

Original Research Article

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## Constraints in Using Internet and Social Media as Perceived by Farmers in Bhilwara District of Rajasthan, India

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### ABSTRACT

There are always a wide range of opinions about internet and social media and how useful or harmful, it can be. As a marketer, I can say for certain that used in the right way, it can be a very powerful communication tool and an unsurpassed platform for engagement. There's a lot to learn about internet and social media, and a huge variety of social media that you could employ, but this article will give you a strong start on knowing what's out there and how it can help you. Information is critical in agricultural development because it is a tool for communication between stakeholders and serves as a channel for assessing trends and shaping decisions (Kalusopa, 2005). Farming requires information and technical expertise hence the need for extension services however, due to various factors extension services are not readily available to all farmers. A consensus exists that extension services, if functioning effectively, improve agricultural productivity by providing farmers with information that helps them to optimize their use of limited resources (Muyanga and Jayne, 2006). Globalization and technological change processes that have accelerated in tandem over the past years have created a new global economy powered by technology, fueled by information and driven by knowledge. Agriculture sector is also witnessing radical changes and challenges at national and global level. The slow growth observed in the agriculture sector is causing concerns for the future food and nutritional security of the country. The number of clients who need to be covered by extension services is large, and the cost of reaching them is high. Adding to this challenge, farmers' information needs vary even within a given geographical area because of variations in soil, elevation, microclimate, and farmers' means enterprises and capabilities.

#### Keywords

Farmers, Internet,  
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## Introduction

There are always a wide range of opinions about internet and social media and how useful or harmful, it can be. As a marketer, I can say for certain that used in the right way, it can be a very powerful communication tool and an unsurpassed platform for engagement. There's a lot to learn about internet and social media, and a huge variety of social media that you could employ, but this article will give you a strong start on knowing what's out there and how it can help you. Information is critical in agricultural development because it is a tool for communication between stakeholders and serves as a channel for assessing trends and shaping decisions (Kalusopa, 2005). Farming requires information and technical expertise hence the need for extension services however, due to various factors extension services are not readily available to all farmers. A consensus exists that extension services, if functioning effectively, improve agricultural productivity by providing farmers with information that helps them to optimize their use of limited resources (Muyanga and Jayne, 2006).

Globalization and technological change processes that have accelerated in tandem over the past years have created a new global economy powered by technology, fueled by information and driven by knowledge. Agriculture sector is also witnessing radical changes and challenges at national and global level. The slow growth observed in the agriculture sector is causing concerns for the future food and nutritional security of the country. The number of clients who need to be covered by extension services is large, and the cost of reaching them is high. Adding to this challenge, farmers' information needs vary even within a given geographical area because of variations in soil, elevation, microclimate, and farmers' means enterprises and capabilities.

The goals of agricultural extension includes transferring information from the global knowledge base and from local research to farmers, enabling them to clarify their own goals and possibilities, educating them on how to make better decisions, and stimulating desirable agricultural development (Van den Ban and Hawkins, 1996). Investments in extension services have the potential to improve agricultural productivity and increase farmers' incomes, especially in developing economies, where more than 90.00 per cent of the world's nearly 1 million extension personnel are located. Yet the impact of extension on farm performance is varied, reflecting differences in how extension services are delivered and in the circumstances of service recipients. Estimates indicated that 60.00 per cent of farmers do not access any source of information for advanced agricultural technologies resulting in huge adoption gap (NSSO, 2005).

The emerging challenges and opportunities call for a paradigm shift in the innovation driven agricultural research system to connect inventions with all the stakeholders in the entire food supply chain. Social media and internet are embracing almost all the sectors of life. In agriculture there is a need to reach each and every farmer and provide them the updated information. Communities of social media are open networks where everyone (i.e. clients, users, members) has an opportunity to contribute their ideas and to support mass innovation with one-to-one, one-to-many, and many-to-many interactions (Ashley *et al.*, 2009). Despite the increasing penetration and influence of internet and social media, farmers abstain from using it due to various constraints. So keeping these points in mind the study was mainly focused to reveal the constraints associated with use of internet and social media by the farmers of Bhilwara district.

## Materials and Methods

### Description of study area

The study was conducted in Bhilwara district of Rajasthan. This district also called Textile City or Manchester of India. The Bhilwara district is situated in the South Eastern part of state of Rajasthan between 25.1 & 25.58° N Latitude and 74.1 & 75.28° East Longitude at about 380 m above mean sea level. There is no perennial river in the district. The total human population of the district is 24.08 lacs (2011) with population density of 192 persons per km<sup>2</sup>. Administratively there are 8 subdivisions, 12 tehsils, 11 panchayat samities, 380 gram panchayat and 1780 habitat villages in the district. There are three agricultural subdivision located at Bhilwara, Kotri and Gulabpura. The literacy rate of 62.71%.

The climate of Bhilwara district is mild with moderate dry summers and cold winters. Average annual rainfall of the district is 699 mm, most of which is received in the monsoon months i.e. in July and August. There is a great variation in quantity of rainfall in different parts of the district. The mean daily maximum and minimum temperature during May and June ranges between 35.3°C to 43.0°C and 23.9° C to 26.7° C respectively. January is coldest month of the year with mean daily maximum and minimum temperature range of 21.7 to 25.3 and 3.1 to 6.7°C respectively.

The total geographical area of the district is 10.51 lac ha out of which 1.14 lac ha i.e. 10.88 percent is uncultivated area. The gross cultivated area of the district is 5.09 lac ha with net sown area is 3.51 lac ha i.e. 33.52% of total geographical area. The size of the operational holding is small. Main sources of irrigation are wells and tanks with total irrigated area of 1.7 lac ha with river and tank

belt. The major crops grown during *kharif* season are maize, sorghum, greengram, groundnut, sesame and cotton, while wheat, barley, gram, mustard are principal crops grown in *rabi* season. The area under fruit trees is negligible and vegetable cultivation is also limited in very small area.

### Sampling technique

The distribution of the social media users in the district is unknown whosoever come in contact with KVK and other agricultural departments were selected (most of the contacts were gathered from the institutes). The list of names was gathered from KVK, other agricultural departments located in Bhilwara and sampled randomly. A total of 60 farm households constituted the sample size. A structured, pre-tested semi-structured interview schedule was developed for collecting data from the respondents according to the objective of the study. Data were collected from the respondents by conducting personal interview method. Statistical tools like frequency, percentage and weighted mean score were used for analysis of the data.

### Results and Discussion

In the context to the constraints faced by the farmers, it was observed from the Table 1 that inadequate service from the network providers (21.33) was the foremost constraint in using the social media. This was due improper network coverage and inadequate speed services. Difficulty to find relevant information (18) was the second most serious constraint. The reason for this was due to large number of sources. Inadequate technical knowledge and skill of using internet and social media tools (16.67) was the third constraint as the majority of farmers were not trained on how to use particular tool.

Unsuitable and incomprehensible information (15.40) was a constraint for the farmers as most of the information was in English language and contain lots of technical words. Inadequate response/feedback from the end user (14.86) was one of the constraints. Farmers felt that lack of reciprocal interaction discourages them from using media tools. Inadequacy of tools (11.78) was a constraint for the farmers as they felt that without proper gadgets like smartphones and/or computers/laptops they were unable to access internet and social media tools.

As education, innovativeness, achievement motivation, leadership ability and Cosmopolitaness (Bhatia *et al.*, 2016) of farmers improved, their involvement in using internet and social media for utilizing agricultural information also increased.

The study revealed that a critical analysis of constraints as perceived by farmers in using social media revealed that majority of farmers felt improper service of network provider, difficulty to find relevant information, inadequate skill in using tools, unsuitable and incomprehensible information etc. were the constraints as perceived by the farmers. In the light of farmers moving away from agriculture there is a need to attract and retain them in agriculture sector. In this context internet and social media forms good media tools and there is a need to address the issues with respect to the use of internet and social media. It is an important obligation on the part of extension system (both public and private) to collaborate services of Telecom regulatory authority of India (TRAI) and ICT service providers to continue giving support mechanisms to internet and social media user-farmers.

**Table.1** Constraints faced by the farmers in using internet and social media (N=60)

Category	Most serious	Serious	Least serious	WMS
Inadequate service (network coverage, speed)	32 (53.33)	10 (16.67)	18 (30.00)	21.33
Difficulty to find relevant information (due to large number of sources)	18 (30.00)	26 (43.33)	16 (26.67)	18.00
Inadequate technical knowledge and skill	12 (20.00)	34 (56.67)	14(23.33)	16.67
Unsuitable and incomprehensible information	24 (40.00)	18 (30.00)	18 (30.00)	15.40
Inadequate response	13 (21.66)	25 (41.67)	22 (36.67)	14.86
Inadequacy of tools (smart phones, laptops)	14 (23.33)	26 (43.34)	20 (33.33)	11.78

Figures in the parenthesis indicate per cent WMS – Weighted mean score

**Table.2** Correlation Coefficient (r) and t-values of variables of constraints faced by the farmers in using internet and social media (N=60)

Variables	(r)	t- value
Age	0.021NS	0.231
Gender	-0.043NS	-0.490
Caste	-0.118NS	-1.290
Education	0.210**	2.782
Family size	0.005NS	0.062
Family type	-0.032NS	0.428
Innovativeness	0.323**	3.318
Achievement motivation	0.218*	2.400
Leadership Ability	0.261**	2.676
Cosmopolitaness	0.235**	2.743

NS= Non-significant

\*Significant at 5 % level of significance

t- value at 0.05 level of significance (df =118) = 1.9803

t -value at 0.01 level of significance (df =118) = 2.6181

\*\*Significant at 1 % level of significance and 5% level of significance



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