

Extent of Adoption of Rythu Bharosa Kendra's Technologies and Services in Ananthapuram District of Andhra Pradesh

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Authors' contributions

This work was carried out in collaboration among all authors. All authors read and approved the final manuscript.

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ABSTRACT

Rythu Bharosa Kendras are the one stop shops for all farmers needs at Panchayat level in Andhra Pradesh. They provide services like e-crop booking to avail crop insurance, Agri-input shop, Farmer Knowledge Centres, Technical Advisory team, YSR Rythu Bharosa, Polambadi (FFS), CCRC cards, D-krisshi (Seed distribution), etc. A sample of 90 beneficiaries were randomly selected from Anantapur district of Andhra Pradesh. Descriptive statistics including frequency, percentage, mean, standard deviation, mean scale value were used to analyse the data. The findings of the study indicated that, majority of the respondents (81.11%) having medium level of adoption followed by high (12.20%) and low (6.70%) levels of adoption.

Keywords: Rythu Bharosa Kendra; extent of adoption; technologies and services.

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1. INTRODUCTION

Indian economy is mainly dependent on agriculture for livelihood and security. Rain-fed areas are prone to frequent drought situations. Farmers face problems in input procurement, product selling, market information etc. There are limited testing facilities for agricultural inputs like seeds, fertilizers and pesticides in the state which led to supply of low-quality inputs and causing losses to farmers. Availability of extension functionaries to farmers is limited and present extension worker to farmer ratio is 1:1162 [1]. Total cultivated area in Anantapur district with 769566 operational holdings is 1252312.360 ha (1.25Mha) [2]. It is the only dry district of Andhra Pradesh with about 536 mm annual rainfall. This district lies in the rain shadow area of the state and suffers from frequent droughts. It has only 11% of area under irrigation with groundnut being cultivated in maximum area under rain-fed condition accounting for over 75% of the cropped area [3]. To resolve all the issues and to reach the goal of doubling the farmer's income the Government of Andhra Pradesh started 10641 'Rythu Bharosa Kendralu (RBK)-A one stop shop for all the farmers needs' on 30-05-2020 [4,5] which provides agriculture and allied sector advisory services at every panchayat i.e., market intervention, product procurement and other purposes at their level of reach functioning from kharif 2020 across all panchayats in the state. They also offer workshops and are tied with knowledge partners for supply of scientific Agro-advisory services such as Agri-input shop, Farmer knowledge centres, technical advisory team, YSR RythuBharosa (YS Rajasekhar Reddy Rythu Bharosa), Polambadi (FFS), CCRC Cards, etc which help farmers in ensuring year-round productivity, profitability, sustainability [6]. Recently Rythu Bharosa Kendras (RBKs) have won international recognition on being nominated for United Nations Organisation (UNO) Award bringing pride to the nation [7]. Officials from Department of Agriculture have proposed the establishment of a total of 5,531 godowns, cold storages and collection centers, 4,147 drying platforms, 4,796 threshers, 7,132 cleaners, 1,861 graders, 15,167 dryers, 654 dal mills, 100 turmeric boilers, 100 turmeric polishers, 29 chilly dryers, 816 maize shellers, and millet processing units [8]. The present study was undertaken to study the extent of adoption of RBK technologies and services by the beneficiary farmers in the selected villages and RBKs.

2. RESEARCH METHODOLOGY

For the present descriptive study, Anantapur district of Andhra Pradesh was purposively selected based on highest geographical area in the state. Twoblocks with highest number of RBKs were selected andfrom each block three RBKs were selected randomly. Similarly, three villagesfrom each RBK andfive respondents from each village were selected. Thus, the total sample contains 90 respondents from which the data was collected and interpreted.

For measuring the variable, an index was developed and the frequency was studied on three-point continuum i.e., fully adopted, partially adopted and not adopted and the score were given as 3, 2, 1 respectively and were categorized as high adoption, medium and low adoption using mean and standard deviation. For measuring the distribution of respondents according to level of adoption of RBK services and technologies mean scale value was used.

$$X = \sum_{i=1}^n X_i \div N$$

Where;

X_i = Mean

$\sum X_i$ = Sum of all pairs in a distribution

N = Total number of respondents

$$\sigma = \sqrt{\frac{1}{n} \left[\sum xi^2 - \frac{(\sum xi)^2}{n} \right]}$$

Where,

σ = Standard deviation

$\sum x_i^2$ = The summation of squares of individual items

$(\sum xi)^2$ = The square of individual items

n = Total number of observation in the sample

$$\text{Mean scale value} = \frac{P_1 \times 3 + P_2 \times 2 + P_3 \times 1}{N}$$

Where,

P_1 = Frequency of respondent of 1st preference

P_2 = Frequency of respondent of 2nd preference

P_3 = Frequency of respondent of 3rd preference

N = Total number of respondent

2.1 Objective of the Study

To study the extent of adoption of technologies and services of RBKs by the respondents.

3. RESULTS AND DISCUSSION

Extent of adoption of RBK technologies or utilization of services of RBKs was assessed and the data (Table 1) revealed that, all the respondents adopted YSR Rythu Bharosa and ranked first with mean scale value 3.0 followed by E-crop booking ranked second with mean scale value of 3.0. Subsidy on micro irrigation equipment (PMKSY) ranked third with mean

scale value 2.78 followed by D-Krishi (seed distribution) ranked fourth with mean scale value 2.70 after this comes product procurement at MSP with mean scale value 2.56 ranking fifth. Soil testing facilities ranked sixth mean scale value 2.53 followed by crop health monitoring with mean scale value 2.51 ranked seventh followed by RBK level advisory board ranked eighth with mean scale value 2.45. Quality inputs distribution ranked ninth with mean scale value 2.39 followed by Following of RBK staff advises and recommendations ranked tenth mean scale value 2.27 followed by Polambadi (Mean scale value 2.26) ranked eleventh followed by Rythu Bharosa magazines (Mean scale value 2.13)

Table 1. Distribution of respondents according to level of adoption of RBK technologies or utilization of services

S.No	Services provided	Fully adopted	Partially adopted	Not adopted	Mean scale value	Rank
1.	YSR RythuBharosa	90 (100)	0	0	3.00	I
2.	E-Crop booking	90 (100)	0	0	3.00	II
3.	Crop health monitoring	58 (64.4)	20 (22.22)	12 (13.33)	2.51	VII
4.	D-Krishi (Seed distribution)	70 (77.78)	13 (14.44)	7 (7.78)	2.70	IV
5.	Commodity Market Price and Product Procurement (CMAPP)	30 (33.33)	20 (22.22)	40 (44.44)	1.89	XIV
6.	Quality Inputs Distribution	50 (55.56)	25 (27.78)	15 (16.67)	2.39	IX
7.	CCRC (Crop Cultivator Right Card) cards	10 (11.11)	0	80 (88.89)	1.22	XXI
8.	Polambadi (FFS)	50 (55.56)	13 (14.44)	27 (30.00)	2.26	XI
9.	Crop cutting experiments	29 (32.22)	0	59 (65.56)	1.62	XVII
10.	RythuBharosa Magazines (are you a subscriber)?	41 (45.56)	20 (22.22)	29 (32.22)	2.13	XII
11.	Method demonstrations	24 (26.67)	39 (43.33)	27 (30.00)	1.97	XIII
12.	Natural farming	10 (11.11)	0	80 (88.89)	1.22	XXII
13.	RBK level advisory board	58 (64.44)	15 (16.67)	17 (18.89)	2.45	VIII
14.	RBK channel subscription	17 (18.89)	0	63 (70.00)	1.26	XX
15.	RBK call service-toll free number:155251	20 (22.22)	28 (31.11)	32 (35.56)	1.64	XVI
16.	Soil testing facilities	62 (68.89)	14 (15.56)	14 (15.56)	2.53	VI
17.	Kiosk (Do you utilize kiosks for fertilizer booking?)	25 (27.78)	10 (11.11)	55 (61.11)	1.67	XV
18.	Advisory services provided by specialists in every field i.e., VAA, VHA, VSA, and VFA (Do you follow recommendations given?)	45 (50.00)	25 (27.78)	20 (22.22)	2.27	X
19.	Horticulture schemes-MIDH (are you a beneficiary?)	25 (27.78)	0	55 (61.11)	1.44	XVIII
20.	Subsidy on micro irrigation equipment (PMKSY) (Are you a beneficiary?)	80 (88.89)	0	10 (11.11)	2.78	III
21.	Product procurement at MSP	70 (77.78)	0	20 (22.22)	2.56	V
22.	Sericulture schemes (Are you a beneficiary?)	15 (16.67)	0	75 (83.33)	1.33	XIX

Figures in parenthesis indicate percentage of adopted population

Table 2. Distribution of respondents according to level of adoption or utilization of services of RBK's

Sl. No.	Level of adoption	Frequency	Percentage
1.	Low	06	6.70
2.	Medium	73	81.10
3.	High	11	12.20
	Total	90	100.00

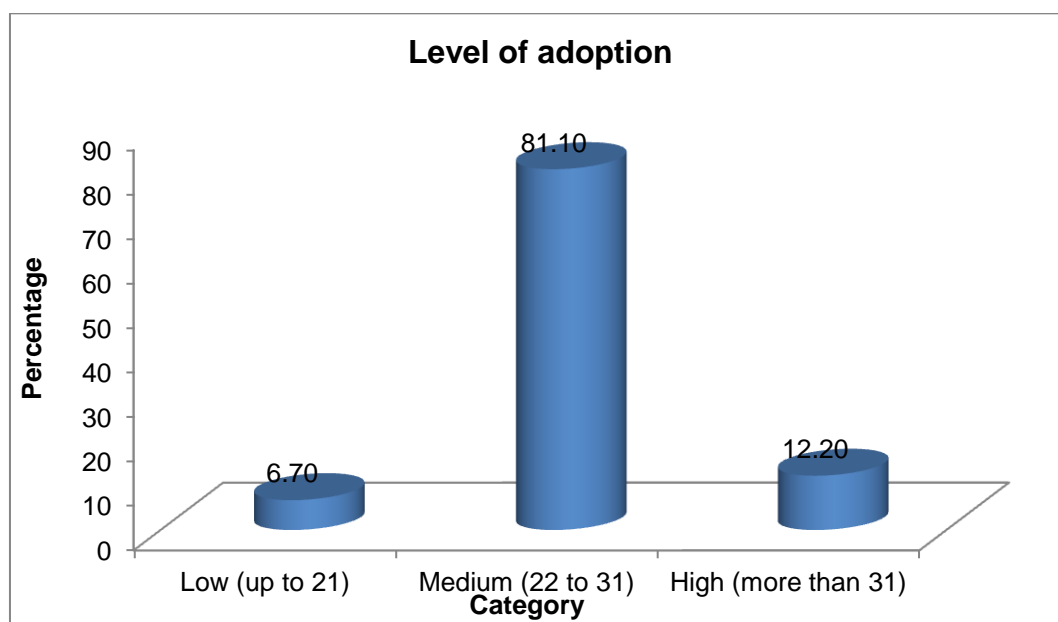


Fig. 1. Distribution of respondents according to their level of adoption

ranked twelfth. Thirteenth rank is occupied by method demonstrations with mean scale value 1.97 followed by CMAPP App (Commodity Market Price and Product Procurement App) with mean scale value 1.89 ranked fourteenth followed by usage of information kiosk ranked fifteenth with 1.67 followed by utilization of RBK call service with mean scale value 1.64 ranked sixteenth. Crop cutting experiments occupied seventeenth place with mean scale value 1.62 followed by adoption of horticulture scheme (MIDH) ranked eighteenth with mean scale value 1.44. Further adoption of sericulture schemes ranked nineteenth with mean scale value 1.33 followed by RBK channel subscription with mean scale value 1.26 ranked twentieth. Further CCRC (Crop Cultivator Right Cards) were ranked twenty first with mean scale value 1.22 followed by Natural farming practices demonstrated by RBKs ranked twenty second with mean scale value 1.22.

Results from Table 2 indicates that, 81.10 per cent of the respondents had medium level of

adoption followed by 6.70 per cent with low adoption and 12.20 per cent high adoption levels. This might be due to the reason that most of the respondents had medium communication behaviour and social participation and they were of secondary education level. These findings were supported by Kotele et al., [9], Kumar [10] and Darshan [2], Sivanarayana et al., [11].

4. CONCLUSION

From the present study on RBKs we can conclude that RBKs work as one stop shops for all the farmers needs at panchayat level by providing many services. Study stipulate that all of the respondents were benefitted from YSR Rythu Bharosa and e-Crop booking. 77.78% of the beneficiaries benefitted from D-krisshi, 33.33% of the respondents were benefitted from Commodity Market Price and Product Procurement. Very less respondents participated in natural farming trainings, method demonstrations and RBK channel subscription. CCRC cards which is a boon to the tenant

farmers was very less popular among the farmers because land owners had to give up their crop insurance and input subsidy. The overall picture of adoption pattern of RBKs shows that bulk of the respondents had medium level of adoption followed by high level of adoption and least proportion of the respondents were having low level of adoption. This was due to the reason that most of them were middle aged with secondary education and low medium of level of awareness of RBK services.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

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