A study on farmers perception of mobile agro advisory service (MAAS)

Kavaskar M, Suriyapriya E and Santha Govind

Abstract
The main aim of Farmer Producer Organization (FPO) is to ensure better income for the producers through an organization of their own. Mobile phones despite their recent entry into agrarian communities are already helping those communities improve their agricultural activities. This allows the farmers to make a query in a local language from a mobile phone and receive personalized advice or relevant information on the same in local language. Keeping this in mind, a study was taken up to determine the perception of the respondents on mobile agro advisory service. The study was taken up in Kanchipuram District with a sample of 120 registered members of Chennai Horticulture Produce Producer Company by using random sampling technique. The selected members of FPO obtained agro advisory service through mobile phone. The farmers perception on mobile service was assessed against twelve items. Simple percentage was calculated based on their response. The findings on overall perception revealed that medium to high level of perception on usefulness of mobile advisory service was observed among majority of the respondents. Nearly three-fourth (74.16 per cent) of the respondents reported that the information provided was both time and cost saving. Nearly three-fourth (73.33 per cent) of the respondents expressed that they were satisfied with the local language used by mobile advisory service in delivering the agricultural information.

Keywords: Perception, Farmer Producer Organisation, Mobile Agro Advisory Service, Kisan Suvidha.

Introduction
In the past decade, there has been a rapid growth of mobile phone usage all over the world. As of 2018, while the world population is 7.6 billion, the international telecommunication union estimated that there were 6.8 billion mobile phones subscribers worldwide. The mobile telephony has been most recent and widely accepted mode of delivering information not only in India but throughout the world. Increasing mobile phone and its services help in improving awareness, education, better adoption of technology, better health and efficiency, reduced transaction costs, better market efficiencies, etc. These in turn will catalyse the rural agricultural sector development and economic growth. In the perspective of the mobile phones, farmers can directly communicate with buyers and customers for selling their produce at good price. Mobile phone technologies have provided a good platform for farmers to share their knowledge and information among each other in time such as market rates, new varieties and weather information etc.

The advent of mobile has changed the era of Information Technology. Information Technology (IT) enabled services could help in solving some of the problems that Indian farmers are facing. Mobile Agro Advisory System connects the FPO members with an ecosystem empower to make efficient decisions about agriculture drive profits and conserve the environment. Hence, keeping this mind, a study was taken up to determine the perception of the respondents on mobile agro advisory service.

Methodology
The research study was conducted in Kanchipuram district. The study was taken up in eight villages which were selected based on the highest number of registered farmers under FPO. A sample of 120 registered farmers was selected by using random sampling technique. The study focused mainly on members of Farmer Producer Organization (FPO). Kanchipuram district had five FPOs. Among the five FPOs, Chennai Horticulture Produce Producer Company was selected purposively. Further, number of farmers has registered in the mobile agro advisory service in the selected Farmer Producer Organization (FPO) for the study.

According to Taneja (1989) perception is the process of understanding sensation or attaching meaning based on past experience to signs.
The main focus of ICT in agriculture is meeting the farmer’s needs, according to their individual mandates and the agenda they had established. An attempt was therefore made to find out what agricultural development information the farmers really considered as useful to their needs. An exhaustive list of information disseminated through the mobile service to the respondents was prepared. The farmers were then asked individually to rate the usefulness of the various items. Perception in the study referred to the extent to which the respondent perceived the usefulness of the information communicated through the mobile service. Usefulness of information through mobile service was measured under two dimensions viz., useful and not useful. Further, their perception on mobile service was also assessed against twelve items. Simple percentage was calculated based on their response.

**Findings and Discussion**
The overall perception of the respondents on the information disseminated through mobile was studied and the results are given in Table 1.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Category</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Low</td>
<td>12</td>
<td>10.00</td>
</tr>
<tr>
<td>2.</td>
<td>Medium</td>
<td>68</td>
<td>56.66</td>
</tr>
<tr>
<td>3.</td>
<td>High</td>
<td>40</td>
<td>33.34</td>
</tr>
<tr>
<td></td>
<td>Total</td>
<td>120</td>
<td>100.00</td>
</tr>
</tbody>
</table>

**Preferred language**
Nearly three-fourth (73.33 per cent) of the respondents expressed that they were satisfied with the local language used by mobile advisory service in delivering the agriculture information. This finding is in line with the findings of Zanello (2011) [11].

**Accuracy of information**
A vast majority (71.66 per cent) of the respondents reported that they were satisfied with the accuracy of information provided through mobile advisory service. The prepared mobile advisory service content is subjected to valuation by subject matter specialists and this may be probable reason for the greater satisfaction on accuracy of information expressed by the respondents. This finding is in line with the findings Chhachhar and Hassan (2013) [8].

**Knowledge gained**
70.00 per cent of the respondents expressed that mobile advisory service was very much useful to gain knowledge about farm innovations. The mobile message had the advantages of combination of text, picture and audio etc., to deliver message which aided the respondents for better understanding of the subject matter. This finding is in line with the findings of Murthy (2009) [8].

**Reliable**
Majority (68.33 per cent) of the respondents felt that the message was reliable. The information was provided by experts in various disciplines who possessed adequate knowledge on the latest recommendations. This might have been the probable reason for their greater perception over the reliability of the information received.

**Use of simple words and sentences**
Majority of the respondents (62.50 per cent) revealed that they were satisfied with the message received from mobile based agro advisory service because of simple words and sentences used. This finding is in accordance with the findings of Aloyce (2005) [3].

**Provide complete information**
Majority (61.66 per cent) of the respondents stated that the information provided was complete. This finding is in line with the findings of Jagun et al., (2007) [5].

**Perception of the respondents on usefulness of mobile agro advisory service**
The results on distribution of respondents according to their perception of the respondents on usefulness of mobile agro advisory service are given in Table 2.

<table>
<thead>
<tr>
<th>S. No.</th>
<th>Statement</th>
<th>Number</th>
<th>Per cent</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Accuracy of information</td>
<td>86</td>
<td>71.66</td>
</tr>
<tr>
<td>2.</td>
<td>Reliable</td>
<td>82</td>
<td>68.33</td>
</tr>
<tr>
<td>3.</td>
<td>Provides complete information</td>
<td>74</td>
<td>61.66</td>
</tr>
<tr>
<td>4.</td>
<td>Motivates to adopt</td>
<td>62</td>
<td>51.66</td>
</tr>
<tr>
<td>5.</td>
<td>Use of simple words and sentences</td>
<td>75</td>
<td>62.50</td>
</tr>
<tr>
<td>6.</td>
<td>Message understandable</td>
<td>63</td>
<td>52.50</td>
</tr>
<tr>
<td>7.</td>
<td>Problems are solved quickly and effectively</td>
<td>42</td>
<td>35.00</td>
</tr>
<tr>
<td>8.</td>
<td>Increase productivity</td>
<td>59</td>
<td>49.16</td>
</tr>
<tr>
<td>9.</td>
<td>Saves time and cost</td>
<td>89</td>
<td>74.16</td>
</tr>
<tr>
<td>10.</td>
<td>Overcome physical barriers</td>
<td>72</td>
<td>60.00</td>
</tr>
<tr>
<td>11.</td>
<td>Knowledge gained</td>
<td>84</td>
<td>70.00</td>
</tr>
<tr>
<td>12.</td>
<td>Preferred language</td>
<td>88</td>
<td>73.33</td>
</tr>
</tbody>
</table>

**Saves time and cost**
Nearly three-fourth (74.16 per cent) of the respondents reported that the information provided was both time and cost saving. This finding is in accordance with the findings of Mittal et al., (2010) [7].

**Table 1: Distribution of respondents according to their overall perception on mobile agro advisory service (n=120)**

**Table 2: Distribution of respondents according to their perception of the respondents on usefulness of mobile agro advisory service**
Overcome physical barriers
Three-fifth of the respondents (60.00 per cent) reported that the mobile based agro advisory service was able to overcome physical barriers. This finding is in line with the findings of Akoijam (2015) [2].

Message understandable
Majority (52.50 per cent) of the respondents reported that the information received was understandable. This might be due to the fact that mobile advisory service contained sequential presentation of or information in simple sentences and in local dialect. This finding is in accordance with the findings of Mittal et al., (2007) [1].

Motivate to adopt
Majority (51.66 per cent) of the respondents felt that the mobile advisory service motivated them to adopt the technologies in their farms. The reason might be that, they would have felt that the information provided was highly suitable to practice in their farms.

Increase productivity
Nearly half the proportion of the respondents (49.16 per cent) agreed that the information transmitted through mobile advisory service increased productivity. This finding is in accordance with the findings of Rizvi (2010) [9].

Problems are solved quickly and effectively
Only 35.00 per cent of the respondents opined that the mobile advisory service could solve the farmer’s problems by means of providing meaningful information on specific problems. In the mobile service, the information right from the selection of seed to post harvest management are updated regularly and are comprehensive in nature but getting feedback is not possible. This finding is in line with findings of Mittal et al., (2010) [7].

More than half the proportion (56.66 per cent) of the respondents had medium level of perception on usefulness of information followed by high (33.34 per cent) and low (10.00 per cent) levels of perception on usefulness of information received through mobile service.

Conclusion
Medium to high level of perception on usefulness of mobile advisory service was observed among majority of the respondents. Hence, the organisations and department concerned with mobile service on agriculture need to realise the potential of mobile service for the speedy dissemination of information to the farmers. Nearly three-fourth (74.16 per cent) of the respondents reported that the information provided was both time and cost saving. Nearly three-fourth (73.33 per cent) of the respondents expressed that they were satisfied with the local language used by mobile advisory service in delivering the agricultural information.

A vast majority (71.66 per cent) of the respondents reported that they were satisfied with the accuracy of information provided through mobile advisory service. 70.00 per cent of the respondents expressed that mobile advisory service was very much useful to gain knowledge about farm innovations. Majority (61.66 per cent) of the respondents stated that complete information was provided. Three-fifth of the respondents (60.00 per cent) reported that the mobile based agro advisory service was able to overcome the physical barriers.

References