



ISSN (E): 2277-7695  
ISSN (P): 2349-8242  
NAAS Rating: 5.23  
TPI 2022; 11(12): 4957-4961  
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[www.thepharmajournal.com](http://www.thepharmajournal.com)  
Received: 15-09-2022  
Accepted: 22-10-2022

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## Constraints faced by orange growers in use of social media

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### Abstract

Regardless of increasing penetration of social media, orange growers were facing difficulties while using it and some avoid using it because of diverse constraints. Taking into consideration, the research objective was formulated to study the constraints faced by orange growers in use of social media. The present study was conducted in Amravati and Nagpur districts of Maharashtra state where orange is grown on large scale. The ex-post-facto research design of social research was used with 150 social media users and 150 social media non user respondents and analysed by Garret ranking. The findings noted that in case of social media users, majority of them faced major constraints of irregular internet connectivity (78.60) and sometimes content are not need based and irrelevant with the individual needs (71.40) while social media non users faced major constraints were irregular internet connectivity (78.64) followed by complex nature of social media (69.36). The findings revealed that lack of technical assistance by various social media service providers while lack of confidence and faith towards social media in social media non users.

**Keywords:** Social media, constraints, orange growers, farmers, use, internet

### Introduction

Social media are interactive computer-mediated technologies that facilitate the creation or sharing of information, ideas, career interests and other forms of expression via virtual communities and networks. Recent developments in the mobile, computing and networking technologies provide new ways of technology transfer have been used for disseminating agricultural information on larger proportion since last few years. With the abilities of reaching large number of people individually and simultaneously, Social media are assuming a greater role in the extension work. The number of social media users in India are 450 million as in 2020. WhatsApp is the most used social media with 53 crore active users followed by YouTube (448 million) and Facebook (41 million). Instagram, Twitter and Telegram have 21 million, 4 million and 1.75 million active users respectively (Digital 2020) [4]. All these statistics prove the huge potential that social media can be for extension practitioners to reach out to the people. India is a huge market for social media that is constantly expanding into the rural areas and that improves the scope of reaching not only the farmers but the farm families and youth altogether for higher impact.

The daily life of people are restructuring due to internet based services, instead of dividing them into on-line and offline experience. Rural people are using social media for connecting with friends and family, reading current news, to get information from peers. Connecting that to agriculture and leveraging it to bridge the farmer-extension gap can prove to be a boon to the agriculture sector and the farm families. Focusing on specific platforms based on clients' preferences and engage them continuously rather than engaging in a number of platforms but failing to engage properly. Keeping holistic view in mind while sharing information rather than focusing on single enterprise as most smallholders have multiple enterprises on their farm. Tagging individual clients to whom the information might be specifically useful and share for all so that the intended audience receives it personally while others can also be benefited.

The citrus yield is projected to be 20.59 million tons with productivity of 15-16 tons/ ha by 2050 (Ladaniya, 2015) [8]. Accordingly, the per capita availability of citrus fruit will be 12.65 kg. But citrus cultivation in India is plagued with various problems due to limiting growing conditions, limiting water resources and high incidence of pests and diseases warranting great care from planting till the plants come to bearing in order to sustain a productive life of a minimum of 15-20 years.

There is growing interest and awareness among the citrus growers for adoption of latest technologies for commercial cultivation of citrus. Amravati and Nagpur district contributes about 84 percent of total area under orange orchards in Maharashtra state.

The present study focused on constraints faced by orange growers while deriving benefits from social media services. There is huge scope to improve knowledge and adoption about improved orange cultivation practices, quality production and self confidence in orange growers about modern marketing channels and innovative farming practices directly or indirectly through social media. The effective and fruitful social media services leads to overall development of targeted respondents. The successful implementation of social media depends on satisfaction of intended group henceforth the study was conducted with objective to study constraints faced by orange growers in use of social media.

### Materials and Methods

An ex-post-facto research design of social research was used for present study. The present research investigation was carried out in Amravati and Nagpur districts of Vidarbha region of Maharashtra state. In the present study, 75 social media user and 75 social media non user orange growers were selected from each district. Thus, for the proposed study 150 orange growers from Amravati district and 150 orange growers from Nagpur district were selected. Total 300 orange

growers were selected purposively by simple random sampling method from 30 villages of six selected talukas namely; Warud, Morshi and Achalpur from Amravati district and Katol, Kalmeshwar and Narkhed from Nagpur district on the basis of maximum area under orange cultivation. The data were collected by personally interviewing the purposively selected respondents with the help of structured interview schedule. Interview for data collection with the help of interview schedule was generally conducted at the orange grower's farm and occasionally also at their houses when they were free to talk with researcher. For ascertaining the constraints, respondents were asked to respond by ranking the each constraint as per their severity from I<sup>st</sup> to IX<sup>th</sup> ranks from most severe to least severe in case of social media user and I<sup>st</sup> to VIII<sup>th</sup> ranks in case of social media non user respondents. The data were filled in excel and Garret ranking method was used for data analysis.

### Result and Discussion

The constraints are the set of conditions or cause which prohibit or restraint the performance of an individual. Constraints play crucial role in adoption of technology. The constraints were calculated by applying "Garrett's ranking" method to study the performance of constraints into numerical scores. The besides frequency distribution, constraints are arranged based on their severity from the point of view of the respondents.

**Table 1:** Distribution of the social media user orange growers according to constraints

Sl. No.	Constraints	Respondents (n=150) Total mean of Garret score	Ranks
<b>A)</b>	<b>Technical constraints</b>		
1	Very few social media services are available in agriculture	57.32	IV
2	Sometimes content are not need based and irrelevant with the individual needs	71.40	II
<b>B)</b>	<b>Infrastructural constraints</b>		
3	Irregular internet connectivity	78.60	I
<b>C)</b>	<b>Psychological constraints</b>		
4	Due to engagement in farm operations there is very less time to use social media	45.50	VI
5	Authenticity of agricultural information shared through social media is less due to unavailability of professionals	60.68	III
<b>D)</b>	<b>Others</b>		
6	High cost of social media services	23.24	IX
7	Practical applicability and customization of messages received through social media is less	38.46	VII
8	Diversion of mind and consumption of more time on unwanted things	49.50	V
9	Irregular electric supply at rural area	26.09	VIII

To secure better result of any extension service it is very essential to cut back on the constraints. Satisfaction of the intended respondents is more important. Therefore, it is important to study difficulties faced by respondents while deriving benefits from available social media for agriculture purpose.

In present study, constraints faced by social media user orange growers while using social media and deriving advantages from it were grouped into four categories namely; technical constraints, infrastructural constraints, psychological constraints and others and has been depicted in Table 1.

The bird eye view at Table 1 has been estimated that, the constraints are presented in four sections and ranks were assigned according to the highest "Garret value" for each constraint. These are discussed here.

It has been revealed from Table 1 that, most important and severe constraint as considered by great majority of the

respondents was irregular internet connectivity with Garret value 78.60 and given I<sup>st</sup> rank followed by constraints in decreasing order of ranking were sometimes contents are not need based and irrelevant with the individual needs (71.40), authenticity of agricultural information shared through social media is less due to unavailability of professionals (60.68), very few social media services are available in agriculture (57.32), diversion of mind and consumption of more time on unwanted things (49.50), due to engagement in farm operations there is very less time to use social media (45.50), practical applicability and customization of messages received through social media is less (38.46), irregular electric supply at rural area (26.09) and high cost of social media services with Garret values 23.24 having II<sup>nd</sup>, III<sup>rd</sup>, IV<sup>th</sup>, V<sup>th</sup>, VI<sup>th</sup>, VII<sup>th</sup>, VIII<sup>th</sup> and IX<sup>th</sup> ranks, respectively. So the major constraints faced by social media user orange growers were, irregular internet connectivity, sometimes contents of social media

were not need based they are also irrelevant, authentication of information shared on social media is less and very few social media services are available in agriculture, respectively.

**Very few social media services are available in agriculture:** This may be due to the fact that still most of the rural villages were without sufficient infrastructural facilities and strong network connectivity as a consequence of which the social media services had not reached the each and every rural community. So there is need to introduce newly updated and need based social media services for practical application in orange cultivation and make respondents aware about available social media tools for agriculture and orange cultivation in specific.

**Sometimes content are not need based and irrelevant with the individual needs:** Due to large number of sources and number of beneficiaries connected to particular social media respondents faced the constraint of irrelevant posts shared on different social media groups particularly on WhatsApp groups of farmers due to which farmers interest may be hindered in using social media and ranked as second most serious constraint.

**Irregular internet connectivity:** Internet usage in least developed country is less, compared with the developed and developing countries due to major infrastructural constraint of lack of power supplies in rural and urban areas, cell towers and broadband spectrum, also the bounded use of smartphones. So there is restriction in reach and advantage of regular internet connectivity for using social media.

**Due to engagement in farm operations there is very less time to use social media:** As the majority of the orange growers were engaged in orange cultivation practices, farming operations and allied occupations. Also they had participation in some social organizations and particular farm operations need to be completed on accurate time so respondents got less time to use social media for accessing agricultural information on right time.

**Authenticity of agricultural information shared through social media is less due to unavailability of professionals:** Presence of local social media groups without technical assistance for sharing information and inadequate response from end users respondents experienced lack of communication and getting proper solutions on their queries which can be trusted and applied on trial basis in the field.

**High cost of social media services:** Social media has become a resourceful platform to fetch information despite of qualification difference. As the most preferred form by the respondents, audio-visual and pictorial like multimedia features of the social media consumes more data than text messages. Concurrently orange growers faced challenges like high data price and extra charges of particular social media services which don't apt into orange grower's budget. As there was no fruitful supportive policy from the government to encourage social media based agricultural learning it was expressed as a constraint. Possession and daily use of social media tools and services involved financial burden on the part of the respondent hence, it was viewed as a constraint by respondents.

**Table 2:** Distribution of the social media non user orange growers according to constraints

SI. No.	Constraints	Respondents (n=150) Total mean of Garret score	Rank
<b>A)</b>	<b>Technical constraints</b>		
1	Complex nature of social media	69.36	II
2	Language barrier to use social media	36.38	VI
<b>B)</b>	<b>Cultural constraints</b>		
3	No faith in social media information due to traditional belief in existing system	59.20	III
<b>C)</b>	<b>Infrastructural constraints</b>		
4	Irregular internet connectivity	78.64	I
<b>D)</b>	<b>Psychological constraints</b>		
5	Lack of time to utilize the social media	46.34	V
6	Shortage of expertise to use the social media	53.79	IV
<b>E)</b>	<b>Others</b>		
7	High cost of social media services	24.34	VII
8	Irregular electric supply at rural area	23.86	VIII

**Practical applicability and customization of messages received through social media is less:** Sometimes technological messages delivered through social media are unrealistic and not practically applicable by orange growers due to certain financial factors and unsuitability to that geographical condition. Social media services are designed in general to furnish the needs of large group of people over a specified geographical region while for a individual orange grower, whose conditions or necessities may depend on the micro climatic factors of his/her particular region as outcome it was experienced as a constraint by the respondents.

**Diversion of mind and consumption of more time on unwanted things:** Due to unnecessary post shared on social media while accessing on it for agriculture purpose and

attractive nature due to multimedia features of social media mind gets diverted towards unwanted things and consumes time was experienced as a fifth most serious constraint by the respondents.

**Irregular electric supply at rural area:** Proper physical infrastructural facility is basic requirement for getting better access and use of social media services in practical farm operations. Interrupted powers supply is one of the major limitations in reach and advantage of network connection while using social media.

In case of social media non user orange growers, it is apparent From Table 2 that, majority of the respondents had given 1<sup>st</sup> rank as a major constraint was irregular internet connectivity with Garret value 78.64 followed by complex nature of social

media (69.36) and no faith in social media information due to traditional belief in existing system (59.20) obtained II<sup>nd</sup> and III<sup>rd</sup> ranks respectively.

Shortage of expertise to use the social media (53.79), lack of time to utilize the social media (46.34), language barrier to use social media (36.38), high cost of social media services (24.34) and irregular electric supply at rural area with Garret values 23.86 secured IV<sup>th</sup>, V<sup>th</sup>, VI<sup>th</sup>, VII<sup>th</sup> and VIII<sup>th</sup> ranks, respectively. From the above findings it can be concluded infrastructural constraint was the hindering constraints faced by orange growers in use of social media.

**Complex nature of social media:** Social media handling requires basic understanding and minimum knowledge of ongoing updates of social media services for agriculture which make these tools a little complex as a outcome majority of social media non user respondents show less preference to use social media as they were not much self confident, unaware about technical knowhow to use available social media for agriculture purpose and less educated as compared to social media user respondents due to which they were not familiar with social media utilization this might be probable reason behind the constraint that respondents felt that the social media was complex in nature.

**Language barrier to use social media:** Generally preference of information provided through social media is in English language and contains lot of technical words which are not understandable as a respondent's literacy level is low as compared to social media user respondents and they are more comfortable with their mother tongue hence reported as sixth most serious constraints faced by the respondents.

**No faith in social media information due to traditional belief in existing system:** Social and cultural background of respondents denied to somewhat extent from accepting social media for sourcing agricultural information and e-marketing and carried farm operations and related activities traditionally which creates obstacle in trusting and practically utilizing the social media for agricultural purpose.

**Lack of time to utilize the social media:** As the respondents were busy in carrying the farm operations in their traditional way with engaging their time in their other daily routine works and not much interested to use social media for accessing agricultural information for orange cultivation and others this might be presumed reason behind the this psychological constraint.

**Shortage of expertise to use the social media:** As social media is relatively newer concept to the people on the globe. Online presence of old generation is still very less in comparison with young beside they prefer to abstain use of social media because of their low level of skills and proficiency in using social media.

The findings were supported by findings of Rajni Jain (2012)<sup>[9]</sup>, Saravanan (2013)<sup>[10]</sup>, Khondokar (2015)<sup>[7]</sup> Sonal Gupta (2015)<sup>[11]</sup>, Jijina and Raju (2016)<sup>[5]</sup> Bite (2017)<sup>[3]</sup>, Khou and Kishore (2018)<sup>[1]</sup>, Jiriko *et al.* (2020)<sup>[6]</sup> and Bhagyashri Keshwani *et al.* (2022)<sup>[2]</sup>

## Conclusion

From the findings of technical, cultural, infrastructural,

psychological and other constraints it is concluded that, respondents were highly constrained by infrastructural, technical and psychological constraints factors. Unavailability of technical specification in social media services, lack of record keeping and availing the feedback facilities of online programmes while organizing and conducting online programmes/workshops or provision of services through social media in the study area caused distractions to respondents in deriving cent per cent benefits from social media services. It highlights the need for provision of regular infrastructural facilities by authorities at all levels for full implementation and use of social media services. Free Wi-Fi with safety and strong connectivity in public places specially in rural areas by government can be helpful in accessing social media. Even though the orange growers were quite satisfied with the social media services but we need to wait long as we want to proven results for sustainable development of orange growers by taking needful action on minimization of these constraints by the authorities. The study recommends that the orange growers should be motivated and made aware to use social media for assessing information about orange cultivation and agricultural practices in order to adopt better and modified farm management practices to earn maximum returns with quality production and thereby increasing socio-economic status of orange growers.

## Acknowledgment

The authors acknowledge Department of Extension education, Dr. Panjabrao Krishi Vidyapeeth, Akola for carrying out the research. Authors are thankful to District Superintendent Agriculture Officers, Amravati and Nagpur, Taluka Agriculture officers, Warud, Morshi, Achalpur, Katol, Kalmeshwar and Narkhed and the all 300 orange growers for their co-operation during data collection and Mahatma Jyoyiba Phule Research & Training Institute, Nagpur for their financial support provided through "MAHAJYOTI Fellowship, Government of Maharashtra, for Other Backward Classes" for the period of this research work to first author.

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