STUDY ON CHALLENGES FACED BY THE SERVICE PROVIDERS AND THE CONSTRAINTS EXPERIENCED BY FARMERS IN USING THE SERVICES OF RBKs IN GUNTUR DISTRICT OF ANDHRA PRADESH

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ABSTRACT

The Rythu Bharosa Kendram (RBK) initiative in Andhra Pradesh aims to modernize agriculture by providing various services required by the farming community. An expost facto research was conducted in Guntur district of Andhra Pradesh with 100 sample farmers and 20 service providers of RBKs spread over 4 mandals. The present article highlights only the challenges faced by RBK staff and farmers with a limited sample and these results could not be generalized. The key challenges for RBK staff and farmers were identified using Garrett's ranking technique. Staff face administrative hurdles (mean score 58.35) and peak season staffing shortages with a mean score of 56.20. Farmers struggle with irregular procurement (mean score 56.57) and mechanization inadequacies (mean score 53.99). Addressing these constraints requires collaborative efforts to ensure RBK effectiveness and farmer well-being. It's imperative to foster a supportive environment where stakeholders work together to overcome challenges, implement innovative strategies, and ensure sustainable agricultural growth for the benefit of all involved.

INTRODUCTION

In order to modernize the agricultural development in Andhra Pradesh and make it the strongest economic pillar in the country, the state government of Andhra Pradesh launched Rythu Bharosa Kendram (RBK) on May 30, 2020. Andhra Pradesh has established a total of 10,778 RBKs till date. Village Agriculture Assistants/ Village Horticulture Assistants/ Village Sericulture Assistants, and Village Animal Husbandry Assistants/ Village Fisheries Assistants are working at the RBK Centres. Rythu Bharosa, a welfare project providing financial assistance towards the purchase of inputs, is one example of a value-added initiative. Through this programme, 52.3 lakh farm families received benefits from the state of Andhra Pradesh to the tune of Rs. 30,985 crores from the past four years (The Economic Times 2023). An extension initiative called Polam-Badi (Village field school) serves as a kind of outdoor classroom for farmers, teaching them practical skills like the best ways to use inputs and maximise output. In order to give farmers free crop insurance, a digital service called "e-Crop Booking" is being performed by recording the data about every piece of cultivated land. Each RBK is functioning at the revenue village level, providing specific services in accordance with local requirements. The objective of RBK is to unite all stakeholders in agriculture on a single platform and provide farmers with all the tools they need to assure agricultural production, profitability, and sustainability. Any initiative by the government faces some challenges in execution and the RBKs are not an exception. This article highlights the challenges faced by the RBK staff in execution of work and constraints experienced by the farmers in realizing the services from RBKs.

MATERIAL AND METHODS

The study was conducted in Guntur district of Andhra Pradesh during the year 2023 as the locale has 249 RBKs in number. Ex-post facto research design was followed for the study with a limited sample frame and the results of this study cannot be generalized for the total state. From the selected district, four mandals were purposively selected having the highest number of RBKs. From each of the mandal, five villages were randomly selected and from each village, five farmers from the respective selected village RBK, were selected randomly, thus making a total 100 respondents. From

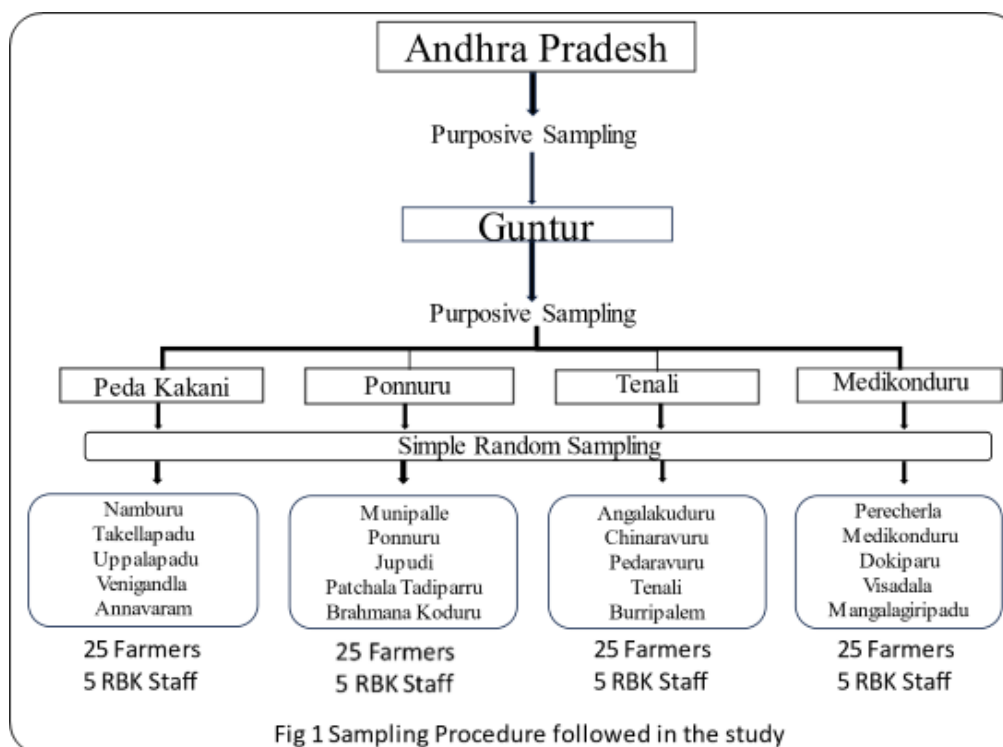*Corresponding author, E-mail: seetha.iabmt@gmail.com

Fig 1 Sampling Procedure followed in the study

each village, one service provider (RBK staff) was selected, thus making it to total 20. For the present study the 'problem' was viewed as the unsatisfactory situations in receiving the services from RBKs by the farmers and also the service providers in the way of providing services to the farmers. From pilot survey problems were identified and respondents were asked to rank each problem based on the magnitude of seriousness. The constraints were prioritized by adopting Garret ranking technique.

Frequencies and Percentages

When it was required to know the distribution pattern of respondents according to parameters, some of the data were also interpreted in terms of their frequencies and percentages.

Garrett's Ranking Technique

To find out the major constraints faced by the respondents, Garrett's ranking technique was used. The prime advantage of this technique over simple frequency distribution is that the constraints were arranged based on their severity from the point of view of the respondents. Hence, the same number of respondents on two or more constraints might have given different rank. Garrett's formula for converting ranks into percent is:

Percentage position = $100*(R_{ij} – 0.5) / N_j$

where R_{ij}= Rank given for i^{th} item by j^{th}

N_j= Total number of constraints ranked

With the help of Garrett's table, the percent position estimated is converted into scores. Then for each constraint, the scores of each individual was added and then the total value of scores and mean values of score is calculated. The constraints having the highest mean value is considered to be the major constraint. The final ranking of the constraints in order to fix their relative priority was done on the basis of their mean score.

Socio-economic profile of farmers

The socio-economic profile provided the information on the age, education, family size, annual income, occupation of a sample farmer, amount of operating landholding, agricultural experience, social participation, extension contact of the farmers. The basic data was gathered from a sample of 100 farmers from the Guntur district of Andhra Pradesh.

RESULTS AND DISCUSSIONS

Socio-economic profile of farmers

The socio-economic profile gives detailed information on the age, education, family size, annual income,

occupation of a sample farmer, amount of operating landholding, agricultural experience, social participation, extension contact of the farmers.

Table 1 shows the socio-economic profile of the sample farmers (n=100) revealed that majority of the respondents were of medium category across various parameters. In terms of age, the majority of the respondents in the medium group (64.00 %), while only a small percentage belonged to the low age group (9.00 %) (Rajesh, 2022). Regarding income, a significant proportion of farmers had medium annual income (48.00 per cent), while low-income farmers make up 39.00 per cent and high-income farmers account for 13.00 per cent (Reddy, 2022). The distribution of landholding is more balanced, with 54.00 per cent falling under the medium category, followed by high (28.00 per cent) and low (18.00 per cent) landholding. Farming experience showed a similar trend, with 64.00 per cent of farmers in the medium category, 22.00 per cent in the high, and 14.00 per cent in the low category.

Table 1. Socio-economic profile of sample farmers (n = 100)

S. No.	Profile	Low	Medium	High
1	Age	9 (9.00)	64 (64.00)	27 (27.00)
2	Family size	20 (20.00)	75 (75.00)	5 (5.00)
3	Annual income	39 (39.00)	48 (48.00)	13 (13.00)
4	Land holding	18 (18.00)	54 (54.00)	28 (28.00)
5	Farming experience	22 (22.00)	64 (64.00)	14 (14.00)

Note: Figures in the parentheses indicate percentage to the total
Source: Field survey study

A) Constraints faced by the service providers in providing RBK services to the farmers

Table 2, shows that "Administrative actions and App related issues" was ranked 1st place with a mean score of 58.35, indicating that this constraint is perceived as the most significant challenge by the RBK staff. There are some unavoidable structural actions, like lengthy process

for providing inputs and services, App related issues, lag in providing the RBK maintenance charges, fixing the targets for activities etc., Administrative delays can have far-reaching impacts on the overall functioning of the RBK sometimes leading to inefficiencies and missed opportunities. The "App-related issues" are the points related to difficulties related to the usage or functionality of applications (presumably digital applications like server responses, location specific issues, uploading field survey/sub-division numbers etc.) used by RBK staff to provide services to farmers. This constraint shows the importance of reliable and functional applications used by RBK staff to interact with farmers, manage data, and provide services. App-related issues are often hindering the effective communication and data management affecting the quality of services delivered to the farmers.

The second challenge revealed was "Lack of manpower in peak season hours" with a mean score of 56.20. The finding highlights the strain on RBK staff during peak agricultural seasons when the demand for service provision is higher like e-crop booking, input distribution out of office hours, other administrative works etc., The supporting staff allotted in the name of 'RKB mitra' are hardly available. The shortage of manpower during critical periods led to inefficiencies and delays in addressing farmers' needs.

"Mobilization of farmers into a group" revealed 9due to farm/ personal activities, farmers unable to attend the RBK activities frequently) as third challenge with a mean score of 53.00. This finding suggested that there are challenges in organizing and mobilizing farmers into cohesive groups for collective actions and services. Effective group mobilization can foster knowledge sharing and resource pooling among farmers, contributing to their overall socio-economic development.

The "Lack of internet facility in remote areas" indicated that RBK staff struggle with limited access to the internet in remote areas, which hampers their ability to use digital tools and technologies in their services, ranked as fourth challenge with a mean score of 47.60. This constraint indicated that the absence of reliable internet connectivity in remote areas hampers the staff's ability to access crucial information, communicate effectively, and deliver services to farmers in those regions. Improving internet infrastructure in remote areas and also improving offline and online services switching facility can lead to more equitable service delivery.

Table 2. Constraints faced by service providers in providing RBK services to the farmers

(n = 20)

S. No.	Constraints faced by RBK staff	Garrett Technique	
		Mean Score	Rank
1.	Administrative actions and App related issues	58.35	1
2.	Lack of manpower in peak season hours	56.20	2
3.	Mobilization of farmers into a group	53.00	3
4.	Lack of internet facility in remote areas	47.60	4
5.	Limited digital literacy	45.75	5
6.	Lack of physical infrastructure facilities	42.05	6
7.	Lack of digital infrastructure	37.75	7

Source: Field survey study

Table 3. Constraints faced by the farmers

(n = 100)

S. No.	Constraints faced by farmers	Garret's technique	
		Mean score	Rank
1.	No regular procurement of farm output by Govt. agencies	56.57	1
2.	Insufficient farm mechanization and lack of individual approach	53.99	2
3.	Unavailability of micronutrients and region-specific critical information	51.48	3
4.	Slow redressal mechanism	48.99	4
5.	Delay in supply of critical inputs	46.41	5
6.	Lack of Insurance cover for all rabi crops	44.16	6

Source: Field survey study

The constraint which ranked fifth was "Limited digital literacy" with a mean score of 45.75. The finding indicates that there is a significant need to enhance farmers' digital literacy to leverage technological advancements in agriculture effectively. Bridging the digital divide can empower farmers with access to modern practices, weather forecasts, market trends, and other vital information for their farming operations.

"Lack of physical infrastructure facilities" ranked sixth with a mean score of 42.05 which indicates that the RBKs face shortfall due to inadequate or insufficient physical infrastructure, such as godowns, soil testing, grading yard, soil and seed moisture testing kits required

to effectively provide services to the farmers (Anuhya *et al*, 2022).

The constraint "Lack of digital infrastructure" indicated the facilities like computer, printer, AP fiber net services for easy data recording secures the sixth rank with a mean score of 37.75. This highlights the need for robust digital infrastructure to support RBK operations. Upgrading digital infrastructure can enhance data management, analysis, and service delivery to farmers. Inadequate physical/digital infrastructure hindering the smooth functioning of the RBK and posing negative impact on overall effectiveness of services provided to farmers.

The other challenges includes poor adaptability of Good Agricultuiral Practices (GAP) by farmers, Crop Cultivation Rights Cards to tenants as they have to convince the owner farmers in order to make the service available to tenant farmers and repeated requests to the farmers with regard to make them participate in e-crop booking, polambadi, trainings, meetings etc.

B) Constraints faced by the farmers

Table 3 shows that "No regular procurement of farm produce by Govt. agencies" with a mean score of 56.57, indicating that this constraint is considered the most important by the sample farmers because of its direct relevance with economic benefit. This finding highlights the significant impact of lack of consistent market for their produce, leading to uncertainties and financial instability of the farmers. The absence of government support and guaranteed procurement adversely affects their income and discourages investment in agriculture (Gohain *et al*, 2018). The farmers expects for procurement of all the produce in all the seasons, which is almost impossible with any government.

The constraint "Insufficient farm mechanization and lack of individual approach" highlighted that, the Custom Hiring Centre (CHC) services provided by RBKs is insufficient for the locale and need to be increased atleast by 8-10 folds. In addition, there is a dire need to provide individual farm equipment's like tarpaulins, sprayers, oil engines, irrigation related equipment etc, realizing the local requirements of farmers, which ranked second in the list with a mean score of 53.99. The constraint expressed by the farmers need to be resolved as early as possible to harness the speedy development.

The constraint "Unavailability of micronutrients and region-specific critical information" ranked third with a mean score of 51.48. This constraint highlights the importance of provision of micronutrients required for the crops like zinc, iron, gypsum etc, and tailored information and knowledge that is relevant to the specific regio. Access to such information can significantly show impact on the decision-making process of farmers, leading to improved productivity and sustainability.

Another constraint "Slow redressal mechanism" which means there is a lack of an effective mechanism for addressing the payment facilities, errors in e-crop booking and insurance related, ranked fourth in importance with a mean score of 48.99. This constraint shows the need for a well-defined system to address grievances as early as possible and provide assistance to farmers. Without such a mechanism, farmers might face difficulties in obtaining timely help and support, hindering their ability to cope with various challenges in their agricultural activities.

The constraint "Delay in supply of critical inputs" secures the fifth rank with a mean score of 46.41. This highlights the importance of timely availability of essential inputs like seeds, fertilizers and other inputs (Ramappa, 2014).

Lastly, "Lack of Insurance coverage for all rabi crops" ranked sixth with a mean score of 44.16. This constraint suggests that there is a need to expand insurance coverage for all the rabi crops to provide farmers with better risk management options. Enhanced insurance coverage can help farmers to mitigate losses due to adverse weather events or other unforeseen circumstances.

In conclusion, the sample farmers' socio-economic profile indicates that the majority were in the medium category across various parameters, such as age, income, landholding, and farming experience; the article has also examined significant constraints expressed and faced by the farmers and the challenges confronted by service providers of RBKs. Administrative actions and app-related issues were major hurdles for RBK staff, causing inefficiencies. Limited manpower during peak seasons, difficulties in mobilizing the farmers, and inadequate digital infrastructure further impede service delivery. Streamlining administrative processes, improving digital infrastructure and literacy, and enhancing market access to the farmers are critical steps to boost RBK effectiveness. Ensuring regular procurement of farm output, providing tailored support, and strengthening grievance redressal mechanisms are essential for supporting farmers and promoting agricultural growth and sustainability. Addressing these constraints requires collaborative efforts to ensure that farmers benefit from the services provided, fostering agricultural growth and prosperity of the study area.

The study was limited to the Guntur district only and can be mentioned that its results could not be applicable to Andhra Pradesh state as a whole.

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