Original Research Article

Constraints faced by farmers in availing the extension services of Department of Agriculture

Abstract: The study examined the constraints of farmers in availing the extension services of Department of Agriculture in Haveri district of Karnataka state, during the year 2018-19 with a sample size of 210 farmers. With respect to constraints faced by farmers in availing the extension services of Department of Agriculture were grouped in to five major categories. Findings of the study revealed that, regarding information services availed by farmers less than three fourth (71.90 %) of farmers expressed non availability of extension workers in office, followed by extension worker do not visit villages/field regularly (71.90 %). Regarding participating in extension activities services facilitated by RSK, nearly three fourth (73.33 %) of farmers expressed lack of time to participate in extension activities, followed by more than half (58.57 %) if farmers expressed the place of extension activity is not accessible. Regarding input services availed by farmers 70.00 per cent of farmers expressed non availability of required inputs (variety, chemical). Regarding constraints in availing diagnostic services more than three fourth (78.09 %) of farmers expressed RSKs are located away from the village. Regarding constraints in availing services of developmental activities 77.14 per cent of farmers expressed not constructing krishi-honda in-time, followed by more than three fifth (66.66 %) of farmers expressed lack of supply of drip & sprinkler irrigation sets to all category of farmers.

Key words: Department of agriculture, information services, diagnostic services, constraints.

Introduction

Agriculture plays a vital role in India's economy, 54.6% of the total workforce is engaged in agriculture and allied sector activities. Previously it was 60% in 2001, urbanization, industrialization and raise in engagement in service sector may be the potential reasons to this decline (Census2011). Department of Agriculture has been created mainly to provide agricultural

Comment [P1]: I think the title is routine it is better to keep the title as "Constraints faced by the farmers in utilizing Raitha Samparka Kendras (RSKs) –Extension services"

Comment [P2]: A survey of 210 farmers in Haveri district, Karnataka, was undertaken to investigate the constraints they encountered in utilizing the extension services provided by the Department of Agriculture during 2018-19.

Comment [P3]: The constraints encountered by farmers were categorized into five major categories

Comment [P4]: The study revealed that, in terms of information services, over two-thirds (71.90%) of farmers reported a lack of available extension workers in their offices and irregular visits to villages and fields. This indicates a significant gap in the availability and accessibility of information resources for farmers.

Comment [P5]: Majority of the farmers (73.33%) reported that time constraints prevented them from participating in extension activities offered by RSKs, followed by more than half (58.57%) of the respondents who expressed that the location of extension activities was inconvenient.

Comment [P6]: Additionally, over three-quarters of farmers expressed dissatisfaction with the distance between their villages and Rural Service Centers (RSKs), making it difficult to access diagnostic services and technical support.

Comment [P7]: Regarding developmental activities, a significant number of farmers, 77.14 per cent, reported delays in the construction of Krishi-Honda (agricultural machinery). Additionally, over two-thirds of farmers expressed dissatisfaction with the lack of access to drip and sprinkler irrigation sets for all categories of farmers. These constraints hinder the adoption of modern agricultural practices and limit the potential for increased productivity and income.

Comment [P8]: Constraints, Extension services, Department of Agricultural

Comment [P9]: Agriculture remains a cornerstone of India's economy, employing 54.6% of the total workforce in agriculture and related sectors. While this figure has decreased from 60% in 2001, agriculture continues to be a vital source of livelihood for a significant portion of the population. The decline can be attributed to factors such as urbanization, industrialization, and a growing service sector, as evidenced by the 2011 Census data.

extension services to farmers and to transfer the latest technical knowledge to the farming community, introduction of high yielding varieties, laying demonstrations, imparting training to farmers to improve skills & knowledge to boost up the agricultural Production and productivity. Despite of these services farmers are facing the constraints which should be resolved for the welfare of farmers and to double their income as a result of this country's economy can also be boosted.

Looking back to history of department of agriculture in Karnataka, it is clear that agriculture development programmes were started in 18th century. Maharaja of mysore initiated the agriculture development movement. Mark Cubbon established society for agriculture and horticulture in 1836. In 1885 state inspector general of police was given charge to four departments which include agriculture department. Dr A. Lehman was appointed as first agricultural chemist in the year 1899 to test soil samples and to provide important recommendations. In 1913 Dr. Leslee C Coleman was appointed as first director of agriculture (Anon., 2019).

Raitha Samparka Kendras (RSKs) were established at Hobli level as centres for Agricultural Extension, a total of 745 RSKs created initially under Raitha Mitra Yojane in 2000-01 (Avinash, T. S., 2013). These RSKs provide adequate services for farmers at grass root level, capacity of department is reflected by its staff strength. Staffs are of two types one is technical staff who deal with technical problems while the other is para-technical staff who assist and implement the works of RSKs in addition with providing technical information. Agriculture Officer (AO) is the head of RSK with support of two Assistant Agricultural Officers (AAO) and Agricultural Assistants (AA). There will be one Agriculture Assistant (AA) for every Gram panchayat and the number of Agriculture Assistants increases as the number of Gram panchayat which comes under the jurisdiction of that particular RSK increases.

Comment [P10]: The history of agriculture development in Karnataka dates back to the 18th century. The Maharaja of Mysore initiated early agricultural development programs. In 1836, Mark Cubbon established the Society for Agriculture and Horticulture, laying the foundation for organized agricultural efforts in the region.

Comment [P11]: Raitha Samparka Kendras (RSKs) were established at the Hobli level as agricultural extension centers. A total of 745 RSKs were initially created under the Raitha Mitra Yojane in 2000-01 (Avinash, T.S., 2013).

Comment [P12]: The Raitha Samparka Kendras (RSKs) serve as valuable resources for farmers at the grassroots level. The department's capacity is reflected in its staff strength, which consists of two primary categories: technical staff and para-technical staff. Technical staff address complex agricultural issues, while para-technical staff assist in RSK operations and provide technical information to farmers.

Material and Methods

Haveri district of Karnataka state was purposively selected for study during the year 2018-19 as haveri is one among the seven districts under the jurisdiction of University of Agricultural Sciences, Dharwad and haveri is popular in agriculture, agriculture based enterprises and familiarity of the researcher with study area. Primarily all seven taluks of Haveri district were selected for the study. From each taluk, one Raita Samparka Kendra were selected randomly. Thus, totally seven RSKs were selected and from each selected RSK two villages were chosen randomly. Thus, the total number of 14 villages selected and from each selected village 15 farmers were selected randomly, making a total sample size of 210 farmers.

"Ex-post-facto" research design was employed in the investigation as the phenomenon has already occurred and this design was considered appropriate. A structured schedule was prepared with the help of judges in the field of Agricultural Extension and tentatively prepared schedule was pre-tested in a non-sample area against ambiguity if any, in the questions included therein and then necessary corrections were made in the final schedule.

The data was collected from respondents through personal interview method in an informal atmosphere by establishing a good rapport, convincing the purpose and importance of study. The collected data were scored, tabulated and analyzed by using frequency, percentage, mean, standard deviation, correlation and regression.

Results and Discussion

It is evident from Table 1 that among constraints enlisted, less than three fourth (71.90 %) of the farmers expressed lack of availability of extension workers, followed by extension workers do not visit villages regularly (71.90 %) the reason may be due to inadequate staff (basic level workers) in Agriculture Department (Raitha Samparka Kendra's) and staff were busy as they must attend number of meetings every week (one video conference per week, zero budget natural farming meetings, progress report meetings, KVK meetings, review meetings, ADA meetings, bimonthly meetings) and Agriculture officers are the quality control inspectors who draw and test samples from input dealers. Followed by, lack of availability of information in-time (68.57 %) and lack of availability of required information (61.42 %) the reason may be

Comment [P13]: Haveri district, located within the jurisdiction of the University of Agricultural Sciences, Dharwad, was purposefully selected for this study during 2018-19. Haveri's prominence in agriculture, agriculture-based enterprises, and the researcher's familiarity with the region made it an ideal location for investigating the constrains faced by farmers in accessing extension services.

Comment [P14]: Subsequently, two villages were randomly chosen from each selected RSK, making a total of 14 villages. Finally, 15 farmers were randomly selected from each of these 14 villages, resulting in a total sample size of 210 farmers.

Comment [P15]: As shown in Table 1, the top most constraint among farmers was the lack of available extension workers (71.90%), followed by irregular visits from these workers (71.90%). This can be attributed to several factors, including inadequate staffing levels at Raitha Samparka Kendras (RSKs) and the heavy workload of extension staff. These workers are often required to attend numerous meetings each week, including video conferences, zero-budget natural farming meetings, progress report meetings, KVK meetings, review meetings, ADA meetings, and bimonthly meetings. Additionally, agriculture officers are tasked with quality control inspections, which involve drawing and testing samples from input dealers. This multifaceted workload can limit their ability to provide timely and effective extension services to farmers.

because RSKs were located only in hobli/taluk place and there are less number of hoblies per taluk resulting in only 2-3 RSKs present per taluk, as a result distance between villages and RSK will be more so the flow of information services from RSKs to farmers was minimum. Further, less than one third (30.47 %) of farmers expressed extension workers are not technically competent. The reason may be because of inadequate knowledge about extension activities in farmers and lack of knowledge and confidence in extension workers (Technology Promoters/ Facilitators) to solve wide spectrum of farmers problems as these facilitators were easily available source in RSKs for farmers and facilitators are educated upto SSLC, PUC and not graduated.

It is clear from Table 2 that nearly three fourth (73.33 %) of the farmers expressed lack of time to participate in extension activities, the reason because of heavy work load in the farm and less knowledge about the importance of these extension activities. Followed by, place of extension activity is not accessible (58.57 %) the probable reason may be because farmers must spend money and time on transportation, followed by lack of information about extension activities (57.14 %) the possible reason may be because of less awareness, less advertisement about the extension activities and poor interest of farmers in extension activities. Followed by, lack of interest in participation (29.04 %) is the other important constraint expressed by farmers in availing extension activities facilitated by RSK. The reason may be farmers expect the benefits (cash/free inputs) from extension services, hence usually farmers have ignorance about these extension activities and busy schedule of farmers may be also a potential reason to express this constraint.

It is obvious from Table. 3. that less than three fourth (70.00 %) of the farmers expressed lack availability of required inputs, the reason may be because of less supply of inputs which were purchased by early visiting farmers making shortage for others and variety of demand in farmers mind but the supply of inputs was not up to the expectation as government must supply inputs all over the state which is practically tough to supply in required quantities. Followed by, no transparency in input supply (60.95 %) because most of the farmers say that they were unaware about the happenings in RSKs with respect to stock of inputs in RSK and various other

Comment [P16]: The Other constraints included a lack of timely information (68.57%) and the absence of required information (61.42%). These issues can be attributed to the limited availability of Raitha Samparka Kendras (RSKs) within taluks. With only 2-3 RSKs per taluk, many villages are located at a significant distance from these extension centers, hindering the effective flow of information services. Additionally, less than one-third of farmers (30.47%) expressed dissatisfaction with the technical competence of extension workers. This may be due to a lack of knowledge about extension activities among farmers, as well as a perceived lack of knowledge and confidence in extension workers (Technology Promoters/Facilitators) to address a wide range of farmer problems. It's important to note that these facilitators are typically educated up to the Secondary School Leaving Certificate (SSLC) or Pre-University Certificate (PUC) level, rather than holding university degrees.

Comment [P17]: Might be

Comment [P18]: As shown in Table 3, a significant number of farmers (70%) reported a lack of access to necessary inputs. This shortage can be attributed to several factors, including limited supply and early depletion of inputs due to demand from other farmers. Additionally, the variety of inputs demanded by farmers often exceeds the available supply, as the government faces challenges in distributing inputs evenly across the state. These factors contribute to the difficulty farmers experience in obtaining the resources they need for their agricultural activities.

aspects. Further 49.52 per cent of farmers expressed poor quality of inputs, followed by 37.14 per cent of farmers responded lack of availability of inputs in-time as the other important constraints in availing input services. The reason may be non-availability of inputs stock in RSKs with respect to unpredicted rains, unexpected demand from farmers and untimely supply of inputs for RSKs.

It is clear from Table 4 that, majority (78.09 %) of farmers expressed that RSKs are located away from the village. Followed by, poor services with regard to water testing (73.80 %) as major constraints in availing diagnostic services. The reason behind these constraints is because of more distance between villages and RSKs due to less number of RSKs per taluk farmer needs to spend almost a whole day/half day to visit RSK and water samples were sent to water testing laboratories at KVKs. While, less than one fourth (24.76 %) of farmers expressed poor services with regard to soil testing as third constraint in availing diagnostic services because most of the farmers got benefitted by Soil Health Card scheme.

It is evident from Table 5 that, greater than three fourth (77.14 %) of the farmers expressed not constructing krishi-honda in-time, followed by lack of supply of drip & sprinkler irrigation sets to all categories of farmers (66.66 %) as the important constraints in availing services of developmental activities. The reason may be because most of the farmers applied for krishi-honda service but very few of them were got sanctioned, long procedures and paper works to be followed in availing these services and time lag between application and sanction of services was more. Further drip and sprinkler irrigation sets were distributed only for farmers who have irrigation source.

Conclusion

It can be concluded from the results that, it is necessary to increase the number of RSKs per taluk and recruit sufficient technical staff to handle the activities of RSKs **a**long with non-technical staff for distribution/sale of inputs to the farmers. Sufficient quantity and wide range of inputs must be supplied to RSKs and awareness should be created about the importance of these services and services should be provided at the level/place where farmers can attend very easily

Comment [P19]: Furthermore, 49.52 per cent of farmers expressed dissatisfaction with the quality of inputs, while 37.14 per cent cited a lack of timely availability as a significant constraint. These issues can be attributed to factors such as unpredictable weather conditions, fluctuating demand from farmers, and delays in the supply of inputs to RSKs, resulting in insufficient stock levels.

Comment [P20]: It is clear from the Table 4, the most significant constraint faced by farmers in accessing diagnostic services was the distance between their villages and Raitha Samparka Kendras (RSKs), with 78.09 per cent of farmers expressing this concern. Additionally, a large number of farmers (73.80%) reported dissatisfaction with the quality of water testing services provided by RSKs. These challenges hinder farmers' ability to obtain timely and accurate information regarding soil and water health, which is crucial for effective agricultural management.

Comment [P21]: The primary reason for these constraints lies in the significant distance between villages and Raitha Samparka Kendras (RSKs), due to the limited number of RSKs per taluk. Farmers often need to spend half or a whole day to reach an RSK. Additionally, water samples collected by farmers are typically sent to water testing laboratories located at Krishi Vigyan Kendras (KVKs), further adding to the time and effort required for diagnostic services.
While a smaller percentage of farmers (24.76%) reported dissatisfaction with soil testing services, many have benefited from the Soil Health Card scheme, which provides valuable information on soil health and nutrient management.

Comment [P22]: Many farmers who applied for Krishi-Honda services encountered lengthy procedures and bureaucratic hurdles, resulting in delays in approval and implementation. Additionally, the distribution of drip and sprinkler irrigation sets was limited to farmers with existing irrigation sources, excluding those who lacked access to water resources.

Comment [P23]: Based on the findings, it is evident that increasing the number of Raitha Samparka Kendras (RSKs) per taluk is essential to improve accessibility for farmers. Additionally, recruiting sufficient technical staff to manage RSK activities, along with non-technical staff to handle input distribution and sales, is crucial for providing comprehensive and efficient services to farmers.

even in the busy schedule. The policy makers have to consider these points while framing the regulations.

Comment [P24]: To ensure the effectiveness of Raitha Samparka Kendras (RSKs), it is essential to supply a sufficient quantity and wide range of inputs to these centers. Additionally, raising awareness about the importance of RSK services and providing these services at convenient locations can enhance farmer participation. Policymakers should carefully consider these factors when formulating regulations to support the agricultural extension system.

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Table 1. Constraints faced by the farmers in availing information services

n=210

Sl. No	Particulars	f	%
1.	Lack of availability of extension workers in office	151	71.90
2.	Extension worker do not visit villages regularly	151	71.90
3.	Lack of availability of information in-time	144	68.57
4.	Lack of availability of required information	129	61.42
5.	Extension workers are not technically competent	64	30.47

Table 2. Constraints faced by the farmers in availing extension activities facilitated by RSK

n=210

Sl. No	Particulars	f	%
1.	Lack of time to participate in extension activities	154	73.33
2.	Place of extension activity is not accessible	123	58.57
3.	Lack of information about extension activities	120	57.14
4.	Lack of interest in participation	61	29.04

Table 3. Constraints faced by the farmers in availing input services

n=210

Sl. No	Particulars	f	%
1.	Lack of required inputs (variety, chemical)	147	70.00
2.	No transparency in input supply	128	60.95
3.	Poor quality of inputs	104	49.52
4.	Lack of availability of inputs in-time	78	37.14

Table 4. Constraints faced by the farmers in availing diagnostic services

n=210

Sl. No	Particulars	f	%
1.	RSKs are located away from the village	164	78.09
2.	Poor services with regard to water testing	155	73.80
3.	Poor services with regard to soil testing	52	24.76

Table 5. Constraints faced by the farmers in availing services of developmental activities

n=210

Sl. No	Particulars	f	%
1.	Not constructing krishi-honda in-time	162	77.14
2.	Lack of supply of drip & sprinkler irrigation sets to all category of farmers	140	66.66