Critical analysis of ‘Pusa Samachar’: an innovative multimedia-based extension advisory model


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ABSTRACT

Access, efficiency and affordability of agricultural information are prerequisite for achieving set targets of agricultural productivity. Information and Communication Technology (ICT) equipped with social media reach can have a leading role in the dissemination of right information to needful farmers at right time. ICAR-IARI inhouse initiative ‘Pusa Samachar’ is such an innovative multimedia-based extension advisory model, which targets to reach farmers across India with timely, location specific and customized farm information. The present study is conducted to get an overall idea about the viewership pattern and to validate the content of this model under content, design, ease of understanding and fulfilment of information need. Analysis of secondary data from YouTube analytics and primary data collected from different stakeholders have shown that with changes in the format, style and presentation of the content, trend of views changed and therefore four episodes performed better than other episodes with respect to number of views, watch hours and subscribers added per episodes. Findings also indicated that number of views are dependent of episode duration ($x^2 = 83.049, p=0.001264$) however, average view duration per episode is independent of episode duration ($x^2 = 3.1821, p=1$). Overall, the present study has shown a new way how initiatives like Pusa Samachar has immense potential to reach farmers across nation through social media. Such initiatives can be taken up by other public institutes as reliability and validity of their content is high, but results have shown that diversification with respect to content and audio-visuals is further needed to grab and retain more audience.

Key Words: Pusa Samachar, Multimedia-based extension, Information and Communication Technology, YouTube.
Information is considered as one of the most valuable resources in agricultural and rural development programmes\textsuperscript{1,2} and an important input in agriculture\textsuperscript{3}. When engaged in farming activities, farmers need different types of information at each stage of the development process, from weather forecast, input management, farming practice\textsuperscript{4-6}, pest and disease management\textsuperscript{7} and market information and prices\textsuperscript{8}. In the complex decision-making process in farm operations farmers are subjected to various kinds of innovation information and involved in the process selecting the innovation that best fit to their farm with risk minimization and profit maximisation\textsuperscript{9-11}. Depending on the nature of the information required, farmers use their preferred information sources like fellow farmers, progressive farmers, television, radio, newspapers, private agents, mobile phones\textsuperscript{12-14}. Information seeking behaviour of individual vary according to the complexity of task\textsuperscript{15}, time of operation, place\textsuperscript{16} and availability of information sources\textsuperscript{17}.

Current agricultural extension approaches in India face many difficulties in delivering timely, reliable and relevant information to farmers\textsuperscript{18}. Public extension system responsible for disseminating agricultural information to farmers has become less efficient, more time consuming and does not meet the requirements of farmers\textsuperscript{19}. Information and communication technology (ICT) today plays an important role in delivering responsive agricultural extension services to farmers. Many organizations make extensive use of modern information technology in India to promote communication between researchers, extension agents and their farmer clients to transfer technology and information more effectively\textsuperscript{20-22}. Mobile phones were first adopted mostly by wealthier, urban, and more educated citizens, but in recent years, they have been adopted by a wider range of people in some of the world’s poorest rural and urban communities. In poorer countries, rapidly expanding mobile telephony has unveiled a new search technology that includes a number of features and advantages over other options in terms of cost and location coverage as well as ease of usage and potentially improve farmers’
access to information through their involvement as members of their social media network as sources\textsuperscript{23,24}. Benefits of weather and market information delivered through SMS in mobile phones have small effect as in push messages farmers are only receivers and Farmers often find it difficult to communicate problems in their own language, thus video visuals might be helpful in properly presenting the issues to them\textsuperscript{25}. The Digital Green video communication system in India combines technology with social organisations to increase the cost-effectiveness of existing agricultural extension\textsuperscript{26}.

With the advent of smart technology, there is increasing internet subscriber in India with total number of Internet subscribers 825.30 million, contributing 322.77 million rural internet subscribers\textsuperscript{27}. Penetration of internet subscribers in both rural and urban India led to more active social media users due to its unique experience and special features of openness, connectedness, participation and conversation\textsuperscript{28}. While many farmers around the world use social media to connect with their experts and fellow farmers, extension workers and extension organizations are reluctant to stereotype farmers and believe that they are not tech savvy\textsuperscript{29,30}. Social media is still a novel idea to many so people hesitate, feel shy, avoid going public, and don’t take it seriously. But slowly many are realising it is worth investing time in social media to remain updated and socially and professionally relevant\textsuperscript{31}. Digital technology can give special edge to extension\textsuperscript{32} and social media can be very useful tools for both farmers and extension workers in this regard. Facebook has 410 million active users in India, Twitter has 17.5 million users, WhatsApp has 530 million users, and YouTube gets more than 448 million users in India as leading social media network\textsuperscript{33}. As more and more farmers are using social media around the world and found it effective on farm\textsuperscript{34,35}, so social media networks like YouTube, Facebook, Twitter, Whatsapp, blogs, wikis and podcasts offer great potential may be used by extension agents, but content and reach must be decided based on user and content\textsuperscript{36,37}. YouTube search with keywords "Agriculture" brings in about 3,00,000 hits and
"agriculture" brings about 8,89,000 hits while "farming" gives 10,400 hits. Multimedia is the combination of Graphics, video, sound, animation, and text can provide better presentations information that any of these means alone can. There is a common belief that “More is more” and “the sum is greater than the parts”. Although personal use is very common, professional use of social media by extension staff at the individual or organizational level to disseminate information is still low, mainly due to lack of awareness.

There is a growing corpus of research that shows how social media, as a frequent and intense element of everyday life, has become one of the key vehicles via which people can express themselves, their lives, and their places. The fact that social media offers various affordances than previous types of representation and communication technology; include visibility (allowing people to make their knowledge, preferences, and behaviours visible where they were previously difficult to see); persistence (allowing the communication to remain visible after its author has first presented it); editability (allowing people to craft and redraft purposeful forms of communication); and association (allowing people to attach their communications to other people or to a piece of information through tagging). While social media has a lot of potential in this area, there are several limits in terms of data availability and its greater representation of the farming population. On the other hand, studies have looked into how social media may be utilised to promote commodities and showcase new technology and innovation and social media must be used to complement and supplement more traditional means of information sharing in agricultural marketing, education, and extension.

Conceptual Framework:

Several organizations in India are making substantial use of current information technology to improve communication between researchers, extension workers, and their farmer clients in order to more efficiently transfer technologies and knowledge in a cost-

effective manner. Even in agriculture, social media, which was traditionally mostly used for entertainment, has enormous potential for information exchange and collaboration. According to GFRAS (2015) survey on 60 countries, Ninety-five percent of respondents agreed that social media can help bridge the gap between stakeholders in agricultural innovation systems. Mobile based Technology especially social media can provide content in vernacular language, which can be achieved by strengthening of existing technologies by local language-based content development ultimately the services can be applicable to farmers\textsuperscript{45}. It is vital to ensure that adequate material is created for farmers in a language that they can comprehend and in an appropriate format in order for ICT applications to boost their production\textsuperscript{46}. Multimedia based advisory services deliver information through different technologies, but the access and usage of these technologies differ, so the basic purpose of research area should focus on information effect disentangling from technology effect. Purpose of information delivery to the information poor should focus not only on knowledge gain and sharing but also in terms of productivity and increase in income level and focusing on timelines and relevance of the information. As a result, in order to achieve effective ICT-led information delivery, strategies must be developed by examining the digital environment of the location where key players are involved in design and implementation of programmes\textsuperscript{47}. With these above considerations, ICAR-Indian Agricultural Research Institute, New Delhi started multimedia-based extension model named ‘Pusa Samachar’ for two-way information sharing through social media. Under this model, timely, location specific and need based information of major crops along with weather information was given to farmers across India through YouTube. Pusa Samachar was launched on 15 August 2020 and first episode was uploaded on 22 August 2020, since then every Saturday at 7 pm new episode is being uploaded in official YouTube channel of the institute. Till now 88 episodes in Hindi had been uploaded. In view of reaching more farmers across nation, Pusa Samachar is also being prepared in 5 regional languages under which 14 episodes
in Telugu, 26 episodes in Kannada, 22 episodes in Tamil, 25 episodes in Bangla and 2 episodes in Oriya has been uploaded. The subscribers are increasing day by day and presently it has reached around 22,000 with 610,234 views. In every episode time specific crop management practices, successful farmer stories, Pusa WhatsApp salah and weather broadcast is being given. One dedicated Pusa WhatsApp number has been launched, in which farmers are sending their farm problems with pictures and scientists are replying promptly. Selected farm problems along with their scientific solutions is being included in each YouTube episode of Pusa Samachar.

Material and Methods

Study Area, Sampling, Data Collection:

In order to get an overall idea about the viewership pattern secondary data from YouTube analytics has been collected. To validate the content of this model primary data was collected from different stakeholders, which included 159 farmers, 112 students, 25 researchers and 22 extension professionals. Thus, primary data was collected from 318 respondents in addition to the data of YouTube analytics.

Content Analysis of Pusa Samachar Model

In day-to-day farming activity farmers need information with respect to best quality seeds, their availability, pest and disease management, marketing etc., so that they can enhance their income by adopting improved farming practices. To analyse the coverage of content of Pusa Samachar, Content analysis of 49 Hindi episodes has been conducted. The subject matters categorised as agronomy, genetics, plant pathology, vegetable sciences, horticulture, entomology, agricultural engineering, microbiology, soil sciences and success stories of farmers.
**Viewership and Subscriber joining Pattern**

With the addition of new episodes every week and change in the modelling of content development, total no of subscribers and viewing hours increased. Although there is increase in total subscribers, there is a need to analyse the pattern of number of views per episode. Episodes are then classified into low, medium and high according to the number of views per episodes using mean and standard deviation. Pattern of subscriber added per episode has also been analysed and classified as low, medium and high using mean and standard deviation method. Watch time in hours to number of subscribers added has been correlated using Pearson’s correlation. Episode duration and no of views of each episode has been analysed using Pearson’s Chi-squared test to observe the difference between the set of categorical data arose by chance. The relation between episode duration and no of views is analysed for further content development with management of time duration. Further duration of episode has been observed in relation to average view duration of episode and analysed using Pearson’s Chi-squared test.

**Validation of the model**

Further validation of the model is done by analysing the stakeholders’ perception with respect to effectiveness of Pusa Samachar along with viewing and sharing behaviour by collecting primary data from both primary stakeholders (farmers) and secondary stakeholders (students, researchers and extension professionals). Preliminary data was collected on the regularity of watching the channel, subscriber membership, sharing behaviour with fellow colleagues, source of information about the model from YouTube, whatsapp, Facebook, twitter or fellow colleagues, watching frequency whether weekly, fortnightly or monthly and watching pattern of episodes. Validation of the model is done by the stakeholders under three broad criteria as content and design, ease of understanding and fulfilment of information need. Systematic
presentation of content, appropriateness for learning experience, audibility of episodes, readability of text, average time duration of full episode and average watch time of each crop segment has been covered under the criteria for validation of content and design. The Model was also validated under the criteria of ease of understanding, comprehensible style of presentation, comprehensible scientific content, language used by anchors and ease of understanding the scientific inputs of experts and relevancy of content in today’s farming, self-explanatory graphics w.r.t crops/varieties/disease/pest. In fulfilling the information need of stakeholders’, model has been validated under the usefulness of information, updated and its ability to cater the information need, its ability to save money and time and practically applicable in their day-to-day life. Further Pusa WhatsApp salah dedicated to cater farm problem and fulfilling customized and timely information need has also been added under this criterion. For validation of the model, stakeholders responded on 5-point likert scale from strongly agree to strongly disagree. Under data analysis, weighted mean score (WMS) of each criterion was calculated for data set of stakeholders’ response by using standard formula of weighted mean score:

\[
\text{Weighted mean} = \frac{\Sigma wx}{\Sigma w}
\]

where, \( \Sigma \), summation; \( w \), weights; \( x \), value.

**Results**

**Content Analysis of the Model**

Content of multimedia based agricultural advisory service plays a great role in delivering the information according to the need of the stakeholders. From the content analysis of Pusa Samachar model in Hindi language, it was reported that a total of 128 topics were covered in 17 different disciplines/areas including farmers success stories. Analysis has shown that among disciplines the topic coverage was maximum under Vegetable Sciences (21%), followed by
Agronomy (17%), Genetics (13%), Success stories of Farmers (10%), Plant Pathology (9%), Entomology (6%), Horticulture (5%) and Microbiology (5%). Topics covered from other disciplines were having a coverage of 14% which included topics from Protected Cultivation Agricultural Engineering, Soil Science, Economics, Floriculture, Student based Topic/Career, Biochemistry, Agricultural Chemicals and Extension. Figure 1 represents content analysis of 49 episodes of Pusa Samachar model.

If we look crop wise then coverage is as: 25 topics of cereals (rice, wheat, maize, millets), 5 topics of oilseeds (mustard), 25 topics of vegetables (leafy vegetables, pea, onion, garlic, carrot, tomato, potato, bathua, okra, bittergourd, bottlegourd, cucumber, chilli, general management), 7 topics on pulses (chikpea, lentil, mungbean), 7 topics on fruits (papaya, guava, mango, apple, citrus), 2 topics of floriculture (rose and protected cultivation) and 31 topics on general topics (integrated farming system, soil less cultivation, leaf colour chart, pusa decomposer, farm bills, career in agriculture, pusa STFR meter, biofertilizers application, spirulina, mushroom production etc.)

**Numbers of views**

Episode were classified as low medium and high on the basis of mean and standard deviation w.r.t. views over time. It was evident from Figure 2 that six episodes (episode number: 1, 4, 12, 23, 28, 29) were under high category with more than 4625 views in each episode, five episodes (episode number: 35, 36, 37, 38, 39) were under low category with less than 2157 views in each episode. Rest of the 38 episodes were under medium category with views in between 2157 and 4625.

**Watch Hours**

The data with respect to watch hours and numbers of view was analysed after collection from YouTube analytics. The episodes were categorised into low, medium and high category on the
basis of mean and standard deviation w.r.t. watch time (hours). It was evident from figure 2 that six episodes (episode number: 1, 12, 23, 28, 29, 30) were under high category with more than 254 watch hours in each episode, six episodes (episode number: 36, 37, 38, 39, 40, 44 and 49) were under low category with less than 130 watch hours in each episode. Rest of the 37 episodes were under medium category with views in between 130 and 254.

**Subscribers added by each episode**

The episodes were further categorised into low, medium and high category on the basis of mean and standard deviation w.r.t. subscribers added by each episode. It was evident from figure 3 that six episodes (episode number: 1, 2, 3, 4, 23, 25) were under high category with more than 347 subscribers added in each episode, nine episodes (episode number: 32, 33, 36, 37, 38, 39, 40, 43 and 49) were under low category with less than 81 subscribers added in each episode. Rest of the 34 episodes were under medium category with subscribers added in between 81 and 347.

Data with respect to watch time hours of 49 episodes was correlated with the number of subscribers added by each episode and it has resulted in positive correlation with correlation coefficient 0.801 and thus it is evident from figure 3 that with increase in watch time (in hours) there is increase in number of subscribers added per episode. It was found that duration of each episodes plays a role in viewing pattern of subscribers as indicated by Figure 4. Pearson’s chi-squared test was executed to check the dependence of total number of views and episode duration with null hypothesis that views are independent of episode duration. It was found that number of views are dependent of episode duration ($x^2 = 83.049, p=0.001264, df=48$, null hypothesis rejected). Further, Pearson’s chi-squared test was again executed to check the dependence of average view duration per episode and episode duration with null hypothesis that average view duration per episode are independent of episode duration. It was found that
average view duration is independent of episode duration \((x^2 = 3.1821, p=1, df=48, \text{null hypothesis accepted})\).

**Perception of stakeholders with respect to Pusa Samachar**

Perception of stakeholders collected on different statements showed that 88.67 per cent of primary stakeholders (farmers, \(n=159\)) regularly watch Pusa samachar and 81.13 per cent among them share this content with their colleagues. Analysing the source of information about Pusa samachar model, YouTube was the major source of information (67 %) followed by WhatsApp (15 %), verbal communication with fellow colleagues (13 %), Facebook (4%) and twitter (1%). Thus, it is evident from Table 1 that for primary stakeholders, YouTube played the most important role while twitter was the least preferred source of information about multimedia-based extension advisory model. Under watching pattern of stakeholders, it was found that 83 per cent stakeholders watched Pusa Samachar weekly. On further analysis it was further revealed that 67 per cent preferred to watch the whole content while 32.7 per cent prefer to watch the portion of content which is relevant according to their need and problem rather watching the whole content developed (Table 2).

Perception of Stakeholders with respect to Pusa Samachar was captured under three heads: content and design, ease of understanding and fulfilment of information need. It is evident from Table 3 that majority of stakeholders believed that content creation is systematic and helps in better learning. It was found that text used in videos is clearly readable for stakeholders but the sound and video quality have to be improved. Table 3 also revealed that majority of stakeholders believes that average time duration of each crop segment within episode is optimum however, the average time duration of full episode need improvement with respect to its time duration. Thus, it was found that audio, video quality and time duration should be focused for developing better quality content. From the prospect of understanding, ranking of
stakeholders indicates that the style of presentation, scientific content and language is comprehensible, however relevancy of content with respect to current farming practices and graphics used in the video needs improvement for better understanding on the part of viewers. In fulfilling information need of stakeholder, this platform provides useful, valid and updated information which saves time and money of the viewers as a medium for learning new technologies. The informal platform WhatsApp salah which caters customized problems needs to be strengthened by converting it into an automated query redressal system for stakeholders.

**Discussion**

The results of the study show some interesting facts with respect to number of views, watch hours and subscribers added per episodes. There are six episodes under each analysis unit; number of views, watch hours and subscribers added per episodes which falls under high category. These are the episodes where new innovations with respect to presentation of episodes has been done, which has increased episodes views, watch hours and subscription base. For instance, in 4th episode two anchors on screen were introduced for the first time and also anchors were changed in each byte, in 12th episode changes were made in text colour and font in the content, in 23rd episode success story of farmer and weather report were included for the first time and in 29th episode information about newly released Rice variety; Pusa Basmati 1692 was given along with success story of innovative farmer awardee. So, with changes in the format, style and presentation of the content, trend of views changed and therefore these four episodes were under high category with respect to number of views, watch hours and subscribers added per episodes. Most of the earlier studies also supported that signalling i.e., cueing as addition of key words, change in colour or addition of symbol helps to draw attention ultimately targeting specific element in video for processing working memory of viewer. It is interesting to note that the episodes in which the number of views had
increased, there is an increase of number of subscribers also, which signals that diversification of content with respect to style of presentation lead to acceptance of the viewers to the model. The analysis of audience engagement and episode duration showed that the views are dependent upon the overall episode duration. According to several research studies optimum duration of educational video for YouTube content should be 6 minutes and thus it is suggested that content creators should focus on creation of videos in short chunks while this is not followed in case of technical content for learning of new technologies and improving outcome. Our study has also shown that duration of episode is independent of the average watch duration which clearly indicates that the content and way of presentation is more important than duration of episodes. Stakeholders may watch a single long video over several viewing sessions, resulting in a low average watch time having watched the entire video. Stakeholders can also return to a long video numerous times to watch only a portion of it for a few crop segments or management practices. An analysis of average viewing time revealed that despite the disparities in involvement, viewers viewed both video formats in the same amount of time in the same way. Short videos could be suitable for learning a new technique, as a stand-in for a method demonstration, or as a source of pertinent weather information or disease and peat management. Longer duration films, on the other hand, serve an essential part in learning a complete package of practise, such as new crop practise or new technology adoption. The best video length is determined by the interaction multiple factors.

Vlogs or video blogs on the internet, are becoming increasingly popular as a kind of media content. Regular subscribers of IARI official channels gets notification of newly uploaded episode of Pusa Samachar, in addition to that IARI also uploads the content information with respect to Pusa Samachar on social media platforms namely Facebook, twitter and WhatsApp group. It was found that 67 per cent stakeholders gets information about Pusa Samachar newly uploaded episode from YouTube, followed by facebook (19%), whatsapp groups (11%) and
twitter (3%). This clearly indicates that YouTube users use the platform for entertainment as well as knowledge. People's access to scientific information has changed as a result of platforms like YouTube. Under present study validating the content from the stakeholders has shown direction for improvements in presentation and content of Pusa Samachar especially with respect to audio-video and graphics quality. The audio-visual quality is heavily influenced by the audio quality. Even if the video quality is excellent, poor audio quality can diminish the audio-visual experience significantly. An excellent audio quality, on the other hand, can slightly improve the audio-visual quality of a lousy video. Thus, there is need of fair balance between audio and video quality of contents. The level of trust a farmer has in the information will influence how it is used in the field and potential of ICT in agriculture, which has so far been underutilised. The results have shown that overall, this inhouse new initiative of IARI has immense potential to reach farmers across nation through social media. Though, reliability and validity of the content among farmers is high, but results have shown that diversification with respect to content and audio-visuals is further need to grab and retain more audience.

Conclusion

The present study analysed the performance of multimedia based agro-advisory model among different stakeholders (farmers, researchers, extension professionals and students). It is clearly evident that content development which are tailor-made and properly designed based on needs of stakeholders can lead to its acceptance. Our study revealed that duration of content does not affect the watch time of audience, as farmers need information for technical problems which need detailed advisory. The present model has shown that research institutes can effectively act as knowledge hub for scientific content development and dissemination through harnessing power of social media. Due considerations should be given to audio, video and graphics management in multimedia for large scale acceptance. Findings from this study revealed that different ICAR institutes can deliver multimedia advisory services as ICAR has regional and
crop specific institute in different areas, tailor made advisory service can help farmers of every region. State departments of agriculture can focus on developing multimedia based specific crop-based information regard to variety, disease and pest management with special reference to contingency crop management during crop failures that can better perform than only audio-based advisory of extension professional based advisory.

References:


33. www.statista.com, Retrieved on April, 2022


Table 1. Source of Information of Stakeholders (n=318)

<table>
<thead>
<tr>
<th>Profession</th>
<th>Source of Information (%)</th>
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<tbody>
<tr>
<td></td>
<td>Youtube</td>
</tr>
<tr>
<td>Primary stakeholder</td>
<td>Farmer</td>
</tr>
<tr>
<td>Secondary Stakeholder</td>
<td>Student</td>
</tr>
<tr>
<td></td>
<td>Researcher</td>
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<td></td>
<td>Extension Professional</td>
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<tr>
<td>Total</td>
<td>318</td>
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Table 2. Frequency of watching and viewing pattern of Stakeholders

<table>
<thead>
<tr>
<th>Profession</th>
<th>Frequency of watching (%)</th>
<th>Viewing Pattern (%)</th>
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<tbody>
<tr>
<td></td>
<td>Weekly</td>
<td>Fortnightly</td>
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<tr>
<td>Primary stakeholder</td>
<td>Farmer</td>
<td>89.30</td>
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<tr>
<td>Secondary Stakeholder</td>
<td>Student</td>
<td>73.21</td>
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<td></td>
<td>Researcher</td>
<td>88.00</td>
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<td></td>
<td>Extension Professional</td>
<td>77.27</td>
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Table 3. Perception of Stakeholders with respect to Pusa Samchar: weighted mean square (WMS) and rank

<table>
<thead>
<tr>
<th></th>
<th>Content and Design</th>
<th>WMS</th>
<th>Rank</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>1. Content has been presented systematically</td>
<td>4.481</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>2. Content is appropriate for learning experience</td>
<td>4.453</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>3. Sound of episodes are audible and clear</td>
<td>3.776</td>
<td>VII</td>
</tr>
<tr>
<td></td>
<td>4. Videos in episodes have good clarity</td>
<td>4.434</td>
<td>IV</td>
</tr>
<tr>
<td></td>
<td>5. Text is clearly readable</td>
<td>4.440</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>6. Average time duration of full episode is optimum</td>
<td>3.951</td>
<td>VI</td>
</tr>
<tr>
<td></td>
<td>7. Average time duration of each crop segment, within episode is optimum</td>
<td>4.284</td>
<td>V</td>
</tr>
<tr>
<td>B</td>
<td>Ease of Understanding</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Style of presentation is easily comprehensible</td>
<td>4.487</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>2. Scientific Content is clearly comprehensible</td>
<td>4.478</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>3. Language used by anchors and experts is understandable</td>
<td>4.528</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>4. Content has relevance in today’s farming</td>
<td>4.443</td>
<td>IV</td>
</tr>
<tr>
<td></td>
<td>5. Graphics w.r.t. crops/varieties/disease/pest etc. are self-explanatory</td>
<td>3.715</td>
<td>V</td>
</tr>
<tr>
<td>C</td>
<td>Fulfillment of Information Need</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>1. Overall, information is useful for farmers</td>
<td>4.554</td>
<td>I</td>
</tr>
<tr>
<td></td>
<td>2. Given information is valid and updated</td>
<td>4.465</td>
<td>II</td>
</tr>
<tr>
<td></td>
<td>3. Content Caters my information need (according to cropping season)</td>
<td>4.377</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>4. Pusa Samachar saves my time and money</td>
<td>4.292</td>
<td>VI</td>
</tr>
<tr>
<td></td>
<td>Statement</td>
<td>Score</td>
<td>Category</td>
</tr>
<tr>
<td>---</td>
<td>---------------------------------------------------------------------------</td>
<td>-------</td>
<td>----------</td>
</tr>
<tr>
<td>5</td>
<td>I have learnt new farming technologies through Pusa Samachar</td>
<td>4.345</td>
<td>IV</td>
</tr>
<tr>
<td>6</td>
<td>I am practicing what I am learning through Pusa Samachar</td>
<td>3.995</td>
<td>VII</td>
</tr>
<tr>
<td>7</td>
<td>Pusa whatsapp salah is helpful in problem solving</td>
<td>4.330</td>
<td>V</td>
</tr>
</tbody>
</table>
**Figure 1.** Pie chart showing content analysis of Pusa Samachar model

**Figure 2.** Trend of number of views over time of Pusa Samchar model

**Figure 3.** Watch time (hours) and subscribers added by each episode of Pusa Samachar Model

**Figure 4.** Episode duration and views of Pusa Samchar Model
Figure 1. Pie chart showing content analysis of Pusa Samachar model
Figure 2. Trend of number of views over time of Pusa Samchar model
Figure 3. Watch time (hours) and subscribers added by each episode of Pusa Samachar Model
Figure 4. Episode duration and views of Pusa Samchar Model