

CHAPTER 6

Results and Discussion

The result of the study is revealed, interpreted and discussed here under;

Descriptive Statistics

Table 1: Descriptive statistics of independent variable with respect to Mean, Standard Deviation of values and Coefficient of variance:

SI no.	Variables	Mean	SD	CV
1	Age(x1)	40.03	9.44	23.58
2	Education(x2)	6.85	2.91	42.48
3	Family size(x3)	5.05	1.33	26.33
4	Size of holding(x4)	0.51	0.25	49.01961
5	Homestead land(x5)	0.12	0.09	75
6	Family income(farm)(x6)	1160.40	220.32	18.98
7	Family income(off farm)(x7)	478.90	190.38	39.75
8	Cropping Intensity(x8)	244.68	43.20	17.65
9	Crop mix(x9)	1.72	6.99	406.39
10	Livestock(x10)	1.18	0.58	49.15
11	Yield of Rice(x11)	1.38	0.49	35.5
12	Yield of Pulses(x12)	0.03	0.01	33.33

13	Yield of vegetables(x13)	8.02	4.92	61.34
14	Exposure to media(x14)	2.83	1.25	44.16
15	Disease pest incidence(x15)	0.41	0.18	43.9

Table 1– presents the distribution of variables in terms of Range, SD and CV % of pooled village

It has been found from the study that the mean Age group(X1) is 40.03 years with standard deviation, 9.44 for the total distribution taken for the study. Coefficient of variation of Age (X1) is 23.58% which shows a very high level of consistency in its distribution

The independent variable Education (X2) of farmer, has been found from the study that the mean 6.85 years of schooling with standard deviation, 2.91 for the total distribution taken for the study. Coefficient of variation of Education (X2) is 42.48% which shows a high level of consistency in its distribution.

The independent variable Family size (X3) of farmer, has been found from the study that the mean 5.05 with standard deviation, 1.33 for the total distribution taken for the study. Coefficient of variation of Family size (X3) is 26.33% which shows a high level of consistency in its distribution.

The independent variable size of holding (X4) of farmer, has been found from the study that the mean 0.51bigha with standard deviation, 0.25 for the total distribution taken for the study. Coefficient of variation of size of holding (X4) is 49.01% which shows a high level of consistency in its distribution.

The independent variable homestead land (X5) of farmer. It has been found from the study that the mean land is 0.12 bigha with standard deviation, 0.09 for the total distribution taken for the study. Coefficient of variation of homestead land(X5) is 75.00% which shows a moderate level of consistency in its distribution.

The independent variable Family farm income(X6) of farmer, has been found from the study that the mean 1160.40 Rupees with standard deviation, 220.32 for the total distribution taken for the study. Coefficient of variation of Family farm income (X6) is 18.98% which shows a high level of consistency in its distribution.

The independent variable Family off farm income(X7) of farmer, has been found from the study that the mean 478.90 Rupees with standard deviation, 190.38 Rupees for the total distribution taken for the study. Coefficient of variation of Family off farm income (X7) is 39.75% which shows a high level of consistency in its distribution .

The independent variable cropping intensity (X8) of farm land, has been found from the study that the mean 244.68 Rupees with standard deviation, 43.20 for the total distribution taken for the study. Coefficient of variation of cropping intensity (X8) is 17.65% which shows a high level of consistency in its distribution.

The independent variable crop mix (X9) of farm land, has been found from the study that the mean 1.72 with standard deviation, 6.99 for the total distribution taken for the study. Coefficient of variation of crop mix (X9) is 406.39% which shows high level of inconsistency in its distribution.

The independent variable Livestock (X10) of farmer, has been found from the study that the mean 1.18 with standard deviation, 0.58 for the total distribution taken for the study. Coefficient of variation of livestock (X10) is 49.15% which shows a high level of consistency in its distribution.

The independent variable yield of rice(X11) of farm land, has been found from the study that the mean 1.38 Quintals with standard deviation, 0.49 for the total distribution taken for the study. Coefficient of variation of yield of rice(X11) is 35.50% which shows a high level of consistency in its distribution.

The independent variable yield of pulses(X12) of farm land, has been found from the study that the mean 0.03quintals with standard deviation, 0.01 for the total distribution taken for the study. Coefficient of variation of yield of pulses (X12) is 33.33% which shows a high level of consistency in its distribution.

The independent variable yield of vegetables (X13) of farmer, has been found from the study that the mean 2.83 hours with standard deviation, 1.25 for the total distribution taken for the study. Coefficient of variation of Yield of Vegetable (X13) is 44.16% which shows a high level of consistency in its distribution.

The independent variable Exposure to media(X14) of farmer, has been found from the study that the mean 0.51bigaha with standard deviation, 0.25 for the total distribution taken for the study. Coefficient of variation of Exposure to media (X14) is 49.01% which shows a high level of consistency in its distribution.

The independent variable perception on disease pest incidence (X15) of farmer, has been found from the study that the mean 0.41 with standard deviation, 0.18 for the total distribution taken for the study. Coefficient of variation of perception on disease pest incidence (X15) is 43.90% which shows a high level of consistency in its distribution.

Coefficient of Correlation tables

Table 2: Coefficient of Correlation (r): Mandaysandmonsoon(Y1) vs. 15 independent variables(x₁-x₁₅).

Sl no.	variables	r value	Remarks
1	Age(x1)	-0.018	
2	Education(x2)	0.223	
3	Family size(x3)	-0.146	
4	Size of holding(x4)	-0.166	
5	Homestead land(x5)	0.032	
6	Family income(farm)(x6)	-0.158	
7	Family income(off farm)(x7)	0.032	
8	Cropping Intensity(x8)	-0.264	*
9	Crop mix(x9)	-0.061	
10	Livestock(x10)	-0.019	
11	Yield of Rice(x11)	0.275	*
12	Yield of Pulses(x12)	0.327	**
13	Yield of vegetables(x13)	0.198	
14	Exposure to media(x14)	0.197	
15	Disease pest incidence(x15)	0.192	

Result

Table 2 presents the coefficient of correlation between Y1 (mandays and monsoon) and 15 independent variables. It has been found that following variables viz. Copping intensity(x8), yield of rice(x10) and

yield of pulses(x11) have recorded significant correlation with the dependent variable.

Revelation

The variables are basically agro economic by nature and they have shown that the cropping intensity or yield of crops is significantly influencing the perception on mandays affected due to monsoon. The monsoon behaviour is closely related to crop husbandry and management, which also generate mandays and creates livelihood there from.

Table 3: Coefficient of Correlation (r): Income and monsoon.(Y₂) vs. 15 independent variables(x₁-x₁₅).

Sl no.	variables	r value	Remarks
1	Age(x1)	0.001	
2	Education(x2)	0.127	
3	Family size(x3)	0.083	
4	Size of holding(x4)	-0.419	**
5	Homestead land(x5)	-0.289	*
6	Family income(farm)(x6)	-0.976	**
7	Family income(off farm)(x7)	-0.144	
8	Cropping Intensity(x8)	-0.225	
9	Crop mix(x9)	-0.112	
10	Livestock(x10)	-0.361	**
11	Yield of Rice(x11)	-0.068	
12	Yield of Pulses(x12)	-0.036	
13	Yield of vegetables(x13)	0.220	
14	Exposure to media(x14)	0.144	
15	Disease pest incidence(x15)	0.143	

Result

Table 3 presents the coefficient of correlation between Y₂ (income and monsoon) and 15 independent variables. It has been found that

following variables viz. Size of holding(x4), homestead land(x5), farm family income(x6) and livestock(x10) have recorded significant correlation with the dependent variable.

Revelation

The results have been indicated that income has been affected due to delayed monsoon and it has got proportionate impact on farm family income as well as livestock enterprises and worst sufferers are those having small size of holding and homestead land.

Table 4: Coefficient of Correlation (r): Migration and monsoon(Y₃)vs. 15 independent variables(x₁-x₁₅).

Sl no.	variables	r value	Remarks
1	Age(x1)	0.999	**
2	Education(x2)	-0.507	**
3	Family size(x3)	0.212	
4	Size of holding(x4)	-0.068	
5	Homestead land(x5)	-0.062	
6	Family income(farm)(x6)	-0.012	
7	Family income(off farm)(x7)	-0.050	
8	Cropping Intensity(x8)	0.066	
9	Crop mix(x9)	-0.126	
10	Livestock(x10)	0.039	
11	Yield of Rice(x11)	-0.149	
12	Yield of Pulses(x12)	-0.137	
13	Yield of vegetables(x13)	-0.119	
14	Exposure to media(x14)	-0.591	**
15	Disease pest incidence(x15)	-0.591	**

Result

Table 4 presents the coefficient of correlation between Y3(migration and monsoon) and 15 independent variables. It has been found that following variables viz. age(x1), education(x2), perception on disease

- pest(x14) and exposure to media(x14) have recorded significant correlation with the dependent variable.

Revelation

The result indicates that those who are having higher education got a propensity for migration. Younger age respondents have shown higher affinity towards migration. Delayed monsoon has every possibility to invite disease and pest problems to make the management further complex and challenging. Higher exposure to media and community has contributed to the respondents to earn impression and knowledge on the effect of delayed monsoon both by quality and quantity.

Table 5: Coefficient of Correlation (r): — festivals and monsoon (Y₄).vs. 15 independent variables(x₁-x₁₅).

Sl no.	variables	r value	Remarks
1	Age(x1)	0.213	
2	Education(x2)	-0.159	
3	Family size(x3)	0.999	**
4	Size of holding(x4)	-0.354	
5	Homestead land(x5)	-0.669	
6	Family income(farm)(x6)	-0.100	
7	Family income(off farm)(x7)	-0.184	
8	Cropping Intensity(x8)	0.093	
9	Crop mix(x9)	-0.026	
10	Livestock(x10)	-0.515	**
11	Yield of Rice(x11)	-0.915	**
12	Yield of Pulses(x12)	-0.882	**
13	Yield of vegetables(x13)	-0.287	*
14	Exposure to media(x14)	-0.171	
15	Disease pest incidence(x15)	-0.170	

Result

Table 5 presents the coefficient of correlation between Y4 (festivals and monsoon) and 15 independent variables. It has been found that following variables viz. family Size(x3), livestock(x10), yield of rice(x11), yield of pulses(x12), yield of vegetables(x13) have recorded significant correlation with the dependent variable.

Revelation

In west Bengal autumn festivals are hugely dependent on monsoon rainfall and monsoon behaviours as well. In most cases festivals are marred by delayed monsoon which sometimes goes extended upto last week of September. The monsoon analysis by the climate scientists depicts that post monsoon rainfall is increasing bi 10-15% over the last 100 years and thats why the prospect of early vegetables which will be used in festivals are jeopardised. So, also for livestock enterprises as well as the enterprises related to the observant s of rituals and festivals.

Table 6: Coefficient of Correlation (r): Market and monsoon (Y₅) vs. 15 independent variables(x₁-x₁₅).

SI no.	variables	r value	Remarks
1	Age(x1)	0.224	
2	Education(x2)	-0.072	
3	Family size(x3)	0.608	**
4	Size of holding(x4)	-0.743	**
5	Homestead land(x5)	-0.677	**
6	Family income(farm)(x6)	-0.364	**
7	Family income(off farm)(x7)	-0.008	
8	Cropping Intensity(x8)	-0.351	**
9	Crop mix(x9)	-0.097	

10	Livestock(x10)	-0.437	**
11	Yield of Rice(x11)	-0.528	**
12	Yield of Pulses(x12)	-0.462	**
13	Yield of vegetables(x13)	-0.129	
14	Exposure to media(x14)	-0.126	
15	Disease pest incidence(x15)	-0.126	

Result

Table 6 presents the coefficient of correlation between Y5(market and monsoon) and 15 independent variables. It has been found that following variables viz.family Size(x3),size of holding(x4), homestead land(x5), farm family income(x6), cropping intensity(x8), livestock(x10), yield of rice(x11) and yield of pulses(x12) have recorded significant correlation with the dependent variable.

Revelation

Almost all the agro-climatic variables have been found to be negatively impacted by delayed monsoon. So, only the respondents with small family size have been found worst affected while comparing with respondents having large family size.

Table 7: Coefficient of Correlation (r): Sociological perception of monsoon(Y₆) vs. 15 independent variables(x₁-x₁₅).

Sl no.	variables	r value	Remarks
1	Age(x1)	0.250	*
2	Education(x2)	-0.077	
3	Family size(x3)	0.603	**
4	Size of holding(x4)	-0.746	**
5	Homestead land(x5)	-0.674	**
6	Family income(farm)(x6)	-0.399	**
7	Family income(off farm)(x7)	-0.016	
8	Cropping Intensity(x8)	-0.354	**

9	Crop mix(x9)	-0.105	
10	Livestock(x10)	-0.442	**
11	Yield of Rice(x11)	-0.518	**
12	Yield of Pulses(x12)	-0.451	**
13	Yield of vegetables(x13)	-0.116	
14	Exposure to media(x14)	-0.130	
15	Disease pest incidence(x15)	-0.130	

Result

Table 7 presents the coefficient of correlation between Y6(sociological perception on monsoon) and 15 independent variables. It has been found that following variables viz. Age(x1),family Size(x3),size of holding(x4), homestead land(x5), farm family income(x6), cropping intensity(x8), livestock(x10), yield of rice(x11) and yield of pulses(x12) have recorded significant correlation with the dependent variable.

Revelation

Respondents with small family size and younger age have perceived the negative impact of delayed monsoon. The sociology as a whole has well been inflicted with reciprocates damages in yield and the marketability of the agricultural produces. Taking all these in consideration the sociology of monsoon can be predicted by all these following variables. Age(x1),family Size(x3),size of holding(x4), homestead land(x5), farm family income(x6), cropping intensity(x8), livestock(x10), yield of rice(x11) and yield of pulses(x12).

Step down Regression Analysis

Table8: Step down Regression Analysis, Man daysand monsoon(Y_1)
VS 15 Causal variables(x_1-x_{15}):

SI no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value
1	Age(x1)	0.142	-0.697	0.004	0.004	0.911
2	Education(x2)	1.348	81.916	0.119	0.069	1.708
3	Family size(x3)	0.745	-29.740	0.143	0.070	2.039
4	Size of holding(x4)	0.521	-23.573	0.528	0.499	1.059
5	Homestead land(x5)	- 0.820	-7.148	-2.360	1.829	1.290
6	Family income(farm)(x6)	- 0.110	4.713	0.000	0.000	0.701
7	Family income(off farm)(x7)	- 0.113	-1.011	0.000	0.000	0.814
8	Cropping Intensity(x8)	- 0.123	9.172	-0.001	0.001	0.807
9	Crop mix(x9)	- 0.033	0.559	-0.001	0.005	0.251
10	Livestock(x10)	0.062	-0.333	0.027	0.087	0.317
11	Yield of Rice(x11)	0.182	13.623	0.096	0.476	0.201
12	Yield of Pulses(x12)	1.228	109.227	26.913	15.795	1.704
13	Yield of vegetables(x13)	- 0.012	-0.641	-0.001	0.008	0.077
14	Exposure to media(x14)	- 7.095	- 369.811	-1.455	3.086	0.471
15	Disease pest incidence(x15)	6.004	313.743	8.617	21.281	0.405

MULTIPLE R-SQ=36.77%

S.E=0.80

Table 9: Regression Analysis, Man days and monsoon (Y₁) VS 15 Causal variables(x₃,x₅,x₁₂):

variables	Beta	Beta x R	Reg.coef. B	Coef of B	S.E. of B	t value
Family size(x3)	0.585	-32.769	-0.287	0.112	0.048	2.365
Homestead land(x5)	-0.359	-4.388	0.063	-1.032	0.474	2.180
Yield of Pulses(x12)	1.099	137.167	0.639	24.089	5.733	4.201

R-SQ =26.21%

S.E=0.41

Result

Table 8 presents the multiple regression analysis between criterion variable man days and monsoon vs. 15 causal variables. It has been found that the variable education(x2), family size((x3) and yield of pulses(x12) have contributed substantially to the variance embedded with the consequent variable y1.due to delayed monsoon and at the same time, an increase in post monsoon rainfall the yield of pulses have to suffer.

The R² value being 0.3677, it is to infer that 36.67 per cent of variance in the consequent variable has been explained by the combination of these 15 causal variables.

Table 9 presents the step wise regression and it has been depicted that the 3 causal variables that are family size(x3), homestead land(x5), yield of pulses(x12) have been retained at the last step.

The R^2 value being 0.2621, it is to infer that 26.21% of variants in the consequent variable has been explained by the combination of these 3 causal variables.

Revelation

The perceived loss of mandays due to delayed monsoon has well been predicted by 3 functional variables viz. family size(x3), homestead land(x5), yield of pulses(x12) to imply that those having more lands under crop especially that of pulses and higher homestead land with a possibility of vegetable enterprises have become more adept to perceive the negative impact of delayed monsoon.

Table10: Step down Regression Analysis, Income and monsoon (Y_2) vs 15 causal variable(x_1 - x_{15}):

Sl no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value
1	Age(x1)	0.009	0.001	0.000	0.001	0.228
2	Education(x2)	-0.071	-0.942	-0.008	0.023	0.357
3	Family size(x3)	-0.019	-1.162	-0.005	0.024	0.203
4	Size of holding(x4)	-0.070	3.048	-0.095	0.168	0.565
5	Homestead land(x5)	0.082	-2.454	0.318	0.618	0.514
6	Family income(farm)(x6)	-0.964	98.251	-0.002	0.000	24.572
7	Family income(off farm)(x7)	0.033	-0.496	0.000	0.000	0.947
8	Cropping Intensity(x8)	-0.014	0.324	0.000	0.000	0.348

9	Crop mix(x9)	- 0.008	0.099	0.000	0.002	0.251
10	Livestock(x10)	0.012	-0.457	0.007	0.029	0.247
11	Yield of Rice(x11)	0.068	0.487	-0.049	0.161	0.302
12	Yield of Pulses(x12)	0.000	-0.002	0.014	5.334	0.003
13	Yield of vegetables(x13)	0.018	0.413	0.011	0.003	0.463
14	Exposure to media(x14)	2.660	39.934	0.733	1.042	0.704
15	Disease pest incidence(x15)	- 2.553	- 38.044	-4.928	7.187	0.686

R-SQ=96.01%

S.E=0.27

Table11: Regression Analysis, Income and monsoon (Y₂) vs 1 causal variable(x₆):

SI no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value	VIF
1.	Family income(farm)(x6)	- 0.978	100.00	-0.002	0.00	36.02	1.00

R² value-95.72%

S.E-.41

Result

Table 10 presents the multiple regression analysis between exogenous variable income and monsoon vs. 15 causal variables. It has been found that the variable farm family income(x6) has contributed to the substantive variance embedded with the consequent variable y2.

The R² value being 0.9601, it is to infer that 96.01% of variants in the consequent variable has been explained by the combination of these 15 causal variables.

Table 11 presents the step wise regression and it has been depicted that the 1 causal variables that is farm family income(x6) has been retained at the last step.

The R^2 value being 0.9572, it is to infer that 95.72% of variants in the consequent variable has been explained by the combination of these 1 causal variable.

Revelation

The perceived loss of income due to delayed monsoon has well been affected by the one functional variable, farm family income(x6) .it implied that if delayed monsoon or over monsoon is there, the crop loss would occur and substantial farm income of the family would have been hampered.

Table 12: Step down Regression Analysis, Migration and monsoon (Y_3) vs 15 causal variable(x_1 - x_{15})

SI no	Variables	Beta	Beta x R	Reg.coef . B	S.E. of B	t value
1	Age(x1)	1.002	100.164	0.028	0.000	1411.089
2	Education(x2)	-0.009	0.536	-0.001	0.000	2.540
3	Family size(x3)	-0.008	-0.163	-0.001	0.000	4.610
4	Size of holding(x4)	-0.002	0.014	-0.002	0.002	0.894
5	Homestead land(x5)	0.003	-0.018	0.008	0.008	0.982

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6	Family income(farm)(x6)	-0.001	0.001	0.000	0.000	1.393
7	Family income(off farm)(x7)	0.001	-0.005	0.000	0.000	1.478
8	Cropping Intensity(x8)	0.000	-0.002	0.000	0.000	0.469
9	Crop mix(x9)	0.002	-0.023	0.000	0.000	2.990
10	Livestock(x10)	-0.001	-0.004	0.000	0.000	1.139
11	Yield of Rice(x11)	0.001	-0.022	0.001	0.002	0.359
12	Yield of Pulses(x12)	-0.007	0.097	-0.156	0.073	2.142
13	Yield of vegetables(x13)	-0.002	0.021	0.000	0.000	2.488
14	Exposure to media(x14)	0.157	-9.265	0.032	0.014	2.286
15	Disease pest incidence(x15)	-0.147	8.669	-0.213	0.098	2.171

R SQ=100%

S.E=0

Table 13: Regression Analysis, Migration and monsoon(Y₃) vs 1 causal variable(x14)

Sl no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value	VIF
1.	Exposure to media(x14)	-0.591	100.000	-0.123	0.022	5.586	1.000

R²Value-34.98%

S.E-.05

Result

Table 12 presents the multiple regression analysis between exogenous variable migration and monsoon vs. 15 causal variables. It has been found that the variable education(x2), crop mix(x9), yield of pulses(x12), yield of vegetables(x13), exposure to media(x14), perception on disease pest(x15) have contributed to the substantive variance embedded with the consequent variable y3..

The R^2 value being 0.100, it is to infer that 100% of variants in the consequent variable has been explained by the combination of these 15 causal variables.

Table 11 presents the step wise regression and it has been depicted that the 1 causal variable that is, exposure to media(x14) has been retained at the last step.

The R^2 value being 0.3498, it is to infer that 34.98% of variants in the consequent variable has been explained by the combination of these 1 causal variable.

Revelation

The migration is been fostered to the respondents who have much exposure to the media. This phenomenon depicts that if the respondents are highly exposed to mass medias like television, radio, new papers etc. they would know about many other income and livelihood opportunities in the places other than their homeland. So, they would migrate to the better opportunity places.

Table 14: Step down Regression Analysis, festivals and monsoon (Y₄) vs. 15 causal variable (x₁-x₁₅)

SI no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value
1	Age(x1)	- 0.003	-0.061	0.000	0.000	0.511
2	Education(x2)	- 0.004	0.071	0.000	0.001	0.158
3	Family size(x3)	1.002	100.277	0.067	0.001	76.487
4	Size of holding(x4)	0.011	-0.376	0.004	0.006	0.601
5	Homestead land(x5)	- 0.016	1.054	-0.016	0.023	0.691
6	Family income(farm)(x6)	- 0.005	0.048	0.000	0.000	0.853
7	Family income(off farm)(x7)	0.001	-0.025	0.000	0.000	0.275
8	Cropping Intensity(x8)	0.004	0.035	0.000	0.000	0.652
9	Crop mix(x9)	0.001	-0.003	0.000	0.000	0.278
10	Livestock(x10)	0.005	-0.249	0.001	0.001	0.689
11	Yield of Rice(x11)	- 0.031	2.885	-0.006	0.006	0.972
12	Yield of Pulses(x12)	0.041	-3.660	0.315	0.167	1.601
13	Yield of vegetables(x13)	- 0.003	0.095	0.000	0.000	0.595
14	Exposure to media(x14)	0.533	-9.126	0.038	0.038	0.986
15	Disease pest incidence(x15)	- 0.528	9.034	-0.263	0.265	0.993

R-SQ=99.92%

S.E=.01

Table 15: Step down Regression Analysis, festivals and monsoon (Y_4) vs. 1 causal variable (x_3)

Sl no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value	VIF
1.	Family size(x3)	1.000	100.000	0.067	0.000	254.238	1.000

R²Value-59.14%

S.E-0.07

Result

Table 14 presents the multiple regression analysis between exogenous variable festivals and monsoon vs. 15 causal variables. It has been found that the variable family size(x3) has contributed to the substantive variance embedded with the consequent variable y_4 .

The R² value being 0.9992, it is to infer that 99.92% of variants in the consequent variable has been explained by the combination of these 15 causal variables.

Table 13 presents the step wise regression and it has been depicted that the 1 causal variable that is, family size(x3) has been retained at the last step.

The R² value being 0.5914, it is to infer that 59.14% of variants in the consequent variable has been explained by the combination of these 1 causal variable.

Revelation

The family size of the farmers can be related with autumn festivals in two ways. One is obviously if family size is big then there may be more source of alternative income. So, if one sector of income is collapsed then the other sectors could support the family and the

family can enjoy the festivals. This is from the expenditure point of view. Now if we consider the family income we would find that if there persists a joint family then there would less of the fragmented land, so more crop diversification may be there, that implies more salable goods during festive seasons and more income.

Table 16: Step down Regression Analysis, Market and monsoon.(Y₅) vs. 15 causal variables(x₁-x₁₅).

SI no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value
1	Age(x1)	0.023	0.612	0.020	0.061	0.322
2	Education(x2)	0.941	-7.919	2.573	1.008	2.553
3	Family size(x3)	0.115	8.137	0.688	1.018	0.676
4	Size of holding(x4)	- 1.440	124.247	-45.389	7.237	6.272
5	Homestead land(x5)	1.415	- 111.228	126.571	26.538	4.769
6	Family income(farm)(x6)	- 0.020	0.866	-0.001	0.003	0.280
7	Family income(off farm)(x7)	- 0.039	0.038	-0.002	0.003	0.602
8	Cropping Intensity(x8)	- 0.175	7.156	-0.032	0.014	2.371
9	Crop mix(x9)	- 0.014	0.155	-0.016	0.071	0.218
10	Livestock(x10)	- 0.074	3.741	-1.014	1.255	0.808
11	Yield of Rice(x11)	- 1.104	67.620	-18.097	6.908	2.620
12	Yield of Pulses(x12)	0.127	-6.813	86.517	229.194	0.377
13	Yield of vegetables(x13)	0.097	-1.457	0.157	0.117	1.341
14	Exposure to media(x14)	- 5.255	77.216	-33.481	44.776	0.748

15	Disease pest incidence(x15)	4.254	-62.369	189.721	308.809	0.614
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R SQ-81.51%

S.E=11.56

Table 17: Step down Regression Analysis, Market and monsoon.(Y₅) vs. 7 causal variables(x₂,x₄,x₅,x₈,x₁₁,x₁₃,x₁₄).

Sl no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value	VIF
1	Education(x2)	0.826	-7.028	2.260	0.879	2.569	36.600
2	Size of holding(x4)	-1.589	138.549	-50.083	5.464	9.165	10.641
3	Homestead land(x5)	1.559	-123.80	139.401	20.772	6.711	19.092
4	Cropping Intensity(x8)	-0.159	6.509	-0.029	0.012	2.516	1.392
5	Yield of Rice(x11)	-1.208	74.792	-19.807	2.236	8.858	6.582
6	Yield of vegetables(x13)	0.144	-2.181	0.233	0.094	2.475	1.195
7	Exposure to media(x14)	-0.886	13.160	-5.646	2.053	2.750	36.753

R² Value-85.31%

S.E-3.93

Result

Table 16 presents the multiple regression analysis between exogenous variable market and monsoon vs. 15 causal variables. It has been found that the variables education(x2), size of holding(x4), homestead land(x5), cropping intensity(x8), yield of rice(x11) have contributed to the substantive variance embedded with the consequent variable y₅.

The R^2 value being 0.8151, it is to infer that 81.51% of variants in the consequent variable has been explained by the combination of these 15 causal variables.

Table 17 presents the step wise regression and it has been depicted that the 5 causal variable that are education(x2), size of holding(x4), homestead and(x5), cropping intensity(x8), yield of rice(x11), yield of vegetables(x13),exposure to media(x14) have been retained at the last step.

The R^2 value being 0.8531, it is to infer that 85.31% of variants in the consequent variable has been explained by the combination of these 7 causal variables.

Revelation

If education is higher and exposure to mass media is also higher, then it can be perceived that the concern respondent has more souces to get market information’s and also has more affinity towards getting big markets to sell their produces. On the other hand, if size of holding is big, cropping intensity is high and yield is good, then there would be more marketable surplus.

Table18: Step down Regression Analysis, Sociological perception of monsoon(Y_6) vs.15 causal variables(x_1 - x_{15})

Sl no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value
1	Age(x1)	0.059	1.692	0.051	0.062	0.824
2	Education(x2)	0.947	-8.488	2.684	1.023	2.625
3	Family size(x3)	0.144	10.053	0.894	1.033	0.865
4	Size of holding(x4)	- 1.376	118.378	-44.939	7.343	6.120

5	Homestead land(x5)	1.343	-	124.480	26.927	4.623
6	Family income(farm)(x6)	-	2.918	-0.002	0.003	0.887
7	Family income(off farm)(x7)	-	0.078	-0.002	0.003	0.630
8	Cropping Intensity(x8)	-	7.089	-0.033	0.014	2.399
9	Crop mix(x9)	-	0.180	-0.017	0.072	0.242
10	Livestock(x10)	-	3.499	-0.978	1.274	0.768
11	Yield of Rice(x11)	-	63.516	-18.049	7.009	2.575
12	Yield of Pulses(x12)	0.161	-8.378	113.590	232.552	0.488
13	Yield of vegetables(x13)	0.094	-1.262	0.158	0.119	1.327
14	Exposure to media(x14)	-	77.987	-34.220	45.432	0.753
15	Disease pest incidence(x15)	4.189	-62.889	193.540	313.333	0.618

R-SQ=86.78%

S.E-11.73

Table 19: Step down Regression Analysis, Sociological perception of monsoon (Y₆) vs.7 causal variables (X₂,X₄,X₅,X₈,X₁₁,X₁₃,X₁₄)

SI no.	Variables	Beta	Beta x R	Reg.coef. B	S.E. of B	t value	VIF
1	Education(x2)	0.768	-7.006	2.176	0.914	2.382	36.600
2	Size of holding(x4)	-	140.703	-52.463	5.676	9.243	10.641
3	Homestead land(x5)	1.568	-	145.324	21.577	6.735	19.092

4	Cropping Intensity(x8)	- 0.155	6.425	-0.030	0.012	2.460	1.392
5	Yield of Rice(x11)	- 1.204	73.265	-20.449	2,323	8.804	6.582
6	Yield of vegetables(x13)	0.156	-2.129	0.261	0.098	2.677	1.195
7	Exposure to media(x14)	- 0.836	12.799	-5.516	2.133	2.587	36.750

R SQ-85.23%

S.E-4.09

Result

Table 18 presents the multiple regression analysis between exogenous variable sociological perceptions on monsoon vs. 15 causal variables. It has been found that the variables education(x2), size of holding(x4), homestead land(x5), cropping intensity(x8), yield of rice(x11) have contributed to the substantive variance embedded with the consequent variable y_6 .

The R^2 value being 0.8678, it is to infer that 86.78per cent of variants in the consequent variable has been explained by the combination of these 15 causal variables.

Table 19 presents the step wise regression and it has been depicted that the 5 causal variable that are education(x2), size of holding(x4), homestead and (x5), cropping intensity(x8), yield of rice(x11), yield of vegetables(x13),exposure to media(x14) have been retained at the last step.

The R^2 value being 0.8523, it is to infer that 85.23% of variants in the consequent variable has been explained by the combination of these 7 causal variables.

Revelation

The sociological perception of the respondents is the sum of all other five dependent variables. So, if all other dependent variables increased positively then the sociological perception of monsoon would also increase. So, as we discussed earlier the incensement in dependent variables like education, size of holding, crop mix, cropping intensity of several crops, exposure to media would bring incensement in dependent variables which subsequently increase the overall monsoon perception of the respondents.

Factor Analysis

Table 20: Factor Analysis: Conglomeration of 15 explanatory variables into 5 factors.

Factors	variables	Factor loading	% of variance	Cumulative %	Factor renamed
Factor 1	Family size(x3)	-.899	29.495	29.495	Family resource
	Homestead land(x5)	.844			
	Livestock(x10)	.552			
	Yield of Rice(x11)	.924			
	Yield of Pulses(x12)	.900			
Factor 2	Age(x1)	-.620	23.918	53.413	Perception proficiency
	Education(x2)	.927			
	Exposure to media(x14)	.927			
	Perception on Disease pest incidence(x15)	.927			

Factor 3	Size of holding(x4) Cropping Intensity(x8)	.639 .752	12.301	65.714	Farm resource
Factor 4	Family income(farm)(x6) Yield of vegetables(x13)	.580 -.670	9.157	74.871	Family enterprise
Factor 5	Family income(off farm)(x7) Crop mix(x9)	.584 .734	7.164	82.035	Agro ecological proficiency

Table 21 presents the factor analysis, wherein 15 numbers of independent variables have been conglomerated into 5 dominant factors.

Factor1 is consists of 5 variables viz. Family size(x3),education(x2),homestead land(x5),livestock(x10),yield of rice(x11) and yield of pulses(x12). These variables contribute about 29.49 per cent of variance, and the factor renamed as family resource.

Factor2 consists of 4 variables viz.age(x1), education(x2), exposure to media(x14) and perception on disease pest incidence(x15). These variables contribute about 23.91 per cent of variance and are renamed as perception proficiency.

Factor 3 consists of 2 variables those are size of holding(x4) and cropping intensity(x8). Which contributes about 65.71 per cent of variance and is renamed as farm resources?

Factor 4 consists of 2 variables viz. Farm family income (x6) and yield of vegetables(x13).These 2 variables contribute 74.87 per cent variance and is renamed as family enterprise.

Factor 5 consists of 2 variables viz. Farm income(x7) and crop mix(x9). These 2 variables contribute 82.03 per cent of variance and is renamed as agro ecological proficiency.

Path analysis

Sl No.	variables	Total effect	Direct Effect	Indirect Effect	Highest indirect Effect
1	Age(x1)	-0.018	0.142	-0.16	x14(4.204)
2	Education(x2)	0.223	1.348	-1.125	x14(-6.9899)
3	Family size(x3)	-0.146	0.7446	-0.8906	X14(1.2154)
4	Size of holding(x4)	-0.166	0.520	-0.686	X5 (-0.6903)
5	Homestead land(x5)	0.032	-0.819	0.851	X12(0.873)
6	Family income(farm)(x6)	-0.158	-0.109	-0.049	X14(0.8716)
7	Family income(off farm)(x7)	0.032	-0.113	0.145	X7(0.7217)
8	Cropping Intensity(x8)	-0.264	-0.127	-0.137	X14(0.7288)
9	Crop mix(x9)	-0.061	-0.033	-0.028	X14(-0.7317)
10	Livestock(x10)	-0.019	0.062	-0.081	X14(1.3709)
11	Yield of Rice(x11)	0.275	0.181	0.094	X12(1.2047)
12	Yield of Pulses(x12)	0.327	1.228	-0.901	X14(-0.7698)
13	Yield of vegetables(x13)	0.198	-0.011	0.209	X14(-1.0644)

14	Exposure to media(x14)	0.197	-7.094	7.291	X15(6.0039)
15	Disease pest incidence(x15)	0.192	6.004	-5.812	X14(-7.0945)

Table 21: Path analysis: Decomposition of total effect (r) into Direct, Indirect and Residual effect[man days and Monsoon VS 15 consequent variables(x1-x15)

Residual= 63.23%

The variable exposure to media (x14) has enrooted the highest indirect effect (for 10 times) on the consequent variable. Table 21 presents the path analysis to decompose the TE into direct, indirect and residual effect. It has been found that the variable education (0.223) has highest direct effect, while the variable exposure to media has exerted the highest indirect effect(7.291) on the perception of mandays and monsoon. Education as being the pursuits of cognitive construction, it has rightly contributed to the perception of loss of mandays due to climate change. Similarly exposure to media has contributed highest associative impact for this consequent variable.

The residual effect being 63.23 per cent, it is to infer that even with the combination of these 15 exogenous variables, 63.23 per cent of variance cannot be explained. This suggests the inclusion of more numbers of relevant and consistent variables for this framework of study.

So, the predominated factors, as formed by interactively accommodating them based on factor loading, can offer a strategic

implication by effectively downsizing the sphere of variables into well textured factors.

Table 22: Path analysis: Decomposition of total effect (r) into Direct, Indirect and Residual effect[income and Monsoon VS 15 consequent variables(x1-x15)

SI No.	variables	Total effect	Direct Effect	Indirect Effect	Highest indirect Effect
1	Age(x1)	0.001	0.008	-0.007	X15(1.512)
2	Education(x2)	0.127	-0.070	0.197	X14(2.619)
3	Family size(x3)	0.083	-0.018	0.101	X14(-0.455)
4	Size of holding(x4)	-0.419	-0.0698	-0.349	X6(-0.400)
5	Homestead land(x5)	-0.289	0.0820	-0.371	X6(-0.283)
6	Family income(farm)(x6)	-0.976	-0.9642	-0.011	X14(-0.326)
7	Family income(off farm)(x7)	-0.144	0.033	-0.177	X14(-0.270)
8	Cropping Intensity(x8)	-0.225	-0.018	-0.207	X14(-0.272)
9	Crop mix(x9)	-0.112	-0.008	-0.104	X14(0.272)
10	Livestock(x10)	-0.361	0.012	-0.373	X14(-0.513)
11	Yield of Rice(x11)	-0.068	-0.068	0	X14(0.288)
12	Yield of Pulses(x12)	-0.036	0.0005	-0.036	X14(0.398)
13	Yield of vegetables(x13)	0.220	0.018	0.202	X14(0.398)

14	Exposure to media(x14)	0.144	2.659	-2.515	X15(-2,552)
15	Disease pest incidence(x15)	0.143	-2.552	2.695	X14(2.659)

Residual-3.99%

The variable exposure to media (x14) has enrooted the highest indirect effect (for 11 times) on the consequent variable. Table 22 presents the path analysis to decompose the TE into direct, indirect and residual effect. It has been found that the variable exposure to media (2.659) has highest direct effect, while the variable perception on disease pest incidence (2.659) has exerted the highest indirect effect on the perception of income and monsoon. Exposure to media has highest direct effect on the dependent variable income and monsoon rightly suggests that, the more of the exposure to media, the more relevant market information would be gotten. so, it creates a positive impact on income. Similarly perception on disease pest incidence has contributed highest associative impact on this consequent variable as, if the respondents can predict the disease pest incidence or are well aware of the control techniques, then crop loss would be minimized and subsequently income would be more.

The residual effect being 3.99 per cent, it is to infer that even with the combination of these 15 exogenous variables, 3.99 per cent of variance cannot be explained. This suggests the inclusion of more numbers of relevant and consistent variables for this framework of study.

So, the predominated factors, as formed by internationally accommodating them based on factor loading, can offer a strategic implication by effectively downsizing the spare of variables into well textured factors.

Table23: Path analysis: Decomposition of total effect (r) into Direct, Indirect and Residual effect [migration and Monsoon VS 15 consequent variables(x1-x15)]

SI No.	variables	Total effect	Direct Effect	Indirect Effect	Highest indirect Effect
1	Age(x1)	0.999	1.001	-0.002	X14(-0.92)
2	Education(x2)	- 0.507	-0.009	-0.5	X1(-0.589)
3	Family size(x3)	0.212	-0.007	0.214	X1(0.215)
4	Size of holding(x4)	- 0.068	-0.002	-0.068	X1(-0.069)
5	Homestead land(x5)	- 0.062	0.0002	-0.061	X1(-0.064)
6	Family income(farm)(x6)	- 0.012	-0.001	-0.012	X15(0.017)
7	Family income(off farm)(x7)	- 0.050	0.0009	-0.049	X14(-0.015)
8	Cropping Intensity(x8)	0.066	-0.0003	0.065	X14(-0.016)
9	Crop mix(x9)	- 0.126	0.0001	-0.125	X1(-0.128)
10	Livestock(x10)	0.039	-0.001	0.038	X14(-0.030)
11	Yield of Rice(x11)	- 0.149	0.001	-0.142	X14(0.020)
12	Yield of Pulses(x12)	- 0.137	-0.007	-0.136	X1(-0.139)
13	Yield of vegetables(x13)	- 0.119	-0.001	-0.275	X14(-0.593)

Result and Discussion

14	Exposure to media(x14)	- 0.591	0.156	-0.445	X1(-0.593)
15	Disease pest incidence(x15)	- 0.591	-0.146	-0.591	X1(-0.593)

Residual-0.00%

The variable age (x1) has enrooted the highest indirect effect (for 8 times) on the consequent variable. Table 23 presents the path analysis to decompose the TE into direct, indirect and residual effect. It has been found that the variable age (1.001) has highest direct effect, while the variable family size has exerted the highest indirect effect(0.214) on the perception of migration and monsoon. As the age of the respondents is lesser the tendency to migrate from the homeland is higher because younger aged respondents have are more keen towards higher income and higher standard of living.. Similarly family size has contributed highest associative impact for this consequent variable as, higher the members higher would be the numbers of stomach that have to fed, so, more income is required. Ultimately to seek higher opportunities of income migration occurs. In another side, if numbers of the family members are more then there would be more options of earning money. If some members are staying at the homeland, the others can migrate to better opportunity places and can earn money for the fellow members.

The residual effect being 0.00 per cent, it is to infer that with the combination of these 15 exogenous variables, 100 per cent of variance can be explained.

So, the predominated factors, as formed by internationally accommodating them based on factor loading, can offer a strategic implication by effectively downsizing the spare of variables into well textured factors.

Table24: Path analysis: Decomposition of total effect (r) into Direct, Indirect and Residual effect [festivals and Monsoon VS 15 consequent variables(x1-x15)]

SI No.	variables	Total effect	Direct Effect	Indirect Effect	Highest indirect Effect
1	Age(x1)	0.213	-0.002	0.215	X14(-0.315)
2	Education(x2)	-0.159	-0.004	-0.155	X14(0.524)
3	Family size(x3)	0.999	1.002	-0.003	X15(0.090)
4	Size of holding(x4)	-0.354	0.010	-0.364	X15(0.037)
5	Homestead land(x5)	-0.669	-0.015	-0.654	X12(0.029)
6	Family income(farm)(x6)	-0.100	-0.004	-0.096	X14(-0.065)
7	Family income(off farm)(x7)	-0.184	0.001	-0.185	X3(-0.184)
8	Cropping Intensity(x8)	0.093	0.003	0.09	X3(0.093)
9	Crop mix(x9)	-0.026	0.001	-0.027	X14(0.054)
10	Livestock(x10)	-0.515	0.004	-0.519	X3(-0.512)
11	Yield of Rice(x11)	-0.915	-0.031	-0.884	X3(-0.917)
12	Yield of Pulses(x12)	-0.882	0.041	-0.923	X3(-0.886)
13	Yield of vegetables(x13)	-0.287	-0.003	-0.284	X14(0.079)
14	Exposure to media(x14)	-0.171	0.532	-0.703	X15(-0.528)

15	Disease pest incidence(x15)	-0.170	-0.528	0.358	X14(0.532)
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Residual-00.00%

The variable exposure to media (x14) has enrooted the highest indirect effect (for 6 times) on the consequent variable. Table 24 presents the path analysis to decompose the TE into direct, indirect and residual effect. It has been found that the variable family size (1.002) has highest direct effect, while the variable age(0.215) has exerted the highest indirect effect on the perception of festivals and monsoon. Family size has highest direct effect on the dependent variable income and monsoon rightly suggests that, the more numbers of family members, more diversified income opportunities are there, so, if one source of income is collapsed, others can compensate it and the whole family can enjoy the festivals all together., the more relevant market information would be gotten.so, it creates a positive impact on income. Similarly age has contributed highest associative impact on this consequent variable as, if the respondents are of higher age means they are having higher experience of how deviations in monsoon rain can affect the festivals and related industries.

The residual effect being 0.00 per cent, it is to infer that with the combination of these 15 exogenous variables, 100 per cent of variance can be explained.

So, the predominated factors, as formed by interactionally accommodating them based on factor loading, can offer a strategic

implication by effectively downsizing the sphere of variables into well textured factors.

Table 25: Path analysis: Decomposition of total effect (r) into Direct, Indirect and Residual effect [market and Monsoon VS 15 consequent variables(x1-x15)

SI No.	variables	Total effect	Direct Effect	Indirect Effect	Highest indirect Effect
1	Age(x1)	0.224	0.023	0.201	X14(3.113)
2	Education(x2)	- 0.072	0.940	-1.012	X14(- 5.175)
3	Family size(x3)	0.608	0.115	0.493	X14(0.899)
4	Size of holding(x4)	- 0.743	-1.440	0.697	X5(1.191)
5	Homestead land(x5)	- 0.677	1.415	-2.092	X4(-1.213)
6	Family income(farm)(x6)	- 0.364	-0.020	-0.344	X14(0.645)
7	Family income(off farm)(x7)	- 0.008	-0.039	0.031	X14(0.534)
8	Cropping Intensity(x8)	- 0.351	-0.175	-0.176	X14(0.539)
9	Crop mix(x9)	- 0.097	-0.013	-0.084	X14(- 0.514)
10	Livestock(x10)	- 0.437	-0.073	-0.364	X14(1.012)
11	Yield of Rice(x11)	- 0.528	-1.103	0.575	X5(1.037)
12	Yield of Pulses(x12)	- 0.462	0.127	-0.589	X11(- 1.082)
13	Yield of vegetables(x13)	- 0.129	0.097	-0.226	X14(- 0.788)
14	Exposure to media(x14)	- 0.126	-5.253	5.127	X15(4.252)

15	Disease pest incidence(x15)	- 0.126	4.252	-4.378	X14(- 5.252)
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Residual-13.79%

The variable exposure to media (x14) has enrooted the highest indirect effect (for 10times) on the consequent variable. Table 25 presents the path analysis to decompose the TE into direct, indirect and residual effect. It has been found that the variable perception on disease pest incidence highest direct effect (4.252) , while the variable exposure to media has exerted the highest indirect effect(5.127) on the perception of market and monsoon. As the perception on disease pest is higher, more quality consciousness would be grown and marketability of the produce would be higher. Similarly exposure to media has contributed highest associative impact for this consequent variable as more of the media awareness, more would be the available market information.

The residual effect being 13.79 per cent, it is to infer that even with the combination of these 15 exogenous variables, 13.79 per cent of variance cannot be explained. This suggests the inclusion of more numbers of relevant and consistent variables for this framework of study.

So, the predominated factors, as formed by internationally accommodating them based on factor loading, can offer a strategic implication by effectively downsizing the spare of variables into well textured factors.

Table 26: Path analysis: Decomposition of total effect ® into Direct, Indirect and Residual effect [sociological perception and Monsoon VS 15 consequent variables(x1-x15)

SI No.	variables	Total effect	Direct Effect	Indirect Effect	Highest indirect Effect
1	Age(x1)	0.250	0.058	0.192	X14(3.071)
2	Education(x2)	- 0.077	0.947	-1.024	X14(- 5.106)
3	Family size(x3)	0.603	0.144	0.459	X11(0.972)
4	Size of holding(x4)	- 0.746	-1.376	0.63	X5(1.130)
5	Homestead land(x5)	- 0.674	1.343	-2.017	X4(-1.158)
6	Family income(farm)(x6)	- 0.399	-0.063	-0.336	X14(0.636)
7	Family income(off farm)(x7)	- 0.016	-0.040	0.024	X14(0.527)
8	Cropping Intensity(x8)	- 0.354	-0.173	-0.181	X4(-0.582)
9	Crop mix(x9)	- 0.105	-0.014	-0.091	X14(- 0.534)
10	Livestock(x10)	- 0.442	-0.068	-0.374	X14(1.001)
11	Yield of Rice(x11)	- 0.518	-1.062	0.544	X5(0.985)
12	Yield of Pulses(x12)	- 0.451	0.161	-0.612	X11(- 1.042)
13	Yield of vegetables(x13)	- 0.116	0.094	-0.21	X14(0.775)
14	Exposure to media(x14)	- 0.130	-5.182	5.052	X15(4.187)
15	Disease pest incidence(x15)	- 0.130	4.187	-4.317	X14(- 5.182)

Residual-13.22%

The variable exposure to media (x14) has enrooted the highest indirect effect (for 8 times) on the consequent variable. Table 26 presents the path analysis to decompose the TE into direct, indirect and residual effect. It has been found that the variable perception on disease pest incidence has highest direct effect (4.187), while the variable exposure to media (5.052) has exerted the highest indirect effect on the sociological perception on monsoon. perception on disease pest incidence as being the pursuits of cognitive construction, it has rightly contributed to the perception of sociological perception on monsoon. Similarly exposure to media has contributed highest associative impact for this consequent variable.

The residual effect being 13.22 per cent, it is to infer that even with the combination of these 15 exogenous variables, 13.22 per cent of variance cannot be explained. This suggests the inclusion of more numbers of relevant and consistent variables for this framework of study.

So, the predominated factors, as formed by interactively accommodating them based on factor loading, can offer a strategic implication by effectively downsizing the sphere of variables into well textured factors.

Canonical covariate analysis
Table 27: CCA to derive the interaction pattern of Dependent and Independent variable

Dependent variable	coefficients
y1	-.441
y2	-.433
y3	3.452
y4	-1.022
y5	-.446
y6	.446

Independent variable	Coefficients
x1	.999
x2	-.583
x3	.164
x4	-.053
x5	-.031
x6	-.012
x7	-.043
x8	.061
x9	-.128
x10	.064
x11	-.105
x12	-.094
x13	-.105
X14	-.587
x15	-.587

In statistics, CCA is a way of inferring information from cross-covariance matrices. If we have two vectors, $X=(X_1,\dots,X_n)$ and $Y=(Y_1,\dots,Y_n)$ of random variables and there are correlations among the variables, then canonical correlation analysis will find linear

combinations of the X_i and Y_j which have maximum correlation with each other. T.R Knapp notes that “virtually all of the commonly encountered parametric tests of significance can be treated as special cases of canonical correlation analysis, which is the general procedure for investigating the relationships between two sets of variables”. The method was first introduced by Harold Hotelling in 1936.

CCA for this study has been applied to extract the canonical covariates between two sets of variables, the left side variables and the right side variables. It has been observed that the LS variable again has formed two conglomerations further. Here, migration and monsoon has gone closest to sociology of monsoon and both have picked up four exogenous variables viz. age(x1), education(x3), cropping intensity(x8), and livestock (x10) isochronously.

On the other hand, the rest of the LS variables viz. mandays and monsoon(Y1), income and monsoon(Y2), festivals and monsoon(Y4) and market and monsoon(Y5) have formed another conglomeration keeping simultaneous interpretation with migration and monsoon(Y3) and sociological perception on monsoon(Y6) and this second conglomeration has picked up eleven exogenous variables.

So, from CCA we have come to know that the groups of Y variables have got precise selectivity to ultimately form a splendid strategy as to cater component related interaction to characterise the perception of sociology of monsoon.