EXPLORING THE ASSOCIATION BETWEEN PROFILE CHARACTERISTICS AND AWARENESS ON RBK SERVICES ALONG WITH SUGGESTIONS GIVEN BY FARMERS

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ABSTRACT

Rythu Bharosa Kendras also called as Farmer Assurance Centres are the one stop solutions introduced by government of Andhra Pradesh in 2020 aiming comprehensive support to farmers. RBKs have not only brought all services to farmers' doorsteps but have also integrated the latest digital technology. The present study was conducted with a sample size of 120 farmers in Visakhapatnam district of Andhra Pradesh. The main aim for conducting study was to find the awareness level of farmers on all the services provided by these centres. The study findings depicted that a significant portion 76.66 per cent of farmers are having medium level awareness which is followed by 14.17 per cent at low level and 9.17 per cent with high-level of awareness. The correlation coefficient indicated that factors like education level and interaction with extension agencies, the frequency and purpose of visits, mass media exposure, social participation, achievement motivation, and innovative proneness exhibited a strongly significant correlation with awareness level. Alongside farmers provided suggestions for fair distribution of adequate quantity of inputs, providing market for wide crop varieties, to improve access to organic inputs, improving the competency of village agriculture assistants by necessary trainings and timely disposal of rythu bharosa income.

Keywords: rythu bharosa kendras, one stop centres, awareness level, services, association, suggestions

INTRODUCTION

Agriculture is more than just a means of livelihood. It is deeply rooted in the way of life for many. To address some inefficiencies in the agricultural system, the government of Andhra Pradesh has introduced Rythu Bharosa Kendras (RBKs), or Farmer Assurance Centres. These centres, established at the village level, aim to provide farmers with easier access to services, simplify processes, and offer a hassle-free experience. The RBKs, pioneered by the state government, serve as comprehensive service centres covering everything from seed to sale. (Govt. of Andhra Pradesh, 2020). The RBKs were introduced by the government to increase transparency and offer the farming industry high-quality services (Reddy, 2020).

RBKs serve as convenient one-stop shops for farmers, offering certified agricultural inputs such as seeds, fertilizers, and insecticides, with advanced Aadhar authentication technology in place. According to Babu et al. (2021), a collective of 10,641 RBKs has been providing quality seeds, fertilizers, pesticides, and farm machinery, evolving into centers of agricultural knowledge.

Before the establishment of these RBKs, seed distribution, Crop insurance and bookings primarily occurred at the Mandal level where farmers need to wait for long hours in queue along with high transportation costs. However, the introduction of RBKs at the village level has provided access to amenities previously unavailable to these farmers (Reddy, 2020; Selvarani and Mohanraj, 2023; Vaishnavi and Ramesh, 2023 & Saikia and Deka, 2023)

RBKs have the potential to transform cropping patterns and increase farmers' profits, demonstrating the government's commitment to enhancing agricultural practices and empowering farmers. RBKs serve as hubs for various functions, retailing pre-tested, high-quality seeds, fertilizers, and livestock feed, facilitating access to farming equipment, and assisting farmers in selling their produce at the minimum support price through mechanisms like e-cropping. Additionally, RBKs offer essential services such as soil and seed testing. Considering these service centres, this study was carried out with the following objectives:

OBJECTIVES

(1) To study the profile characteristics of farmers

(2) To study the awareness level of farmers on RBK services

(3) To study the association between profile characteristics

and awareness level of farmers on RBK services

(4) To seek suggestions for effective functioning of RBKs

METHODOLOGY

The present study was carried out in Visakhapatnam district of Andhra Pradesh. Four mandals i.e., Anandapuram, Bheemunipatnam, Padmanabham and Pendurthi which are predominant in agriculture were selected. Three RBKs from each mandal i.e., 12 RBKs were randomly selected with 10 farmers chosen randomly from each RBK. Thus, a total of 120 respondents were selected as sample respondents for the study. The collection of primary data was facilitated by a pre-tested and validated interview schedule. The necessary secondary information was gathered from government offices like gram panchayat office and mandal office. For categorizing respondent's descriptive statistics was used and for analyzing the association, Karl Pearson's correlation coefficient test was applied. This technique was used to find out the relationship between two variables. The following formula was used for the calculation of the 'r' valve.

$$\text{Where, r} = \frac{\sum xy - \frac{\sum x \sum y}{n}}{\sqrt{\left[\sum x^2 - \frac{(\sum x)^2}{n}\right]\left[\sum y^2 - \frac{(\sum y)^2}{n}\right]}}$$

r = Coefficient of correlation between x and y

$\sum x$ = Sum of scores of variables x

$\sum y$ = Sum of scores of variables y

 = Sum of squares of variables x

 = Sum of squares of variables y

= Squares of the sum of variables x

= Squares of the sum of variables y

$\sum xy$ = Sum of the product of two variables

n = Size of the sample

RESULTS AND DISCUSSION

Table 1: Profile characteristics of Visakhapatnam farmers

(n=120)

Sr. No.	Characteristics	Frequency	Per cent
1	**Age**		
	Young age (up to 35 years)	18	15.00
	Middle age (36 to 50 years)	53	44.17
	Old age (Above 50 years)	49	40.83
2	**Level of education**		
	illiterate	16	13.33
	Primary school	26	21.67
	Middle school	15	12.50
	High school	22	18.33
	Intermediate	28	23.33
	Graduate and above	13	10.83

Sr. No.	Characteristics	Frequency	Per cent
3	**Land holding**		
	marginal farmers	08	06.67
	small farmers	43	35.83
	semi medium farmers	49	40.83
	medium farmers	16	13.33
	large farmers	04	03.33
4	**Annual income**		
	Low income (<Rs 50000)	29	24.17
	Medium income (Rs.50,000 to 1,00,000)	47	39.17
	High income (>Rs.1,00,000)	44	36.67
5	**Farming experience**		
	Low (<14 years)	39	32.50
	Medium (14 to 30 years)	32	26.67
	High (>30 years)	49	40.83
6.a	**Frequency of visits to RBK**		
	Regular	22	18.33
	Occasional	87	72.50
	Never	11	9.17
6.b	**Purpose of visit to RBK**		
	Agricultural	120	100
	Non-agricultural	0	0
7	**Mass media exposure**		
	Low (<6.59)	57	47.50
	Medium (6.59 to 12.07)	60	50
	High (>12.07)	03	02.50
8	**Social participation**		
	Low (<0.507)	84	70
	Medium (0.507 to 2.15)	16	13.33
	High (>2.15)	20	16.67
9	**Achievement motivation**		
	Low (<17.21)	22	18.33
	Medium (17.21 to 23.67)	74	61.67
	High (>23.67)	24	20
10	**Innovative proneness**		
	Low (<10.36)	08	06.67
	Medium (10.36 to 15.28)	111	92.50
	High (>15.28)	01	0.833
11	**Scientific orientation**		
	Low (<23.29)	11	9.16
	Medium (23.29 to 31.37)	94	78.33
	High (>31.37)	15	12.50
12	**Risk orientation**		
	Low (<10.06)	20	16.67
	Medium (10.06 to 13.96)	74	61.67
	High (>13.96)	26	21.67
13	**Extension agency contact**		
	Low (<3.92)	10	8.33
	Medium (3.92 to 7.54)	95	79.17
	High (>7.54)	15	12.5

The results from the Table.1 unveiled that respondents were divided into age groups, with the middle-aged group comprising the largest portion at 44.17 per cent, followed by the elderly group at 40.83 per cent, and 15.00 per cent, in the young age group. In terms of education, the majority of respondents, 23.33 per cent, had completed education up to the intermediate level, followed by 21.67 per cent who had completed primary schooling and 18.33 per cent with a high school education. Additionally, 13.33 per cent were found to be illiterate, 12.5 per cent had completed middle schooling, and only 10.83% had a graduate or higher education. The study respondents were primarily semi-medium farmers (40.83%), followed by small farmers (35.83%), with medium and marginal farmers accounting for 13.33% and 6.67% respectively, and only 3.33 per cent categorized as large farmers. In terms of income, the majority fell into the medium and high-income groups, with 39.17% and 36.67% respectively, while 24.17 per cent were categorized as low-income farmers. Most respondents had high farming experience (40.83%), followed by low (32.5%)

and medium (26.67%) experience. The majority (74.00%) visited RBKs regularly during the cropping season, with 37 per cent visiting occasionally and 9 per cent never visiting. Half of the respondents had medium mass media exposure, while 47.5% had low exposure and 2.5 per cent had high exposure. Social participation was predominantly low (70.00%), followed by high (16.67%) and medium (13.33%). Regarding achievement motivation, 61.67 per cent had a medium level, while 20 per cent had a high level and 18.33 per cent had a low level. Most respondents (92.5%) showed a medium level of innovativeness, while 6.67 per cent had a low level and 0.83 per cent had a high level. A significant portion (78.33%) had a medium level of scientific orientation, with 12.5 per cent having a high level and 9.16 per cent having a low level. In terms of risk orientation, 61.67% had a medium level, 21.67 per cent had a high level, and 16.67 per cent had a low level. Finally, the majority (79.17%) had medium contact with extension agencies, with 12.50% having high contact and 8.33 per cent having low contact.

Table 2: Distribution of respondents based on their awareness level   (n=120)

Sr. No.	Awareness about RBK	X			
		Aware		Not aware	
		f	%	f	%
1	RBK is a one-stop solution for agriculture and allied activities	109	90.83	11	09.17
2	RBK also supplies Agri inputs to the farmers (seeds, fertilizers etc.)	105	87.50	15	12.50
3	Digital kiosk is available at RBK for placing an order of Agri inputs.	77	64.17	43	35.83
4	RBK area of operations is confined to Revenue village as a Unit	79	65.83	41	34.17
5	RBK has all the information about agriculture & allied supporting schemes offered by the state government	89	74.17	31	25.83
6	RBK supplies livestock feed to the farmers	56	46.67	64	53.33
7	E-Karshak (Digital crop records) is maintained by RBK staff by capturing crop images and geo-tag the location of the crop	96	80	24	20.00
8	Enrollment and Processing for Input Subsidy and crop insurance are done at RBK	112	93.33	08	06.67
9	There are agriculture & allied audio- visual aids like charts, boards and books displayed at RBK to create awareness regarding current works & new technological advancements.	87	72.50	33	27.50
10	Agriculture Asst & Veterinary Asst are the staff available at RBK for guidance	95	79.17	25	20.83
11	RBK assesses the yield and damage of crops and those records are maintained	88	73.33	32	26.67
12	Veterinary services like medication, guidance regarding maintenance and feed, etc.	57	47.50	62	51.67
13	RBK disseminates information related to agriculture & allied firms via WhatsApp groups	71	59.17	49	40.83
14	RBK provides extension services like farm school, weather forecasting information, soil, seed and water testing, etc.	31	25.83	89	74.17
15	RBK provides marketing services like market price information and MSP procurement services	81	67.50	39	32.50
16	Formation and credit linkage of 4S groups (JLG) is done at RBK?	69	57.50	51	42.50

Table 3 : Distribution of respondents on extent of overall awareness (n=120)

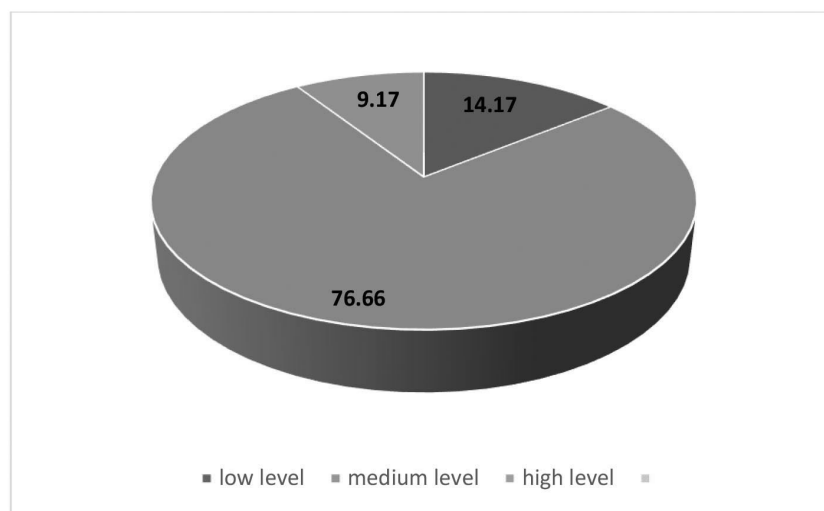| Sr. No.	Category	Respondents	
		Frequency	Per centage
1	**Low level** (<8.53)	17	14.17
2	**Medium level** (8.53 to 13.35)	92	76.66
3	**High level** (>13.35)	11	9.17

Fig. 1: Percentage of farmers distributed based on overall awareness level

Fig.1 depicts a significant portion (76.66) of farmers is having medium level awareness which is followed by low level (14.17) and high-level awareness (9.17) respectively. These findings are similar with Patel *et al*. (2012), Pandya *et al*. (2013), Kavad *et al*. (2015).

Table 4 : Relationship between the profile of farmers with their Awareness level (n=120)

Sr. No.	Profile	'r' value (Awareness)	p value
X_1	**Age**	-0.169[NS]	0.065
X_2	**Level of Education**	0.187*	0.041
X_3	**Land holding**	0.032[NS]	0.728
X_4	**Annual income**	0.002[NS]	0.982
X_5	**Farming experience**	0.056[NS]	0.546
X_6	**Frequency and purpose of visit**	0.370**	0.000
X_7	**Mass media exposure**	0.673**	0.000
X_8	**Social participation**	0.306**	0.001
X_9	**Achievement motivation**	0.293**	0.001
X_{10}	**Innovativeness**	0.270**	0.003
X_{11}	**Scientific orientation**	-0.121[NS]	0.188
X_{12}	**Risk proneness**	-0.028[NS]	0.758
X_{13}	**Extension agency contact**	0.225*	0.014

NS: Non-Significant; *Significant at 5% level; ** Significant at 1% level

The significance of the calculated 'r' value was assessed by comparing it to the 'r' table values corresponding to 5 percent and 1 percent levels of significance at (n-2) degrees of freedom. If the calculated 'r' value equal or exceeded the table value, the relationship between the chosen variables was deemed significant; otherwise, it was regarded as non-significant.

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Table. 4 showing the correlation coefficient indicated that factors like education level (0.187) and interaction with extension agencies (0.225) displayed a notable connection with awareness at a significance level of five percent. Meanwhile, the frequency and intent of visits (0.370), usage of mass media (0.673), engagement in social activities (0.306), drive for achievement (0.293), and innovative tendencies (0.270) exhibited a strongly significant correlation with awareness at a significance level of one percent.

Suggestions given by the farmers for effective functioning of RBKs

Farmers have put forward numerous recommendations to overcome the challenges encountered when engaging with Rythu Bharosa Kendras (RBKs). To address the issue of limited input provision to certain farmers, it is suggested to broaden the distribution of inputs fairly, ensuring a larger group of farmers can benefit. Each RBK is advised to develop a crop-specific pre-monsoon ordering strategy, informed by insights from previous years' cropping patterns, crop areas, major pest and disease concerns, and region-specific input requirements.

RBKs currently focus on procuring only a few selected crop varieties despite seed distribution being available for several crops. Diversifying the crop range and promoting crop diversity among farmers can tackle this exclusive market offering for select crop varieties. To enhance the accessibility of organic inputs, RBKs should work on increasing their availability and distribution at reasonable rates. VAAs and other technical staff should be given timely trainings.

Improving the effectiveness of RBK WhatsApp groups entails ensuring timely and pertinent information sharing. Addressing infrastructure-related issues, such as the lack of dedicated RBK buildings in some locations where services operate out of old PACS or gram panchayat buildings rented out, is crucial. Particularly in remote areas, efforts to enhance accessibility are vital. Providing comprehensive training and support to RBK staff can improve their ability to assist farmers effectively and enhance the quality of soil and seed testing services.

Boosting subsidies for machinery and resolving operational challenges with digital kiosks for input ordering are imperative for streamlining the RBK system. Furthermore, steps should be taken to minimize delays in YSR Rythu Bharosa distribution and reduce the distance of RBKs from villages to enhance their accessibility and efficiency, thereby improving overall effectiveness in addressing farmers' needs. These are similar with the findings of Jain (2017), Anuhya *et al*. (2022), Reddy *et al*. (2023).

IMPLICATIONS

The findings of the current study yield several important implications: Firstly, there is a need for increased awareness campaigns by the state agriculture department to inform farmers about the full range of services available at these one-stop RBK shops. Secondly, it is essential for RBK staff to undergo regular training to stay updated with the latest information. Thirdly, there should be an augmentation in the quantity of agricultural inputs along with ensuring fair distribution. Furthermore, since a significant proportion of farmers (90.84%) demonstrated only medium to low levels of awareness regarding RBK services provided by the state government, it underscores the necessity for RBKs to enhance their activities to better integrate into farmers' livelihoods. Additionally, mass media has played a crucial role in disseminating information about the benefits and uses of these facilitation centers, contributing to a more positive perception among farmers. Therefore, the state agricultural department should organize campaigns to increase awareness and popularize the services, ensuring that all farmers are informed about the various utilities available and can benefit accordingly.

CONFLICT OF INTEREST

No conflict of interest among researchers

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