

A study on knowledge, constraints and suggestions of farmers regarding products and services of Rythu Bharosa Kendra (RBKs) in Vizianagaram district of Andhra Pradesh

ABSTRACT

Rythu Bharosa Kendra is a state government initiative of Andhra Pradesh for providing various services to the farmers from seed to sale at gross root level. The present study highlights the knowledge level of farmers along with the constraints and suggestions of farmers regarding the services provided by RBK. Ex post facto research design was employed to conduct the study, using multi stage proportionate random sampling procedure, a sample of 140 farmers were selected from Garividi and Gurla mandals of Vizianagaram district. Descriptive statistics was used to analyse and categorize the data regarding knowledge level of farmers and to identify and rank the constraints and suggestions Garrett's Ranking Technique was employed. The findings of the study identified that about three-fourths (73.00%) of the farmers had medium level of knowledge regarding services rendered by RBKs followed by high (17.71%) and low (9.29%) levels of knowledge. The prime constraints faced by the farmers were lack of expertise to use digital kiosk and delay in disbursement of payment for the marketed produce and the foremost suggestions given by the farmers were on time disbursement of payment for the marketed produce and timely supply of inputs and Rythu Bharosa to farmers. The findings of the study will aid policy makers to formulate new interventions for improving the services of RBK.

Key words: Knowledge level, Rythu Bharosa Kendra (RBK), constraints, suggestions Garrett's Ranking Technique.

INTRODUCTION

In India, agriculture is the predominant source of livelihood for majority of the population. Pre and post green revolution extension systems had played a major role in the dissemination of transfer of technologies. To the contrary, farmers encountered many issues in availing agricultural services (Anuhya *et al*,2022)¹. At national level the present extension worker to farmer ratio is 1:1162 which is low as against to recommended ratio of 1:750 (Anuhya *et al*,2022)².

Comment [Ma1]: No need to mention mandals in abstract

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Comment [Ma3]: And also functionaries of RBK in improving the existing lacunae and formulatong new ones – write as such

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To provide advisory services and address the requirements of each farmer successfully a strong integrated platform is necessary at village level (Reddy 2020)⁹. Knowing the importance of agriculture in the state, the government has established 10,641 Rythu Bharosa Kendra (RBKs) on May 30,2020 across the state in every village secretariat to provide information on latest production technologies and also quality inputs to the farmers at their village level and these Rythu Bharosa Kendra (RBKs) started functioning across the state from kharif 2020. Similarly, the Department of Agriculture has recruited 6,758 village agriculture Assistants to manage these RBKs at gross root level (Babu *et al.*,2021)⁴.

Comment [Ma5]: Which state? mention

To have better synergy and conjunction the Agri input shop and knowledge centre integrated and called as Rythu Bharosa kendras (RBK) or Farmer Assurance Centres. RBKs supplies government certified Agri, animal husbandry and fisheries inputs to the farmers. Besides, it has a workshop or knowledge centre for providing scientific Agri advisory services to farmers (Chowdary *et al.*, 2022)⁵. Community Hiring Centres (CHCs) of RBKs provide machinery for a group of five to six members in a village with forty per cent subsidy and fifty per cent of bank loan. This machinery was maintained by these group of farmers and made available to the marginal and small farmers to hire at low cost (Krishna *et al.*,2022)⁷. Some other services of RBK include training farmers, soil testing, providing crop insurance, conducting demonstrations, identifying beneficiaries for various schemes, providing market intelligence, issue of animal health cards etc (Reddy 2020)⁹. Therefore, the concept has revolutionised agriculture sector by catering all the needs of farmers from seed to sale (Anuhya *et al.*, 2022)³.

The Rythu Bharosa Kendras (RBKs) is one among six initiatives nominated for United Nations Organizations (UNO) awards and has recognized internationally lifting the pride of the nation (Anuhya *et al.*,2022)². The RBK system has taken a giant step in bringing the extension system closer to the farming community and making it more transparent (Reddy 2020)⁹. In spite of its recognition internationally the scheme from its inception encountered numerous challenges in its implementation and the ideal objective of wellbeing of farming community was hindered by various inconsistencies both at individual and organizational level (Saifuddin *et al.*,2023)¹¹. The success of the initiative depends on knowledge possessed by the farmers (Raju 2022)¹⁰ regarding the services of RBKs. Scanty studies have noticed on farmers' knowledge about RBKs and the problems faced by them (Anuhya *et al.*,2022)³. Keeping in view, present study was conducted with the objective of:

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- ✓ To understand the knowledge level of farmers regarding the product and services of Rythu Bharosa Kendras (RBKs)
- ✓ To elicit the constraints encountered by the farmers in availing the products and services of Rythu Bharosa Kendras (RBK).
- ✓ To document the suggestions given by the farmers for enhancing the functioning of RBK.

METHODOLOGY

The study was conducted during 2022, Ex-post-facto research design was used. Vizianagaram district was selected purposively as the district is predominantly an agricultural district with 68.40 per cent of the workers were engaged in agriculture and about 82.00 per cent of the population of the district were living in the rural areas and depend on agriculture for their livelihood. The sampling procedure of mandals and villages was purposive based on highest number of RBKs and highest number of farmers respectively. Initially from Garividi mandal Vedullavalsa, Sivaram, Bondapalli and Baguvalsa villages were selected with 1047,995,752 and 748 farmers respectively. Similarly, in Gurla mandal kella, chodavaram, vallapuram and jammu were chosen with 1055,891,759 and 757 farmers respectively. Further multi stage proportionate random sampling was used to select two per cent population as sample from the chosen villages. Accordingly, the sample size was finalized as 140. Primary data was collected using well-structured and pre-tested interview schedule. The data collected is then analysed and categorized using descriptive statistics like frequency, percentage, mean and standard deviation to attain meaningful interpretation of findings of the study.

The knowledge of farmers regarding products and services provided by RBKs was measured by a schedule that comprises of 15 questions which contains multiple choice questions, fill in the blanks, true or false statements with a score of one for correct response and zero for incorrect response. The maximum score a respondent can get was 15 and minimum score of respondents was 0. The total score of individuals was obtained by summing up the score of all the items. Further respondents were categorized into three groups based on mean and standard deviation as low, medium and high levels of knowledge.

To identify and rank the constraints and suggestions Garrett's Ranking Technique was used. Garrett's Ranking technique provides the change of orders of the factors and advantages into numerical scores. The principal advantage of this technique over simple frequency distribution is that the constraints and suggestions were arranged based on their preference or

Comment [Ma7]: Reframe the sentence. Feels inappropriate

Comment [Ma8]: Mention where did you get this data

Comment [Ma9]: Write precisely – how many mandals you have selected what are they? Mention the respective numbers in brackets for ease of reading

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importance from the point of view of respondents. The Garrett's formula for converting ranks into percent was given by

$$\text{Per cent Position} = 100 * (R_{ij}-0.5)/N_j$$

R_{ij} = Rank given for i th item by the j th sample respondents

N_j = Number of factors ranked by j th sample respondents

The per cent position of the rank was transformed into scores mentioned in the table given by Garrett and Woodworth. For each factor, the scores of individual respondents were added together and divided by the total number of the respondents for whom the scores were added. Mean scores for all these factors were arranged in the descending order and ranked accordingly.

Comment [Ma11]: Not clear

RESULTS AND DISCUSSION

3.1. Knowledge of farmers regarding the product and services of Rythu Bharosa Kendras (RBKs)

According to Table 1 it reveals that cent per cent of the respondents had knowledge on RBKs acted as one stop shop for Agri and allied services (100.00%) and cost of e crop booking, crop insurance (100%) followed by organizing advisory board meetings by RBKs (97.86%), schedule of polambadi programme (92.14%), required parameters for procurement of produce (87.86%), established year of RBK (87.14%), availability of Custom Hiring Centres (CHCs) in RBKs (76.43%), duration for delivery of stocks (69.29%), availability of soil and seed testing facility in RBKs (60.00%), purpose of digital kiosk in RBK (55.71%), supply of livestock feed to farmers (49.29%), toll free number of RBKs (35.71%), provision of organic inputs (30.00%) you tube channel of RBK (28.57%), interval of magazine publication of RBKs (26.43%).

Comment [Ma12]: No discussion is written. how and why they have full knowledge of few things and not about the others explain

Table 1. Distribution of farmers according to their knowledge on RBKs.

(n=140)

S.no	Knowledge of farmers on services rendered by RBKs	Correct response		Incorrect response		Rank
		F	P	F	P	
1	Established year of RBK	122	87.14	18	12.86	VI

Comment [Ma13]: What are F and P – mention at bottom of table or abbreviate in the table itself

2	Schedule of polambadi programme (Farmer field schools)	129	92.14	11	7.86	IV
3	Purpose of digital kiosk in RBK	78	55.71	62	44.29	X
4	You tube channel of RBK	40	28.57	100	71.43	XIV
5	Required parameters for procurement of produce	123	87.86	17	12.14	V
6	RBKs acted as one stop shop for Agri and allied services	140	0	100	0	I
7	Cost of e crop booking and crop insurance	140	0	100	0	II
8	Availability of Custom Hiring centres (CHCs) in RBKs	107	76.43	33	23.57	VII
9	Availability of soil and seed testing facility in RBKs.	84	60.00	56	40.00	IX
10	Toll free number of RBKs	50	35.71	90	64.29	XII
11	Duration for delivery of stocks	97	69.29	43	30.71	VIII
12	Supply of livestock feed to farmers	69	49.29	71	50.71	XI
13	Interval of magazine publication of RBKs	37	26.43	103	73.57	XV
14	Organizing advisory board meetings by RBKs	137	97.86	3	2.14	III
15	Provision of organic inputs	42	30.00	98	70.00	XIII

Table 2. Distribution of respondents according to their overall knowledge on RBKs.

(n=140)

S. No	Category	Frequency	Percentage
1.	Low knowledge level	13	9.29
2.	Medium knowledge level	102	73.00
3.	High knowledge level	25	17.71

Comment [Ma14]: What is the score range of this category?

Total	140	100
Mean= 10.06	Standard Deviation= 2.44	

From the Table 2 it is inferred that nearly three-fourths (73.00%) of the farmers had medium level of knowledge regarding RBKs followed by high (17.71%) and low (9.29%) levels of knowledge on RBKs. The findings are in consonance with the findings of Meena (2016).

The possible reason might be that, RBKs were located at village level and farmers had regular contact with the RBK technical staff. Also, to increase the reach of RBKs effective publicity campaigns have been taken by the government.

Comment [Ma15]: What kind of campaigns explain

3.2. Constraints encountered by the farmers in availing the products and services of Rythu Bharosa Kendras (RBK)

According to Table 3 the major problems faced by the respondents while availing the services of RBKs ranked according to their Garrett Mean Score. It was found that the respondents faced problems regarding lack of expertise in using digital kiosk or / ICT tools (73.07), delay in receiving the payment for marketed produce (63.07), lack of proper infrastructure facilities (60.32), delay in supply of inputs and Rythu Bharosa (55.67), inadequate market information from the staff of RBKs (52.82), inadequate information regarding local agriculture problems (49.15), inconvenient time of training programmes (42.90), delay in soil testing reports (40.77), insufficient IPM kits (35.55) and delay in issue of animal health cards (22.48).

Comment [Ma16]: What kind of infrastructure they are lacking – explain in discussion

Comment [Ma17]: As a resident of A.P you may be aware of it. But it could be clear to all the raders so explain what is rythu baroasa

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Table 3. Constraints encountered by the farmers in availing the services of RBKs. (n=140)

S.No	Constraints	Garrett Score	Mean Score (MS)	Rank
1	Inconvenient time of training programmes	42	42.90	VII
2	Lack of proper infrastructure facilities	63	60.32	III
3	Inadequate market information from the staff of RBKs	52	52.82	V
4	Delay in soil testing reports	36	40.77	VIII
5	Lack of expertise in using digital kiosk	81	73.07	I

6	Delay in receiving the payment for the marketed produce	70	63.07	II
7	Delay in supply of inputs and Rythu Bharosa	58	55.67	IV
8	Delay in issue of animal health cards	13	22.48	X
9	Inadequate information regarding local agriculture problems	29	49.15	VI
10	Insufficient IPM kits	18	35.55	IX

3.3. Suggestions given by the farmers for enhancing the functioning of RBKs

Findings from the Table 4 mentions the suggestions given by the respondents to overcome the problems faced by them in availing the RBK services which was ranked according to their Garrett Mean Scores. It was observed that on time disbursement of payment for the marketed produce (70.83), timely supply of inputs and Rythu Bharosa to farmers (61.38), improving infrastructure facilities of RBK (61.28), organizing more Polambadi programmes (57.59), provision of adequate market information from Village Agriculture Assistant (50.49), conducting trainings for farmers to solve local agricultural problems (43.09), increase the technical competency for the staff of RBK (42.94), provision of sufficient quantities of IPM kits to the farmers (39.35), on time issue of animal health cards (37.49) and provision of information on crop loan eligibility from bank mitra/ technical staff of RBK (31.56) were the major suggestions by the respondents.

Table 4. Suggestions given by the farmers for enhancing the functioning of RBKs. (n=140)

S.No	Constraints	Garrett Score	Mean Score (MS)	Rank
1	Improving infrastructure facilities of RBK	63	61.28	III
2	Provision of adequate market information from Village Agriculture Assistant (VAA)	52	50.49	V
3	Increase the technical competency for the staff of RBK	42	42.94	VII
4	Provision of sufficient quantities of IPM kits to the farmers	37	39.35	VIII

Comment [Ma19]: No discussion written Why they choose the following suggestions as number 1 explain

5	Timely supply of inputs and Rythu Bharosa to farmers	70	61.38	II
6	On time disbursement of payment for the marketed produce	82	70.83	I
7	Organizing more Polambadi programmes	58	57.59	IV
8	On time issue of animal health cards	29	37.49	IX
9	Provision of information on crop loan eligibility from bank mitra/ technical staff of RBK	18	31.56	X
10	Conducting trainings for farmers to solve local agricultural problems	48	43.09	VI

Conclusion

The RBK concept is a big move into the agriculture sector for the wellbeing of farming community by meeting all their needs at panchayat level. The results of the study revealed that farmers had medium to high knowledge on RBKs which would help them in utilizing the services effectively. On the other hand, they have minimal knowledge on services like provision of organic inputs by RBKs, RBK you tube channel and publication of RBK magazine. The full potential of scheme mostly depends on the knowledge of the farmers to make use of all services of RBKs. Therefore, there is need of organizing training programmes to enhance their knowledge level and popularize the services of RBKs. Most of the farmers expressed that lack of expertise to use digital kiosk, delay in disbursement of payment for the marketed produce and lack of proper infrastructure facilities as the major constraints faced by them and suggested on time disbursement of payment for the marketed produce and timely supply of inputs and Rythu Bharosa to farmers and improving infrastructure facilities of RBK may help in efficient functioning of RBKs. The findings of the study will aid policy makers to formulate new interventions for improving the services of RBK.

Comment [Ma20]: Suggest measures how the knowledge can be increased.

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