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An analysis of profile characteristics of primary agriculture credit societies (PACS) beneficiary farmers in Chhattisgarh

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Abstract

The present study was conducted in Raipur, Bilaspur, Durg and Rajnandgaon districts of Chhattisgarh to analyze the profile characteristics of PACS beneficiary farmers of these districts. Total 320 beneficiary farmers were randomly selected for this study and the relevant data were collected personally from all the selected respondents with the help of pre-tested interview schedule. The findings related to socio-personal characteristics of the respondents highlight that most of the respondents were belonged to old age group (51.25%), were male (95.00%), belonged to Other Backward Class (62.81%), were educated up to 5th class, had 6 to 10 members in their family and were non member of Steering Committee of PACS (83.44%). Similarly, findings regarding socio-economic characteristics of the respondents showed that most of them were belonged to the small category of the farmers (36.56%), were adopting the crop husbandry as main occupation (90.94%), had the annual income between ₹ 50,000 to 1,50,000 (38.42%) and among them only 47.00 per cent were able to earn up to ₹ 50,000 annually from their farm enterprises. While the findings concerning to correlation analysis showed that factors such as caste, education, membership in steering committee of PACS, size of land holding, farm material possession and farm income were found to be positive and highly significantly correlated with annual income at 0.01 level of probability.

Keywords: PACS, profile characteristics, steering committee, correlation analysis

Introduction

International Co-operative Alliance (ICA) defined cooperative as “A cooperative is an autonomous association of persons united voluntarily to meet their common economic, social, and cultural needs and aspirations through a jointly owned and democratically-controlled enterprise” (<https://www.ica.coop>). While, according to Calvert (1959) [2] “Cooperation is a form of organization, where in persons voluntarily associate together as human beings, on the basis of equality, for the promotion of economic interests of themselves. The Cooperative Credit Societies Act was came into existence on 25th March 1904 for eliminateing the exploitation of moneylenders. It was based on the recommendations of a committee appointed by the Government under the Chairmanship of Edward Law. The laudable measure was hailed as a turning point in economic and social history. It holds the promise of helping to solve lots of problems in rural masses, raising moral as well as economic status and laying down the foundation to a new social order. In India, the co-operative movement has taken deep roots in various sectors. It has a significant contribution towards social and economic development of the people. Cooperatives have mainly concerned with agricultural credit, marketing of agricultural produce and distribution of fertilizers and pesticides and other essential commodities. In Chhattisgarh, the three tier structure of cooperative banking is existing for short-term, medium-term and long-term loan disbursement. In this three tier structure, State Cooperative Bank (SCBs) or Apex bank is working at the State level, District Central Cooperative Banks (DCCBs) are working at the District level and Primary Agriculture Credit Societies (PACS) are working at the village level. A Primary Agriculture Credit Society (PACS) is a basic unit and smallest co-operative credit institutions in India. It works on the grassroots level (gram panchayat and village level) and deals directly with the rural (agricultural) borrowers. In 2018 total number of PACS in Chhattisgarh, was 1333. These 1333 PACS includes 476 LAMPS. In Chhattisgarh, PACS involves in the disbursement of agricultural credit (as cash and kind component), crop insurance, crop procurement, and some of these PACS also rendering the consumer goods to their member farmers through public distribution system [PDS] (Gupta and Sharma, 2018) [3].

Materials and Methods /Research methodology

Chhattisgarh state has divided into 3 Agro-climatic Zone viz., Northern Hills, Chhattisgarh Plains and Bastar *Plateau*. For this investigation Chhattisgarh Plains Agro-climatic Zone was purposively selected because this Agro-climatic Zone has maximum number of District Central Cooperative Banks (DCCBs) and Primary Agriculture Credit Societies (PACS). Total 6 DCCBs are working in the state and among them 4 DCCBs are working in Chhattisgarh Plains Agro-climatic Zone. District located in DCCB headquarter was selected purposively from all 4 DCCB headquarters, located in Chhattisgarh Plains Agro-climatic Zone. In this way total four districts viz., Raipur, Bilaspur, Durg and Rajnandgaon were undertaken for the study. Thereafter, 10.00 per cent of total PACS working in each selected district were selected randomly. In this way total 32 PACS (Raipur=8, Bilaspur=9, Durg=6 and Rajnandgaon=9) were taken for final study. Then, 10 farmers were selected randomly from each selected

PACS. In this way total 320 farmers were selected for study. The relevant data were collected personally from all the selected respondents with the help of pre-tested interview schedule.

Results and discussion**Profile characteristics of the farmers**

Profile characteristics of the farmers have been discussed in this section. Under the profile characteristics of the respondents, their socio-personal and socio-economic characteristics were studied and the findings are described in detail in the following sub headings.

Socio-personal characteristics of the respondents

Variables viz., age, gender, caste, education and family size were studied under the socio-personal characteristics of the respondents.

Table 1: Socio-personal characteristics of the respondents (n=320)

| Characteristics | Frequency | Percentage |
|--|-----------|------------|
| Age | | |
| • Young (Up to 35 years) | 32 | 10.00 |
| • Middle (36-50 years) | 124 | 38.75 |
| • Old (Above 50 years) | 164 | 51.25 |
| Gender | | |
| • Male | 304 | 95.00 |
| • Female | 16 | 5.00 |
| Caste | | |
| • Scheduled Caste (SC) | 45 | 14.06 |
| • Scheduled Tribes (ST) | 44 | 13.75 |
| • Other Backward Class (OBC) | 201 | 62.81 |
| • General caste (GEN) | 30 | 9.38 |
| Education | | |
| • Illiterate | 33 | 10.31 |
| • Primary School (up to 5 th class) | 77 | 24.06 |
| • Middle School (6 th to 8 th class) | 51 | 15.94 |
| • High School (9 th to 10 th class) | 55 | 17.19 |
| • Higher Secondary School (11 th to 12 th class) | 65 | 20.31 |
| • Above Higher Secondary School (above 12 th class) | 39 | 12.19 |
| Family size | | |
| • Small (Up to 5 members) | 108 | 33.75 |
| • Medium (6 to 10 members) | 156 | 48.75 |
| • Large (More than 10 members) | 56 | 17.50 |
| Post held in Steering Committee (Sanchalan Samiti) | | |
| • Non member of Steering Committee | 267 | 83.44 |
| • Member of Steering Committee | 53 | 16.56 |
| ❖ President | 9 | 16.99* |
| ❖ Vice president (Male) | 5 | 9.43* |
| ❖ Vice president (Female) | 3 | 5.66* |
| ❖ Operator (<i>Sanchalak</i>) | 36 | 67.92* |

* Percentage calculated from member of Steering Committee only

Age

The findings on age of the respondents are presented in Table 1. The data reveal that majority of the respondents (51.25%) belonged to old age group (Above 50 years). It indicates that in the study area old age farmers were more active in crop husbandry. While 38.75 per cent of them belonged to middle age group (36-50 years) and rest of them (10.00%) belonged to young age group (Up to 35 years). Jayappa (2006) ^[6] reported that the average age of sample borrowers of non-defaulters and defaulters were 43.90 and 54.12, respectively.

Gender

As far as gender of the respondents is concerned it was found that majority of them (95.00%) belonged to male gender. While, the 5.00 per cent belonged to female gender (Table 1).

Caste

Data pertaining to caste of the respondents are presented in the Table 1. The findings shows that 62.81 per cent of the respondents belonged to Other Backward Class followed by Scheduled Caste (14.06%), Scheduled Tribes (13.75%) and General caste (9.38%).

Education

Findings related to education of the selected farmers is given in the Table 1. It was found that 24.06 per cent of the respondents were educated up to 5th class (primary school) followed by higher secondary school (20.31%) and high school (17.19%). While, 15.94 per cent were passed middle school and 12.19 per cent were passed above higher secondary school. It was also noticed that 10.31 per cent respondents were illiterate.

Family size

Data concerned to family size is displayed in Table 1. The findings indicated that most of the respondents (48.75%) belonged to medium size family (6 to 10 members) followed by small size family (33.75%) and large size family (17.50%).

Post held in Steering Committee (*Sanchalan Samiti*)

Steering Committee (*Sanchalan Samiti*) is committee which consisted of 11 members who were selected by the other members of PACS through election. These 11 members committee composed of 1 President, 2 Vice Presidents (1 male and 1 female) and 8 Operators. The working tenure of this committee has continued up to 5 years. During the study it was obtained that majority of the PACS members (83.44%)

were not the member of Steering Committee or Sanchalan Samiti. While, the remaining 16.56 per cent of the respondents were member of Steering Committee. Data regarding member of Steering Committee highlighted that among the members of Steering Committee, 67.92 per cent were working as Operator (*Sanchalak*) followed by President (16.99%). It was also observed that 9.43 per cent of respondents were working as male Vice President. Whereas, 5.66 per cent of them were working as female Vice President (Table 1).

With respect to socio-personal characteristics of PACS member, Khurshapur (2016)^[8] highlighted that 90.70 per cent members of the selected PACS were male, 72.70 per cent were belonged to other Backward class, 29.70 per cent of them had secondary level of education, majority of them (65.00%) belonged to families with six or more members and belonged to small and medium type of farmers (62.33%).

Socio-economic characteristics of the respondents

Under the socio-economic characteristics of the respondents, variables viz., size of land holding, location of total agricultural land, farm material possession, annual income, occupation and ac acquisition of loan were brought under the study.

Table 2: Socio-economic characteristics of the respondents (n=320)

| Characteristics | Frequency | Percentage |
|--|-----------|------------|
| Size of land holding | | |
| • Marginal farmers (up to 1.00 ha) | 97 | 30.31 |
| • Small farmers (1.01 to 2.00 ha) | 117 | 36.56 |
| • Medium farmers (2.01 to 4.00 ha) | 54 | 16.88 |
| • Large farmers (above 4.00 ha) | 52 | 16.25 |
| Location of total agricultural land | | |
| ➤ Own land | | |
| • 1 location only | 115 | 35.93 |
| • 2 to 5 locations | 191 | 59.69 |
| • More than 5 locations | 14 | 4.38 |
| ➤ Leased-in land (n=29) | | |
| • 1 location only | 18 | 62.07 |
| • 2 to 5 locations | 10 | 34.48 |
| • More than 5 locations | 1 | 3.45 |
| Farm material possession* | | |
| • MB plough and Rotavator | 17 | 5.31 |
| • Seedling transplanter, Harvester, Weeder, and Thresher | 6 | 1.88 |
| • Hoe | 43 | 13.44 |
| • Sprayer | 217 | 67.81 |
| • Duster | 3 | 0.94 |
| • Tractor | 66 | 20.63 |
| • Desi plough and Ox/ He Buffalo | 125 | 39.06 |
| • Electric motor | 168 | 52.50 |
| • Gaiti, Rapa, Ghamela, Kudali and Sickle | 320 | 100.00 |
| • Cultivator | 49 | 15.31 |
| • Cage wheel | 36 | 11.25 |
| Annual income | | |
| • Up to ₹ 50000 | 103 | 32.19 |
| • ₹ 50000 to ₹ 1.5 Lakh | 123 | 38.42 |
| • ₹ 1.5 to ₹ 5 Lakh | 80 | 25.00 |
| • Above ₹ 5 Lakh | 14 | 4.38 |
| Farm income | | |
| • Up to ₹ 50000 | 151 | 47.19 |
| • ₹ 50000 to ₹ 1.5 Lakh | 104 | 32.50 |
| • ₹ 1.5 to ₹ 5 Lakh | 56 | 17.50 |
| • Above ₹ 5 Lakh | 9 | 2.81 |

* Data are based on multiple responses

Size of land holding

Size of land holding is one of the important socio-economic characteristics of the farmers. The findings related to this variable is compiled and presented in Table 2. It is clear from the data that most of the farmers (36.56%) belonged to the small category of the farmers followed by marginal (30.31%), medium (16.88%) and large farmers (16.25%). Khajanji (2013) [7] found in her study that average own land of the respondents was 3.23 ha, while the average leased in land was 0.13 ha.

Location of total agricultural land

Data concerned to location of total agricultural land are compiled and displayed in Table 2. In the case of location of own land, it was recorded that majority of the farmers (59.69%) were having their own land in 2 to 5 locations followed by 1 location only (35.93%) and more than 5 locations (4.38%). Narbaria (2017) [9] recorded that 43.00 per cent of the respondents had their land holding in two localities. Whereas, the findings related to the location of leased-in land it was found that 62.07 per cent of the respondents were having leased-in land in only one location. It might be due to fact that location of leased-in land in one place facilitate the easy supervision and easy operation of crop cultivation on that land. While, 34.48 per cent were having leased-in land 2 to 5 locations followed by more than 5 locations (3.45%).

Farm material possession

As far as farm material possession is concerned it was found that agricultural implements such as gaiti, rapa, ghamela, kudali and sickle were possessed by all the respondents. It might be due to fact that such implements are basic one and without it farm practices cannot be performed. The other important farm materials were sprayer and electric motor that

were possessed by 67.81 and 52.50 per cent of the respondents. The findings of Balachandaran (2004) [1] reflected that the majority of the farmers (82.00%) were used electric motor pumpsets followed by Wooden levellers (74.00%), Tractors (49.00%) and borse plough/ improved iron plough (37.00%). For spraying, farmers were always used knapsack sprayers (39.00%) and sprayers (11.00%).

Occupation

Data related to occupation performed by the respondents are compiled and displayed in Table 3. It was noticed that cent per cent of the respondents were involved in crop husbandry as an occupation. Among all the respondents, 90.94 per cent of the respondents were performing the crop husbandry as main occupation and rest of them i.e. 9.06 per cent were performing the crop husbandry as subsidiary occupation. Next to crop husbandry, wage earning was the second highest adopted occupation by the 14.38 per cent of the respondents. Among the sampled respondents, 2.19 per cent respondents were adopting the NTFPs collection as main occupation and 12.50 per cent were adopting it as subsidiary occupation. However, the NTFPs collection activity was observed only in the forest rich area of Bilaspur district. It can be concluded from these findings that the crop husbandry was the major occupation among the all sampled farmers and very few of them were engaged in other kind of occupation. On this aspect Gupta *et al.* (2017) [4] reported that majority of the respondents (75.56%) were practicing in agriculture as their main occupation. Whereas, 74.07 per cent adopted the NTFPs collection as their subsidiary occupation. They also reveal that all the respondents were involved in NTFPs collection. The 91.85 per cent were involved in agriculture followed by wage earning (54.07%), animal husbandry (41.48%), service (21.48%) and business (5.19%).

Table 3: Distribution of the respondents according to their occupation (n=320)

| Kind of occupation* | Main | | Subsidiary | | Total | |
|--|------|-------|------------|-------|-------|--------|
| | F | P | F | P | F | P |
| • Crop husbandry | 291 | 90.94 | 29 | 9.06 | 320 | 100.00 |
| • Animal husbandry | 21 | 6.56 | 22 | 6.88 | 43 | 13.44 |
| • Service | 29 | 9.06 | 13 | 4.06 | 42 | 13.12 |
| • Business | 18 | 5.63 | 21 | 6.56 | 39 | 12.19 |
| • Wage earning | 30 | 9.38 | 16 | 5.00 | 46 | 14.38 |
| • NTFPs collection | 7 | 2.19 | 38 | 11.87 | 45 | 14.06 |
| • Other (Weaver, Mistri, Driving, Mitanin, Pention, Tailor, Agril. Implements on rent viz., tractor, thresher) | 9 | 2.81 | 5 | 1.56 | 14 | 4.37 |

* Data are based on multiple responses

Annual income

The findings of Table 2 further indicates that largest proportion of respondents (38.42%) were earned annually between ₹ 50000 to 1.5 Lakh followed by up to ₹ 50000 (32.19%), ₹ 1.5 to ₹ 5 Lakh (25.00%) and only 4.38 per cent were earned annually above ₹ 5 Lakh. Sathish *et al.* (2012) [10] found that 36.67 per cent respondents belonged to high income group followed by medium (31.67%) and semi medium (27.50%) income groups.

Farm income

As far as farm income of PACS beneficiaries is concerned it was recorded that about 47.00 per cent of the respondents were able to earn up to ₹ 50000 annually followed by ₹ 50000 to ₹ 1.5 Lakh (32.50%) and ₹ 1.5 to ₹ 5 Lakh (17.50%). While, only 2.81 per cent were earned annually more than ₹ 5 Lakh. Suresh kumar (2008) [11] found in his study that the net farm income of the sampled PACS borrowers was ₹ 13339/ha, while the off farm income was ₹ 1240/ha. Factors associated with annual income of PACS beneficiary farmers

Table 4: Correlation analysis of factors associated with annual income of PACS beneficiary farmers

| Factors | Coefficient of correlation "r" value |
|--------------------------------------|--------------------------------------|
| Caste | .155** |
| Education | .172** |
| Family size | .078 NS |
| Membership in steering committee | .134* |
| Size of land holding | .656** |
| Farm material possession | .606** |
| Farm income | .882** |
| Involvement in number of occupations | .107 NS |

*Significant at 0.05 level of probability ("r" value = 0.113)

NS = Non-Significant

** Significant at 0.01 level of probability ("r" value = 0.148)

Correlation analysis of factors associated with annual income of PACS beneficiary farmers is presented in Table 4. Correlation coefficient was worked out to identify the degree of association or relationship between the annual income and different factors associated with it. The findings reveal that variable membership in steering committee of PACS was found to be positive and significantly correlated with annual income at 0.05 level of probability. Wherein, variables such as caste, education, size of land holding, farm material possession and farm income were found to be positive and highly significantly correlated with annual income at 0.01 level of probability. The findings reveal that, if the levels of these significant variables are increases then the annual income of the respondents will also increases. The remaining two variables such as family size involvement in number of occupations showing statistically non significant relationship with the opinion of the beneficiary farmers towards working pattern of PACS.

Conclusion

From the above findings it can be concluded that most of the sampled respondents were more than 50 years old, were male, belonged to Other Backward Class, were primary school passed, had 6 to 10 members in their family and were non member of Steering Committee of PACS. The findings also reveals that most of them were small farmers, were practicing crop husbandry as main occupation, had the annual income between ₹ 50,000 to 1,50,000 and earn up to ₹ 50,000 annually from their farm enterprises. It can be concluded from correlation analysis that, if the levels of factors such as caste, education, membership in steering committee of PACS, size of land holding, farm material possession and farm income are increases then the annual income of the respondents will also increases.

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