

Perception of Farmers about the Functioning of Raitha Samparka Kendras

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ABSTRACT

The present study was carried out in 12 Raitha Samparka Kendras (RSKs) of Tumakuru district in Karnataka state during 2017-18 to analyse the perception of farmers about the functioning of RSKs. One hundred and twenty farmers who availed the services of RSKs formed the sample of the study. The results revealed that more than three-fourth of the farmers (79.17%) have better to good perception about the functioning of RSKs. Education, scientific orientation, risk orientation and mass media participation of farmers had significant relationship at five per cent level with their perception level about the functioning of RSKs, whereas achievement motivation, management orientation, innovativeness and extension agency contact of farmers had highly significant relationship at one per cent level with their perception level about the functioning of RSKs. Less subsidy to farm machinery and equipment (Rank I), higher prices of agricultural inputs (Rank II), extension personnel do not visit farmers field (Rank III), delay in getting soil test reports (Rank IV), RSKs located far away from the village (Rank V) were the five major problems faced by the farmers in the Raitha Samparka Kendras.

Keywords: Perception, Functioning, Raitha samparka kendras, Problems

RAITHA MITRA YOJANE is a demand driven Agricultural Extension System initiated by the Karnataka Government in the state during 2001, replacing the earlier extension system (Training and Visit system). It is initiated by established agricultural extension centres at hobli levels called as Raitha Samparka Kendras (Agricultural Extension Centres). Till now, 747 Raitha Samparka Kendras (RSKs) are established in Karnataka state at Hobli / Sub-block level in 176 taluks). These RSKs are located in proximity to the farming community aiming to address a wide range of issues related to agriculture. They also act as common platform by creating a terminal linkage to the farmers to access and interact about agriculture based technology and information at the grass root level (Raghuprasad *et al.*, 2012). The main objectives of Raitha Samparka Kendras are : (1) to provide updated information on crop selection, crop production related know-how and market information (2) to facilitate on site provision of critical inputs like seeds, bio-fertilizers, micro-nutrients etc. (3) to provide primary seed and soil testing facilities and (4) to provide a forum for on-farm demonstration about new technologies developed by both public and private sector agencies (raitamitra.kar.nic.in).

Each Raitha Samparka Kendra is headed by an Agricultural Officer (Agricultural Graduate) duly supported by Assistant Agricultural Officers and Agricultural Assistants, whose number is decided based on the agricultural potential in terms of cropping intensity, irrigation facilities crop diversification etc., (raitamitra.kar.nic.in). Farmers can visit these RSKs personally and get the required information or they can contact the RSKs over phone to obtain the information. An 'Interaction register' is maintained in the RSK to write the farmer's name, address and the purpose of his/her visit. Agricultural Officer in charge of the RSK will then give suggestion or recommendations to the problems posed by the farmers in writing in a prescribed format and the details will be entered in the interaction register also. The technical staff of the RSKs visit the groups of farmers in all the villages of hobli on a regular basis on a pre drawn schedule of visits. The extension personnel also carry out various extension activities including the field visits to assist farmers in the adoption of new technologies (raitamitra.kar.nic.in). The success of Raitha Mitra Yojane depends upon on the perception of the farmers about the functioning of RSKs. Against

this background, the present study was designed with the following specific objectives:

1. To analyze the perception of farmers about the functioning of RSKs
2. To find out the relationship between the personal, socio-economic, psychological and communication characteristics of farmers with their perception about the functioning of RSKs
3. To enlist the problems and suggestions of farmers for effective functioning of RSKs

METHODOLOGY

The study was conducted during 2017-18 in Tumakuru district of Karnataka State. Tumakuru district was purposively selected for the study since it had the highest number of Raitha Samparka Kendras (50 Nos.) among the 30 districts of Karnataka state (748 Nos.). A comprehensive list of all the Raitha Samparka Kendras (RSKs) of Tumakuru district was obtained from Karnataka State Department of Agriculture. Tumakuru district comprises of ten taluks, having 50 Hoblis (sub - blocks) and 50 RSKs. Four taluks *viz.*, Gubbi (6 Nos.), Kunigal (6 Nos.), Madhugiri (6 Nos.) and Tumakuru (6 Nos.) were again purposively selected for the study, since these four taluks were having maximum number of RSKs among the ten taluks of Tumakuru district. Three RSKs were randomly selected for the study from each of the four sampled taluks, thus 12 RSKs were selected for the study from Gubbi, Kunigal Madhugiri and Tumakuru taluks from Tumakuru district. A total of 120 farmers who availed the services from Raitha Samparka Kendras and were voluntarily willing to provide the required information were randomly selected for the study. Ex-post-facto research design was adopted for the study.

Perception of farmers about the functioning of Raitha Samparka Kendras (Dependent variable)

Perception of farmers about the functioning of RSKs in the present study refers to the interpretation of farmers on: (a) general aspects of RSKs, (b) services provided at RSKs, (c) extension activities of RSKs, and (d) maintenance of records at RSKs.

The scale developed by Avinash (2013) was used to analyse the perception of farmers about the functioning of Raitha Samparka Kendras. The scale consists of 18 statements categorised into four aspects *viz.*, general aspects of RSKs, services provided at RSKs, extension activities of RSKs and the maintenance of records at RSKs. The responses were sought on a three point continuum scale *viz.*, Agree, Undecided and Disagree and the scores assigned was 'two', 'one' and 'zero', respectively. The minimum and maximum perception score one could get was 0 and 36, respectively. The perception score of a respondent was calculated by adding up the scores obtained by him / her on all the 18 items / statements. Based on the total score, the respondents were classified into three categories namely 'poor', 'better' and 'good' perception level considering mean (26.66) and half of standard deviation (4.00) as a measure of check.

Fifteen personal, socio-economic, psychological and communication characteristics of farmers were considered as independent variables for the present

Category	Criteria	Perception score
Poor	< (Mean - ½ SD)	<24.66
Better	(Mean ± ½ SD)	24.66-28.66
Good	>(Mean + ½ SD)	>28.66

investigation. They were measured using a structured schedule with suitable scales. The collected data was analyzed using frequency, mean, standard deviation, zero order correlation test and multiple regression analysis.

RESULTS AND DISCUSSION

1. Perception of farmers about the functioning of Raitha Samparka Kendras

The results pertaining to the perception of farmers about the functioning of Raitha Samparka Kendras (RSKs) are presented in Table 1. The perception of the farmers about the functioning of RSKs are studied considering four aspects *viz.*, general aspects of RSKs, services provided at RSKs, extension activities of RSKs and maintenance of records at RSKs.

TABLE 1
Perception of farmers about the functioning of Raitha Samparka Kendras

Perception statements	Perception score	
	Score	Rank
General aspects of RSKs		
RSKs provides a forum for interface with public and private technology and inputs	97	IV
The jurisdiction of RSK is limited at hobli level catering to the needs of all the farmers of hobli	160	I
Working hours of RSK (except public holidays) is helpful in getting required agricultural information	148	III
Agriculture Officer who is the head of RSK is always available for the guidance	181	II
Services provided at RSKs		
Soil test facility provided at RSKs helps to maintain better soil health	200	II
Seed germination and seed vigour test done by RSK helps in increasing the crop productivity	187	IV
Supply of agricultural inputs (seeds, biofertilizer, plant protection chemicals, micro-nutrients etc.) by RSKs at subsidized rates is beneficial to resource poor farmers	219	I
Fertilizer recommendation based on soil testing will increase the crop yield	117	V
Technical guidance provided at RSKs has helped the farmers in getting increased crop productivity	196	III
Information provided at RSKs on marketing of agricultural products is useful to farmers	81	VI
Extension activities of RSKs		
Training programmes has helped the farmers in increasing knowledge and developing favourable attitude towards improved agricultural technologies	199	I
RSK arranges result demonstration to show the value/worth of new technology to farmers	89	V
Extension personnel undertakes field visits to assist farmers in adoption of new farm technologies	100	IV
Publicity given by RSKs about agricultural programmes has helped the farmers in deriving benefits of it	111	III
ICT tools (telephone, internet etc.) available at RSKs has helped the farmers in getting latest information on farm technologies	161	II
Maintenance of Records at RSKs		
Information is displayed in the RSK through different teaching aids (posters, charts etc.) is maintained satisfactorily	169	III
Record on various activities and beneficiaries were maintained 'satisfactorily' at RSKs	170	II
Interaction register (Farmers visitors book) is maintained at RSK satisfactorily	178	I

1.1. Aspect-wise perception of farmers about the functioning of Raitha Samparka Kendras

With regard to the perception of farmers about the general aspects of RSKs, it was found that the statement 'jurisdiction of RSK is limited at hobli level catering to the needs of all the farmers of hobli' received first rank, followed by the statements such as, agriculture officer who is the head of RSK is always available for the guidance (Rank II), working hours of RSK (except public holidays) is helpful in getting required agricultural information (Rank III) and RSKs provides a forum for interface with public and private technology and inputs (Rank IV). A total of 747 Raitha Samparka Kendras are established in as many hoblis in Karnataka state under Raitha Mitra Yojana. The purpose of establishing RSKs is to cater the agricultural needs of all the category of farmers at hobli. Hence the statement 'jurisdiction of RSK is limited at hobli level catering the needs of all the farmers' secured the first rank (Table 1).

In respect of the perception of farmers towards the services provided at RSKs, it was observed that the statement 'supply of agricultural inputs (seeds, biofertilizer, plant protection chemicals, micro-nutrients etc.) by RSKs at subsidized rates is beneficial to resource poor farmers' received first rank, followed by statements like, soil test facility provided at RSKs helps to maintain better soil health (Rank II), technical guidance provided at RSKs has helped the farmers in getting increased crop productivity (Rank III), seed germination and seed vigour test done by RSK helps in increasing the crop productivity (Rank IV), recommendation based on soil testing will increase the crop yield (Rank V) and information provided at RSKs on marketing of agricultural products is useful to farmers (Rank VI). Quality agricultural inputs developed by both public and private sectors are distributed at RSKs to the farmers at subsidized rates under various Centrally and State sponsored agricultural programme. Most of the farmers during the interview expressed that required quantity of agricultural inputs are supplied to the farmers on time at RSKs and hence the statement 'supply of agricultural inputs (seeds, biofertilizers, plant protection chemicals, micronutrients

etc.) by RSKs at subsidized rates is beneficial to resource poor farmers' was quoted by the respondents as first rank.

With respect to the perception of farmers in case of extension activities of RSKs, it was found that the statement 'training programmes has helped the farmers in increasing knowledge and developing favourable attitude towards improved agricultural technologies' secured first rank, followed by statements such as: ICT tools (telephone, internet etc.) available at RSKs has helped the farmers in getting latest information on farm technologies, publicity given by RSKs about agricultural programmes has helped the farmers in deriving benefits of it, extension personnel undertakes field visits to assist farmers in adoption of new farm technologies and RSK arranges result demonstration to show the value / worth of new technology to farmers securing II, III, IV and V ranks, respectively. Raitha Samparka Kendras are conducting need based training programmes on improved farm technologies, thereby the farmers have increased their knowledge leading to adoption of the same to get increased yield and income. This has lead in developing favourable attitude towards farming technologies. Hence, the statement 'training programmes has helped the farmers in increasing knowledge and developing favourable attitude towards improved agricultural technologies' has secured first rank.

In respect of perception of farmers towards the maintenance of records at RSKs, it was observed that the statement 'Interaction register (Farmers visitors book, Sampada) is maintained at RSK satisfactorily' was accorded first rank, followed by statements like record on various activities and beneficiaries were maintained 'satisfactorily' at RSKs and information is displayed in the RSK through different teaching aids (posters, charts etc.) is maintained satisfactorily was accorded II and III ranks respectively. It is mandatory for every farmer who visits RSK has to sign in the interaction register (Sampada) mentioning the purpose of his / her visit. The interaction register normally contains information on date, time and purpose of the visit of farmers. The agricultural extension functionaries will document the suggestions offered

to the farmers in the interaction register. Hence, the statement ‘Interaction register (Farmers visitors book) is maintained at RSK satisfactorily’ has been mentioned as first rank. More or less similar findings was reported by Avinash (2013).

1.2. Overall perception of farmers about the functioning of Raitha Samparka Kendras

A perusal of Table 2 reveals that a larger number of farmers (41.67%) had good perception about the functioning of RSKs, whereas 37.50 and 20.83 per cent of the farmers had better and poor perception about the functioning of RSKs, respectively. The results revealed that more than three-fourth of the

TABLE 2

Overall perception of farmers about the functioning of Raitha Samparka Kendras (n=120)

Perception category	Farmers	
	No.	%
Poor (<24.66 score)	25	20.83
Better (24.66-28.66)	45	37.50
Good (>28.66 score)	50	41.67
Total	120	100.00
Mean		26.66
Standard deviation		4.00

farmers (79.17%) have better to good perception about the functioning of RSKs. Supply of timely and adequate quantity of agricultural inputs at subsidized rates, dissemination of need based information on farm technologies through agricultural extension activities and satisfactory maintenance of records at RSKs are the major reasons for more than three-third of the farmers (79.17%) for having better to good perception about the functioning of Raitha Samparka Kendras.

2. Relationship between personal, socio-economic, psychological and communication characteristics of farmers with their perception level about the functioning of RSKs

Age, family size, land holding, annual income, farming experience, location of RSKs from farmers’ villages

and cosmopolitaness of farmers had no significant relationship with their perception level about the functioning of RSKs, while education, scientific orientation, risk orientation and mass media participation of farmers had significant relationship at five per cent level with their perception level about the functioning of RSKs (Table 3). Achievement motivation, management orientation, innovativeness and extension agency contact of farmers had highly significant relationship at one per cent level with their perception level about the functioning of RSKs. The findings are in line with the findings of Sathish *et al.* (2016) and Madan *et al.* (2017).

The explanation for the personal, socio-economic, psychological and communication characteristics of farmers having significant to highly significant relationship with their perception about the functioning of RSKs is given in the following paragraphs.

2.1. Education and perception about the functioning of RSKs

Education widens the vision and minds of people, besides orienting them to the outside world. Educated farmers might have contacted the extension functionaries very frequently to obtain information on farm technology, supply of various agricultural inputs and agricultural programs operating in the RSKs. Hence, a farmer with high level of education will have higher perception about the functioning of Raitha Samparka Kendras.

2.2. Achievement motivation and perception about the functioning of RSKs

Achievement is the value associated with an individual that drives them to excel in farming and thereby attain a sense of personal accomplishment. In order to achieve this distinction, the farmers would have availed the services of RSKs in the form of getting farm advisory service and timely supply of agricultural inputs. Hence there existed a highly significant relationship between the achievement motivation of farmers with their perception about the functioning of RSKs.

TABLE 3
Relationship between personal, socio-economic, psychological and communication characteristics of farmers with their perception about the functioning of RSKs (n=120)

Farmers characteristics	Correlation coefficient (r)	Regression coefficient (b)	Standard Error of Regression coefficient	't' value
Age	0.0468 NS	0.367	0.287	0.780 NS
Education	0.2444 *	0.368	0.925	2.510 *
Family size	0.1928 NS	0.036	0.040	1.110 NS
Land holding	0.1900 NS	0.485	0.481	0.990 NS
Annual income	0.1235 NS	0.689	0.386	0.560 NS
Farming experience	0.0789 NS	0.034	0.061	1.770 NS
Location from RSKs	0.0861 NS	0.130	0.261	2.010 NS
Achievement motivation	0.2999 **	0.410	0.912	2.20 *
Management orientation	0.2681 **	0.324	0.911	2.810 **
Scientific orientation	0.2400 *	0.357	0.861	2.410 *
Risk orientation	0.2196 *	0.120	0.019	0.150 NS
Innovativeness	0.3182 **	0.248	0.911	3.660 **
Cosmopolitaness	0.0968 NS	0.367	0.287	0.780 NS
Mass media participation	0.222 *	0.200	0.411	2.05 *
Extension agency contact	0.482 **	0.306	0.916	2.990 **

NS: Non-Significant; *Significant at 5% level; ** Significant at 1% level; $R^2 = 0.6012$

2.3. Management orientation and perception about the functioning of RSKs

Management orientation offers a chance for better management of resources resulting in greater efforts toward excellence in farming. The urge to perform better than others will act as an instrument to acquire and adopt managerial components relating to agriculture. RSK is serving as an agriculture information centre to satisfy the agricultural needs of the farmers thereby helpful in managing the farming enterprise. Thus there is a significant relationship between management orientation of farmers with their perception about the functioning towards RSKs.

2.4. Scientific orientation and Perception about the functioning of RSKs

Farmers with high level of scientific orientation would try to adopt the scientific and latest innovations in

agriculture by consulting the agricultural extension functionaries and also by availing benefits of various agricultural services available at RSKs, hence there is significant relationship at five per cent level between scientific orientation of farmers with their perception about the functioning about RSKs.

2.5. Risk orientation and Perception about the functioning of RSKs

Agriculture is an occupation having risks of water scarcity, drought, pests and diseases, market failure etc. In this context, farmers with high risk orientation will be regularly contacting extension functionaries for receiving information related to farming, agricultural insurance, weather forecasting, agricultural programmes offering inputs subsidy etc. Hence there existed a significant relationship between risk

orientation of farmers with their perception about the functioning of RSKs.

2.6. Innovativeness and Perception about the functioning of RSKs

The interest and desire of the farmers to adopt new farm technologies predisposes them to seek more information from agricultural extension functioning working at RSKs. Hence innovativeness of farmers is having a highly significant relationship with their perception about the functioning of RSKs at one per cent level.

2.7. Mass media participation and Perception about the functioning of RSKs

Exposure to mass media like radio, television, newspaper, internet etc., has helped the farmers in knowing the various activities of the RSKs. The farmers feel that the RSKs are established for them to provide need based services to the farmers. Hence there existed a significant relationship at five per cent level between mass media participation of farmers with their perception about the functioning of RSKs.

2.8. Extension agency contact and Perception about the functioning of RSKs

Frequent contact with the agricultural extension functionaries has helped the farmers in knowing about the various agricultural programmes operating in the RSKs, availability of agricultural inputs at subsidized rates, interventions, custom hiring of agricultural implements and equipment etc. They believe that RSKs are doing yeomen service to the farmers. Hence farmers with high level of extension agency contact is having better perception towards the functioning of RSKs.

It is also observed from Table 3 that out of 15 personal, socio-economic, psychological and communication characteristics of farmers studied, seven variables *viz.*, education, achievement motivation, management orientation, scientific orientation, innovativeness, mass media participation and extension agency contact of farmers were found significant in explaining the perception level about the functioning of RSKs. All

the 15 independent variables together have contributed to the tune of 60.12 per cent towards the perception level. It can be inferred from the results that education, achievement motivation, management orientation, scientific orientation, innovativeness, mass media participation and extension agency contact of farmers have synergic effect to one another leading to significantly contributing in developing good perception among farmers about the functioning of RSKs.

3. Problems faced by farmers at Raitha Samparka Kendras

Less subsidy to farm machinery and equipment (Rank I), higher prices of agricultural inputs (Rank II), extension personnel do not visit farmers field (Rank III), delay in getting soil test reports (Rank IV), RSKs located far away from the village (Rank V), insufficient input supply at subsidized rates (Rank V), non-availability of need based inputs (Rank VII), tagged purchase of one input along with another (Rank VII), non-availability of need based inputs (Rank VII), information related to the local agricultural problems are not available (Rank IX), inconsistent functioning timings of RSKs (Rank X), required quantity of inputs not available (Rank XI), supply of inputs to only a few farmers (Rank XII), delay in seed distribution (Rank XIII) and inputs not available in time (Rank XIV) are the problems faced by the farmers at Raitha Samparka Kendras in the order of importance (Table 4). The Karnataka State Department of Agriculture should address the above problems of farmers for effective functioning of Raitha Samparka Kendras. Similar problems were reported by Ramappa Patil (2016).

4. Suggestions of farmers for effective functioning of Raitha Samparka Kendras

The suggestions offered by farmers for effective functioning of RSKs in the order of importance are : More subsidy required for farm machinery and equipment (Rank I), regular visits of extension personnel to the farmers fields (Rank II), timely availability of soil test reports (Rank III), agricultural inputs should be further subsidized (Rank IV), need based inputs should be made available at RSKs (Rank V), no tagging purchase of one input to another

TABLE 4
Problems faced by farmers at Raitha Samparka Kendra (n=120)

Problems*	Farmers		
	No.	%	Rank
Less subsidy to farm machinery and equipment	69	57.50	I
Higher prices of agricultural inputs	41	34.16	II
Extension personnel do not visit farmers field	36	30.00	III
Delay in getting soil test reports	33	27.50	IV
RSKs located far away from the village	31	25.83	V
Insufficient input supply at subsidized rates	31	25.83	V
Non-availability of need based inputs	26	21.66	VII
Tagged purchase of one input along with another,	26	21.66	VII
Information related to the local agricultural problems are not available	22	18.33	IX
Inconsistent functioning timings of RSKs	20	16.66	X
Required quantity of inputs not available	16	13.33	XI
Delay in seed distribution	12	10.00	XII
Inputs not available in time	12	10.00	XII
Supply of inputs to only a few farmers	05	04.16	XIV

*Multiple response

TABLE 5
Suggestions of farmers for effective functioning of Raitha Samparka Kendras (n=120)

Suggestions*	Farmers		
	No.	%	Rank
More subsidy required for farm machinery and equipment	69	57.50	I
Regular visits of Extension personnel to the farmers fields	36	30.00	II
Timely availability of soil test reports	33	27.50	III
Agricultural inputs should be further subsidized	31	25.83	IV
No tagging purchase of one input to another	26	21.66	V
Need based inputs should be made available at RSKs	26	21.66	V
Information related to the local agricultural problems should be made available at RSKs	22	18.33	VII
RSKs should function from 8.00 AM to 8.00 PM	20	16.66	VIII
Adequate quantity of inputs be made available at RSKs	16	13.33	IX
Timely distribution of seeds	12	10.00	X
Supply of inputs to all categories of farmers	05	04.16	XI
Timely availability of required inputs	12	10.00	XII

*Multiple response

(Rank V), information related to the local agricultural problems should be made available at RSKs (Rank VII), RSKs should function from 8.00 AM to 8.00 PM (Rank VIII), adequate quantity of inputs be made available at RSKs (Rank IX), timely distribution of seeds (Rank X), supply of inputs to all categories of farmers (Rank XI) and timely availability of required inputs (Rank XII) (Table 5). The above suggestions should be implemented by the Karnataka State Department of Agriculture for the effective functioning of Raitha Samparka Kendras.

It is observed from the study that majority of the farmers (58.33%) were having medium to low level of perception about the functioning of RSKs and hence there is a need for the RSKs to tailor its activities based on the needs of the farmers. RSKs should be strengthened with respect to providing farm advisory service and supply of agricultural inputs on time so that it could serve as a center of agricultural extension services to all the categories of farmers. More subsidy for farm machinery and equipment, regular visits of extension personnel to farmers' fields, timely issue of soil test reports and increased subsidy for agricultural inputs would be helpful in the effective functioning of Raitha Samparka Kendras.

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