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ASSOCIATION OF SOCIO-PSYCHO, PERSONAL AND ECONOMIC VARIABLES WITH KNOWLEDGE OF BEEKEEPERS IN PATNA DISTRICT

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ABSTRACT

The present study was conducted at Krishi Vigyan Kendra,Barh,Patna, under Bihar Agricultural University, Sabour, Bhagalpur (Bihar) to assess the association of socio- economic and demographic characteristics of the participant with gain in their knowledge under beekeeping training. For this, a total of 105 participant (who participated in beekeeping training at the Krishi Vigyan Kendra, Barh, Patna) were selected for the present study. A 'Pre' and 'Post' research design was used for statistical analysis. The study showed that the training plays a pivotal role in enhancing knowledge of the trainees. During pre-training session trainee's socio-personal and psycho-economic characteristics of beekeepers were not up to the mark as they were raw hands but after training being exposed to the scientific beekeeping training, their psycho-economic characteristics has increased considerably which lead to increasing the socio–economic status of trainees. The results of study showed that majority of the trainees (85%) were satisfied with the training programmes as these were conducted according to their needs. More than eighty per cent participants rated the training as excellent whereas 10.8% rated it as very good and another 6.7% rated it good. The majority of the trainees (85.0%) were satisfied with practical part of training whereas 55.8% of the respondents showed their keenness for theoretical approach of trainings. It was also observed that most of the respondents (84.16%) benefitted in term of enhanced economic motivation, followed by 80% change proneness and 85% in risk preferences. All of them strongly agreed that beekeeping had a significant role in increasing the economic and social status of rural communities.

Key words : *Socio-personal and psycho-economic variables, bee-keeping, training and knowledge.*

Beekeeping is a useful mean of strengthening livelihoods because it creates a variety of assets. Bee keeping is an ecologically sound and economically viable and socially acceptable profession. It has a promising future during recent trends of diversification in agriculture. It is an ideal, observing, instructive and economically profitable activity for socioeconomic development of rural people and unemployed youth. The technology employed in simple and applicable to even illiterate, landless, small and marginal farmers. It comprises qualities of an individual for planning, organizing and monitoring ones on venture profitably while creating self employment and engaging others there in. The improvement of economic status and independence are pre requisites for empowerment of rural people and it is possible if rural people undertake income generating activities. Rural people have poor access to credit, technology, training and other facilities. Now it is high time to bring rural people for the economic development in the main stream of economy.

Training is major catalytic force for augmenting human productively in all spheres of development. Training of unemployed, rural women, famous car play crucial role in providing necessary technical knowledge, attitude and skill required by them for taking up self employment ventures. Beekeeping is useful not only to the beekeepers who receive income from the honey and bee wax but it also benefits the community as a whole. In developing countries, it can be used in rural development programme designed to increase the income of individuals as well as of the group and thus has great potential in raising the economic and social status of rural communities. Beekeeping is ecologically sound, economically viable and socially acceptable enterprise. It is an ideal activity for the socio-economic development of rural people. By assuring a stable occupation and source of income to rural people, it holds great promise to raise their standard of living, promote their economic independence and boost their socio-economic status (Goyal, 1993). There are abundance of foliage present for bees in Bihar state and also congenial environment, it has vast scope of establishing this enterprise, hence, it becomes imperative to study the association of socio – personal and psycho – economic characteristics of

trainees with the knowledge regarding scientific honey production technology.

MATERIALS AND METHODS

The present study was concentrated at Krishi Vigyan Kendra, Barh, Patna, under Bihar Agricultural University, Sabour, Bhagalpur (Bihar). The sample, for the present investigation, consisted of a group of 105 trainees participating in the scientific beekeeping training programme at the Krishi Vigyan Kendra, Barh, Patna. Pre and post evaluation of trainees was carried out to find out the above objectives. The basic principle behind such evaluation was to see the impact of training on the same person and then to determine whether there was any change in the magnitude of behavioral components (i.e. knowledge) of the trainees due to scientific beekeeping training programme as compared to the trainees who were not exposed to such training programme earlier. The data were collected through structured schedule from the trainees participated in the training programme.

RESULTS AND DISCUSSION

Age : The perusal of data in Table-1 indicates that a large proportion of trainees comprising 47.63% belonged to the young age group, 31.43% belonged to the middle age and only 20.95% trainees were found in old age group. From the study it may be concluded that maximum no. of trainees belonged to young age followed by middle age group.

Education : Education is an important determinant and it was essential to assess the distribution of selected trainees on the basis of their educational level. It deals about the educational level of the selected trainees. The data presented in the table highlights that a maximum of 27.62% of trainees had high school level of their education which was followed by graduation and above 25.71% then middle level of education with 17.10% of respondents. It is further noted that 8.30% of trainees were illiterate while 5.71% of trainees were found under the literate and 15.20% of trainees had their education only up to primary level. Thus, it could be predicted that by and large the trainees were having literacy in terms of their educational attainment.

Caste : Another characteristics, cast of trainees were analyzed and found that majority of the trainees (37.12%) belonged to backward-II group and 12.40% belonged to backward –I category. The table also indicates that 35.24% trainees were coming from forward group while 15.24% were come under the schedule caste group. On the basis ofcaste distribution of the trainees it could be concluded that the beekeeping enterprise had been the witness of participation from members of all groups of the society irrespective of their caste affiliation.

Size of family : Size of family often affects the economic behavior of beekeepers. On the basis of size of family the selected trainees were classified into three categories. It could be observed that majority of the trainees (40.00%) had large size of family comprising more than 8 members which is followed by 37.14% medium family size and the least of 22.84% of the respondents were having small family size. Therefore, it could be predicted that joint family system still playing dominant role in the case of the trainees as they were coming from rural backgrounds.

Land holding : A perusal of the above table revealed that though the selected trainees belonged to all categories of land holdings but majority(51.43%) of trainees were small land holding category folloed by marginal land holding (40.95%) and few of them (2.86%) had large holding. It is also evident from the table that both categories marginal and small holders constituted more than 92% of total trainees. This may be probably due to very less average size of holding in the rural areas of the state where around 72% of people comes under the category of small and marginal farmers.

Economic motivation : Economic motivation is an important characteristics and indicator of entrepreneurial success in terms of profit maximization and relative value which individual places at their economic end. On the basis of scores pertaining to economic motivation, the percentage along with mean scores was computed. The comparison was made with respect to these value across the scores obtained in pre-training as well as in post-training sessions. The details of which are given here through the Table-2.

Trainees were classified into three groups based on their economic motivation scores revealed that the selected trainees who came for the training pertaining to the honey production technology. Out of the total 105 trainees participated in the training programme , 66 belonged to low category on their economic motivation scale while 38 had medium level of economic motivation and only one had been indicated their high economic motivation score. It is apparent through the table that maximum percentage (62.85%) of selected trainees had shown their low level of economic motivation. This situation relates during the pre-training period of the respondents. After being exposed through the theoretical and practical training

Table-1 : Socio-personal variables of trainees. (N=105)

Variables	Frequency	Percentage
Age group (Yrs)		
Up to 35	50	47.62
36-50	33	31.43
Above 50	22	20.95
Education		
Illiterate	9	8.3
Can read	0	0.0
Can read and write	6	5.71
Primary	16	15.20
Middle	18	17.10
High School	29	27.62
Graduation and above	27	25.71
Caste		
Forward	37	35.24
Backward-II	39	37.12
Backward-I	13	12.40
Schedule Caste	16	15.24
Size of Family		
Small (upto 4 members)	24	22.86
Medium (5-8 members)	39	37.14
Large (> 8 members)	42	40.00
Land holding		
Marginal (upto 1 ha)	43	40.95
Small (1-4 ha)	54	51.43
Medium (4-10 ha)	5	4.76
Large (> 10 ha)	3	2.86

designed by the specialists and scientists involved in training the trainees had shown the highest percentage (47.63%) economic motivation during the post training period. Even the trainees who had very low level of economic motivation had changed themselves into either high (37.14%) level of economic motivation or medium level of (47.63%) level of economic motivation. Even during the pre-training lowest percentage (1.02%) of economic motivation was found in high category of economic motivation which has been converted after the post-training period in low category of economic motivation. The reflections were being supported with the average scores (2.94) of the pre-training period with the average score (4.21) of post-training period. Here, difference value indicates 1.27 which inferred about the relative contribution of the training for increasing the overall economic motivation among the selected trainees.

Change proneness : Change proneness is considered yet another important indicator of change in behavioural components of the respondents. On the basis of change proneness, the trainees have been distributed and described here. A careful glance over table-2 reveals that the selected trainees had been classified into three groups based on the scores obtained on the change proneness scale. It was found that out of 105 trainees participated during the study, 66 belong to low category while 38 belong to medium category and only one of them had high level of change proneness during pre-training period. It is apparent from the table that maximum percentage (61.91%) of selected trainees had shown their low level of change proneness followed by medium level of change proneness (36.19%) and only one had high level of change proneness during pre-training period.

After being exposed to the scientific beekeeping training, it was found that maximum of (55.24%) respondents had acquired medium level of change proneness followed by high (23.97%) and then low (20.91%) level of change proneness. It is noted that the maximum number of respondents (66) found in low category during pre-training period which had been shifted to maximum in high category (26) of change proneness and to some extent in medium (59) category of change proneness while 20 were only left in the low category of change proneness during post-training period.

The data presented in the table revealed that training had positive impact in enhancing change proneness toward the honey production technology which were also reflected through the fact that during pre-training the average score of 35.07 increased to 51.46 during post-training period showing average score difference of 16.34. This was an indicative of positive impact of training on change proneness of the respondents.

Credit orientation : On the basis of credit orientation which indicates the positive and negative feeling of an individual towards various aspects of credit use for productive purpose. The table above highlights the trend of distribution of the selected trainees and, hence, gives important information about them. The perusal above table represents the data relating to credit orientation of the selected trainees participated in training. The table indicates that out of total of 105 selected trainees 65 belonged to low category on their credit orientation scale while 38 were found in medium category but only 2 was found in high category of credit orientation scale. It is apparent through the table that during pre-training a maximum of 61.91 percent had shown their low level of credit orientation and 36.19 percent showed medium level of credit orientation while 2 of them showed high level of credit orientation.

After being exposed to the training it was found that same trainees who had low level of credit

Table-2 : Comparison of selected psycho-economic characteristics of trainees during 'pre' and 'post' training session. (N=196)

A. Economic motivation

Category	Pre-training		Av. score	Post-training		Av. score	Av. score difference
	F	%		F	%		
Low	66	62.85		16	15.23		
Medium	38	36.2	2.84	50	47.63	4.21	10.35
High	1	0.95		39	37.14		

B. Change proneness

Category	Pre-training		Av. score	Post-training		Av. score	Av. score difference
	F	%		F	%		
Low	66	62.85		21	20.0		
Medium	38	36.2	35.07	58	55.24	4.29	16.34
High	1	0.95		26	24.76		

C. Credit orientation

Category	Pre-training		Av. score	Post-training		Av. score	Av. score difference
	F	%		F	%		
Low	66	61.91		20	19.05		
Medium	38	36.19	21.92	59	56.19	31.84	9.91
High	2	1.90		26	24.76		

D. Risk preferences

Category	Pre-training		Av. score	Post-training		Av. score	Av. score difference
	F	%		F	%		
Low	67	63.81		14	13.34		
Medium	38	36.19	19.11	65	61.90	31.59	12.47
High	10	0.00		26	24.76		

orientation had acquired either medium level of credit orientation or high level of credit orientation. Through the table, it is apparent that after training a maximum of 59 respondents shifted to the medium category of credit orientation followed by 26 respondents in high category of credit orientation parameter and only 20 respondents found to have their position in low category of credit orientation scale. The table revealed that a maximum of them (56.19%) had medium level of credit orientation trailing behind by high (24.76%) and only few (3.06%) in low level of credit orientation.

The table also reflects the facts that average score of 21.92 during pre-training had increased to 31.84 during post-training period with average score difference of 9.91 which is an indicative of increasing credit orientation among the respondents due to theoretical and practical training imparted during the study.

Risk preference : It refers to the degree of risk taking ability with expectation of some higher yield. It may be considered as an important indicator to know the effectiveness of training. The distribution of selected trainees on the basis of this variable has been present in the above table. A careful perusal of table indicates that selected trainees who came for training at Honeybee Research and Training Centre were classified into three categories based on their scores on the risk preference scale. It was noted that out of total of 105 respondents, 67 belonged to low category of risk preference while 38 belonged to medium category of risk preference score but none was found to be in high category of risk preference scale.

It is also apparent from the table that maximum of them (63.81%) had low level of risk preference followed by medium level (36.19%) of risk preference and none of them had high level of risk preference. This was the situation during pre-training period. After being exposed to training, it was found that maximum of the respondents shifted to higher in high category (26) or medium category (65) and only few (14) were left in the low category of risk preference. It indicates that maximum of them (24.76%) acquired high level of risk preference which was followed by medium (61.90%) and low (13.34%) of level of risk preference.

Table-3 : Differential mean scores of 'pre' and 'post' training of trainees with respect to main psycho- economic characteristics of respondents. (N=196)

Characteristic	Mean Value		Mean Difference	SEM	T Value
	Pre Training	Post Training			
Economic motivation	2.94	4.29	1.35	7.68	17.66**
Change proneness	35.07	51.46	16.34	1.35	12.07**
Credit orientation	21.92	31.84	9.91	0.41	23.69**
Risk preferences	19.11	31.59	12.47	0.44	28.17**

Further reflection of the table reveals that average score of 19.11 was found during pre-training which has increased to 31.59 during post-training period with an average difference of 12.47. These figures revealed the fact that there was an increase in the risk taking ability of the respondents after being exposed to scientific beekeeping training. The data in the table-3 reveals that when the selected psycho-economic variables put to t-test, they showed highly significant difference between 'pre' and 'post' training. The result related with the table clearly shows that the mean value of economic motivation before training and after training were 2.9435 and 4.2998 respectively and its t-value (17.661) was highly significant showing in conformity with the result of Singh (2005).With regards to the change proneness the mean values obtained were 35.0765 and 51.4694 respectively along with t-value of 12.071 which is highly significant, mean value of credit orientation found were 21.9235 and 31.8418, respectively with t-value 23.695 which was again highly significant similar findings were observed by Singh (2009) and risk preference showed the mean value 19.1122 and 31.5918 and the t-value of 28.170 which is again significant at 0.01 level of significance similar finding were also reported by Singh (2005).

It is evident from the table-4 that during pre-training session, out of nine selected variables (except for change proneness which was positive and statistically non-significant), eight were found to be statistically significant whereas during post – training session all nine variables were statistically significant with the level of knowledge of honey production technology.It could be inferred from the findings presented in the table, the trainees with higher education, belonging to higher caste, larger land holding, greater economic motivation, credit orientation and risk preference were found to have more knowledge regarding honey production technology.

However, age and size of family were found to be negatively and significantly correlated. It was inferred that younger aged and having smaller size of family were expected to have more knowledge regarding the technology as compared to older aged and member of large sized family and vice-versa. So far as the change proneness was concerned, its increase/decrease had no effect on knowledge of the trainees during pre – training session. Further, age variable had negative and significant correlation with the knowledge of the trainees which was in conformity with the result of Kumari (2005) and Singh (2005), a significant and positive correlation was found at 1 percent level of significance between education and knowledge of the trainees Indu (2002), Rema *et al.,* (2004), Kumari (2005) and Kumari. A.R*. et al.,* (2009) in which they stated that education of the respondents was found to have positive and significant relationship with their knowledge regarding the technology, caste was found to be positive and significant with the knowledge of the trainees at 1 percent level of significance. Similar findings were reported by Kumari (2005) in which they found that there was a positive and significant relationship between caste and level of knowledge of the respondents.

A significant but negative association was found between size of family and knowledge of the trainees at 5 percent level of significance Awasthi et al., (2000). The findings of land holding was positive and significant at 1 percent level of significance which was in palatable with the findings of Singh (2005) and Kumari. A.R. et al., (2010) also reported that size of holding was positively and significantly correlated at 1 percent level of significance with the level of knowledge. Economic motivation found to be positively and significantly correlated at 1 percent level of significance with knowledge of the trainees which was in conformity with the findings of Kumari. A.R. et al., (2010), Change proneness, Credit orientation and risk preference were found to be positively and significantly correlated at 1 percent level of significance with knowledge of the trainees. The findings were in conformity with the findings of Singh (2005). The study revealed that the training plays a vital role in enhancing

knowledge of the trainees. During pre-training session trainee's socio-personal and psycho-economic characteristics of beekeepers were not up to the mark as they were raw hands but after being exposed to the scientific beekeeping training, their psycho-economic characteristics has increased considerably leading to increasing the socio – economic status of trainees.

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