



EMPOWERING INDIAN AGRICULTURE WITH WHATSAPP – A POSITIVE STEP TOWARDS DIGITAL INDIA

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Abstract- The potential of social media to support the access to and exchange of information for smallholder farmers is enormous. Online social networking provides users with powerful means of sharing, organizing and finding content as well as contacts. The utility and rapid development of these sites provides an urge to study the characteristics and the utilization of online social networks at large scale. Understanding this analysis is important, in order to improve the current systems and to design new applications for online social networks. Recently there are many giant technologies, like Facebook, Viber, Google+, Hike, WhatsApp Messenger and many more have been ruling the industry with their distinct. India is an agrarian country. Agriculture and its allied sectors play a crucial role in the economy. Hence, the development in agriculture is essential for the development of our nation. Most of the farmers in our villages now have access to mobile phones. Even, the Government of India has launched a new initiative named Digital India. This paper presents the SWOT analysis of WhatsApp Messenger, which is a powerful social media tool which can be used by the farmer community in the agricultural field.

Keywords- Social media, Agriculture, India, Social Networking Services, WhatsApp.

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Introduction

India is the second largest producer of agriculture based products. Agriculture is the primary source of livelihood for about 58 per cent of India's population. In spite of this importance of agriculture in our nation, majority of the Indian farmers still practice agriculture using conventional methods. [1] Lack of adequate infrastructure, financial help, knowledge and awareness among the farmers are the main factors responsible for such condition of our agricultural sector. [2]

The urge of communication with people for personal as well as commercial use has given rise to the invention of websites which we call now as social networking services (SNSs) [3]. SNSs had not only been a part of personal growth and had been a boon to IT industries, educational institutions, marketing and had sought the attention of everyone almost. There had been many kinds of SNSs since internet evolution [4]. Most of the SNSs are incorporated into a complete and coherent concept called the SNP (Social Networking Platform). Digital India is one such initiative taken by the Government of India to ensure that Government services are made available to all its citizens electronically. It includes plans to connect rural areas with high-speed internet networks and know about the latest technologies in the field of agriculture and are adopting those to increase their crop yield.

Out of various social media tools available, the most popular one is WhatsApp. Figure 1 describes its growth in first four years. In addition to text messaging, users can send each other images, video, and audio media messages. It provides zero cost communication facility. Over 27 billion messages are sent by over 300 million users everyday on WhatsApp! That's more than any other social networking site by order of several magnitudes.[5]

Use of WhatsApp as a Tool for Agricultural Development - SWOT Analysis:

I Strengths:

- 1) Cross platform
WhatsApp Messenger works on various platforms and number of devices such as iPhone, BlackBerry, Android, Nokia S60. Majority of the farmers in our nation are small and marginal. However, the advantage of using WhatsApp messenger is that it works on almost every smart phone.
- 2) Services can be availed at almost no cost
Communication using WhatsApp Messenger can be done without any extra cost except the cost of getting internet connectivity. Compared to SMS facility, sending messages through WhatsApp is cheaper. Even thorough its free calling facility, the farmers can call to researchers and consumers to communicate with them.
- 3) No special training or skills required
Using WhatsApp does not require to learn about any new technology. It offers an easy and instantaneous way to communicate with other users. Moreover, the voice messaging feature allows people to communicate without having the knowledge of English. This can help rural people avail the benefits of social networking and internet.
- 4) Knowledge Sharing
WhatsApp can be used in keeping ourselves informed about latest happenings around the world; current updates in the agricultural sector; latest government policies, schemes and subsidies; weather forecast; market value of agricultural produce; latest farm machines and technologies related to agriculture; etc.
- 5) Group chatting feature
By using WhatsApp you can share information just one click and send to many people using group chatting feature for some discussions related to any problems faced by the farmers related to crop diseases and yield; climate and

environmental conditions, price of agricultural inputs like seeds, fertilizers, pesticides, etc.; market price of their crops and many more.

- 6) You can share your location, photos, status, videos and audio with your friends

The concept of "Kisan Call Centre" did not become popular among the farmers due to lack of proper communication medium between the farmers and the agricultural experts. Whereas, WhatsApp makes it more easily and informatively by just clicking and sending one snap or video to representative source, after analyzing the problem at researcher level, farmer will get solution of related problem instantly.

II Weakness:

- 1) Requires internet

You must have access to internet to send and receive messages for free and there is no possibility of reading messages sent to the phone inbox in the same application. However, some of the rural areas do not have internet connectivity which can limit farmers in those areas from accessing WhatsApp.

- 2) Requires good signal strength of network

We know WhatsApp runs using internet, so better the signal strength faster the downloading or uploading of informative photos or videos and vice versa.

- 3) Limitation in the number of members in a group

For sharing new technology to the farmers about innovations in agriculture WhatsApp groups can be created. But such groups can have maximum of 256 members. Hence, limited persons can join in group chatting or informative communication

- 4) Limitations in the maximum size of data that can be sent

WhatsApp has limitations of sending media files of size approximately 18 MB. Moreover, non-media files like pdf, document, program files, etc. cannot be sent through WhatsApp.

- 5) Both sender and receiver need to have data balance

While sending data through WhatsApp, both the sender and receiver need to pay for internet data charges. In case the receiver does not have enough data balance, he/she cannot download the content uploaded by the sender leading to failure in communication.

- 6) Requires power

Electricity is required for charging of smart phones to access WhatsApp but electricity is not available throughout the day in some remote control areas in our country.

III Opportunities:

- 1) Enhance the quality and productivity:

Increases the quality and productivity of crops by frequent interaction with particular crop researcher by sending problems in the form of photos or videos. For example, farmers can send a picture of their crops affected by a particular disease to the agro scientists who can detect the disease at an early stage and suggest preventive treatments. This can provide better quality and quantity of crops to the farmers. Even the knowledge about latest agricultural technologies can be shared through WhatsApp to get better crop yield and quality.

- 2) Increase the farmers' income

WhatsApp has an opportunity to form a platform where they can directly sell their produce to the consumers eliminating middlemen like in case of fruits and vegetables. This will increase their profits. In case a farmer does not have adequate land or produce, such farmers can form a group on WhatsApp to market their products collectively.

- 3) Developing new research in agriculture

WhatsApp is also a good media to share new developments in new technology. At present, many agricultural universities have their students and professors carrying research. They can share their research outcomes and ideas so that new technologies can be developed by collective thinking.

IV Threats:

- 1) Charging money for using WhatsApp services

WhatsApp is boon for today's society and does not charge money for its services. However, if WhatsApp starts charging for the use of its application and services, then people may move towards other free and low pricing apps. Hence, it may be very difficult to keep farmers connected through WhatsApp.

- 2) Information sharing is like a double edged sword

There is no one to check the authenticity of information, which is shared on WhatsApp. Users trust on their friends about the trueness of the information. In case, wrong information is transmitted then it will have an adverse impact. Hence, the administrator of the group needs to keep an eye on the information, which is shared in the group.

- 3) Competition from other social media platforms

With social media and internet growing at a rapid pace, there is bound to be competition among the social network platforms. In this situation, it may happen that the share and popularity of WhatsApp may decrease owing to strong competition from other platforms like WeChat, Hike, etc.

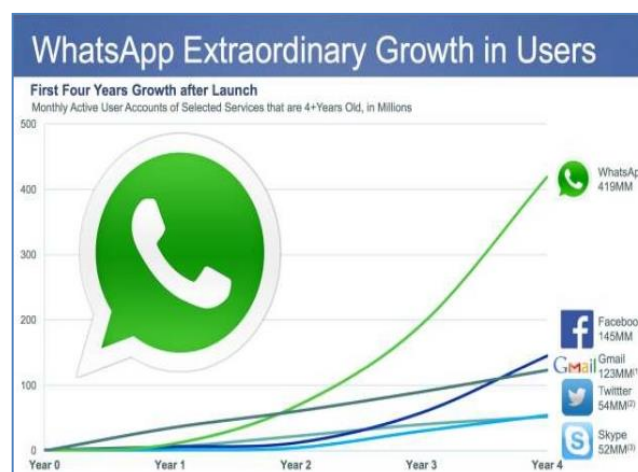


Fig-1- First four year growth of WhatsApp after launch

Source: Qualman (2012)

Conclusion:

There are many social media tools of which WhatsApp being the most popular one is used by majority of Indian population, which also includes the farmer community. Though India is an agriculture based economy, the use of technology in agriculture and allied sectors especially in farming has not been explored. This opens up a platform to utilize IT. In this era of Digital India- an initiative led by the Government of India, mGovernance and mServices are preferred to be provided by mobile phones. Even farmers have started owning mobile phones. Hence, WhatsApp Messenger can be used by the farmers to get knowledge and share their issues with the world. It can serve as a communication medium between the farmers and the agricultural experts. As every coin has two sides, use of WhatsApp does have some issues, which can definitely be overcome for the betterment of the farmers in particular, and the nation as a whole.

Abbreviations: IT- Information Technology

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References

- [1] Akar E. (2010) *Eskisehir: Anadolu Universitesi Sosyal Bilimler Dergisi*, 10(1),107-122.
- [2] Awl D. (2010) Facebook me! A guide to socializing, sharing, and promoting on Facebook.
- [3] Farming Solutions And Advice On WhatsApp Group Gives Farmers In Maharashtra Hope Networked India.
<http://www.networkedindia.com/2015/07/02/farming-solutions-and-advice-on-a-whatsapp-group-gives-farmers-in-maharashtra-hope/>. accessed on 9 Feb. 2016.
- [4] <http://techcrunch.com/2014/02/19/facebook-whatsapp/> accessed on 11 Feb, 2016.
- [5] Joe Prathap P.M., Ajith Jubilson E., Dhanavanthini P., Rajkumar S., Shibu J. and Vinil Dani W. (20). *International Journal of Electrical & Computer Sciences IJECS-IJENS*, pp: 14(04). 17-24.
- [6] Kamani K.C. and Makwana A.K. (2015) *International Journal Computer Sci. Engg.*, 5(2):113-118
- [7] Kamani K.C. (2015) Use of ICT to provide pure, safe and Nutritious Milk to Consumers. IDA National Seminar. pp 124-128.
- [8] Kamani K.C. and Kathiriya D.R. (2013) *CSI Communication.*, 37 (7). pp 15-17.
- [9] Mogha K.V., Kamani K.C. and Chaudhari A.R. (2013) Instant Messengers: The New Face of Dairy Industry. National Seminar on "Indian Dairy Industry – Opportunities and Challenges."
- [10] Qualman Eric (2012). Over 50% of the World's Population is Under 30 – Social Media on the Rise. <http://www.socialnomics.net/2010/04/13/over-50-of-the-worlds-population-is-under-30-social-media-on-the-rise/>. Accessed January 4, 2013.