

OPINION LEADERS' ROLE IN STRENGTHENING AGRICULTURE EXTENSION IN INDIA

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ABSTRACT

The kinetics of mechanisms involved in the diffusion of innovations has led to the conceptual framework of diffusion studies as we see of now. The concept of opinion leaders and innovativeness and how their influence can drastically bring about changes within a social contagion has been widely studied throughout many fields, but it has been still under-utilised in agricultural sector. For this reason, a study was conducted in the Punjab state of India, where 3 villages were selected through multi-stage sampling. All the farmers in these 3 villages constituted the sampling frame totaling to 214 farmers. A sociometric survey was conducted in order to identify the opinion leaders within the 3 villages. The specific characteristics of opinion leaders like cosmopolitanism, information seeking behaviour and higher Socio-economic characteristics were identified and they were compared with that of the followers. Both the opinion leader's Socio-economic characteristics and their sources of information differed significantly whereas the exposure to mass media channels were found to be similar, thanks to the advancements in ICT. Specific traits such as opinion leadership, personality strength scale and influence were found to be high among majority of the opinion leaders. While the adoptive behaviour of the opinion leader seems to categorise majority of them into medium category, indicating to their innovativeness as early adopters rather than innovators.

Keywords: Opinion leaders, Sociometric Analysis, Information dissemination

INTRODUCTION

The transition of Indian agriculture from subsistence to production oriented has been an undeniable phenomenon. Even though our research sector has produced numerous advances in agricultural production and crop security, Indian farmers continue to confront a slew of issues. One of the primary reasons for this is that agricultural information is not distributed to rural communities in a timely manner. (Reddy *et al.*, 2005) This can only be accomplished with an effective communication strategy that reaches the farmers. Mobile phones are considered crucial in enhancing farmers' access to better understand agricultural information (Ravi, 2020). But more often the information that is conveyed by scientists and other extension personnel may not be accepted by the villagers especially in case of villages with high level of ethnic fragmentation. (Barnes *et al.*, 2016). Millions of our country's uneducated and even literate farmers frequently seek the counsel of society's leaders before implementing any innovation. The majority of them respect the views of these influentials as well as imitate them while adopting a technology over professional advice (Parau *et al.*, 2017). There is limited flow of information about the latest agricultural technologies due to lack of extension agents

also (Vinaya *et al.* 2018). In such cases, a change agency's involvement in technology distribution is frequently limited. Thus, through boosting interpersonal connection among farmers, the change agency's accomplishments may be significantly increased, eventually leading to a higher rate of innovation dissemination. (Newman, 1981)

Members of a social system can be categorized into five groups based on how early they accept a particular technology: innovators, early adopters, early majority, late majority, and laggards (Rogers 2003). Opinion leadership refers to the ability of the leader to influence the farmers to take up the innovation or persuade them to change their ways (Ratre *et al.*, 2021). It is frequently observed that societal opinion leaders come into the group of early adopters and do not always need to be innovators. In many situations, change agents fail to identify opinion leaders and employ tactics to persuade them, resulting in a reduced percentage of technical innovation adoption. It should be emphasized that opinion leaders may be found at all levels; however, higher degrees of technical skill, social and physical accessibility, and homophily or heterophily generally distinguish opinion leaders from followers. While it is true that innovators are frequently the first to adopt a technology, they may not

receive the same amount of acceptability or recognition as opinion leaders since these leaders carefully adhere to societal conventions and beliefs. Using typical characteristics of opinion leaders that have been generalised by several studies, one can find people who fall into the categories to identify opinion leaders in society. (Bhandari *et al* 2003). Valente and Davis (1999) established a set of techniques that allow researchers to study a social system in order to find opinion leaders or important actors, as well as their relationships within the network. To identify opinion leaders, the sociometric technique is the most commonly utilised data gathering method. Sociometric analysis is carried out by asking respondents questions about who they believe to be a leader. Sociometric technique, interviews, observations, and observation method are normally used to identify the opinion leaders in social contagions. The leaders with the most nominations are chosen as opinion leaders. Another popular approach for identifying opinion leaders is the Informants' Rating Method, which collects data from the most influential people in a society. Snowball sampling is more successful in gathering information from hidden populations or specialised fields. If the members of some groups are frequently limited and concealed, then snowball sampling aids in their identification (Faugier and Sargeant 1997). Another commonly used approach is the self-designation method, in which respondents assess themselves based on how much they perceive themselves to be leaders (Kim, 2007).

Nonetheless, the conceptual framework of diffusion studies emerged at a period when mass media channels and social media impacts were minimal to non-existent. How much of this gap has been bridged in this age of information overload and digital literacy? Is opinion leadership still a viable approach for promoting purposeful dispersion and multiplying the efforts of change agents? Keeping all these

RESULTS AND DISCUSSION

Sociometric survey

Table 1: Distribution of respondents according to the number of nominations received on opinion leadership

(n=214)

Sr. No	Categories	Village 1	Village 2	Village 3	Total
		(n ₁ =69)	(n ₂ =74)	(n ₃ =71)	(n=214)
		f (%)	f (%)	f (%)	f (%)
1	(15-22)	2 (2.89)	3 (4.05)	4 (5.63)	9 (4.2)
2	(8-15)	5 (7.24)	4 (5.4)	7 (9.85)	16 (7.47)
3	(1-8)	32 (46.37)	40 (54.5)	35 (49.29)	107 (50)
4	No nominations	30 (43.47)	27 (36.48)	26 (36.61)	83 (38.78)

issues in mind, a study was conducted with the following

OBJECTIVES

- (1) To identify the opinion leaders in the study area
- (2) To study the difference in Socio-economic status between farmers and opinion leaders
- (3) To identify the specific characteristics of opinion leaders in dissemination of information

METHODOLOGY

The present study was conducted in the Ludhiana district of Punjab through multi-stage sampling. All the blocks within the Ludhiana district were taken up and out of these, one block was randomly selected for this study, i.e., Sidhwan bet. The list of all villages comprising of families less than 100 were prepared. From the list of these villages, three villages were randomly selected for the study. All the farmers within the three villages were selected for the study making a total sample size of 214 farmers. In order to identify the opinion leaders within the communities, a sociometric survey was used. A semi structured interview was used to collect data. The respondents were asked to give 3 nominations whom which they perceive to be the leaders. Furthermore, the were asked to give nominations about farmers whom they find knowledgeable as well as approachable. A matrix was constructed with the obtained information and the data was represented as dichotomous variable. Based on the maximum number of nominations received, the opinion leaders were selected. The socio-economic characteristics of the opinion leaders were compared against the farmers in order to identify how much they differ from other farmers within the community. The characteristics of the opinion leaders were studied under different parameters such as opinion leadership scale, influence behaviour, adoptive behaviour etc.

Although there are number of methods to identify the opinion leaders, sociometric survey method was used to identify the opinion leaders as it is the most popular method due to its democratic nature. Each of the farmer was given three choices for selection of the farmer whom he considers as the opinion leader. The results were tallied and the five farmers who received the maximum number of nominations were selected as the opinion leader. The data from the Table

1 shows that half of the farmers (50%) received one to eight nominations followed by 39 per cent of the farmers who did not receive any nomination. The opinion leaders were selected from the first and second column as they were the farmers who received maximum number of nominations. Only 4.2 per cent of the farmers received 15-22 nominations and 7.47 per cent of the farmers received 8-15 nominations.

Table 2: Distribution of opinion leaders according to their knowledge, approachability or both as perceived by the farmers (n=214)

Sr. No.	Categories	Village 1	Village 2	Village 3	Total
		(n ₁ =69)	(n ₂ =74)	(n ₃ =71)	(n=214)
		f (%)	f (%)	f (%)	f (%)
(a)	Knowledgeable	69 (100)	73 (98.64)	71 (98.61)	213 (99.5)
(b)	Approachable	65 (94.20)	68 (91.89)	68 (95.77)	201 (93.92)
(c)	Both	63 (91.3)	68 (91.89)	63 (88.73)	194 (90.65)

Rogers (2003) emphasized that the opinion leaders need not always be the ones who are knowledgeable within the community, even if they are highly knowledgeable if the farmers find them to be unapproachable, then the farmers will turn to other farmers who are perceived to be easily approachable. To test out this theory, we asked the farmers whether they find these opinion leaders to be knowledgeable or approachable. Table 2 specifies the perception of the farmers about the characteristics of the opinion leader. Almost all (99.5%) of the farmers considered the opinion leaders to be knowledgeable about the agricultural practices. While only 93.92 per cent of the farmers considered them to be approachable in nature. The reason being that these leaders always tend to be engaged in social as well as political activities making them unable to give proper attention towards these followers. In case of being both knowledgeable and approachable, only 90.65 per cent of the farmers consider the opinion leaders to have both of these qualities. It is evident that from these three traits, the knowledge level of these leaders seem to be the most important factor as even if the opinion leader is difficult to approach, farmers tend to consider them as opinion leader as their knowledge level is high.

Another trait that needed investigation was the relationship between farmers and opinion leaders. Are the rural farmers considering their close friends and relatives while seeking out information or are these opinion leaders just fellow villagers whom they consider as knowledgeable? Table 3 reflects the relationship of the farmers with the selected five opinion leaders. Majority of the farmers had not

nominated the opinion leaders who were selected based on sociometric survey. Among the ones who had nominated at least one of five opinion leaders, a little less than one-fourth (24.14%) of the farmers considered these leaders as their fellow villagers only. Around seven per cent of the farmers had chosen their friends while five per cent had chosen their relatives. These findings are in line with the results of Williams (2005) where he also found out that most farmers considered opinion leaders as fellow villagers only. Other than the ease of contact, the physical accessibility is also an important factor which affects the selection of opinion leaders. Physical accessibility in this context refers to the distance of the opinion leader's home from farmer's house. The physical distance of the opinion leader's home from the respondent's house was categorised into three groups of less than one km, one- three km and more than three km respectively. The findings of are represented in Table 3. The most of the farmers (17.6%) had responded that their home was one- three km away from the house of the opinion leader, followed by 9.8 per cent of the respondents whose house was less than one km away from the selected opinion leader's house.

Summarizing, the investigations under sociometric study revealed that majority of the farmers found the opinion leaders to be both knowledgeable and approachable. There need not be any close relationship between the farmer and the leader in order to consider them as opinion leaders. But psychical accessibility was an important aspect while considering the opinion leaders as the leaders who were far away from the farmer's house were not considered by the farmers.

Socio-personal characteristics of opinion leaders and farmers

Another aspect under this investigation was how these opinion leaders differ from the normal farmers within the community. Rogers (1961, 2003) had hypothesised that opinion leaders in a social contagion had higher level of socio-economic status than the regular farmers of the village. Under this investigation, we studied the differences between farmers and opinion leaders in terms of education, land holding and sources of information. The figure 1 compares the educational qualification and land holding size of opinion leaders with the other farmers of the three villages. Within these three villages it was found that almost 42.21 per cent of the farmers had educational qualifications up to matric mean while majority (60%) of the opinion leaders had educational qualification up to higher secondary. Around 13.26 per cent of the the farmers have graduated while 20 per cent of the

opinion leaders have graduate level of education. The trend follows in reverse order in case of lower level of education where regular farmers have more percentage share in these categories. Similar to the findings of Tsmiiri et al (2015) and Purnima et al. (2023), it is quite evident from the data that the educational qualifications of the opinion leaders are in fact higher than that of the regular farmers. Similarly, majority (66.66%) of the opinion leaders had large operational land holding compared to other farmers where most of them (37.68%) of them had small operational land holding. It can also be noted that only 11 per cent of the farmers had a medium level of operational land holding while 26.66 per cent of the opinion leaders had medium of level of land holding. It is also evident that among opinion leaders no one had marginal and small operational land holding while 13 and 38 per cent of the regular farmers fit into the marginal and small categories respectively.

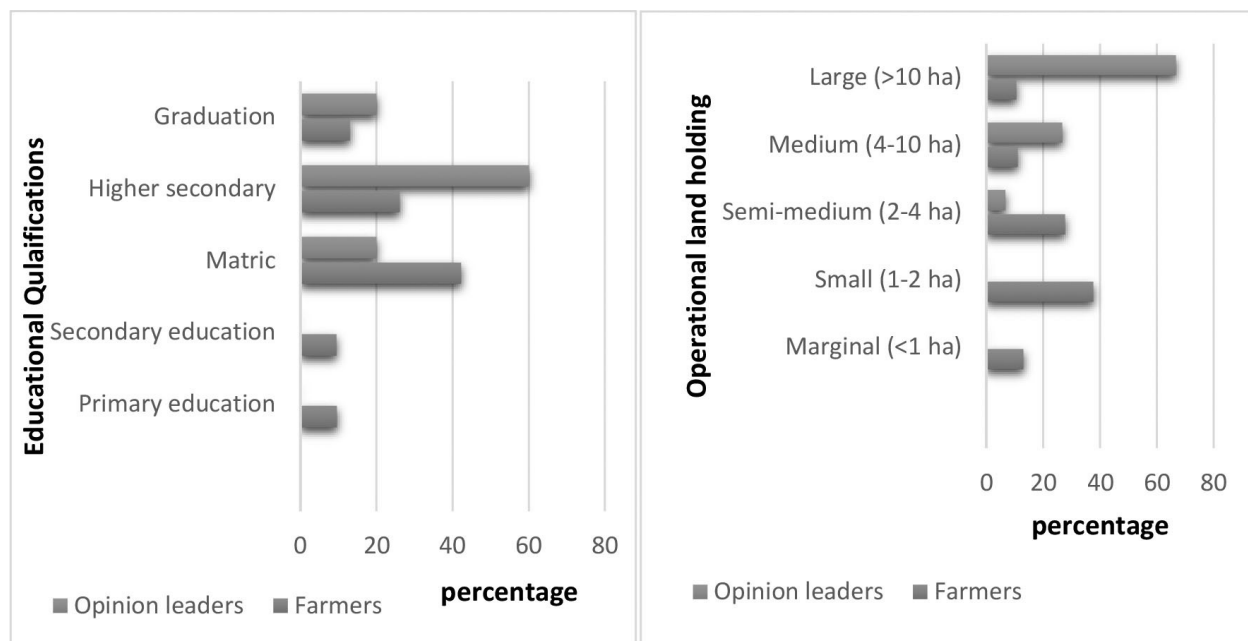


Fig. 1: Comparison of educational qualifications of opinion leaders and farmers

The ranking of information sources by farmers as well as opinion leaders have been calculated using weighted average method (Figure 3). It is quite interesting to see that the first rank among regular farmers was obtained by their fellow farmers itself while the first rank for the most preferred source of information was found to be extension functionaries among opinion leaders. The second, third, fourth and fifth rank among farmers was obtained by input dealers, SAU (State Agricultural University), extension functionaries and social media respectively. In is interesting to note that the

second, third, fourth and fifth rank among opinion leaders was obtained by SAU, fellow farmers, social media and input dealers. Both of them had chosen print media as the least preferred source of information. Here, the data shows a strong degree of difference among the preferred source of information between opinion leaders and farmers. The opinion leaders prefer sources who are not with in the social system while the farmers preferred more localite sources of information.

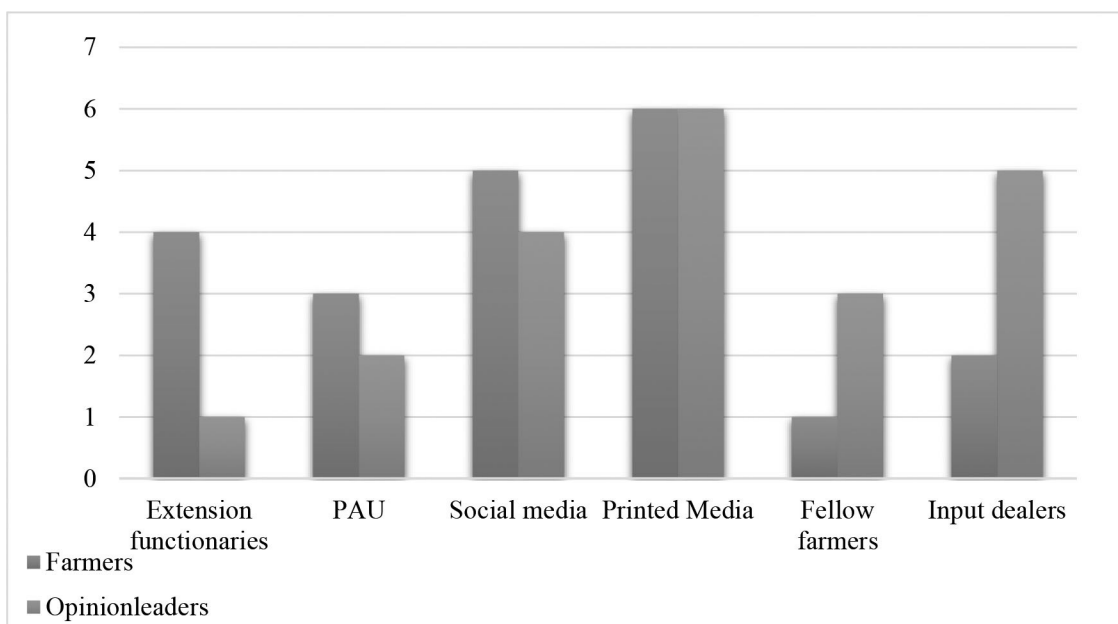


Fig. 2: Ranking of information sources of opinion leaders and farmers

Characteristics of opinion leaders

The specific characteristics of the selected 15 opinion leaders were studied in terms of constructs like opinion leadership scale, personality strength scale, adoptive behaviour and influence. The opinion leaders were then categorized into low, medium and high groups through standard deviation method. The chief method used to measure this construct of opinion leadership scale is a seven-item, self-report scale first described by Summers (1971) and Childers’s (1986) modified version of this scale has been used here. A little more than half of the opinion leaders had a high level of opinion leadership followed by 26.66 per cent of the leaders having a low level of opinion leadership (Fig 3).

Less than one-third of the farmers belonged to the medium category of opinion leadership. A high level of opinion leadership signifies a high amount of self-confidence that the opinion leader has in himself as a leader among his peers. Different from the opinion leadership scale, which focuses chiefly on the specific advisory function of opinion leaders, the scale ‘Personality Strength’ is intended to record active and influential persons with charisma and general ability to assert themselves. From the data in Fig 3, it was found that 40 per cent of the opinion leaders were having a high level of personality strength followed by one-third having medium level while 26.66 per cent having a low level of personality strength.

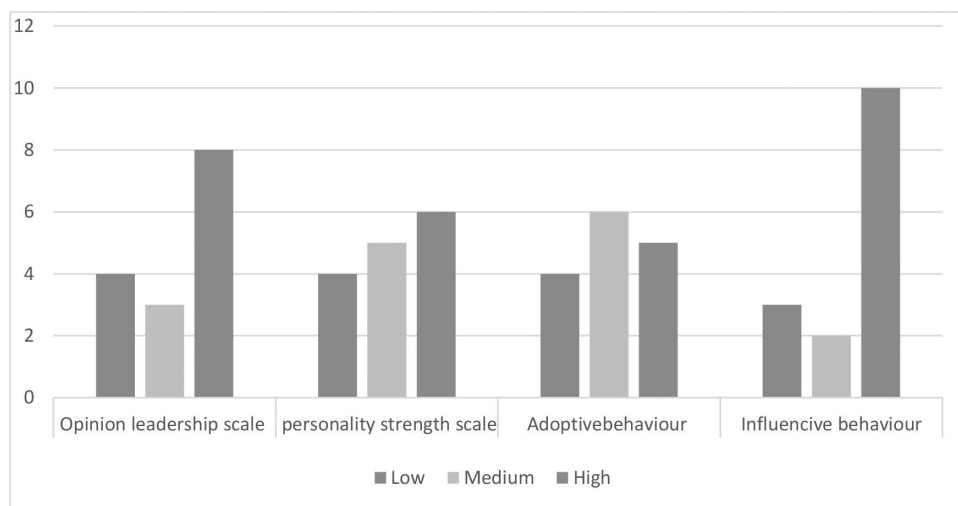


Fig. 3: Classification of opinion leaders based on opinion leadership, personality strength, adoptive behaviour, influencing behaviour

The adoption behaviour measures the responsibility for the initial consumption or application of a new product (Venkatraman,1989, 1990). Two-third of the opinion leaders belonged to the medium level category followed by 20 per cent in the low category and 13.33 per cent in high category. While it may be noted that majority of the opinion leaders are relatively early to take up an innovation, they may not be the first to adopt. They often belong to the early adopters category as they only adopt a technology when its efficiency has been proven. Similar to the findings of Rogers (2003) we can find here that the selected opinion leaders take some time in adopting innovations and hence majority of them (66.66%) falls under medium category. The influence is the degree to which the respondents influence other farmer’s opinions about farming practices and their choice of farming practices. It can be seen that most of the opinion leaders (40%) belong to the category of high level of influence followed by 33.33 per cent of the opinion leaders under medium level. About 27 per cent of the opinion leaders belonged to the category of low level of influence. The high level of influence is an essential quality for opinion leaders as they can motivate their fellow farmers to take up innovations and persuade them to adopt good agricultural practices.

Relationship between Opinion leadership with other variables

Table 4: Correlation of independent variables with leadership of opinion leaders (n=15)

Sr. No.	Characteristics	Correlation Coefficient
X ₁	Age	-0.257
X ₂	Cosmopolitaness	0.640**
X ₃	Personality strength scale	0.501*
X ₄	Adoptive behaviour	0.509*
X ₅	Influence	0.102
X ₆	Land holding	0.247
X ₇	Education	0.726**

* Correlation is significant at the 0.05 level, ** Correlation is significant at the 0.01 level

The table 4 presents the correlation coefficients of various independent variables with the leadership of opinion leaders. Among the characteristics examined, age exhibited a negative correlation, although not statistically significant. Conversely, Cosmopolitaness and education showed strong positive correlations, both significant at the 0.01 level, suggesting that higher levels of cosmopolitaness and education are associated with greater leadership among opinion leaders.

Similarly, personality strength scale and adoptive behavior demonstrated moderate positive correlations, significant at the 0.05 level, implying that individuals with stronger personality traits and more adoptive behavior tend to exhibit higher leadership qualities.

CONCLUSION

The opinion leaders in the selected villages differs from the other farmers in terms of social status as well as information seeking behaviour. The localite sources were the primary source of information for farmers while cosmopolite sources were the major source of information for opinion leaders. The variance in the exposure to cosmopolite channels like social media and print media were insignificant between opinion leaders and farmers. The technological advancements in ICT have led to the bridging of this gap. While selecting an opinion leader, knowledge level seems to be the most important factor as even if the opinion leader is difficult to approach, farmers tend to consider them as opinion leader as their knowledge level is high. Specific traits such as opinion leadership, personality strength scale and influence were found to be high among majority of the opinion leaders. While the adoptive behaviour of the opinion leader seems to categorise majority of them into medium category, indicating to their innovativeness as early adopters rather than innovators. Identification of opinion leaders by various methods should be used to exploit this influence they have on the society to quickly and efficiently disseminate agricultural information. Comprehensive training packages should be frequently organized in which the the soft skills of opinion leaders such as communication skills, leadership skills and managerial skills etc are enhanced. Even within a social system, the opinion leaders may vary in terms of their influential, persuasive, leadership, motivation behaviour etc. The extension functionaries should choose the leaders with such high behavioural strength in order to effectively disseminate the information.

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CONFLICT OF INTEREST

All authors declare that they have no conflict of interest

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