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Satisfaction Level of the Farmers Regarding Kisan Call Centre (KCC) Advisories

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Authors' contributions

This work was carried out in collaboration among all authors. Author PRR designed the study, collected data, Author SKM performed the statistical analysis and author PRR wrote the first draft of the manuscript. Author KVN and Author Manjuprakash corrected a manuscript and help to identify the most suitable statements. All authors read and approved the final manuscript.

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ABSTRACT

The Kisan Call Centre (KCC), initiated on January 21st, 2004, by the Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, serves as a crucial support system for farming communities across India. This study, conducted in 2021-22 in Chamarajanagar District of Karnataka, aimed to assess the Satisfaction Level of 200 KCC beneficiaries regarding its advisory

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services. Utilizing stratified random sampling, the study employed an ex-post facto research design to gather insights. The data collection involved secondary data from the KCC in Bengaluru and primary data through structured interviews with beneficiaries. Results revealed that 76.00% of beneficiaries expressed high satisfaction with the technical knowledge of KCC experts, with 74.50% satisfied with expert availability, and 73.50% with expert guidance in advisory services. Additionally,70.50% were highly satisfied with patience of expert in listening to the complete query of the farmers through helpline services. Regarding technological information provided by the KCC 53.00% expressed high satisfaction with the technological information provided by the KCC, and 52.50% acknowledged the assistance of advisory services in crop preservation and yield improvement. However, including all the aspect like technical information, helpline services and advisory services provided by the KCC. Notably, a significant 44.00% of both dryland and irrigated land farmers expressed high satisfaction with the overall services of the KCC. This research highlights the importance of ICT-driven initiatives like the KCC in empowering farmers and improving agricultural productivity and sustainability.

Keywords: Kisan call centre; agricultural advisory services; farmer satisfaction; ICT in agriculture; Karnataka; India.

1. INTRODUCTION

In India, where most people rely on farming for a living, agriculture is a vital industry for the country's economic and social development. despite this, farmers frequently face a wide range of difficulties, and in order to successfully navigate through them, they need prompt and proper advice. The introduction of Information and Communication Technology (ICT) has greatly facilitated the process of meeting farmers' requirements. ICT, which includes gadgets, tools, applications, and the internet, has seen a number of interventions in agriculture from both the private and public sectors. Initiatives such as the Kisan Call Centre (KCC) established by the Government of India, Raintha Mitra Kendras info kiosks of the Karnataka State Department of Agriculture, Krishi Marata Vahini Kiosks by the Karnataka Agricultural Marketing Board, and e-choupals, a private initiative of ITC Limited, have been instrumental in delivering grassroots-level solutions and are widely embraced in Karnataka [1].

The Kisan Call Centre (KCC), launched on January 21st, 2004, by the Department of Agriculture and Cooperation, Ministry of Agriculture, Government of India, has been pivotal in catering to the needs of farming communities across the nation. Operating on toll-free numbers 1551 or 1800-180-1551, the KCC provides a plethora of information, ranging from agricultural technologies and crop protection to government health programs and legal advice, all in 22 local languages. Farmers can readily seek solutions to their queries, with the KCC ensuring immediate assistance by connecting them with agricultural experts. In instances where immediate solutions are unavailable, the queries are forwarded to specialists, with a commitment to providing suitable resolutions within 48 hours (R Puneeth Raja and K Venkataranga Naika, [2]. Despite challenges such as limited internet connectivity in farming areas and a lack of awareness about internet usage, the KCC stands out as one of the most effective ICT solutions for farmers to access the necessary information. While various other Agri-advisory services exist, including ATIC and ACABC, which aim to provide comprehensive agricultural solutions, the awareness among farmers regarding these services remains limited. Surveys indicate that while 65.00% of respondents were aware of the KCC service, a substantial 74.20% had yet to utilize the Kisan Call Centre and avail its advisory services for agricultural purposes [3,4]. Hence, an attempt was made to analyse the satisfaction level of the KCC beneficiary about advisory services given by KCC [5,6].

2. METHODOLOGY

The present study was carried out during 2021-22 to study the satisfaction level of KCC beneficiaries about advisory, helpline services and technical advisory services given by KCC. The data was collected from the beneficiaries of KCC in Chamarajanagar District of Karnataka. 200 KCC beneficiaries were selected randomly with the help of stratified random sampling technique. Ex-post facto research design was adopted and it is a systematic empirical enquiry in which the scientists do not have direct control on influencing the variables because of their manifestation have already occurred. Hence, this

design was considered as appropriate for the study [7].

2.1 Samples and Sampling Procedure

Chamarajanagar District was purposively selected as it received a lowest call (3,984 calls) as compared to the other Districts (i.e. Tumkur, Mysuru, Hasan, Bengaluru, Bengaluru Rural and Chikkaballapura) which comes under the Jurisdiction of University of Agricultural Sciences, Bangalore(https://dackkms.gov.in/account/login.aspx). Further, four taluks of Chamarajanagar District were selected and names and address of the farmers of four taluks of Chamarajanagar district who made a call to Kisan Call Centre (KCC) in the year 2019 were collected from the office of Kisan Call Centre located at University of Agricultural Sciences Bangalore and from each of the selected taluk 25 Dry land farmer and 25 Irrigated land farmers were chosen for the study with a help of Stratified random sampling technique. Thus, final sample size was 200.

2.2 Data Collection

Secondary data Name and address of the famers who called to Kisan Call Centre during 2019 from Chamarajanagar was collected from the Kisan Call Centre Bengaluru and Primary data was collected using well-structured and pre-tested interview schedule and personal interview method was adopted to obtain the essential information from KCC beneficiaries. The data generated was analysed using frequency and percentage.

3. RESULTS AND DISCUSSION

The results of the itemised level of satisfaction regarding advisory service of KCC is presented in the Table 1 indicated that, more than three fourth (76.00 %) of the beneficiaries expressed that, they were highly satisfied with the technical knowledge of the experts. Followed by, 74.50 per cent of them stated that, they were highly satisfied with the availability of experts, 73.50 per cent of the respondents indicated that expert's guidance highly satisfied, cordial response of the professionals during advisory services (72.50 %), interest of experts in advising (71.00 %), time taken to solve problem (70.50 %), communication skills (70.00 %). Almost same per cent (69.50 %) and (69.00%) of the respondents expressed that, language of expert and sample diagnosis respectively. This implies that, majority of the respondents had highly favourable to favourable attitude and they were highly satisfied with the advisory service of the KCC. This finding is in line with Sharma [8].

Table 1. Satisfaction level of the farmers regarding advisory services of KCC

(n=200)

Sl. No.	Advisory/diagnosis service	Highly Satisfied	Moderately satisfied	Least satisfied
1.	Technical knowledge of the experts	152 (76.00 %)	45 (22.50%)	3 (1.50%)
2.	Communication skills	140 (70.00 %)	53 (26.50)	7 (3.50 %)
3.	Time taken to solve problem	141 (70.50 %)	47 (23.50 %)	12 (6.00 %)
4.	Availability of experts	149 (74.50 %)	43 (21.50 %)	8 (4.00 %)
5.	Interest of experts in advising	142 (71.00 %)	48 (24.00 %)	10 (5.00 %)
6.	Expert guidance	147 (73.50 %)	35 (17.50 %)	18 (9.00 %)
7.	Cordial response of the professionals during advisory services	145 (72.50 %)	42 (21.00 %)	13 (6.50 %)
8.	Language of experts (Fluency)	139 (69.50 %)	47 (23.50 %)	14 (7.00 %)
9.	Sample diagnosis	138 (69.00%)	48 (24.00 %)	14 (7.00 %)

**Multiple Response*

3.1 Satisfaction Level of the Farmers Regarding Helpline Services of KCC

The itemised satisfaction level of the farmers from helpline services of KCC is presented Table 2. The results revealed that, more than two third (70.50 %) of the farmers were highly satisfied with the patience of the experts in listening to the complete query of the famers, this might be because, the experts of KCC listen to the farmers queries clearly to understand their problems to give a suitable solution. This was followed by, understandability of the information (67.50 %), support of the expert in explaining the symptoms of the crops (60.00 %) and Utility of the information (58.00 %). This might be due to the fact that, the call made by the farmers to the KCC will be recorded and the personnel at the KCC also were dedicated to serve the farming community with the better solutions to the farmers. In order to understand the problems, they aided the farmers in explaining the symptoms based on which the suggestions were made. It was also found in the study area that, more than half of the farmers adopted the suggestions provided by the experts. The findings are similar to Davinder Singh [9].

3.2 Satisfaction Level of the Farmers Regarding the Technological Information Provided by the KCC

Table 3 depicts the satisfaction level of the farmers regarding the technological information provided by the KCC revealed that, more than half (53.00 %) of the farmers were highly satisfied regarding the technology information given. Followed by, help of advisory services in saving the crops and obtain better yield (52.50 %), less than half (49.50 %) of the farmers were satisfied with the skills of expert in identifying the disease by listening to the symptoms over phone call. Further, the farmers expressed that, the cost of suggested technology (49.00 %) was highly satisfiable, improving efficiency (48.00 %) and saving of time and money in transportation to avail the services at their office (47.50 %) were highly satisfiable to both dryland and irrigated land farmers in the study area. The findings are contradictory with Davinder Singh [10].

Table 2. Satisfaction level of the farmers from helpline services of KCC

(n=200)

Sl. No.	Helpline services	Highly Satisfied	Moderately satisfied	Least satisfied
1.	Patience of the expert in listening to the complete query of the famers	141 (70.50 %)	45 (22.50 %)	14 (7.00 %)
2.	Utility of the information	116 (58.00 %)	65 (32.50 %)	19 (9.50 %)
3.	Understandability of the information	135 (67.50 %)	46 (23.00 %)	19 (9.50 %)
4.	Support of the expert in explaining the symptoms of the crops	120 (60.00%)	73 (36.50 %)	7 (3.50 %)

**Multiple Response*

Table 3. Satisfaction level of the farmers regarding the technological information provided by the KCC

(n=200)

Sl. No.	Technological information	Highly Satisfied	Moderately satisfied	Least satisfied
1.	Technology information given	106 (53.00 %)	83 (41.50 %)	11 (5.50 %)
2.	Cost of suggested technology	98 (49.00 %)	94 (47.00 %)	8 (4.00 %)
3.	Improved efficiency	96 (48.00 %)	84 (42.00 %)	20 (10.00 %)
4.	Identification of the disease by listening to the symptoms	99 (49.50 %)	82 (41.00 %)	19 (9.50 %)
5.	Help of advisory services in saving the crops and obtain better yield	105 (52.50 %)	69 (34.50 %)	26 (13.00 %)
6.	Saving of time and money in transportation to avail the services at their office	95 (47.50 %)	82 (41.00 %)	23 (11.50 %)

**Multiple Response*

Table 4. Overall level of satisfaction of Dryland and Irrigated land Farmers towards KCC Advisory Services

(n=200)

Category	Dry land Farmer (n_1=100)		Irrigated land Farmer (n_2=100)		Overall (n=200)		χ 2 Test
	No.	%	No.	%	No.	%	
Low	35	35.00	29	29.00	63	31.50	
Medium	21	21.00	27	27.00	42	21.00	1.31 ^{NS}
High	44	44.00	44	44.00	95	47.50	
Mean ± SD	28.94 ± 6.57		30.5 ± 6.39		29.7 ± 6.515		

^{NS}*-Non-significant*

3.3 Overall Level of Satisfaction of Dryland and Irrigated land Farmers Towards KCC Advisory Services

The data presented in the Table 4 shows the overall level of satisfaction of the farmers including all the aspect like technical information, helpline services and advisory services provided by the KCC. It was observed among the dryland farmers that, less than half (44.00 %) of them were highly satisfied about the services of KCC followed by low (35.00 %) and medium (21.00 %) level of satisfaction towards KCC advisory services. This results are in line with Dash *et. al* [11].

Whereas, in case of irrigated land farmers, it was observed that, same per cent (44.00 %) as that of dryland farmers were highly satisfied regarding services of KCC followed by low (29.00 %) and medium (27.00 %) level of satisfaction about the services provided by KCC.

More interestingly, it could be observed that, similar per cent of both dryland and irrigated land farmers had high level of satisfaction towards KCC advisories. This might be due to the fact that, the queries raised by the farmers of two farming system might be different but the level of satisfaction held by the farmers of both farming systems remained the same.

The results of pooled samples of dryland and irrigated land farming systems is presented in the Table 4 and it explains that, less than half (47.50 %) of the beneficiaries were highly satisfied regarding overall services provided by KCC. This might be because the advices given by the farm advisories were well suited to local conditions and the suggestions were given only after thorough understanding of the problems explained by the farmers. Thus, the solutions were useful and farmers accepted and adopted to use in real situations. Further, less than one third (31.50 %) of the beneficiaries had low level of satisfaction and 21.00 per cent of the beneficiaries had medium level of satisfaction about the overall services providing by KCC. This result is in the line with Davinder Singh [12] and Bansal [13] meanwhile it is contradictory with Chaturvedani et al. [14].

The data was subjected for testing overall satisfaction of the farmers towards advisory services of KCC between dryland and irrigated land farmers and it was found to be statistically non-significant ($\chi 2=1.31^{NS}$).

4. CONCLUSION

The Kisan Call Centre (KCC) emerges as a crucial pillar of support for farmers, evident in its commendable statistics: 76.00% satisfaction in technical expertise, 74.50% in expert availability, and 73.50% in guidance. Notably, 70.50% of farmers laud the expert's patience, while 53.00% appreciate the technological insights provided. The overarching 44.00% overall satisfaction rate, particularly resonant among dryland and irrigated land farmers, underscores the KCC's pivotal role in empowering agricultural communities. Through its ICT-driven solutions, the KCC not only provides timely and knowledgeable assistance but also cultivates a sense of confidence and capability among farmers, ultimately contributing significantly to the enhancement of agricultural productivity and sustainability.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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