Introduction

Reuters Market Light (RML) is a unique, "bottom of the pyramid", mobile-based information service for farmers in certain states of India from Thomson Reuters. Launched in October 2007, it provides individual farmers with "customised, localised and personalised" weather forecasts, local crop prices, agricultural news and relevant information (i.e. crop advisory) – in the form of SMS messages sent to their mobile phones in their local language. This allows subscribing farmers to plan irrigation, application of fertilisers, and harvest – thus, managing some of their risks, as well as to decide when and where to sell their produce to maximise profit. In 2008, RML was selected by the UNDP as one of six business initiative that have the potential to contribute to the Millennium Development Goals1.

Among the many challenges faced by farmers in India, which account for India’s poor productivity when compared to other leading agricultural countries – such as overregulation and inefficient government policies, poor physical infrastructure (e.g. irrigation), inadequate access to land and finance and weak natural resource management – a key problem is poor access to information that could help farmers with cultivation as well as selling2. RML provides a solution to the lack-of-information problem that farmers face. As a result, many farmers have attributed significant cost savings to their RML service.

But why through mobile phones? Because in India the number of mobile connections today (427 million) far outstrips both (a) the number of landline connections (37.5 million) and (b) the number of internet subscribers(13.5 million)3. Whereas India’s mobile market is one of the fastest growing in the world4, the number of landline connections has declined in recent times5. Internet access is still highly limited. Therefore, mobiles will remain the dominant means of personal telecommunications in India for the foreseeable future. To appreciate the potential of a service like RML, consider that slightly more than half of India’s workforce of 523.5 million – i.e. more than 262 million people – is in agriculture6 and about 130 million of them are cultivators7.

RML’s service was initially been available in three states of India – Maharashtra, Haryana and Punjab – and the company has expanded sales to 13 states by the end of 2009. Initially, sales were direct with RML agents approaching farmers. The rapid take-up of RML’s service – 100,000 farmers in 12-15,000 villages in less than two years – has allowed RML to switch to selling its service through agricultural retailers, a mode called

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3 Telecom Regulatory Authority of India, “Telecom Subscription Data as on 30th June 2009” (http://www.trai.gov.in/WriteReadData/trai/upload/PressReleases/694/pr6aug09no61.pdf), accessed 10 August 2009
5 Telecom Regulatory Authority of India, “Telecom Subscription Data as on 30th June 2009” (http://www.trai.gov.in/WriteReadData/trai/upload/PressReleases/694/pr6aug09no61.pdf), accessed 10 August 2009
7 ICRIER report, “India: the impact of mobile phones”, January 2009
RML Direct, which was launched in February 2009 e.g., farmers can subscribe to RML through 2,500 retail outlets in Maharashtra. RML has, at present, three channels for sales: through agri retailers to farmers (RML Direct); bulk sales to agri input companies/NGOs/large groups; bulk sales to mobile operators. In the latter two cases, intermediaries – those with well-developed distribution networks – are used to sell individual subscriptions.

The current revenue model for RML’s service is subscription and the service is available through major mobile networks. The current value chain of RML’s activity is captured in the diagram below. Currently, RML carries out all activities – from content sourcing to customer support and accounting – in connection with the service that customers receive, other than operating a mobile network.

The RML’s activities across the value chain are as follows:

- Content is sourced largely by RML’s own sourcing network. Except for weather and best practices information, the rest is developed by RML internally.
- Formatting of the content to suit SMS/Voice/WAP platforms is also managed by RML’s content management system.
- Marketing is executed by agencies. Mostly through below-the-line activities like wall paintings, banners, posters, van campaigns, market activities, etc.
- Agri input shops, co-operative banks and other rural sales networks distribute RML.
- Subscription is sold in the form of prepaid scratch cards in quarterly, half-yearly and annual service packs.
- Service can be activated by calling a toll-free line.
- Delivery of SMS is managed by service providers.
- A team of multi-lingual customer care executives support features like personalisation, profile changes, delivery issues, etc.

RML is continuously exploring opportunities in different service verticals: dairy farming, poultry, fisheries and sugarcane. The traditional model for value-added mobile services/applications has involved three partners: the mobile network, the service providers and data/content provider. The challenge for RML is to innovate its business model from a fully vertically integrated business model as it scales up its business. The question for RML is whether it should be a content player, an aggregator or should it continue to be in distribution, delivery and customer support. This paper considers business models from other industries in order to draw lessons for RML about the appropriate business model as it scales up its operations.
RML's Customer Value Proposition

In January 2009, the Indian Council for Research on International Economic Relations (ICRIER), conducted a study to assess the impact of mobile phones on agricultural productivity in India. Two hundred people, of whom 160 were small farmers in five states (Uttar Pradesh, Tamil Nadu, Maharashtra, Rajasthan and Delhi) were interviewed. ICRIER reports that among the farmers it surveyed “almost all reported some increase in convenience and cost savings” by use of their mobile phones to access agricultural information. The nature of the impact falls into three categories:

I. Easy access to customised content
   a. Customers avoided potential losses by responding quickly to weather and disease information.
   b. Customers improved yields by adopting new seed varieties and cultivation practices.

II. Mobility benefits
   a. Customers benefitted by being able to make/receive calls while working on the farm: e.g., the ability to describe plant diseases from the field to experts and to coordinate with hired labour.
   b. Customers benefitted from the ability to react to travel problems while transporting crops.

III. Improved convenience, time and travel savings
   a. The service allowed farmers to avoid local travel to get data.
   b. The service helped farmers make better decisions about where to sell their output.

RML’s customer value propositions aims to cater for the farmers’ above needs. Clearly, farmers have much to gain through the sort of “customised, localised and personalised” decision-critical information service that RML is offering. Analysis of the “Voice of Customers” feedback from RML’s customers led to the following findings, presented in bar chart form.

1. Perceived benefits of the RML service:

<table>
<thead>
<tr>
<th>Benefits of RML service</th>
<th># of claims (total 381)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improved crop/product quality</td>
<td>7</td>
</tr>
<tr>
<td>No measured benefit yet</td>
<td>25</td>
</tr>
<tr>
<td>Knowledge through agricultural news</td>
<td>25</td>
</tr>
<tr>
<td>Greater market knowledge/understanding</td>
<td>54</td>
</tr>
<tr>
<td>Weather risk managed</td>
<td>66</td>
</tr>
<tr>
<td>Increased profit (real and expected)</td>
<td>99</td>
</tr>
<tr>
<td>Improved general knowledge of crop, cultivation</td>
<td>105</td>
</tr>
</tbody>
</table>

Source: “Voice of customers” feedback, July 2009

8 ICRIER report, “India: the impact of mobile phones”, January 2009
Three key benefits were repeatedly stressed by the farmers interviewed as part of this study: (i) improved profitability through knowledge of market prices, (ii) weather-related risks mitigated through forecasts and (iii) improved knowledge of crop cultivation and disease control through the crop advisory segment of the text messages.

IMRB’s most recent customer study also found that the key benefits of RML – as perceived by farmers – are “Provides Market Rates” followed by “Weather” information and “Farming/ Agricultural advice on Mobile”. Interviews with RML customers indicate that the benefit from increased price transparency was captured by one of the farmers who said, “Knowledge of market prices has made it easier to sell produce at good rates.” In addition, another farmer articulated the benefits of weather information as follows, “RML’s weather forecasts have made it much easier to protect my crops. [And] RML’s crop advisories are excellent. I have learnt a lot. My tomato plants are lasting longer now because I know the right fertilisers and medicines for them.”

The above analysis shows that RML has a very compelling customer value proposition. RML needs to leverage these key customer value propositions to design its business model as it scales up its operations.

Business Models
RML’s built its business ground up by building all components of the value chain. RML is exploring different business models as it builds up scale. To achieve scale, RML is seeking and entering into partnerships with organisations that have well-established rural networks which RML can work together for its distribution, e.g. farmers’ cooperatives in India’s states which sell seeds, fertilisers and pesticides to farmers.

To achieve its goals of sustainable profitability as well as leadership in the market for customised information services for the rural economy, RML needs to work out (a) how to scale up its operations nationally in the most cost-effective manner, and (b) how to maintain differentiation as competitors and substitute services challenge RML for share. The first – (a) – implies that RML focus on those activities that are critical to the delivery of a quality service of genuine value to farmers, rather than engage in all activities that form part of the service delivery value chain. The second – (b) – implies that RML establish clearly what rural customers and potential customers most want and value – in terms of content, delivery package, technology platform, customer services etc. – and stay ahead in the competition for delivering these.

Should RML be a content player, or an aggregator i.e., a pure, branded supplier of business intelligence for rural customers or should it continue to be in distribution, delivery and customer support. How do these models affect the customer relationship and service delivery? Next we consider three business models from other industries in order to draw lessons for RML. The three examples were chosen because (1) they represent the service industry (2) there were innovations to the business models to cater for new customer value propositions that the incumbent firms were not fulfilling (3) there are lessons to be learnt for RML from the design of such business model innovations.

(1) Netflix

Netflix is an online DVD rental service that uses the postal system and its own unique distribution system to deliver DVDs to customers. The company provides a monthly flat-fee service for the rental of DVD and Blu-ray discs. A subscriber creates an ordered list, called a rental queue, of movies that he or she wishes to rent. The movies are delivered

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9 With advances in broadband speeds, Netflix has developed another service, called Watch Instantly, which allows subscribers to stream a movie they wish to see direct to their computers. The number of movies a subscriber may stream per month depends on their chosen subscription level.
individually through the postal system from a range of regional warehouses. The subscriber can keep the rented disc as long as desired, but there is a limit on the number of movies (determined by subscription level) that each subscriber can have on loan at any one time. To receive a new movie, the subscriber must post a previous one back to Netflix in a prepaid mailing envelope. On receipt of the disc, Netflix sends the next available disc in the subscriber’s rental queue\(^{10}\). Netflix allows customers to keep the DVDs for an unlimited period without penalties and also offers customer reviews and recommendations. The success of Netflix can be seen in the firm's numbers: Netflix today has a collection of more than 55 million discs covering 100,000 titles and approximately 10 million subscribers. On average, the company ships 1.9 million DVDs to customers each day\(^{11}\). Netflix shows that success is not dependent on owning the distribution channel. It also shows the benefits possible by extracting intelligence from knowledge of customer behaviour to manage service demand and promote well-matched products (in its case movies) to customers.

(2)Apple

Apple introduced the iPod digital music player together with the iTunes online music store. The iTunes Store ended the constraint consumers faced by buying DVDs by album to buying music on a per track basis at a flat rate (99 US cents or 69 UK pence). Following this development, music, i.e. content, was freed from the constraints of old formats where customers needed to buy all the tracks that belonged to one album even if they are only interested in one track. Moreover, Apple was able to persuade five major record labels of the time to sell their content through the iTunes Store: EMI, Universal, Warner, Sony Music Entertainment and BMG. Music from more than 2,000 independent labels was added later. Apple does not produce any music itself. Rather, it configures others’ content into standard digital formats for selling through its online store. The Apple approach demonstrates the potential benefits of acting as a channel between content creators and users, as an aggregator of content. By not producing content to compete with the content creators that it partners with, Apple is able to reach mutually beneficial revenue-sharing agreements. Apple’s success and the willingness of the record labels and application developers to partner with Apple also depends substantially on Apple’s ability to provide a platform for the delivery of that music and those applications that will appeal strongly to the end consumers. Thus, Apple’s partners are keen for their products to be available on the Apple platform, in Apple’s formats.

(3)Facebook

Facebook and MySpace are two social networking websites. MySpace was set up in August 2003, MySpace quickly became the most popular social networking site in the United States by June 2006. Facebook, on the other hand was launched in February 2004 for students of Harvard University but it was not until September 2006 that Facebook was open to anyone with a valid email address. However, Facebook subsequently overtook MySpace in terms of customer membership. In much of the recent literature discussing the reasons for Facebook’s eclipse of MySpace a key reason cited is that Facebook offered developers an open architecture so that they could develop their own applications for the website. This made the Facebook universe one of more choice, more user-driven features, and more functionalities on offer. By contrast, MySpace did not offer its users a developer platform until February 2008 by which time the momentum had long already swung in favour of Facebook. The developments between Facebook and MySpace reveals that users are attracted to markets where they have more choice and are able to influence the products/services that may emerge. Users may want to contribute their own expertise. In the domain of agriculture, this may

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\(^{10}\) Netflix website, How Netflix Works \(\text{[http://www.netflix.com/MediaCenter?id=5379#how]}\), accessed 5 October 2009

take the form of, for example, one farmer sharing his experience of which pesticide worked best for a particular infestation or what conditions and nutrients were found to be ideal for growing a particular type of tomato. Engaging customers to help shape the evolution of the service enables firms to keep pace with changes much faster. For example, Facebook shows that the business model which create room for consumers to be creative and participate in the evolution of the service – or empower them to not only consume content/information but also to offer something back of value that they know or can create – attract more customers and create more of a buzz.

Discussion and Conclusion
A business model essentially describes the delivery of the customer value proposition, how the value proposition is created through the operations of the business and the how the value is captured through the revenue architecture. A recent report by IBM (IBM 2006)\textsuperscript{12} shows that firms that emphasise business model innovation are more likely to grow faster than businesses that focus on other types of innovations such as product or process innovations. The strategic issue for many businesses is to figure out the principles of business model design and innovation that enables superior performance for their respective businesses.

Upon further examination of the three examples discussed above, it appears that the critical element is being able to articulate the customer value proposition in a succinct way in order to deliver a critical need and being able to build the operations to fulfil these needs in an efficient manner. Moreover, the business model needs to derive value for the firm through its revenue architecture. For example, in the case of Netflix, the critical customer value proposition that it was able to fulfil over and above Blockbuster was its ability to provide DVD’s without fixed return times as well as to encourage customers to post reviews and recommendations. Through this process, Netflix was able to manage its inventory better and fulfil customers’ tastes and preferences more efficiently compared to Blockbuster. In addition, Netflix built a distribution infrastructure to fulfil the demand patterns and manage its inventory effectively to match customer demand with minimal stockouts. More than the mere use of the postal system, it was the ability of Netflix to build such a distribution infrastructure that created its superior business model that others find it difficult to replicate. Netflix managed through its business model design and innovation that enables superior performance for their respective businesses.

In the case of Apple iTunes it was its ability to fulfil the twin requirements of customers that they are able to disaggregate their purchases to individual songs and also to ubiquitously carry their personal albums to various gadgets (e.g., computers, CD players as well as the iPod). Apple delivered this proposition by persuading the five major record labels of the time to sell their content through the iTunes Store. Apple came up with the appropriate digital rights management for these songs to provide sufficient copyright protection. Apple was then able to act as an aggregator for this content by providing both a customer friendly gadget, the iPod and an easy to navigate store, the iTunes store. Apple was able to deliver the key customer value proposition compared to the previous method of selling music via DVD albums by overcoming some of the shortcomings that customers faced. Apple delivered this value proposition by acting as an aggregator of content without owning every aspect of the value chain. The key again is the ability of Apple to be connected to the customer and be able to overcome their two major limitations compared to DVDs for distributing music. Apple built components of the value chain to continue such a close connection and only delivering the key elements of the value chain to enable these.

\textsuperscript{12} IBM Global CEO Study. 2006. Expanding the Innovation Horizon.
In the third example, Facebook’s customers demanded variety in the type of offerings available on the Facebook site. Facebook recognised this and hence adopted an open architecture model that enabled third party developers to develop applications. Facebook recognised that the benefits of opening up and adopting a more collaborative approach to new applications developments outweighs its own ability to come up with new applications compared to a closed system. Consequently, Facebook’s recognition of the rate of change in customer preferences and correspondingly the customers demand for variety enabled the firm to build its value chain by integrating third party developers as a key component of the value creation process. Facebook decided not to own all parts of the development value chain as one its key propositions to the customer was variety which MySpace could not deliver as well.

RML is an innovative business model for Thomson Reuters to learn about both mobile channel delivery as well as emerging markets like India. Like many innovative business models for the rural market, RML had to build its own value chain to create a new market. From the earlier discussion, RML’s key customer proposition should include easy access to customised content, mobility benefits and improved convenience with time and travel savings. As it expands and builds scale RML needs to concentrate on retaining only the value chain components that deliver this key customer value propositions. In addition, RML would need to consider the evolution and change in its customer value proposition as it designs its business model. In particular, the business model would need to be able to identify the evolution of the customer value propositions and respond to changes quickly. In doing so, RML could learn from other successful businesses in terms of design of its business model. In particular, how other businesses have developed design principles for the business model that is based on having close customer intimacy and ensuring the critical elements of the value chain to deliver these propositions are retained within the business. RML needs to consider how to leverage its success so far with an appropriate business model innovation to sustain growth as it scales up its operations. In particular, the key strategic questions that need to be evaluated are the extent to which RML should be a content provider, an aggregator or should it continue to be in distribution, delivery and customer support. Moreover, RML also needs to evaluate the extent to which it should allow customers shape its service offering? RML would need to create experiments to learn about the design principles in order to build the optimal business model for its business. The answers to these questions might have lessons on how to innovate the business model for both RML as well as the Thomson Reuters Groups as a whole.

This opinion piece by Samir Prakash and Chander Velu was first printed in Effective Executive, February 2010.