increase in rural market share (5% of all Bharti Airtel's rural acquisitions came through sale of Green SIMs) and higher customer loyalty, with 60% of customers staying on Green SIMs for longer than 12 months.⁷ To date, the MNO estimates that 200,000 new rural connections are activated per month.

The complexities around the monetisation and distribution of content in a mobile application, which is provided outside of a MNO controlled channel (i.e. OBD, SMS), have not yet provided a compelling business case for Bharti Airtel to explore a commercial agreement for the IFFCO Kisan app. Instead, at the early stages of the app's life, the MNO supports marketing activities to help disseminate the application.

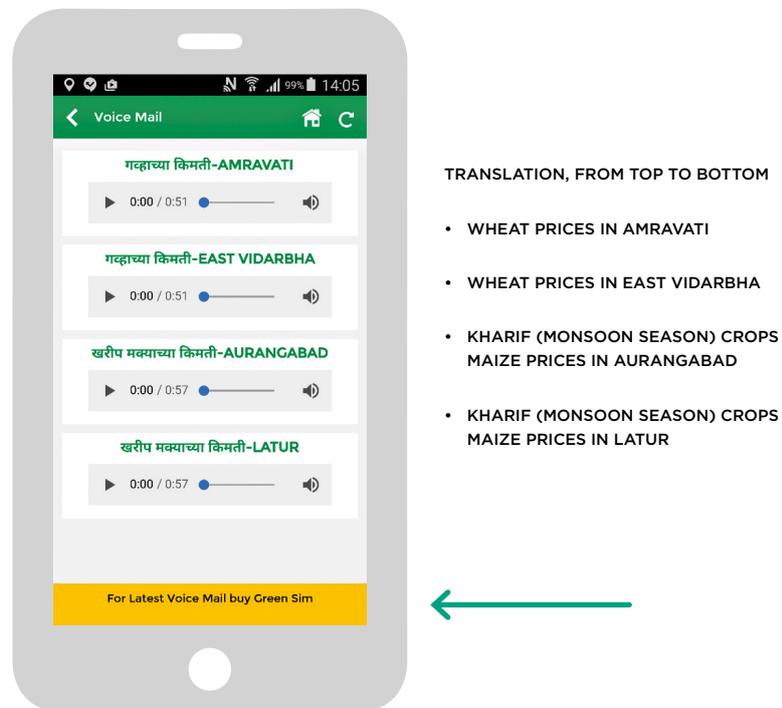
An important distinction between the Green SIM and IFFCO Kisan mobile app is the latter's non-commercial nature. While Green SIM, which has been in the market for nine years, provides a sustainable business model, IFFCO Kisan app has been rolled out as a strategic direction for the organisation with a future outlook for monetisation. Currently, IFFCO Kisan draws advertisement revenue from the mobile application, though to date this amount has been negligible.

In the long run, the organisation has ambitions to convert app users to Green SIMs and lock in revenue from new card sales and recharges, including voice and data plans. The cross promotion of the Green SIM in IFFCO Kisan's app module is setting the ground for this strategy.

7. GSMA mAgri, Case study on Airtel Green SIM, http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/GSMA_Case_IKSL_web2.pdf

FIGURE 3 Source: IFFCO Kisan App 'Voice Mail' module

Promotion of the Green SIM in mobile application module



TRANSLATION, FROM TOP TO BOTTOM

- WHEAT PRICES IN AMRAVATI
- WHEAT PRICES IN EAST VIDARBHA
- KHARIF (MONSOON SEASON) CROPS MAIZE PRICES IN AURANGABAD
- KHARIF (MONSOON SEASON) CROPS MAIZE PRICES IN LATUR

IFFCO Kisan continues to track a healthy average pick-up rate (APR) and average listening rate (ALR) associated with Green SIM. ALR remains nearly unchanged since 2014 (42 seconds) while APR ranges from 38% to 52% across the active user base (1.8 m users).

The metrics monitored for the mobile app differ from the Green SIM with an increased focus in number of downloads, module popularity and number of queries answered via the 'Ask Expert' module. Though on average over 95% of queries are answered, tracking

the level of satisfaction and turnaround time for a response could be more telling for improvement of the app. Customer retention can also be an indicator for customer satisfaction. While the 400-450 daily number of downloads are encouraging, one of IFFCO Kisan's app biggest challenges is its low user retention. Data has shown that nearly 80% of users churn out after two months of downloading the app. While these numbers echo general benchmarks of 61%-80% drop-off rates over the course of three months,⁸ there is a significant opportunity to increase the engagement within the user base that becomes idle.

8. Source: <https://www.localytics.com/lp/cheat-sheet-overall-app-benchmarks/>

TEXT BOX 1

Business Case for MNOs

All in all, there is a broader question of the MNO involvement in an app environment. In spite of the challenges to operate in an increasingly internet driven world (i.e. beyond core operators' voice and text channels) with stronger competition from OTTs, MNOs have several assets to leverage in the distribution and scaling up of mAgri apps:

- **Zero rated apps:** In this scenario, the MNO can offer a specific app at no charge (i.e. no data consumption while using the app) for the user through their network in order improve customer loyalty, reduce churn and improve brand loyalty. This practice has been particular popular amongst the early providers of agri rich media content services, such as Vodafone Turkey and dtac in Thailand.
- **Pre-loaded data enabled handsets:** In this scenario the MNOs engages in the packaging of the service where it can pre-load a specific app into a low cost device to promote it across its rural base. As smartphone devices cost drops and new mobile internet subscribers increase, MNOs can drive users' first experience of the mobile internet, attracting new customers into their network.
- **Point of sale to drive digital awareness:** Established distribution and sales points is one of the MNOs most competitive asset compared to internet players. This is particularly important in rural areas where fragmentation of consumers and digital literacy is still a challenge. MNOs can leverage their channels and direct contact with the user to show the value and benefit of using the mobile internet,⁹ in order to drive data uptake. They can further engage in specific plans for this segment (providing free MB of data or competitive pricing packages) to drive and improve customer loyalty.
- **In IFFCO Kisan's case,** the organisation could explore further collaboration with Bharti Airtel. The partnership by which the MNO leverages the IFFCO Kisan distribution points for the sale of Green SIMs could also be applied for the app. For instance, the MNO could package the SIM cards with free MB for IFFCO Kisan retailers to sell to identified farmers owners of a smartphone, encouraging them to download the app at the point of sale. In doing so, the MNO will continue to benefit from IFFCO's distribution and sales channels. In addition, there is an opportunity for the MNO to grow the base of Green SIM users who have the technological capability to benefit from a more ample agricultural content service, and eventually drive uptake of data. This strategy will ultimately enable IFFCO Kisan to fast track the organisation's ambition to convert app users to the Green SIM. IFFCO Kisan will need to revise the incentive commission scheme currently in place for the app, and it may consider to do so as the penetration of smartphones increases in rural areas.

9. For further information, see GSMA's Connected Society Mobile Internet Skills Training Toolkit (MISTT): <http://www.gsma.com/mobilefordevelopment/programmes/connected-society/mistt>

Country context: India

	2008	2013	2015	2020 (forecasted) ¹⁰
Population (% of which rural)	1,175m (70%) ¹¹	1,279m (68%)	1,311m (67%)	1,396m
GDP total (of which contributed agriculture)	1.2tr (17.8%)	1.9tr (18.2%)	2.1tr (17.4%) ¹²	N/A
% of labour force working in agriculture	51%	47%	49,7% ¹³	N/A
Cereal yield (kg per hectare)	2,638	2,975	2,981 ¹⁴	N/A
Unique mobile subscriber penetration in Q4 ¹⁵	13% ¹⁶	40%	46%	68%
Unique mobile internet subscriber in Q4	N/A	22%	30%	47%
Smartphone adoption (% of mobile connections) in Q4	N/A	10%	23%	48%

In recent years, the government of India has taken important steps to provide a more conducive environment for the adoption of digital services. In 2015, the Indian government launched 'Digital India', an initiative implemented by the Department of Electronics and Information Technology that pulls together resources to transform the country into a "digitally empowered society and knowledge economy".¹⁷ Broadly, the campaign consists in revamping and reshaping current government processes and schemes under a harmonized ICT infrastructure, while leveraging public-private partnerships for the design, implementation and roll out of e-government services. Recognizing that nearly 70% of the Indian population lives in rural areas, Digital India includes plans to improve internet connectivity for rural communities and to enable the

offering of relevant digital services (including digital literacy trainings). By early 2016, the government announced the roll out of e-platforms for farmers for which mobile has been a key technology enabler. The more recent initiatives include:

- The deployment of a marketplace (e-NAM), an electronic platform allowing farmers to sell their produce to buyers anywhere in the country;
- Launch of 'm-Kisan', a dedicated online portal where farmers can access eight agricultural related mobile applications available on the Google Play store, and;
- A crop insurance scheme compensating farmers' yield loss due to climate shocks.

10. GSMA Intelligence

11. All the statistics in this table are from the <http://data.worldbank.org/> unless specified

12. 2014 data

13. 2013 data

14. 2010 data

15. GSMA Intelligence

16. GSMA mAgri, Case study on Airtel Green SIM, http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2015/03/GSMA_Case_IKSL_web2.pdf

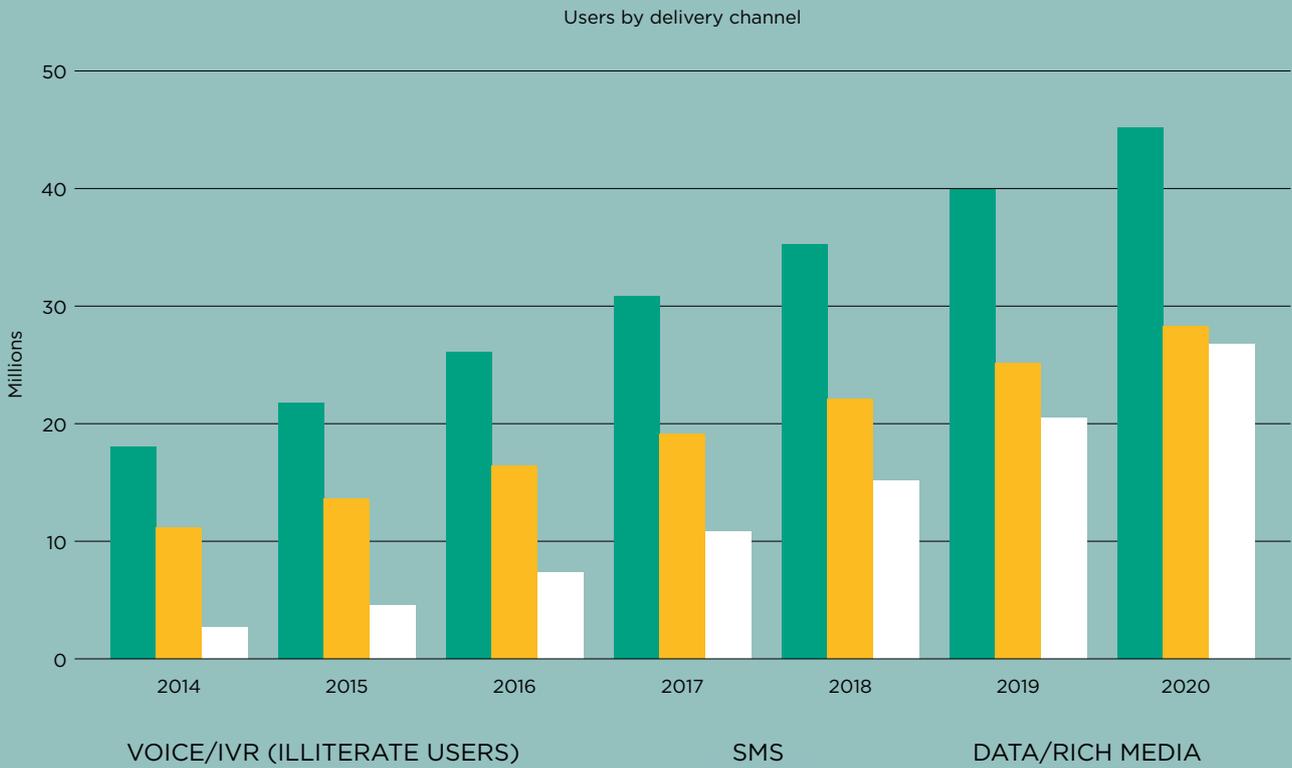
17. <http://digitalindia.gov.in/>

Mobile technology will play a major role in realising the Digital India vision as the majority of people who have yet to come online will do so via mobile devices. The number of individuals accessing the internet over mobile devices has expanded from less than 100 million subscribers in 2010 to nearly 400 million at the end of 2015.¹⁸ While network coverage remains a key barrier to increasing mobile internet access in rural and remote areas, a number of MNOs are engaging in tower sharing to improve the network infrastructure and connectivity in underserved areas.

By 2020, it is estimated that mobile internet penetration rate will reach 44% of the population. Though voice will remain the primary channel for Agri VAS delivery, GSMA forecasts that 25 million Agri VAS users will access rich media content by 2020 in India.

FIGURE 4 Source: GSMA mAgri

India Agri VAS users by delivery channel



18. GSMA Intelligence

App Design

The IFFCO Kisan app was developed and is maintained in house by the IFFCO team, representing an investment of over INR 8 million (125,000 USD).

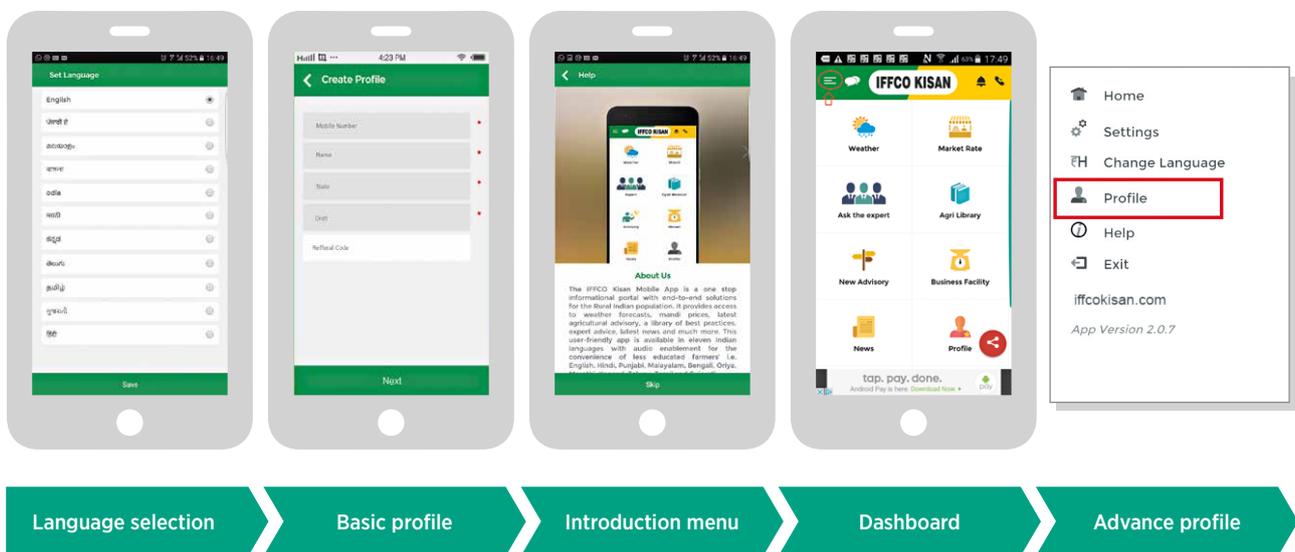
Current design and planned improvements

Current design:

To 'sign up' to the service, farmers download the app on the Google Play store at no charge.¹⁹ Once downloaded and when opening the app for the first time, users are requested to first select their preferred language followed by a drop down self-profiling menu that prompts them to enter mandatory fields such as mobile number, name, state and district of residence. After the basic profile information is submitted, users can swipe through a compulsory introductory menu to discover

more information on the app. After this step, the user lands on the main app dashboard giving access to a variety of modules, which includes advisory, weather, market information in the form of text, imagery, audio and videos in the selected language at profiling stage.

Over time, users can change or complete their profile information by accessing a 'settings' menu at the top left of the main menu page. The incremental profiling data include the type of animal or crop farmed, type of land and other relevant information.

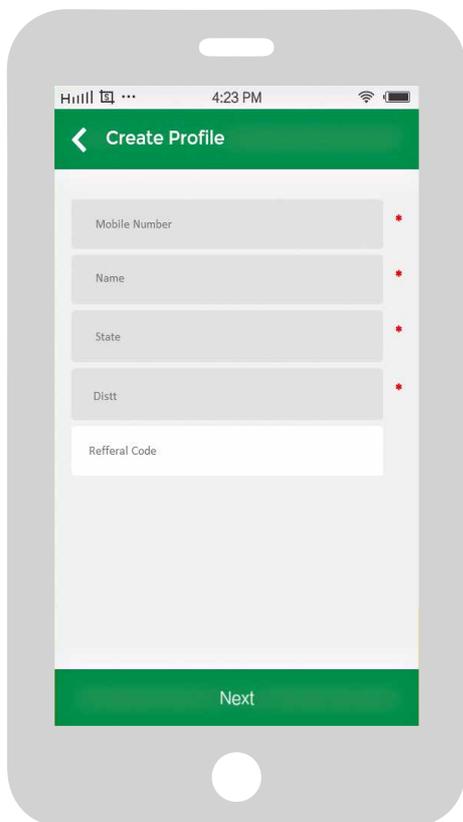


19. Cost of data transfer applies and varies by operator.

Planned design improvements

Registration

As for most Mobile for Development (M4D) services, and especially for mAgri services providing highly localised and customisable content, user profiling can be a major roadblock to adoption and usage. User research carried out by IFFCO Kisan with segments of tech savvy and tech novice users has revealed that the drop down profiling can be a barrier for first time users. As part of an iterative process of product design, and following examples of other applications, IFFCO Kisan could evaluate the opportunity to prototype and introduce a simplified profiling menu with light instructions (i.e. such as a cursor function pointing the user where to enter information), guiding users on how to complete their profiles which can improve the overall onboarding experience. Such changes would be especially beneficial for users who are not introduced to the app by on the ground staff who can help them complete their profile.



At this time the information on state and district level entered by the user at the profiling stage has to be re-entered when accessing location sensitive modules such as “Weather” and “Market Rate” for the first time. IFFCO Kisan could consider streamlining this data to automatically update location based information to the modules so access to content is more immediate. Personalising the app based on user profiles would show users the value of sharing their personal information with IFFCO Kisan.

Evolution to include push content

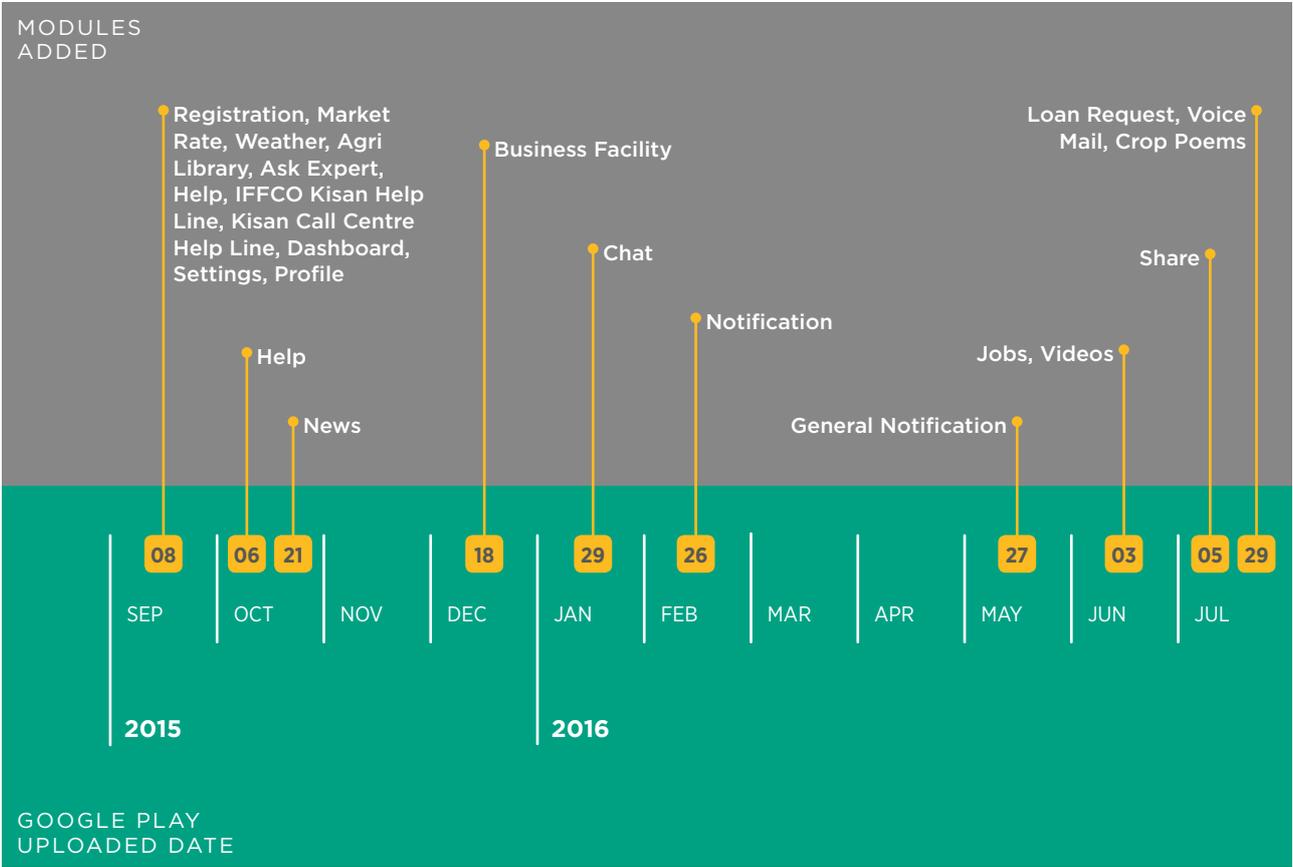
In contrast to the Green SIM, which is primarily a push service, the IFFCO Kisan app is a pull service, which means that the user can only retrieve agricultural information by accessing the service. Notifications, via a bell icon on the top right side, signalling new changes and additions have been added within the app, but there is a greater opportunity to push daily or weekly notifications based on their personal preferences to remind the users to access the service. For instance, in the case of RML India, the service pushes notifications with ‘bite sized’ information, such as today’s weather forecasts or weather alerts, which can be an effective medium to drive traffic to the service and encourage repeated user engagement.

Content modules

While Agri VAS channels can pose limitations in the format and extent of the information delivered, such as character restrictions for SMS, an app’s capability to provide richer content in variety of formats requires different service design considerations. IFFCO Kisan’s incremental module additions are reflective of the organisation’s desire to broaden content offering to progressive farmers, but can also prove to be overwhelming for first time users and low literate population. To facilitate the user flow and usability of the app, IFFCO Kisan can consider on boarding new users with a limited scope of prioritized modules and slowly introduce more as they develop proficiency and healthy activity. Another option would be to clarify the objective of each module and provide guided usage steps when accessing the app for the first few times, thus improving the overall navigation experience.

FIGURE 5

App modules



Marketing the IFFCO App

IFFCO Kisan relies on both above the line (ATL) and below the line (BTL) marketing activities for the dissemination of its app. For the Green SIM service, IFFCO adopted experiential marketing, such as face-to-face activation campaigns. In the case of the app, the large majority of downloads are organic, through

social media, search optimization engine (SEO) and word of mouth. Even though the app is not driven by commercial objectives, IFFCO Kisan initiated activation campaigns and to date 11% of the users come from field activations (i.e. via usage of referral codes).

Above the line

Through the creation of unique and shortened download links, IFFCO Kisan's digital marketing team has been able to track and measure the performance of some of its promotions in order to identify which channels bring in highest number of visitors to the Google Play store page. Almost half of IFFCO Kisan's app page visit comes via its Facebook, YouTube, Twitter, Pinterest and Google Plus pages, where the marketing team posts content related to agriculture (farming tools and equipment, motivational pictures with farmers, latest information on the sector).

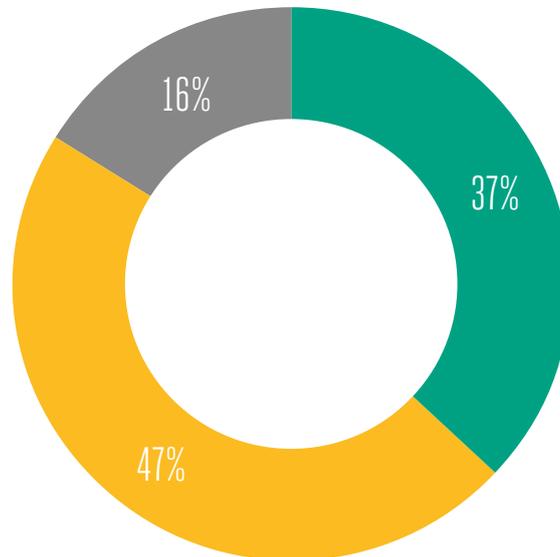
FIGURE 6

IFFCO Kisan Facebook post promoting the app



FIGURE 7

Sources of traffic to Google store download page



SMS ACTIVITY

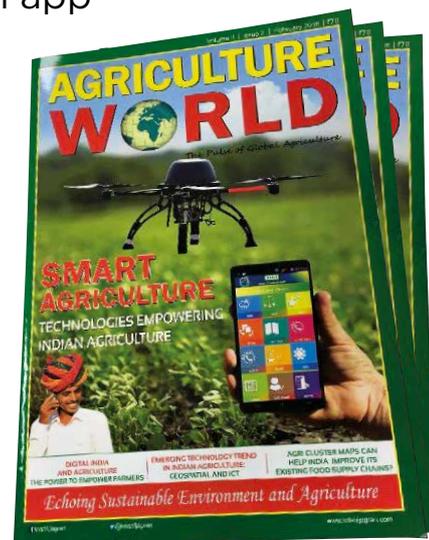
SOCIAL MEDIA

NEWSLETTER & GOVERNMENT WEBSITE

Beyond its mAgri services, the organisation has heavily invested in promoting the IFFCO Kisan brand as a trusted advisory source, positioning the organisation in marketing messages as a “farmer friend”. In 2015, the organisation, whose main strength is its brand name, invested a quarter of million Indian rupees (3,740 USD) on a marketing campaign including, billboards, print media and appearances at radio stations and TV. To this extent, the mobile app has also been a tool in IFFCO Kisan’s marketing efforts.

FIGURE 8

Magazine coverage of the IFFCO Kisan app



Below the line

At launch, IFFCO Kisan decided to target Green SIM users to drive uptake of the application. After identifying 700,000 Green SIM users who were smartphone owners and consumers of data, IFFCO Kisan began a promotional campaign sending text messages in app supported local languages with the app's download link as well as OBDs to contact a tele-caller for further

information. IFFCO Kisan concluded that SMS blasts resulted in approximately 60% click conversion rate, which is twice as high as the average rate for SMS based marketing campaigns.²⁰ However, to date, less than 1% of data enabled Green SIM users have downloaded the app, showing the significant unaddressed potential from the existing Agri VAS user base.

FIGURE 9

Text message in Hindi promoting IFFCO Kisan App



TRANSLATION: "IFFCO KISAN APP IS VERY USEFUL FOR PROGRESSIVE FARMERS. FOR DOWNLOAD, PLEASE CLICK ON GIVEN LINK (...)"

20. A "click-through rate" is the percentage of customers that when seen, click on a hyperlink within a SMS message. Source: <https://www.tatango.com/blog/the-average-sms-marketing-click-through-rate-is-36/>

In addition to automated marketing channels, IFFCO Kisan app is also promoted through ground activities where marketing associates, kisan mitras and retailers promote the app alongside with the Green SIM to identified progressive farmers. A system of referral codes has been put in place whereby each agent receives a commission of INR 2 (~\$0.03 USD) per download when using a 4 digit code entered at the user profiling stage. At present, the download rate from referral codes is low, which can be explained by the distributors' focus on

selling Green SIMs for which they earn a seven to twenty times higher commission. Given the non-commercial nature of the app and the continuous focus on growing the user base of the voice and text service, to date IFFCO Kisan has not revised the incentive commission scheme with a view to prioritise the app. However, it may do so in the future as smartphone penetration increases. Currently, IFFCO Kisan prioritizes free discoverability tactics, such as search engine optimization (SEO), social media campaigns and word of mouth.



Recently, Bharti Airtel entered a partnership with Google to conduct digital literacy roadshows in targeted rural areas. Marketing campaigns are run by the MNO and Google to train self-help groups of women on internet literacy, specifically educating them on the benefits of using the internet and how to use it. IFFCO Kisan app has been used to demonstrate the value of agricultural information accessible via the internet to agricultural workers who may be interested in downloading the app. This initiative is part of Bharti Airtel's broader strategy to push mobile subscriptions in rural areas,

whereby the MNO is also offering Airtel SIM cards loaded with 50MB of free data.

By leveraging its digital media platforms and engaging in lighter field events to disseminate its mobile app, to date IFFCO Kisan has been able to maintain a user acquisition cost of approximately INR 6 (\$0.09 USD), an amount considerably lower to the Green SIM for which the selling requires face to face engagement, raising the cost to about INR 32 (\$0.50 USD) per activation.

Further marketing initiatives to consider

Celebrity endorsement

To improve its social media strategy, Ooredoo Myanmar has used endorsements from local celebrities²¹ to advocate for its mAgri service, Site Pyo. This is an opportunity area for IFFCO Kisan, which could also leverage celebrity endorsements from respected agricultural personalities to further its brand recognition and popularity of its app.

Predictive analytics marketing segmentation

To enhance its app-specific marketing campaigns with its Agri VAS user base with smartphones, IFFCO Kisan has the option of running a comprehensive market segmentation to identify and target new users

with common usage patterns by leveraging data logs provided by Bharti Airtel. In Pakistan, for example, the MNO Telenor has leveraged its GSM data to identify variables that differentiate users who signed up for the Khushaal Zameendar Agri VAS from those who did not. Through repeated iterations that led to the identification of unique variables by these common users and predictive analytics model on the likelihood of being a new user, the MNO was able to focus its mobile marketing to a specific segment that had higher chances of becoming new users of the Agri VAS. Through this exercise, Telenor Pakistan has improved conversion rates of promotional OBDs almost six-fold.²² Combining this strategy with an improved 'call to action' messaging to convey more relevant information on the content of the app could result in higher user adoption.

21. Ooredoo Myanmar leveraged Dr. Lwin, a famous Burmese meteorologist, to promote mAgri app Site Pyo through his Facebook page and other social media channels. Source: <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/05/mAgri-VAS-Toolkit-2016.pdf>

22. "Telenor Pakistan uses Data Science and Analytics to boost mAgri uptake": <http://www.gsma.com/mobilefordevelopment/programme/magri/telenor-pakistan-uses-data-science-and-analytics-to-boost-magri-uptake>.

Content

IFFCO Kisan's key value proposition lies in the sheer variety of stored crop information – the application covers 75 crops accessible at any given time under the “Gyan Bhandar”(“Crop library”) module. The content is available in eleven languages, covering 108 geographical zones.

In its latest version, IFFCO Kisan app provides access to thirteen different modules and two features with varied content:

TABLE 1

IFFCO Kisan application modules

	<p>Weather</p> <p>5 day weather forecast for a particular district with temperature, humidity, possibility of rainfall, wind speed.</p>		<p>Market Rate</p> <p>Market price information and trends for up to 5 commodities per market.</p>		<p>Ask Expert</p> <p>Instant messaging solution with image attachment capabilities.</p>
	<p>New Advisory</p> <p>Crop specific advisories for agro climatic zone based on prevailing conditions. Provided in audio and written format.</p>		<p>News</p> <p>Collection of news from government schemes and general agricultural news.</p>		<p>Gyan Bhandar (Crop Library)</p> <p>Resource library on crops. Information provided in audio and written format.</p>
	<p>Videos</p> <p>47 videos pulled from IFFCO Kisan's video channel youtube.</p>		<p>Business Facility</p> <p>Marketplace connecting buyers and sellers. Currently no transaction supported.</p>		<p>Jobs</p> <p>IFFCO's job listing feed.</p>
	<p>Loan Request</p> <p>Loan forms to apply for credit facility from a partner bank.</p>		<p>Voice Mail</p> <p>Most popular OBDs in the last 5 days from the Green SIM service by state. Provided in audio format only.</p>		<p>Crop Poems</p> <p>Audio crop poems (infotainment).</p>
	<p>Profile</p> <p>Section for farmers to update personal data, i.e. crop details, land details, animal details.</p>		<p>Chat</p> <p>Forum section where the user can interact with other mobile applications users.</p>		<p>Helplines</p> <p>Users can dial IFFCO Kisan Helpline (available for Green SIM users at standard voice rate) and the government's Kisan Call Centre Service tool free service to connect with an agricultural expert.</p>

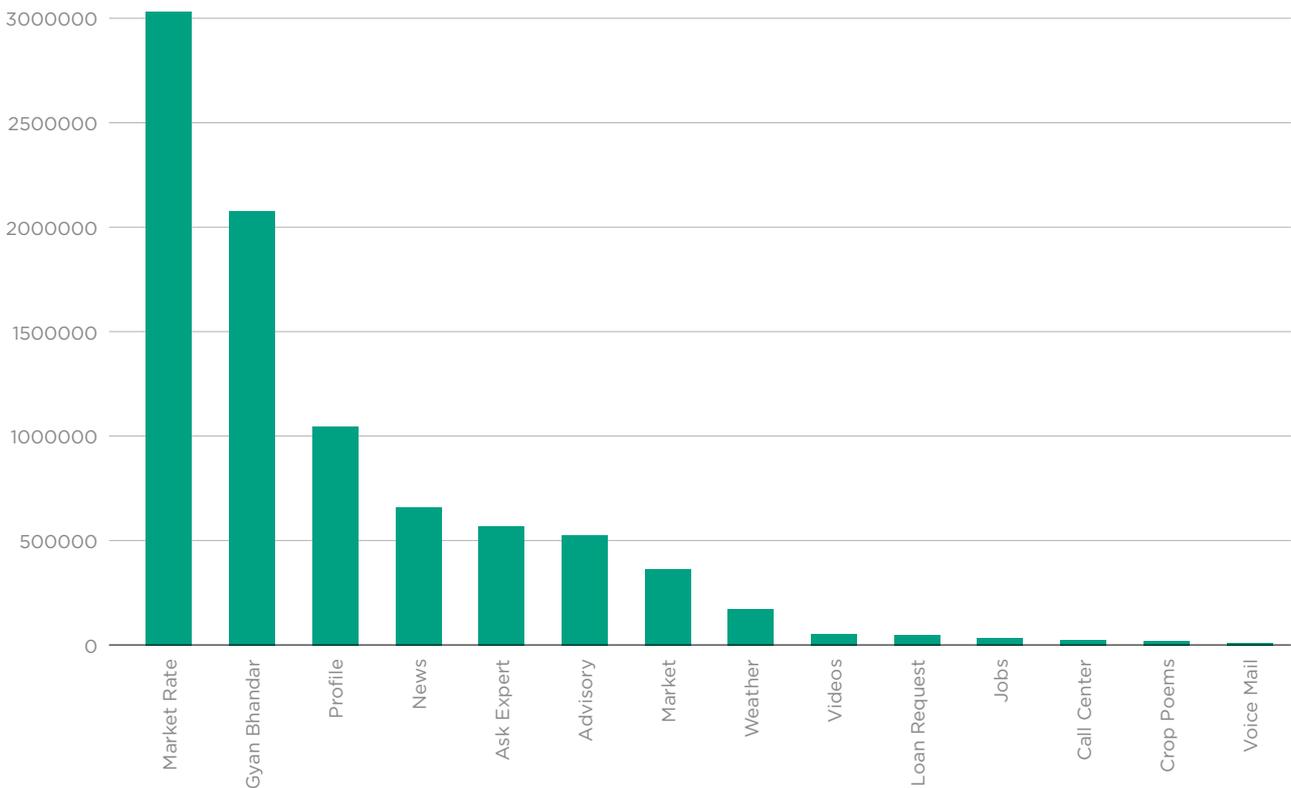
In 2009, the GSMA mAgri programme provided a grant and technical assistance to develop IFFCO Kisan's back end architecture and hardware server, which has been used as Green SIM's content management system and more recently, IFFCO Kisan's app. The Centre for Agriculture and Biosciences International (CABI), a global content provider of agronomic advisory, provided initially the fact sheets on agricultural content that were used by the IFFCO Kisan content managers for preparing the OBD messages. Today, content for the app is entirely developed by the IFFCO Kisan app

team. IFFCO's in house content team is also responsible for stylizing²³ and translating the content into the local language. To ensure a consistent quality assurance process, IFFCO Kisan has developed a toolkit on protocol for content management that guides each content manager on the quality assurance steps.

Though IFFCO Kisan has continuously expanded the content of its app, four modules, "Market Rate", "Gyan Bhandar" ("Crop library"), "Profile" and "News" represent over 75% of the most accessed content.

FIGURE 10

Module hits from 08th Sept 2015 to 02nd Oct. 2016



23. The main objective of content stylisation is to convey scientific information in a way that is understandable, engaging and actionable. Stylising the content to the local population's culture, communication style and traditions enhances user engagement and, in turn, helps to drive uptake and create the desired impact on farmer behaviour. Find out more: <http://www.gsma.com/mobilefordevelopment/wp-content/uploads/2016/05/mAgri-VAS-Toolkit-2016.pdf>

Content improvements to consider

Improvement in “Ask Expert” response rate

User research conducted with GSMA has revealed that consumers see a high value of having an “Ask Expert” module, a text message channel where users can send queries to an agricultural experts. IFFCO Kisan piggy backed on its well established Green SIM helpline in house facilities to replicate a similar direct channel between a farmer and agronomist via text available to all users of the app. Through this forum, farmers can submit pictures or a voice recorded message to obtain more information on their crop and personalised responses to their needs. In India, for example, Express Weather’s FarmNeed app helps mitigate weather related risks during the life-cycle of the crop. Specifically, it allows farmers to take photos on pests and crop diseases which are then sent to an agronomist for advice. While IFFCO Kisan’s “Ask Expert” feature is very promising, an improvement in response rates (currently 2-3 days turnover) would improve the module popularity and usefulness to the user seeking timelier feedback to their queries.

Evolution to weather adaptive agronomic advice

As seen with IFFCO Kisan, the “Weather” module, which has been available since the first release, has accounted for only 2% of the total modules accessed. While in a voice and text based mAgri service weather forecasts are often the most sought information by farmers due to the unavailability of alternative (and reliable) sources of information, in an app environment progressive farmers are more likely to rely on more sources of weather information available to the users, which would explain the low usage of a weather module in a dedicated farming app. A potential evolution of the weather component in an agricultural app would be to make the content actionable by linking agronomic information and weather forecasting data to produce dynamic advisory personalised to the end user. The latter would not only make the module more relevant but also highly personalised to the farmer increasing its engagement potential.²⁴



“The ‘Ask Expert’ segment needs a quick reply as it’s very crucial for me. I posted a query and didn’t get a response till 3 days but by then I got it sorted out with local dealers”

Sandeep Kumar

“I am rate the IFFCO Kisan app with 85% satisfaction. I will be 100% satisfied if response time on ‘Ask Expert’ is quicker”

Deepak

24. GSMA mAgri: “Weather Forecasting and Monitoring: Mobile Solutions for Climate Resilience”
<http://www.gsma.com/mobilefordevelopment/programme/magri/weather-forecasting-and-monitoring-mobile-solutions-for-climate-resilience>



Looking Forward

User centric service design

IFFCO Kisan's strategic decision to launch a mobile app has been a positive move for the organisation, as it seeks to diversify its product range and offer a richer content for its Agri VAS user base using data enabled handsets. As smartphone penetration and mobile internet subscriptions continue to grow and become accessible to rural customers, IFFCO Kisan can now focus on refining the existing digital product and future proof its service based on user insights and data analytics

acquired over the past year. As mobile applications provide greater ways to disseminate content, there needs to be further user centric design considerations. Earlier design improvements suggestions, which included facilitating the on boarding process and evolution to include push content, can improve IFFCO Kisan's overall product and further engage users to become repeated users of the app.

Monetisation potential

IFFCO Kisan currently does not have a commercial model for the app but plans to eventually drive revenue from it. While monetisation strategies are still being explored, currently IFFCO is focusing on growing the users base, to at later stages monetise it through the provision of other products/targeted advertisement. There is a real potential to further analyse and pull the granularity of the data collected by the app at the profiling level, which standard

Agri VAS does not enable. Profiling data can be used by IFFCO Kisan to build "intelligent profiling" system whereby the cooperative can create segments of farmers by crops, animal, land farmed by the user. The organisation can engage with agribusinesses seeking to promote their product and services through an identified user segment of the mobile application that could benefit from the targeted advertisement.

Evolution beyond content to financial services

IFFCO Kisan evolution to facilitate transaction based services could represent the next milestone for the organisation. The relatively new introduced 'Loan Request' module, where farmers submit a loan request to a commercial bank, and 'Business Facility' module, a marketplace connecting buyers and sellers, are reflective of this direction. IFFCO Kisan could capture value from providing access to financial services by leveraging the collected profiling data and turn it into a

credit scoring model for the 'applier' for the provision of loans (while partnering with a financial partner to manage the risk and liquidity issues in the provision of such services). Additionally, IFFCO Kisan could expand its e-commerce platform to enable in-app transactions between matching buyers and sellers and capture transactions fee from this exchange. As mobile money grows in India, this would be a future outlooking opportunity to evolve its offering beyond content.



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