Study the correlation between socio economic with knowledge adoption, attitude and reaction of beneficiary's farmers towards CSR programme in Ranchi district of Jharkhand, India.

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ABSTRACT

The correlation between socio-economic with knowledge, attitude, adoption, and the reaction of beneficiary's farmers towards CSR fund was studied in Hutup village in Ormanjhi block of Ranchi district in Jharkhand. Where CSR sponsored project of Usha Martin Ranchi was implemented by KGVK, out of a total of 270 beneficiaries 30 farmers were purposively selected as respondents in the study. It was found that the education, size of holding, social participation and socioeconomic status of the respondent were positively and significantly associated with the knowledge and adoption score education, case, socio-economic status, and annual family income had a positive and significant correlation with the attitude score, while age was found to be negatively and significantly correlated. Farmer's reaction related to interevent technologies was found to be agroclimatically more suitable, more profitable, and more compatible contributing to their overall appropriateness by improving socioeconomic development.

KEY WORDS: CSR Fund, correlation, knowledge, attitude, adoption, farmers reaction.

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I. INTRODUCTION

Corporate Social Responsibility (CSR) is an emerging concept in the era of the corporate economy, which suggests that it is the responsibility of the corporates operating within society to contribute towards economic, social, and environmental development that creates a positive impact on society at large and the poorest of poor. It contributes to economic development while improving the quality of life of the workforce and their families as well as community and society at large". Usha Martin, Ranchi has been able to apply business principles and strategies to improve the overall quality of life in the regions in collaboration with Krishi Gram Vikas Kendra (KGVK) on an integrated and scalable model for sustainable development in and around its plants and mines in Ranchi, in eight domains i.e. Natural Resource Management, Resource Mobilization, Health, Nutrition and Sanitation, Energy Inclusion, Education, Women's empowerment, Capacity Building, Livelihood, and Financial Inclusion.

Keeping this fact under consideration study conducted to know the correlation between socio-economic with knowledge, adoption, and attitude of beneficiary's farmers towards CSR programme.

II. RESEARCH METHODOLOGY:

The study was conducted in purposively selected village Hutup in Ormanjhi Block of Ranchi district in Jharkhand, India, where the agriculture Development Project was operated by USHA Martin under the CSR Fund. Out of a total of 270 beneficiaries, 30 farmers were selected as a respondent in the study, those who are directly and indirectly benefited through CSR sponsored program. The programme is implemented by KGVK Ruka under CSR fund provided by Usha Martin industries for agriculture development under CSR fund given in table-1 and table-2

Table -1: Intervention conducted under natural resource management in village during 2017-18 & 2018-19.

S.No,	Intervention	Number
01	Dova Construction and Renovation	08
02	Pond Construction and Renovation work	02
03	Low land well construction and renovation	4
04	Check Dam	01
05	Irrigation channel	01

Table -2: Farmer based livelihood intervention conducted in village.

S.No	Intervention	Area (in ha)
01	Paddy cultivation through SRI Method	120
02	Winter vegetable cultivation with improved package of practices using high yielding varieties.	390
03	Summer vegetables cultivation	98

Selection of Variables and their Measurement:

1. Socio-personal and economic variables

(i) Age.

It refers to the approximate age of the respondents at the time of data collection. The approximate age of the respondents in years on the date of the interview was recorded. The respondents were classified into three age groups, viz, young (18-35 years), middle-aged (36-50 years) and old (>50 years).

(ii) Education.

It refers to the respondents' academic qualifications through schooling. Respondents were classified into five educational groups, namely, illiterate, schooling up to the primary, middle, high school, and levels graduation and above.

The scoring was done as per the following procedure:

Sl. No.	Educational level	Score
1.	Illiterate	0
2.	Primary school	1
3.	Middle school	2
4.	High school	3
5.	Graduate and above	4

(iii) Caste.

The procedure was followed for scoring the caste of the respondents were classified as per notification of Govt. of Jharkhand:

Sl. No.	Caste	Score
1.	Scheduled castes	1
2.	Scheduled tribes	2
3.	Backward castes	3
4.	Upper castes	4

(iv) Size of holding.

The respondents were classified into four groups on the basis of size of holding, viz., and marginal small, medium and large. The scoring procedure followed is given as below:

Sl. No.	Size of holding	Score
1.	Marginal (upto 1ha)	1
2.	Small (1.1- 2 ha)	2
3.	medium (2.1- 4 ha)	3
4.	Large (>4 ha)	4

(V) Occupation.

It refers to the main source of livelihood and was measured with the help of a schedule developed for the purpose. It was measured with the help of the following scoring system:

Sl. No	Occupation	Score
1.	Farming	1
2.	Business	2
3.	Service	3

(Vi) Social participation.

Participation of respondents in formal organisation was quantified by following the scoring procedure as mentioned below:

Sl. No.	Social participation	Score
1.	No social participation	0
2.	Member of one organization	1
3.	Member of more than one organizations	2
4.	Office bearer	3

(Vii) Family type.

It refers to the type of family either nuclear or joint. The respondents were classified into two groups with respect to type of their families i.e. nuclearand joint with scores of 1 and 2 respectively.

(Viii) Farm power.

The following scoring procedure was followed for measurement of farm power possession by the respondents:

Sl. No.	Farm power	Score
1.	No draught animal	0
2.	1-2 draught animals	1
3.	3-4 draught animals	2
4.	5-6 draught animals	3

(IX). House type.

The following procedure was adopted for scoring the type of house of the respondents:

Sl. No.	Type of house	Score
1.	Kutcha	1
2.	Mixed	2
3.	Рисса	3

(X) Material possession.

Scoring was done as per the following procedure:

Sl. No.	Material possessed	Score
1.	Improved stove	1
2.	Bicycle	1
3.	Radio set	1
4.	T.V set	2
5.	Scooter	2

(Xi) Annual family income

The respondents were divided into four income groups based on their annual family income. Those having annual family income less than Rs. 12000/- were kept under below poverty line. Those having annual income between Rs. 12000/- to Rs 25000 were kept under low income group. Those having annual income between Rs. 25000 to Rs. 50000 were kept under medium income group and the respondents whose annual family income was above Rs. 50,000/- were kept under high income group with respective scores of 1,2,3&4.

(Xii) Socio - economic status

Socio-economic status is the position an individual or a family occupies concerning the prevailing average standards of cultural possessions, effective income, material possession, and participation in the group activity of the community.

The socio-economic status of respondents was measured with the help of the "Socio-economic Status Scale" developed by Trivedi (1963) with certain modifications. The scale consisted of nine items, namely caste, size of holding, education, house type, occupation, farm power, material possession, type of family, and social participation. The respondents were classified into three socio-economic status groups with their scores given in parentheses, namely, low (<13.14), medium (13.14 to 18.26) and high (>18.26) based on mean (X =15.70) and standard error (SE=2.56).

2. Knowledge about intervened technologies

"Knowledge is defined as those behaviors and test situations which emphasized the remembering either by recognition or recall of ideas, materials or phenomena" (Bloom et al, 1956). In the present study, knowledge was operationalized as the quantum of specific information possessed by the respondents about the intervened technology of KGVK funded under CSR fund.

A standardized knowledge test was developed to measure the knowledge of the respondents i.e. beneficiaries farmers under CSR programme. The procedures adopted are as follows:

(I) Item collection

With the consultation from extension workers, scientists, progressive farmers, and core team workers of CSR, a large number of items concerning improved demonstrated technology were collected. The contents of the topic were divided into two heads such as (1) Natural Resource Management (2) Farmers based livelihood intervention.

(II) Item selection

A tentative outline of questions was prepared concerning improved Natural resource management and farmers based livelihood intervention. It was decided to ask only such questions, which would be neither too difficult nor too easy for respondents to answer. To differentiate the well informed farmers from poorly informed farmers, it was decided to put certain difficulty value and also the items were selected, keeping in view that they should provide thinking rather than mere memorization.

(III) Item analysis

For final selection of the items, the analysis was done by computing an index of item difficulty and another index of item validity. The selected statements were administered to 30 respondents randomly selected who were different from the main sample for this study. Items having difficulty index ranging from 21-75 and discrimination index 0-20 with significant point biserial co- efficient of correlation were selected as the items for the knowledge test. The knowledge test finally consisted of 21 items.

(IV) Reliability of knowledge test

The reliability of knowledge test was measured by split - half and test-retest methods. The coefficients of correlation by split-half and test-retest methods were 0.85 and 0.86 respectively which were significant at 0.05 level of probability. This indicated that the knowledge test was reliable.

(V) Validity of the knowledge test

Two types of validity of the knowledge test, namely, content validity and construct validity were tested. The knowledge test had adequate content validity because the items for the construction of the test were collected in consultation with natural resource management specialists and relevant literature. The construct validity of the knowledge test was tested by items total score correlation technique. The test was administered to a random sample of 30 respondents other than the main sample. The co-efficient of correlation (r=0.75) was significant at 5 per cent level of significance, which indicated that the scale had high construct validity.

(VI) Method of scoring

Respondents were asked to reply every question included in the knowledge test. One score was assigned to each correct answer and zero score to incorrect or no answer for each question in the knowledge test. As the total number of questions on the knowledge test was 21, the maximum obtainable knowledge score was 21. The raw knowledge scores were expressed in terms of percentages. The percentage knowledge scores of the respondents were calculated as per the following method:

No. Of correct answers

Knowledge (%)=

Total no of questions

X 100

The respondents were further classified into four groups, i.e., obtaining percentage score from 1 to 25, 26 to 50, 51 to 75, and above 75.

3. Attitude towards interevent technologies

Thrustone (1946) defined attitude as "the degree of positive or negative affects associated with some psychological objects". In the present investigation, attitude was defined as "the degree of positive or negative feelings of respondents towards intervened technologies".

For measuring the attitude of the respondents towards intervened technologies, an attitude scale following the summated rating technique of Likert (1932) was developed. The following procedures were adopted for construction of the attitude scale:

(I) Item collection

On the basis of informal interview with the CSR beneficiariesfarmers and scientists of Agri. engineer college and agronomic, BAU, a large number of statements were collected which reflected the positive or negative feelings towards intervened technologies.

(II) Scrutiny of items

The collected statements were given to the postgraduate students and teachers of Department of soil and water conservation, agronomic Ranchi Agricultural College, Kanke. They were requested to go through each statement carefully and also to scrutinise the statements on the following points:

- (1) The statements should not be ambiguous
- (2) It should express only one specific idea.

- (3) The statement should be relevant to the objectives of the study.
- (4) The statement should be debatable.

After examining the suggestions of the judges the statements were selected for further analysis.

(III) Item selection

The scrutinized statements were presented to a random sample of 30 farmers other than the main sample. The degree of agreement against each statement was sought on a 5- point continuum. The 5- point of the rating scale with their scores given in parentheses were "strongly agree"(5), "agree"(4), "neutral"(3), "disagree" (2) and "strongly disagree" (1) for the positive statements. For the negative statements the scores were put in reverse order.

To select statements for the final form of the scale, the coefficient of correlation between scores of 30 farmers on individual items and total score were found out. A significant correlation (r > 0.50) indicated that the items were valid for measuring attitude of the respondents towards intervened technologies. Keeping the above criteria in view, ten items, (five positive and five negative statements) which had high co-efficient of correlation (r > 0.75) were selected.

4 . Testing the reliability of the scale

In order to test the reliability of the scale "split -half" and test-retest techniques were used.

(i) Split -half technique

For testing the reliability of the scale with the help of " split -half technique, the attitude scale was divided into two parts, containing equal items. Thirty farmers other than the main sample were interviewed by the two halves of the scales separately and the scores found out were tabulated. Coefficient of correlation of the score was found out. The value of coefficient of correlation (r=0.870) was significant at 1 per cent level. This indicated that given the internal consistency of the items the scale was reliable.

(ii) Test- retest method

For the test of the reliability of the scale from the point of view of stability of response, 30 farmers other than the main sample were interviewed personally twice at an interval of 15 days. The two sets of scores of the 30 farmers were tabulated. The value of the coefficient of correlation (r=0.88) was significant at 5 percent level. Thus according to the "test-retest" method also the scale was found to be reliable.

(iii). Analysis of respondent's attitude

In the final stage, the selected 10 statements were arranged randomly and respondents were asked to indicate their degree of agreement against each statement on a 5-point rating scale. The overall score of the respondents reflecting the degree of attitude was found out by taking the arithmetic mean of scores given to the 10 statements by the respondents. As the scores at rating scale ranged from one to five, an average score of less than 2.5 indicated a negative attitude and more than 3.5 showed a favorable attitude towards intervened technologies. An average score ranging from 2.5 to 3.5 indicated a neutral attitude.

(IV). Effect of demonstrations on adoption by farm families

It was computed in terms of number of families adopted the technology out of total number of families in the project village. The percentage spread was calculated as per the following method:

Number of families adopted the technologies in project villages

Spread (%)= Total number of families in project villages X 100

(V). Reaction towards intervened technologies

Farmer's reaction to intervened technologies was measured in terms of their perceptions. The ways people interpreted the technology, by and large, determine its acceptance or rejection. This interpretation depends on their experience, their general attitude to life, the value of the social system, and also in some cases the personality. Therefore, the acceptance or rejection and continuance or discontinuance of the technology could be based on the reaction of the users.

In the present study, the reaction has been defined as the process of organizing and interpreting the data on the results of intervened technologies through demonstrations conducted on Natural resource management and farmers based livelihood management. The farmers' reaction to experimented and demonstrated technologies was measured with the help of scoring system developed on a 3-point rating scale on 8 selected attributes of the technologies i.e. socio-cultural compatibility, compatibility with existing farming system components, divisibility of technology, simplicity, compatibility with internal resources of the household, availability of related input/material, the element of risk involved and visibility with their scores given in parentheses as most suitable (5), suitable (4), moderately suitable (3), least suitable (2) and unsuitable (1). Then the overall reaction was calculated and classified into three categories i.e. negative (< 2.5), neutral (2.5-3.5), and positive (> 3.5).

Statistical Analysis

After collection, the data were systematically arranged and tabulated for analysis and interpretation. The statistical techniques used for the analysis of data under study included frequency, percentage, mean, F-test, t-test, and correlation co-efficient.

Important formula of statistical techniques used

In order to test the significant of difference of the mean scores of demonstrating, experimenting and participating farmers, F-test was done through using the techniques of variance of one-way analysis of variance (ANOVA).

F-test

 \overline{x} is a mean of the sample, n is size of the sample.

In order to study the relationship between selected psycho-personal and socio-economic characteristics with behavioural components, coefficient of correlation was computed through using the following formula:

Coefficient of correlation

$$r = \frac{\sum xy - (\sum x) (\sum y)/N}{[(\sum x^2) - (\sum x)^2 N] [(\sum y^2) - (\sum y)^2/N}$$
 Where
$$r = \text{Coefficient of co-relation}$$

x = Variable 1

y = Variable 2

N = Total number of respondents

III. RESULT AND DISCUSSION:

1. Socio-economic Profile of adopted village.

The present section deals with profile of the respondents with respect to selected socio-economic variables. The percentage distribution of respondents by their selected socio-economic characteristics have been presented in Table 3.

Table 3: Frequency distribution of respondents by their selected socio-economic characteristics.

Variable	Pooled (N=30)
i. Age	
Young (upto 35 years)	11 (36.67 %)
Middle-aged (36-50 years)	15(50 %)
Old (Above 50 years)	4 (13.33 %)
ii. Caste	
Scheduled castes	1 (3.33 %)
Scheduled tribes	14 (46.67 %)
Backward castes	7 (23.33 %)
Upper castes	8 (26.67 %)
iii. Education	
Illiterate	3 (10 %)
Primary School	11 (36.67 %)
Middle School	9 (30.00 %)
High School	5 (16.67 %)
Graduate	2 (6.67 %)
iv. Size of holding	
Marginal (up to 1.0ha)	5 (16.67 %)
Small (1.01-2.0ha)	14 (46.67 %)
Medium (2.01 – 4.0ha)	8 (26.67 %)
Large (above 4.0ha)	3 (10 %)

Variable	Pooled (N=30)
v. Occupation	
Farming	26 (86.67 %)
Business	3 (10 %)
Service	1 (3.33 %)
vi. Social participation	
a. No participation	3 (10 %)
b. Member of one organization	23 (76.67 %)
C. Member of more than one organization	3 (10 %)
d. Office bearer	1 (3.33 %)
vii. Family type	
Nuclear	23 (76.67 %)
Joint	7 (23.33 %)
viii. House type	
Katcha	8 (26.67 %)
Mixed	12 (40 %)
Pucca	10 (33.33 %)
ix. Family income	
Below poverty line	2 (6.67 %)
Low income	4 (13.33 %)
Medium income	19 (63.33 %)
High income	5 (16.67 %)
x. Farm power	
No draft animal	3 (10 %)
1-2 draft animal	20 (66.67 %)
3-4 draft animal	5 (16.67 %)
5-6 draft animal	2 (6.67 %)
xi. Material possession	14 (46.67 %)
Stove	27 (90 %)
Cycle	17 (56.67 %)
Radio	6 (20 %)
T.V. set	10 33.33 %)
Two-wheeler	14 (46.67 %)

Table-3 shows that 36% of the respondents were young, 52% were middle-aged and 12% belonged to the old age group. The mean age of farmers was 40.95, 37.83, and 39.82 years respectively. Respect to cast analysis of respondents revealed that 3.33% of the respondents were scheduled castes, 46.67% were scheduled tribes, 23.33% backward caste, and 26.67% belonged to upper castes. The education level of respondent's analysis revealed that about 10 percent of the respondents were illiterate, 36,67 percent had education up to primary level, 16.67 percent had education up to high school and 6.67 percent had education up to graduation level.

The majority of the respondents were having a small size of holdings (46.67%) followed by medium (26.67%), marginal (16.67%) and large size (10%). The analysis revealed that the occupation of the majority (86.67%) of the respondents was farming followed by business (10%) and service (3.33%). It is also found that the majority of the respondents (76.67%) had participation in social institutions, who were members of either one or two organizations. However, the percentage of office bearers among them was only 3,33 percent. Similarly,77 percent of farmers were having the nuclear type of families whereas 23 percent had joint families and 27 percent of respondents were having *kaccha* type of houses, 40 percent had mixed and 33 percent had *the pucca* type of houses. Families income revealed that 6.67 percent of the respondents were below the poverty line, 13.33 percent had low income and 63.33 percent had medium-income followed by 16.67 percent under a high-income group, Farm power pooled data show that about 10 percent of the respondents had no draft animal, 68 percent had 1-2 draft animals, 16 percent had 3-4 draft animals and 6 percent had 5-6 draft animals. It is evident from Table 3 further shows that majority of the respondents (90%) possessed bicycles followed by radio sets (56.67%) and stoves (46.67%), whereas only (20%) respondents possessed T.V. sets and (33.33%) had two-wheelers.

2. Socio-economic status.

Keeping all the characteristics together, an attempt was made to classify the respondents into various socio-economic status groups presented in table 4.

Table: 4Frequency distribution of respondents according to their socio-economic status

Socio-economic status	Pooled (N=30)				
Low < (13.14)	8 (26.67)				
Medium (18.26)	18(60.00)				
High $>$ (18.26)	4 (13.33)				

The data have been presented in Table shows that 26.67 present farmers are low, 60 % have medium and 13.33% have high socio-economic status group.

3. Association between selected characteristics of respondents with their knowledge scores

In this section, an attempt was made to analyze the association, if any, between the selected sociopersonal and economic characteristics and their level of knowledge. The coefficient of correlation between the selected socio-personal and economic characteristics of the demonstrating, farmers, and their knowledge scores are presented in Table-5.

Table 5 : Coefficient of correlation between selected characteristics of demonstrating farmers and their knowledge scores

	Variable	Value of coefficient of correlation (r)				
Sl. No.		Demonstrating farmers				
		(N=60)				
1.	Age	- 6214 NS				
2.	Education	0.573 **				
3.	Caste	0.202 NS				
4.	Size of holding	0.317 *				
5.	Family type	0.089 NS				
6.	Social participation	0.322 *				
7.	Socio-economic status	0.292 *				
8.	Annual family income	0.221 NS				

^{*} Significant at 5% level

NS: Non-significant

It appears from Table that education, size of holding, social participation, and socioeconomic status were positively and significantly associated with the knowledge about intervened technology. However, age was found to have a negative and non-significant association whereas caste, family size, and annual family income of the respondents were having a positive but non-significant association with the knowledge level of the farmers.

A significant and positive association between size of holding, social participation, and socioeconomic status with the knowledge level of respondents about intervened technologies showed that farmers with a higher size of holdings and higher socioeconomic statuses with active social participation possessed more knowledge than those who were inferior in these characteristics. The findings are in line with those of Kumar (1993) who found that size of holdings and social participation were positively and significantly associated with the knowledge about the production of summer moong.

4. Association between selected characteristics of the respondents with adoption scores

The coefficients of correlation between selected characteristics of demonstrating, experimenting, and participating farmers and their adoption scores are presented in the table 6.

Table :6 Coefficient of correlation between selected characteristics of demonstrating, farmers and their adoption scores

Sl. No.	Variable	Value of coefficient correlation (r)				
	variable	Demonstrating Farmers				
1.	Age	- 0.3516*				
2.	Education	- 0.641**				
3.	Caste	- 0.174 NS				
4.	Size of holding	- 0.276 NS				
5.	Family type	0.795 NS				

^{**} Significant at 1% level

6.	Social participation	0.234*
7.	Socio-economic status	0.394*
8.	Annual family income	0.316*
9.	Knowledge about intervened technology	0.674**
10.	Attitude towards intervened vegetable production	0.346*
	technologies	

^{*} Significant at 5% level

NS = Non-significant

It appears from Table that the co-efficient of correlation between age and adoption scores of demonstrating; experimenting, and participating were negative and significant. This indicated that with an increase in age, adoption of improved vegetable production technologies decreased significantly.

his finding is following the findings of Katarya (1989) that the age of the farmers reflected the negative and significant association with the adoption of wheat production technologies. This might be because the older age people are generally traditional and conservative. They think that they do not require any further knowledge. They are also suspicious of new ideas and practices. Therefore, the older age people might have adopted improved production technologies to relatively a lesser extent than the younger people. Similar finding was also reported by Sharma (2015) education level, age of dairy farmers economic situation, farming experience, linkage with the development department etc, Play a crucial role in the adoption of a particular technology.

The coefficient of correlation between the size of holding, caste, and family size with adoption scores were found to be positive but non-significant for the respondents.

The coefficient of correlation between education, social participation, socio-economic status, annual family income, knowledge, and attitude towards intervened vegetable technologies with adoption scores was found to be positive and significant. This indicated that with an increase in educational level, social participation, annual family income, socio-economic status, knowledge about, and positive attitude towards intervened technologies, there was an increase in the level of adoption in a positive and significant direction.

5. Association between selected characteristics of the respondents and their attitude scores

Data on association of selected psycho-personal and socio-economic characteristics of the respondents with their attitude scores are presented in Table 7.

Table 7: Coefficient of correlation between selected characteristics of demonstrating, farmers and their attitude scores

Sl. No.	Variable	Value of coefficient of correlation (R)				
		Demonstrating farmers				
1.	Age	- 0.315 *`				
2.	Education	0.399 **				
3.	Caste	0.311 *				
4.	Size of holding	0.307 *				
5.	Family type	0.097 NS				
6.	Social participation	0.303 *				
7.	Socio-economic status	0.376 *				
8.	Annual family income	0.322 *				

^{*} Significant at 5% level

NS: Non-significant

A perusal of Table reveals that education, caste, size of holding, social participation, socioeconomic status, and annual family income were positively and significantly correlated with attitude scores towards intervened technology. The table further shows that age was found to be significantly associated but in a negative direction with the attitude of the respondents. A negative and significant association between age and attitude score indicated that relatively the elderly respondents had neutral to unfavorable attitudes towards intervened technologies. This might be because the older age people are generally tradition-bound and conservative. Education was found to be positively and significantly associated with attitude. Education usually changes the outlook of a person which helps in changing the attitude. Similarly caste status of the respondents also influenced the attitude significantly. But the majority were tribal farmers and they were relatively more tradition-bound. Positive and significant association of size of holding, social participation, and socioeconomic status with the attitude scores have also been reported by Kumar (1993).

^{**} Significant at 1% level

^{**} Significant at 1% level

6. The reaction of beneficiaries farmers related to intervening intervention

Beneficiaries farmers under CSR programme their reaction was elicited through the scoring technique of PRA in the framework of a focused group interview. The data are presented in Table-8

The table-8 shows that Dova Construction and Renovation, Pond Construction and Renovation work, and Winter vegetable cultivation with an improved package of practices, were rated positively in terms of sociocultural compatibility, compatibility with farming system components, simplicity, compatibility with internal resources of households, the element of risk involved, and visibility. However, the maintenance of the above mention water harvesting structure by farmers rated negatively.

The table further shows that Low land well construction and renovation, Check Dam, Irrigation channel, Paddy cultivation through SRI and Summer vegetable cultivation rated positive respect to socio-culture compatibility, simplicity, Compatibility with the internal resource of household, Element of risk involved, Visibility, but respect to the Divisibility of technology and Easy availability of related input material rated negatively by the respondents. Manoj Sharma (2015) also reported that lack of awareness and no availability of critical input on the local market is the main limitation in its adoption of dairy technologies.

Table 8: Officer and field staffs reaction towards intervened technologies on selected attributes

	Officer and field staff's reaction								
Intervention	Socio cultural compatibilit y	Compatibilit y with farming system components	Divisi bility of techno logy	Simplicity	Compatibilit y with internal resource of household	Easy availabilit y of related input material	Element of risk involved	Visibilit y	Overall reaction
Dova Construction and Renovation	4.00	4.50	2.55	4.50	4.50	4.50	4.00	3.00	3.93
Pond Construction and Renovation work	4.00	4.50	2.60	4.00	4.50	1.0	4.50	4.50	3.70
Low land well construction land renovation	4.00	4.00	1.50	4.50	4.00	1.50	4.00	4.00	3.44
Check Dam	1.50	1.00	3.00	2.50	2.00	3.50	1.50	2.50	2.19
Irrigation channel	3.62	4.50	4.50	4.00	4.00	1.50	2.00	3.50	3.45
Paddy cultivation through SRI	4.50	4.00	1.00	4.00	4.50	1.00	4.50	3.50	3.38
Winter vegetable cultivation with improved package of practices.	4.50	4.50	1.50	4.00	4.00	1.50	4.50	3.50	3.50
Summer vegetable cultivation	4.50	4.50	1.50	4.00	4.00	1.50	4.00	3.50	3.44

Overall score reflecting the degree of favorable, neutral and unfavorable reaction to the related interventions (Negative <2.5, Neutral =2.6 to 3.5, Positive >3.5

IV. CONCLUSIONS:

The finding presented in the preceding section lead to the following conclusion.

- 1. The majority of the respondent's farmers were middle-aged having education up to primary school level with cultivation as their main occupation belonging to medium-income as well as a socio-economic status group with a greater degree of their participation in social organization.
- 2. The education size of holding social participation and socio-economic status of the respondents was positively associated with increased knowledge and increase the adoption level of intervention technologies while age was found to be negative and significantly correlated.

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