Chapter–6

Result and Discussion

Table 6.1: Descriptive Analysis of the Independent and Dependent Variables.

Variables	Range		Mean	SD	CV (%)
	Max	Min			
1. Age(x1)	14	6	9.45	2.22	23.45
2.Education(x2)	9	1	4.18	2.16	51.80
3.Parents Education(x3)	34	7	20.90	5.85	27.99
4.Family Size(x4)	11	4	7.06	1.78	25.22
5.Size of Homestead Land(x5)	231	0.25	20.66	40.49	196.04
6.Size of Cultivable Land(x6)	560	0.1	25.07	63.76	254.27
7.Family Income(Agri.)(x7)	2878	21.80	499.90	535.62	105.14
8.Family Income(Subsidiary) (x8)	2000	111.11	998.74	415.93	41.65
9.Total Family Income(x9)	3423	116.70	1501.01	585.28	38.99
10.Total Crop Yield(x10)	2910	20	265.65	617.38	232.40
11.Home Consumption(x11)	651.14	3.33	40.05	92.93	232.02
12.Training(x12)	6	2	3.68	1.29	35.11
13.Food Intake Volume(y1)	844	365	694.93	62.87	9.05
14.Calorie Consumption from Primary Food(y2)	2016.52	1534.22	1737.75	102.55	5.90
15.Intake of High Value Food(y3)	4.67	1.6	3.17	0.62	19.56

ISBN: 978-93-85822-13-1

16.Calorie Consumption from High Value Food(y4)	386.3	76.43	226.39	60.59	26.77
17.Total Calorie Consumption(y5)	2341.55	1630.61	2164.22	1761.64	81.40
18. Level of Sanitation(y6)	4	3	3.42	0.27	7.79
19.Nutritional Status(y7)	918.49	646.69	771.28	49.89	6.47

Table 6.1: It presents the descriptive analysis on the distribution pattern and distribution nature of different independent and dependent variables.

The distribution pattern of variable age(X_1) depicts that the minimum age of the respondents was 6 and the maximum was 14. Since all the respondents were school going children and it was pre-decided, this distribution of age was quite natural. The mean age has been 9-14 years with a standard deviation 2.22. The coefficient of variance (CV) has been 23.45% which indicates that the distribution of the variable has been quite consistent.

The distribution pattern of variable education(X_2) shows that the minimum standard of the respondent is class I and the maximum is class 9. The mean education is 4.18 with a standard deviation of 5.85. The coefficient of variance is 27.99% which indicate that the distribution of the variable is consistent.

The distribution pattern of the variable parents' education(X_3) depicts that the maximum parents' education of the respondent is 34 while the minimum is only 7. This distribution shows that some parents of the respondents are very educated and well to do while others have less educated and poor parents. The mean parents' education has been 20.90 with a standard deviation of 5.85. The coefficient of variance is 27.99% which shows that the distribution of variable is consistent.

ISBN: 978-93-85822-13-1

The distribution pattern of the variable family size(X_4) depicts that the maximum family size of the respondent is 11 and the minimum is 4. This distribution shows that while some respondents have a small and nuclear family others are having a joint family. The mean family size has been 7.06 with a standard deviation 0f 1.78. The coefficient of variance is 25.22% which indicates that the distribution of the variable is quite consistent.

The distribution pattern of size of homestead land(X_5) shows that maximum homestead land is 231 decimal while the minimum is only 0.25decimal. There is a wide variation in the land holding of the respondents. This shows that while some respondents have enough land holding not only for a house to stay but also for some vegetable production others just stay in some rented house without even having a compound. The mean of the land holding size is 20.66 with a standard deviation of 40.99.The coefficient of variance is 196.04% which indicates that the distribution of variable is quite inconsistent because of its huge digital variability.

The distribution pattern of variable size of cultivable land(X_6) shows that the maximum cultivable land of the respondent is 560 decimal while the minimum is 0.1 decimal. This distribution shows that while some respondents' family has cultivable land and production for their livelihood other respondents do not have any choice on it. The mean of cultivable land holding size is 499.90 with a standard deviation of 535.62. The coefficient of variance is 254.27% which indicates that the distribution of the variable is highly inconsistent because of it huge digital variability.

The distribution pattern of the variable income from agriculture(X_7) shows that maximum income of the respondents' family is Rs 2878 and minimum

ISBN: 978-93-85822-13-1

is Rs 21.80. There is a wide difference in income from agriculture of the respondent family which indicates that some family depends largely on their agriculture income while others do not have income from agriculture. The mean income from agriculture is 499.90 with standard deviation 0f 535.62. The coefficient of variance is 105.14% which shows the distribution of variation is quite inconsistent.

The distribution pattern of variable Subsidiary income(X_8) shows that the maximum subsidiary income of the respondent family is Rs 2000 and minimum is Rs 111.11. The mean subsidiary income is 998.74 with standard deviation of 415.93. The coefficient of variance is 41.65% which shows that the distribution of variable is consistent.

The distribution pattern of total family income(X_9) is Rs 3423 and minimum is Rs 116.70 .The mean income is Rs 1501.01with a standard deviation of 585.28. The coefficient of variance is 38.99% which shows that the distribution of variable is consistent.

The distribution pattern of variable Total crop yield(X_{10}) is 2910 and minimum is 20. This wide variation in the distribution shows that some family of the respondents have agriculture as their main occupation with huge market surplus while others do not have agriculture even for their home consumption. The mean total yield is 265.65 with standard deviation of 617.38. The coefficient of variance is 232.40% which shows that the distribution of variation is highly inconsistent.

The distribution pattern of variable home consumption(X_{11}) shows that the maximum home consumption is 651.14 and the minimum is 3.33.the mean home consumption is 40.05 with standard deviation of 92.93.The

ISBN: 978-93-85822-13-1

coefficient of variance is 232.02% which shows that the distribution of variable is inconsistent.

The distribution pattern of variable training shows that maximum training (X_{12}) the respondents' parents attend is 6 and the minimum is 2. The mean training is 3.68 with a standard deviation of 1.29. The coefficient of variance is 35.11% which show that the distribution of variable is consistent.

The distribution pattern of variable food intake volume (Y_1) depicts that the maximum food intake of the respondent per day is 844g and minimum is 365g.The mean food intake per day is 694.93g with standard deviation of 62.87. The coefficient of variance is 9.05% which shows that the distribution of variable is consistent.

The distribution pattern of variable calorie consumption from primary food (Y_2) shows that the maximum calorie consumption from primary food is 2016.52 and the minimum is 1534.22. The mean calorie consumption is 1737.75 with standard deviation of 102.55. The coefficient of variance is 5.90% which shows that the distribution of variable is consistent.

The distribution pattern of the variable intake of High value food (Y_3) shows that the maximum digital value of intake of high value food of respondent is 4.67 and the minimum is 1.6. The mean digital value is 3.17 with standard deviation of 0.62. The coefficient of variance is 19.56 whish indicates that the distribution of variable is consistent.

The distribution pattern of the variable calorie consumption of high value food (Y_4) depicts that the maximum calorie consumption from high value food of the respondent is 386.3 and the minimum is 76.43. The mean

ISBN: 978-93-85822-13-1

calorie consumption is 226.39 with a standard deviation of 60.59. The coefficient of variance is 26.77% which shows that the distribution of variable is consistent.

The distribution pattern of the variable total calorie consumption (Y_5) shows that the maximum total calorie consumption is 2341.55 and the minimum is 1630.61. The mean total calorie consumption is 2164.22 with a standard deviation of 1761.64. The coefficient of variance is 81.40% which shows that the distribution of variable is consistent.

The distribution pattern of the variable level of sanitation (Y_6) depicts that the maximum digital value of level of sanitation is 4 and the minimum is 3. The mean digital value of level of sanitation is 3.42 with a standard deviation of 0.27. The coefficient of variance is 7.79% which show that the distribution of variable is consistent.

The distribution of the predicted variable nutritional status (Y_7), a collective interaction of 6 other predicted variables (Y_1-Y_6) shows a distribution having a maximum of 918.49 to a minimum of 646.69.the mean value is 771.28 with a standard deviation of 49.89. The distribution shows that there is no such conspicuous discrimination amongst and between the respondents. The coefficient of variance being 6.47%, it could be concluded that the distribution of this variable is highly consistent.

Table 6.2: Co-efficient of Correlation between Food Intake Volume (Y_1) Vs 12 Independent Variables.

Variables	R value
Age(X1)	0.78**
Education(X2)	0.70**
Parents Education(X3)	-0.08

ISBN: 978-93-85822-13-1

Family size (X4)	0.12
Size of Homestead Land (X5)	-0.03
Size of Cultivable Land (X6)	0.03
Family Income(Agri) (X7)	0.03
Family Income(Subsidiary) (X8)	0.01
Total Family Income (X9)	0.00
Total Crop Yield (X10)	0.08
Home Consumption (X11)	0.06
Training(X12)	-0.22**

** Significant at 1% level of significance

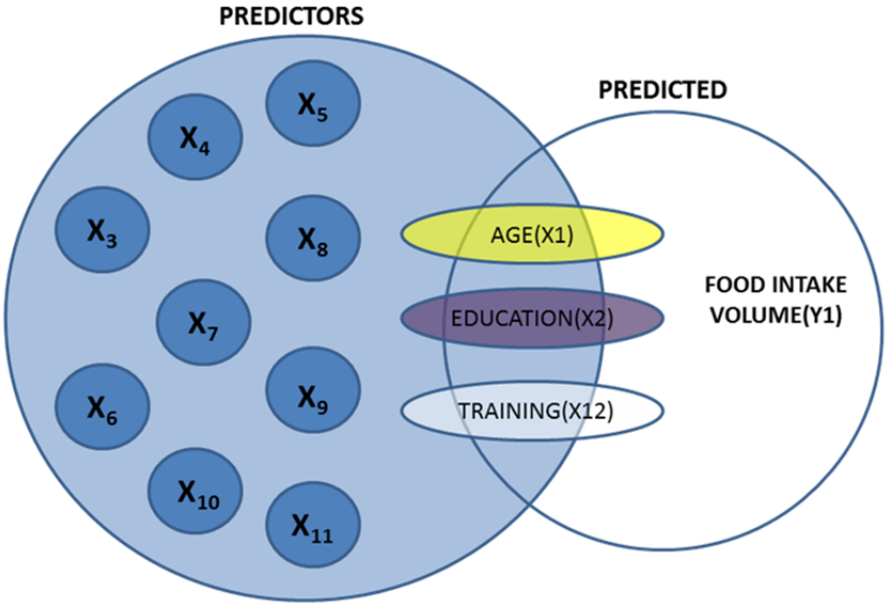
Table 6.2: It presents the coefficient of correlation between food intake volume and 12 independent variables.

It has been found that the variable age, education and training have recorded significant correlation with the dependent variable food intake volume. With the change in biological age the demand for food goes on changing. It indicates that respondents of higher age level takes in higher volume of food.

The education also has recorded significant and positive correlation with food intake volume. This means when education changes in a positive direction for school going children, both the age and demand for food are also changing in a same direction. It implies that children studying in higher standard need more food.

Training of the parents here in this study has been negatively correlated with the food intake volume. It implies that the parents undergoing higher level of training and have been sensitized adequately they have been able to rationalize the food intake of their children in favour of quality than favour of quantity itself.

ISBN: 978-93-85822-13-1



Paradigm 6.2 (a): Association between Predictors Variables and Food Intake Volume

Table 6.3: Co-efficient of Correlation between Calorie Consumption from Primary Food (Y_2) Vs 12 Independent Variables.

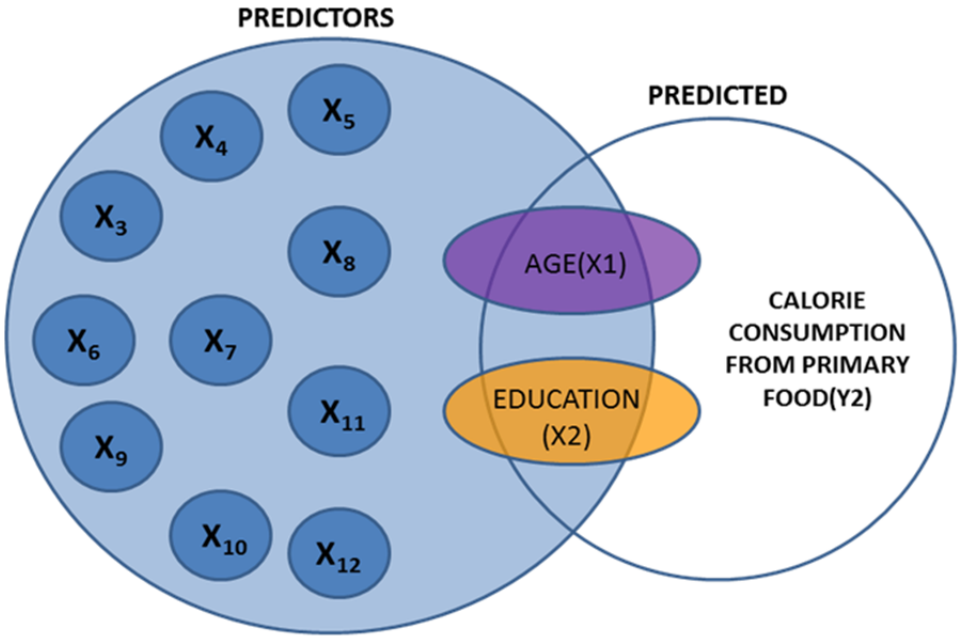
VARIABLES	R value
Age(X1)	0. 88**
Education(X2)	0.82**
Parents Education(X3)	-0.02
Family size (X4)	0.08
Size of Homestead Land (X5)	-0.02
Size of Cultivable Land (X6)	0.06
Family Income(Agri) (X7)	0.00
Family Income(Subsidiary) (X8)	0.05
Total Family Income (X9)	0.00
Total Crop Yield (X10)	0.12
Home Consumption (X11)	0.13
Training(X12)	-0.14

** Significant at 1% level of significance

ISBN: 978-93-85822-13-1

Table 6.3: It presents the coefficient of correlation between calorie consumption from primary food and the 12 independent variables.

It has been found that the two variables age and education have recorded significant and positive correlation with calorie consumption from primary food. . It is quite natural and as it has been found, children of higher standards are accessing more calories through the food intake and logically higher age category respondents are also accessing more calorie than others.



Paradigm 6.3(a). Association between Predictors Variables and Calorie Consumption from Primary Food

ISBN: 978-93-85822-13-1

Table 6.4: Co-efficient of Correlation between Intake of High Value Food (Y_3) Vs 12 Independent Variables.

VARIABLES	R value
Age(X1)	-0.05
Education(X2)	-0.04
Parents Education(X3)	0.08
Family size (X4)	0.29**
Size of Homestead Land (X5)	0.02
Size of Cultivable Land (X6)	0.06
Family Income(Agri) (X7)	0.20
Family Income(Subsidiary) (X8)	-0.17
Total Family Income (X9)	0.06
Total Crop Yield (X10)	0.13
Home Consumption (X11)	0.14
Training(X12)	0.02

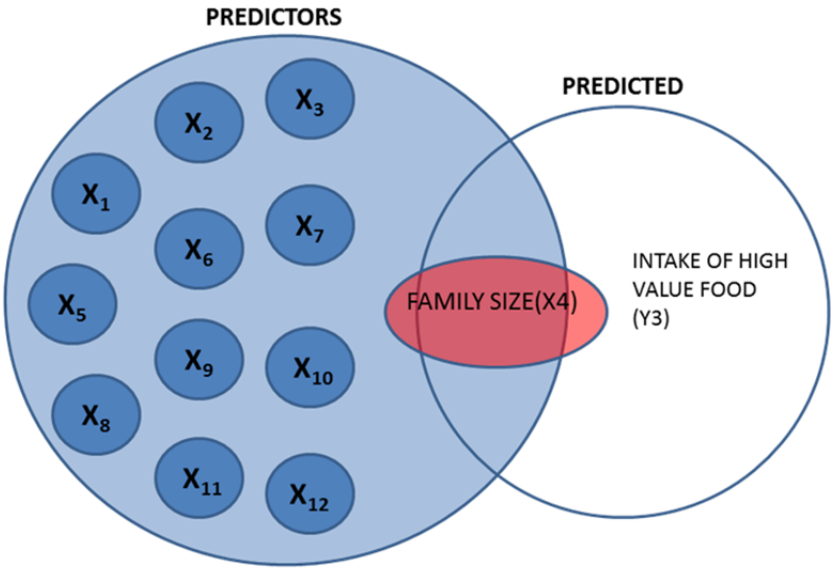
** Significant at 1% level of significance

Table 6.4: It presents the coefficient of correlation between the intake of high value food and the 12 independent variables.

It has been found that the variable family size have recorded significant and positive correlation with intake of high value food.

This indicates that family having higher number of family members they could have managed to access more high value food. In most cases higher family size means integration of resources and integration of capability and ultimately they have been able to access high value food over the nuclear family.

ISBN: 978-93-85822-13-1



Paradigm 6.4(a): Association between Predictors Variables and Intake of High Value Food

Table 6.5: Co-efficient of Correlation between Calorie Consumption from High Value Food (Y_4) Vs 12 Independent Variables.

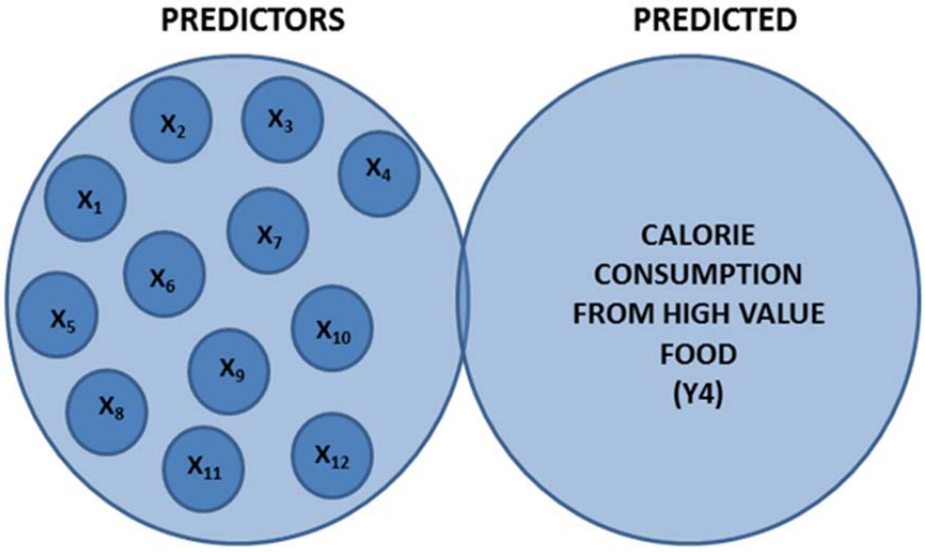
VARIABLES	R value
Age(X1)	0.08
Education(X2)	0.08
Parents Education(X3)	0.11
Family size (X4)	0.08
Size of Homestead Land (X5)	0.05
Size of Cultivable Land (X6)	-0.01
Family Income(Agri) (X7)	0.07
Family Income(Subsidiary) (X8)	-0.09
Total Family Income (X9)	0.00
Total Crop Yield (X10)	0.09
Home Consumption (X11)	0.10
Training(X12)	-0.09

Table 6.5: It presents the coefficient of correlation between calorie consumption of high value food and the 12 independent variables. The table

ISBN: 978-93-85822-13-1

depicts that none of the variable has recorded significant correlation that does not necessarily mean that the interactive relationship between the variables have got no social implication. This variable might have recorded a significant relationship given the level of significance has been fixed at 10 or 20% that is why some of the variables (3) in order of coefficient of correlation value have been selected for discussion.

Parent's education has recorded perceptible relationship with calorie consumption level that indicates that a parent having higher education is more careful to the nutritional management of their kids with respect to the higher level of calorie consumption. The other 2 variable in order of relationship which has come up to the tally are home consumption and food income.



Paradigm 6.5 (a). Association between Predictors Variables and Calorie Consumptionfrom High Value Food

ISBN: 978-93-85822-13-1

Table 6.6: Co-efficient of Correlation between Total Calorie Consumption (Y_5) Vs 12 Independent Variables.

VARIABLES	R value
Age(X1)	0.03
Education(X2)	-0.01
Parents Education(X3)	-0.02
Family size (X4)	-0.19
Size of Homestead Land (X5)	-0.06
Size of Cultivable Land (X6)	-0.01
Family Income(Agri) (X7)	-0.06
Family Income(Subsidiary) (X8)	0.07
Total Family Income (X9)	-0.00
Total Crop Yield (X10)	-0.02
Home Consumption (X11)	-0.01
Training(X12)	0.11

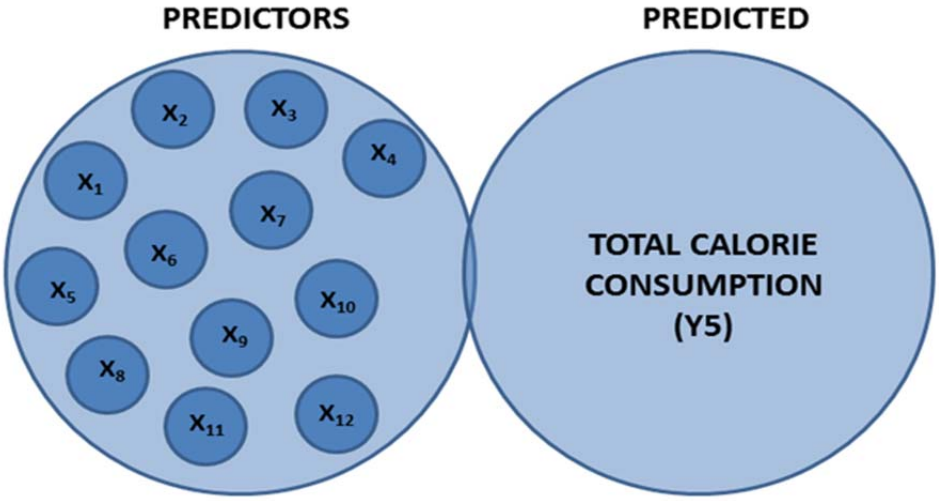
Table 6.6: It presents the coefficient of correlation between total calorie consumption and the 12 independent variables.

The table depicts that none of the variable has recorded significant correlation that does not necessarily mean that the interactive relationship between the variables have got no social implication. This variable might have recorded a significant relationship given the level of significance has been fixed at 10 or 20% that is why some of the variables(3) in order of coefficient of correlation value have been selected for discussion.

Family size have recorded perceptible relationship with the total calorie consumption that indicates that as there is integration of resources and capability in a large family, the food intake volume and high value food intake of respondents is higher which ultimately leads to the higher calorie consumption of the respondents. The other 2 variable in order of

ISBN: 978-93-85822-13-1

relationship which has come up to the tally are subsidiary family income and training.



Paradigm 6.6 (a). Association between Predictors Variables and Total Calorie Consumption

Table 6.7: Co-efficient of Correlation between Level of Sanitation (Y_6) Vs 12 Independent Variables.

VARIABLES	R value
Age(X1)	0.19
Education(X2)	0.23*
Parents Education(X3)	0.50**
Family size (X4)	0.23*
Size of Homestead Land (X5)	-0.02
Size of Cultivable Land (X6)	0.01
Family Income(Agri) (X7)	0.27*
Family Income(Subsidiary) (X8)	0.41**
Total Family Income (X9)	0.55**
Total Crop Yield (X10)	0.39**
Home Consumption (X11)	0.14
Training(X12)	0.02

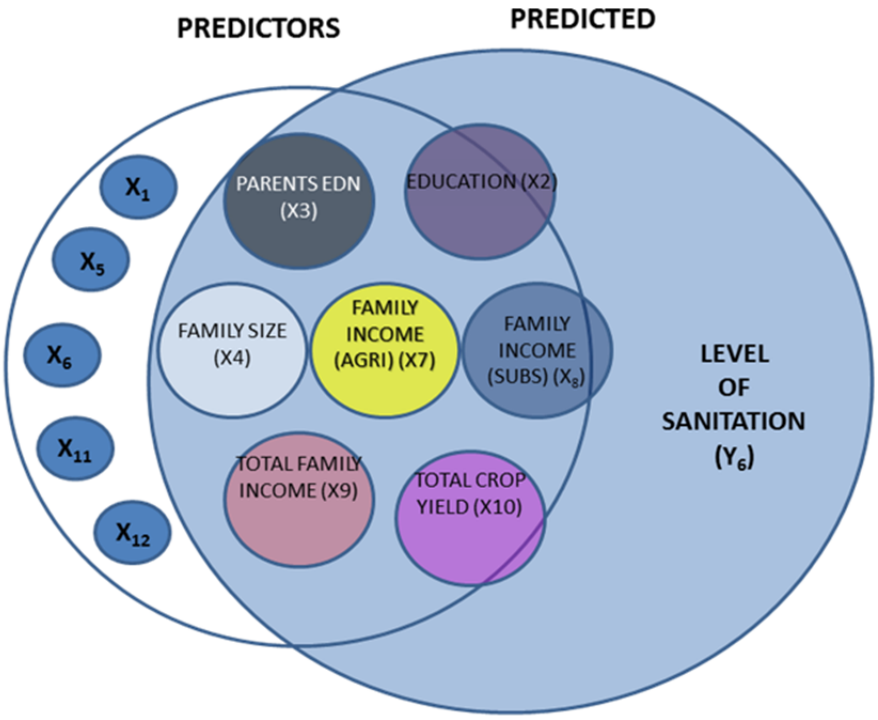
** Significant at 1% level of significant
*Significant at 5 % level of significance

ISBN: 978-93-85822-13-1

Table 6.7: It presents the coefficient of correlation between level of sanitation and 12 independent variables.

It has been found that the variables education, parents' education, family size, income from agriculture, income from subsidiary, total family income and total crop yield have recorded significant and positive correlation with level of sanitation.

This indicates that respondents having higher education have also been equally concerned for sanitation. Educated parents are recorded to give more concern about sanitation and ultimately they have better sanitation than the uneducated parents.



Paradigm 6.7(A): Association between Predictors Variables and Level of Sanitation

ISBN: 978-93-85822-13-1

Large size families also are characterized to better sanitation system. Families with higher income from different sources are also tuned to better sanitation. Families having better crop yield, potentials and performance have also recorded a concern for better sanitation.

Table 6.8: Co-efficient of Correlation between Nutritional Status (y_7) Vs 12 Independent Variables.

VARIABLES	R value
Age(X1)	0.83**
Education(X2)	0.77**
Parents Education(X3)	0.01
Family size (X4)	0.09
Size of Homestead Land (X5)	0.00
Size of Cultivable Land (X6)	0.05
Family Income(Agri) (X7)	0.01
Family Income(Subsidiary) (X8)	0.02
Total Family Income (X9)	-0.01
Total Crop Yield (X10)	0.13
Home Consumption (X11)	0.14
Training(X12)	-0.14

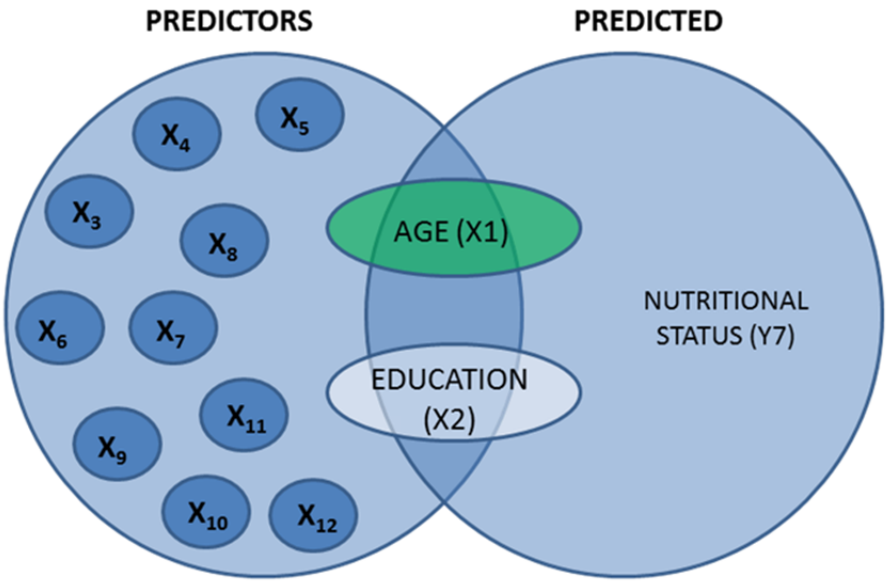
** Significant at 1% level of significance

Table 6.8: It presents the coefficient of correlation between nutritional status and the 12 independent variables.

It has been found that the variable age and education have recorded significant and positive correlation with nutritional status.

This indicates that respondents of higher age and higher education ultimately have higher nutritional status than those with lower age and lower education. This is because with the increase in age their demand for food is higher, as they consume more food their calorie consumption grows higher which ultimately leads to higher nutritional status.

ISBN: 978-93-85822-13-1



Paradigm 6.8(A): Association between Predictors Variables and Nutritional Status

Table 6.9: Path Analysis: Food Intake Volume (Y_1) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age(X1)	1.1773 (1st)	-0.402 (2nd)	0.7753 (1st)	-0.3921 (X2)	0.0179 (X12)	-0.0083 (X10)
Education(X2)	-0.4161 (2nd)	1.1143 (1st)	0.6982 (2nd)	1.1093 (X1)	-0.0339 (X5)	0.0221 (X9)
Parents Education(X3)	-0.1285	0.0522	-0.0763	0.1002 (X9)	-0.0683 (X1)	0.0326 (X5)
Family Size (X4)	0.1173	0.0062	0.1235	-0.0655 (X7)	0.0498 (X5)	0.0444 (X1)
Size of Homestead Land (X5)	0.2042	-0.2357	-0.0315	-0.1902 (X1)	-0.0857 (X6)	-0.0698 (X9)

ISBN: 978-93-85822-13-1

Size of Cultivable Land (X6)	-0.129	0.1547	0.0257	0.1358 (X5)	0.031 (X4)	-0.0161 (X10)
Family Income(Agri) (X7)	-0.1338	0.1654	0.0316	0.1848 (X9)	-0.0639 (X10)	0.0574 (X4)
Family Income(Subsidiary) (X8)	-0.0672	0.079	0.0118	0.1164 (X1)	0.112 (X9)	-0.0713 (X2)
Total Family Income (X9)	0.2592 (3rd)	-0.2561 (3rd)	0.0031	-0.0954 (X7)	-0.055 (X5)	-0.0497 (X3)
Total Crop Yield (X10)	-0.0796	0.1629	0.0833	0.1402 (X9)	0.1225 (X1)	-0.1075 (X7)
Home Consumption (X11)	0.0973	-0.0371	0.0602	-0.0617 (X7)	0.0606 (X9)	-0.054 (X10)
Training(X12)	-0.0955	-0.1233	-0.2188 (3rd)	-0.2205 (X1)	0.0782 (X2)	0.0669 (X9)

Residual Effect: 0.3472

Table 6.9: It presents the path analysis between food intake volume (Y_1) and 12 exogenous variables in teams of direct, indirect and residual effect.

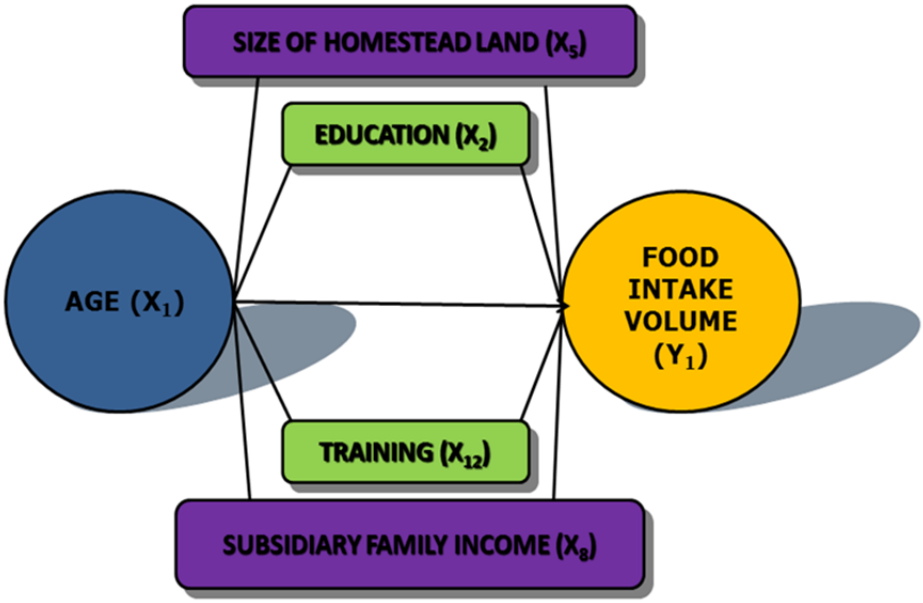
It has been found that the variable age(X_1) has recorded the highest direct effect on food intake volume so biological age beyond anything has got sound and distinct impact on the volume of food consumption.

It is also been found that education(X_2) has created highest indirect effect on food intake volume as education has been measured here in terms of year of schooling that goes in compliance with maturity level, that's why higher level of education within the cohort of primary and elementary education has been reflected through higher food consumption level.

The highest indirect effect of as many as four variable have been routed through the variable age (X_1) so it could be infer that while planning for the nutritional management of the children in terms of food intake volume age

ISBN: 978-93-85822-13-1

of the children should be consider with due emphasis. The residual effect is 0.3472, which means having a conglomeration of this 12 variable about 66% of this relationship has been explained.



Paradigm 6.9(A): A Paradigm on Path Analysis: Food Intake Volume (Y_1) Vs 12 Exogeneous Variables

Table 6.10: Path Analysis: Calorie Consumption from Primary Food (Y_2) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age(X1)	0.9514 (1st)	-0.0755	0.8759 (1st)	-0.0505 (X2)	-0.0275 (X5)	-0.0048 (X10)
Education(X2)	-0.0536	0.8777 (1st)	0.8241 (2nd)	0.8964 (X1)	-0.0283 (X5)	0.0061 (X9)
Parents Education(X3)	-0.0283	0.0055	-0.0228	-0.0552 (X1)	0.0275 (X9)	0.0271 (X5)

ISBN: 978-93-85822-13-1

Family Size (X4)	0.0307	0.0459	0.0766	0.0415 (X5)	0.0359 (X1)	0.032 (X11)
Size of Homestead Land (X5)	0.1701 (2nd)	-0.1899 (2nd)	-0.0198	-0.1537 (X1)	-0.046 (X6)	-0.0191 (X9)
Size of Cultivable Land (X6)	-0.0692	0.1302	0.061	0.1131 (X5)	0.0178 (X11)	0.0101 (X1)
Family Income(Agri) (X7)	-0.062	0.0657	0.0037	0.0633 (X11)	0.0507 (X9)	-0.0372 (X10)
Family Income(Subsidiary) (X8)	-0.0049	0.0588	0.0539	0.0941 (X1)	-0.0414 (X5)	-0.0355 (X11)
Total Family Income (X9)	0.0711	-0.0682	0.0029	-0.0458 (X5)	-0.0442 (X7)	0.0321 (X11)
Total Crop Yield (X10)	-0.0463	0.165 (3rd)	0.1187 (3rd)	0.099 (X1)	0.0931 (X11)	-0.0498 (X7)
Home Consumption (X11)	0.1372 (3rd)	-0.0109	0.1263	-0.0314 (X10)	-0.0286 (X7)	0.0277 (X1)
Training(X12)	0.001	-0.1448	-0.1438	-0.1782 (X1)	0.0434 (X11)	-0.0205 (X7)

Residual Effect: 0.2041

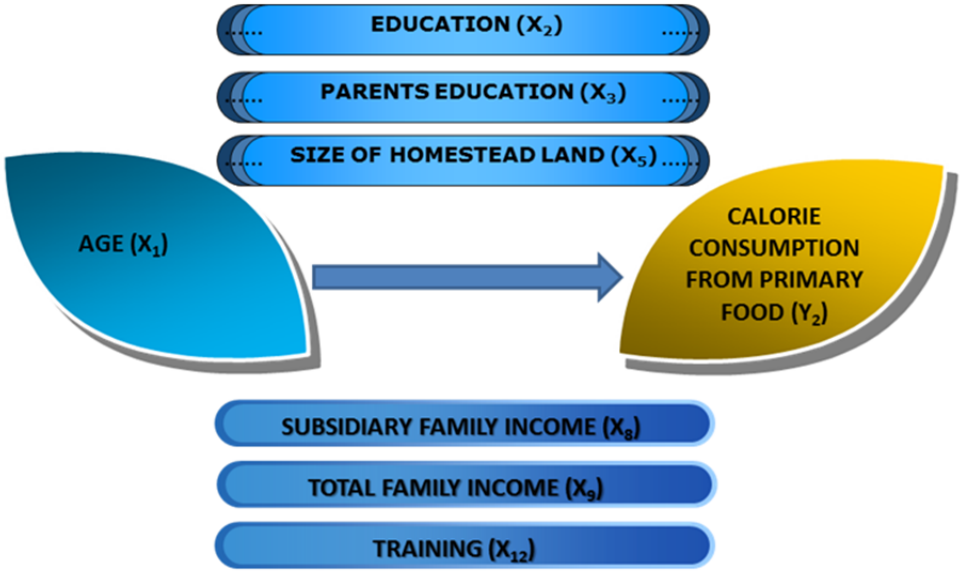
Table 6.10: It presents the path analysis between calorie consumption level from primary food and the 12 exogenous variables for decomposing the total value coefficient of correlation into direct, indirect and residual effect.

It has been found that the variable age (X_1) has recorded the highest direct effect followed by home consumption(X_{11}) and size of homestead land(X_5). With the change in chronological age the consumption level of calorie also has been changed in the same direction that's why children of higher age group have taken higher volume of food as well as higher level of calorie. It is also in interesting to see that the amount of home consumption has gone correlated with higher level of calorie consumption.

ISBN: 978-93-85822-13-1

Education(X_2) has recorded the highest level of indirect effect in characterizing calorie consumption level. Education means acquisition of cognitive skills and motivational paste to make anybody enough sensitive and casing for his good and his surrounding too. Here in this study higher level of education elicits both the biological maturity and cognitive efficiency to go for consumptions of calorie at the optimum level of sustain life. Here age (X_1) has rented the highest indirect effect of as many as 6 variables to implicate its tremendous associational impact.

The residual effect being 0.2041 it could be infer that having a conglomeration of these 12 variables 80% of this interactive relationship have been explained.



Paradigm 6.10(A): A Paradigm on Path Analysis: Calorie Consumption from Primary Food (Y_2) Vs 12 Exogeneous Variables

ISBN: 978-93-85822-13-1

Table 6.11. Path Analysis: Intake of High Value Food (Y_3) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age(X1)	-0.2886 (2nd)	0.2394	-0.0492	0.2332 (X2)	-0.0297 (X10)	0.0273 (X5)
Education(X2)	0.2475	-0.2851 (3rd)	-0.0376	-0.272 (X1)	0.0281 (X5)	-0.0246 (X10)
Parents Education(X3)	0.1284	-0.0504	0.078	-0.1072 (X9)	0.0455 (X4)	-0.0449 (X10)
Family Size (X4)	0.211	0.0744	0.2854 (1st)	0.2132 (X7)	-0.1232 (X10)	-0.0412 (X5)
Size of Homestead Land (X5)	-0.1688	0.189	0.0202	0.0746 (X9)	0.0673 (X6)	0.0515 (X4)
Size of Cultivable Land (X6)	0.1012	-0.0462	0.055	-0.1123 (X5)	-0.0578 (X10)	0.0558 (X4)
Family Income(Agri) (X7)	0.4353 (1st)	-0.2357	0.1996 (2nd)	-0.2293 (X10)	-0.1977 (X9)	0.1033 (X4)
Family Income(Subsidiary) (X8)	0.0379	-0.2082	-0.1703 (3rd)	-0.1198 (X9)	-0.1164 (X7)	-0.0923 (X4)
Total Family Income (X9)	-0.2773	0.3344 (2nd)	0.0571	0.3104 (X7)	-0.1544 (X10)	0.0496 (X3)
Total Crop Yield (X10)	-0.2854 (3rd)	0.4121 (1st)	0.1267	0.3497 (X7)	-0.1500 (X9)	0.1041 (X11)
Home Consumption (X11)	0.1535	-0.0125	0.141	0.2007 (X7)	-0.1937 (X10)	-0.0648 (X9)

ISBN: 978-93-85822-13-1

Training(X12)	-0.0334	0.0525	0.0191	0.1441 (X7)	-0.1055(X10)	-0.0716 (X9)

Residual Effect: 0.873

Table 6.11: It presents the path analysis between intake of high value food and the 12 exogenous variables.

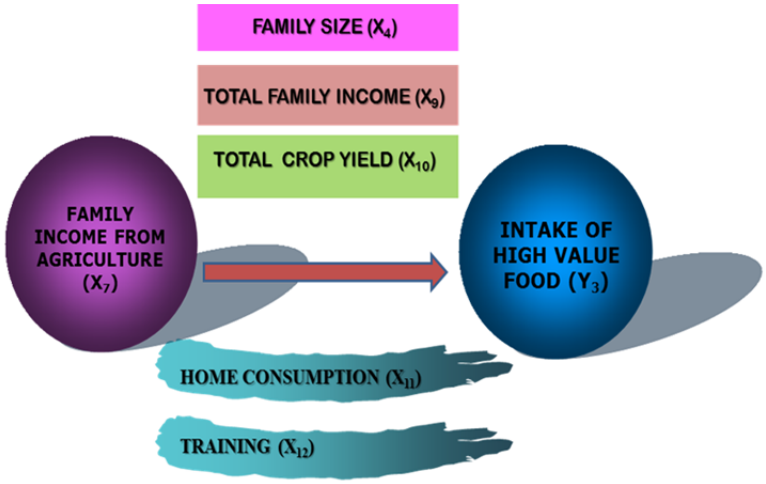
It has been found that the family income from agriculture(X_7) imprecise has recorded the highest direct effect on the consumption of high value food, which comprise of meat, milk and fruits. Income from any source indicates a social, individual and family capability to access the basic requirements like food, clothes, nutrition and shelter. Here income from agriculture has contributed substantially to access milk, meat and fruits, etc.

Total crop yield (X_{10}) has recorded a substantial indirect effect on the access of high value food. This implicates that, in any situation, the home production, both in amount and quality has got immense companionship and associational impacts in characterizing the behaviour of accessing high value food.

It has been found that family income from agriculture (X_7) has routed the highest indirect effect of as many as 5 variables to characterize the behaviour of accessing high value food.

The residual effect in this table has been recorded very high so conclusion of more relevant variables could have contributed higher level of explicability. However this analysis is depicting just an indicative relationships not an absolute ones.

ISBN: 978-93-85822-13-1



Paradigm 6.11(a): A Paradigm on Path Analysis: Intake of High Value Food (Y_3) Vs 12 Exogenous Variables

Table 6.12: Path Analysis: Calorie Consumption from High Value Food (Y_4) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age(X1)	0.0664	0.0172	0.0657	0.037 (X2)	0.0297 (X12)	-0.0274 (X8)
Education(X2)	0.0399	0.0351	0.1015	0.0626 (X1)	-0.0475 (X8)	0.0299 (X12)
Parents Education(X3)	0.2091 (2nd)	-0.0948	-0.0549	0.1066 (X8)	0.0402 (X9)	-0.0221 (X4)
Family Size (X4)	-0.1023	0.1808	0.3899	0.1211 (X8)	0.0451 (X3)	-0.0268 (X6)
Size of Homestead Land (X5)	0.0873	-0.042	-0.1443	-0.0676 (X6)	0.0674 (X8)	0.0334 (X3)
Size of Cultivable Land (X6)	-0.1016	0.0884	0.1757	0.0634 (X8)	0.0581 (X5)	0.00580 (X11)
Family Income(Agri) (X7)	-0.0344	0.102	0.0004	0.0741 (X8)	0.0741 (X9)	-0.0526 (X12)

ISBN: 978-93-85822-13-1

Family Income(Subsidiary) (X8)	-0.2771 (1st)	0.1904	0.156	0.0805 (X3)	0.0449 (X9)	0.0447 (X4)
Total Family Income (X9)	0.1039	-0.0985	-0.3756	-0.1197 (X8)	0.0809 (X3)	-0.0410 (X12)
Total Crop Yield (X10)	0.0439	0.0474	0.1513	0.0727 (X8)	-0.0587 (X12)	0.0562 (X9)
Home Consumption (X11)	0.0447	0.0551	0.099	0.0718 (X8)	-0.0502 (X12)	0.0298 (X10)
Training(X12)	-0.1588 (3rd)	0.0648	0.1095	0.0328 (X8)	0.0268 (X9)	0.0229 (X3)

Residual Effect: 0.9246

Table 6.12: It presents the path analysis between calorie consumption from high value food (Y_4) and 12 exogenous variables in terms of direct, indirect and residual effect.

It has been found that the variable subsidiary family income, parent's education and training have recorded substantive direct effect on the calorie consumption level. Family income indicates the families' financial capability to support calorie consumption level. Parents' education and training have moderate impact on the calorie consumption level.

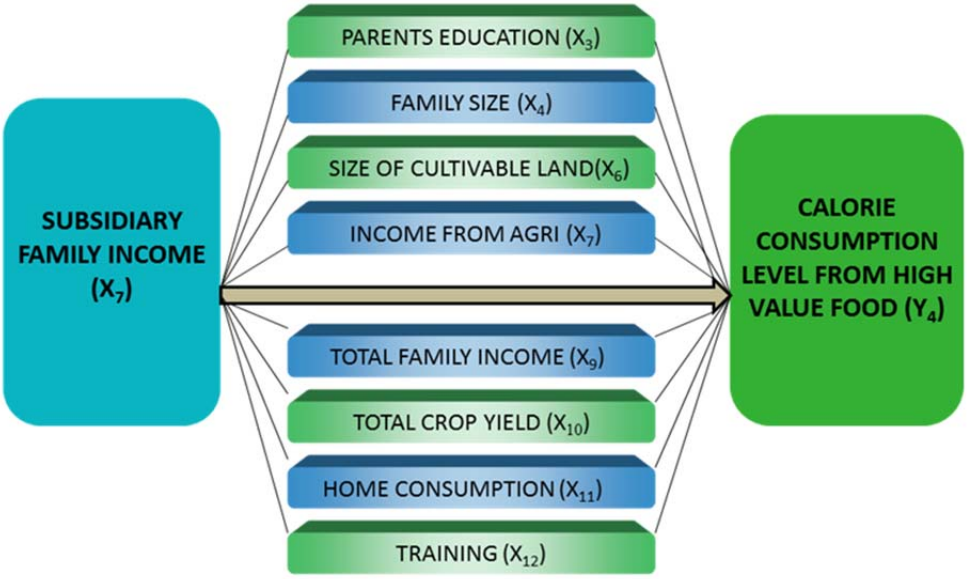
Family income here (X_8) has got highest indirect impact in the calorie consumption level.

Income as a source and means has come up predominantly in ensuring calorie consumptions. The variable family income from subsidiary sources(X8) has routed the highest indirect effect of as many as 8 variables towards characterizing the predicted character calorie consumption level.

Any income from subsidiary sources has got, especially in the middle class and poor family under quantity and quality of food access.

ISBN: 978-93-85822-13-1

The residual effect being 0.9245 it could be infer that dealing with the combinations of 12 variables only 8% of this relationship could have been cap laired. Certainly the explanations are giving based on the decomposed values but met in totality. Here, some dents are only discussed to assess the direction of influences.



Paradigm 6.12(a): A Paradigm on Path Analysis: Caloric consumption Level from high value foof (Y_5) Vs 12 Exogenous variables

Table 6.13: Path Analysis: Total Calorie Consumption (Y_5) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age(X1)	0.4077 (1st)	-0.3763 (1st)	0.0314	-0.3529 (X2)	-0.023 (X12)	-0.0077 (X4)
Education(X2)	-0.3745 (2nd)	0.3635 (2nd)	-0.011	0.3842 (X1)	-0.0231 (X12)	0.006 (X5)

ISBN: 978-93-85822-13-1

Parents Education(X3)	0.0188	-0.0339	-0.0151	-0.0439 (X4)	-0.0237 (X1)	0.0186 (X2)
Family Size (X4)	-0.2038 (3rd)	0.0143	-0.1895 (1st)	-0.0277 (X7)	0.0154 (X1)	0.0127 (X10)
Size of Homestead Land (X5)	-0.0362	-0.0214	-0.0576 (3rd)	-0.0659 (X1)	0.0622 (X2)	-0.0497 (X4)
Size of Cultivable Land (X6)	0.0382	-0.0448	-0.0066	-0.0538 (X4)	-0.0241 (X5)	0.0174 (X12)
Family Income(Agri) (X7)	-0.0566	0.002	-0.0546	-0.0998 (X4)	0.0406 (X12)	0.0266 (X9)
Family Income(Subsidiary) (X8)	-0.0159	0.0854 (3rd)	0.0695 (2nd)	0.0891 (X4)	-0.0642 (X2)	0.0403 (X1)
Total Family Income (X9)	0.0373	-0.0395	-0.0022	-0.0403 (X7)	-0.032 (X2)	0.0317 (X12)
Total Crop Yield (X10)	0.0295	-0.0516	-0.0221	0.0454 (X12)	-0.0454 (X7)	0.0424 (X1)
Home Consumption (X11)	-0.0154	0.0052	-0.0102	-0.0476 (X4)	0.0388 (X12)	-0.0261 (X7)
Training(X12)	0.1228	-0.0159	0.1069	-0.0764 (X1)	0.0704 (X2)	-0.0187 (X7)

Residual Effect: 0.9284

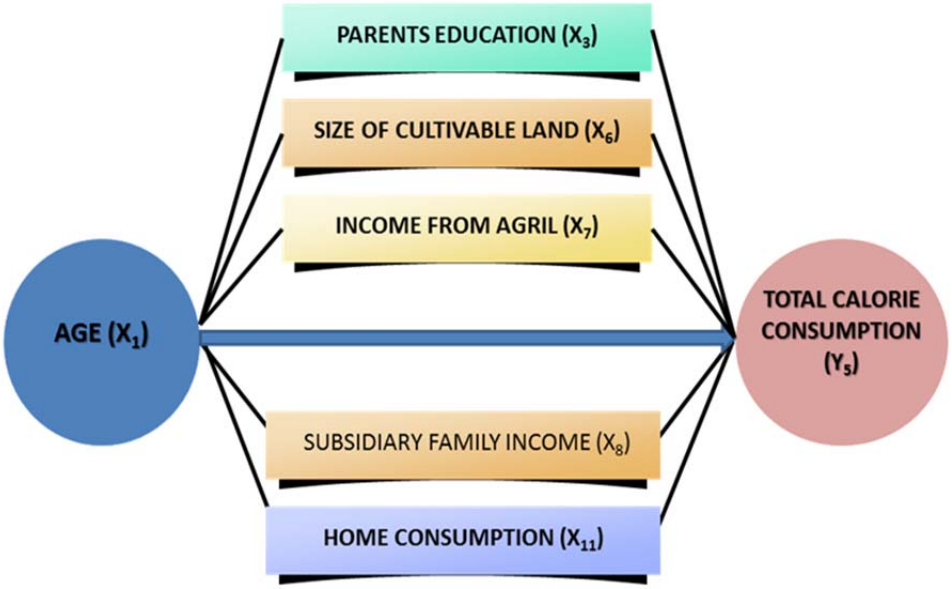
Table 6.13: It presents the path analysis between total calorie consumption (Y_5) and 12 exogenous variables in terms of direct, indirect and residual effect.

The table shows that age(X_1) has recorded the highest direct effect followed by education(X_2) and family size(X_3). Age (X_1) and education (X_2) too have recorded substantive indirect effect followed by family income. But so far as total effect is in concern none of the variables has recorded a significant level of impact. However, based on the degrees of impact family size has recorded highest effect on the total calorie consumption level.

ISBN: 978-93-85822-13-1

The variable family size(X_3) has routed the substantive indirect effect of as many as 5 exogenous variables in characterizing the total calorie consumption level. It is true that the size of the family is an estimate for availability of food per capita vis-à-vis calorie consumption level per capita. This variable has got a tremendous imbibing character for impacting the performance of other variables like parent's education, cultivable land, family income and home consumption.

The residual effect here has been found to be too high. It indicates that the spurious effect has superseded fairly the amount of explicable variability embedded with the interactive relationship of these exogenous and endogenous variables.



Paradigm 6.13(A): A Paradigm on Path Analysis: Total Calorie Consumption (Y5) Vs 12 Exogeneous Variables

ISBN: 978-93-85822-13-1

Table 6.14: Path Analysis: Level of Sanitation (Y_6) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age(X1)	0.1739	0.0189	0.1928	0.0709 (X10)	-0.0667 (X2)	-0.0353 (X5)
Education(X2)	-0.0708	0.2953 (3rd)	0.2245	0.1638 (X1)	0.0586 (X10)	0.0493 (X9)
Parents Education(X3)	0.1223	0.3795 (2nd)	0.5018 (2nd)	0.2235 (X9)	0.1073 (X10)	0.0711 (X8)
Family Size (X4)	0.239	-0.0098	0.2292	-0.3071 (X7)	0.2943 (X10)	0.0845 (X9)
Size of Homestead Land (X5)	0.2188	-0.2342	-0.0154	-0.1556 (X9)	-0.1091 (X6)	0.0587 (X7)
Size of Cultivable Land (X6)	-0.1641	0.1776	0.0135	0.1455 (X5)	0.138 (X10)	-0.0741 (X7)
Family Income(Agri) (X7)	-0.6272 (2nd)	0.8964 (1st)	0.2692	0.5475 (X10)	0.412(X9)	0.117 (X4)
Family Income(Subsidiary) (X8)	0.1847	0.2219	0.4066 (3rd)	0.2497 (X9)	-0.1787 (X10)	0.1678 (X7)
Total Family Income (X9)	0.5778 (3rd)	-0.0312	0.5466 (1st)	-0.4472 (X7)	0.3686 (X10)	0.0798 (X8)
Total Crop Yield (X10)	0.6816 (1st)	-0.2884	0.3932	-0.5038 (X7)	0.3125 (X9)	0.1032 (X4)
Home Consumption (X11)	-0.1477	0.2908	0.1431	0.4625 (X10)	-0.2892 (X7)	0.135 (X9)
Training(X12)	-0.1082	0.1245	0.0163	0.2520 (X10)	-0.2076 (X7)	0.1492 (X9)

Residual Effect: 0.4048

ISBN: 978-93-85822-13-1

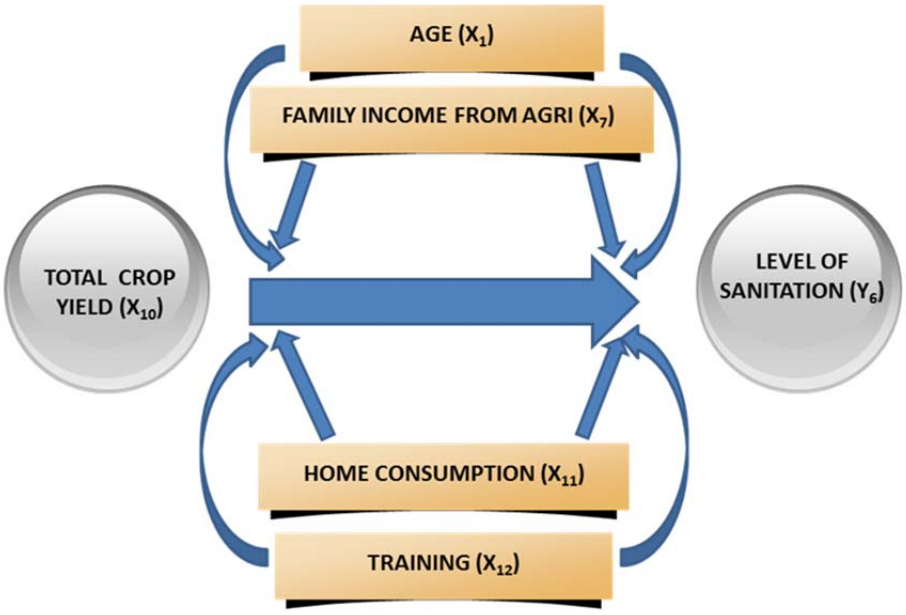
Table 6.14: It presents the path analysis between level of sanitation (Y_6) and the 12 exogenous variables in terms of direct, indirect and residual effect.

The table shows that total crop yield (X_{10}) has recorded the highest substantive impact on the level of sanitation, followed by family income from agriculture (X_7) and total family income (X_9). So economic capability and resource supports are still a determining factor to achieve the sanitation level. For the poorer people achieving a level of sanitation still remains a disruptive innovation, the innovation entering a system with a social jerk.

So far as indirect effect is in concern, family income from agriculture(X_7) again has recorded highest substantive impact followed by parent's education(X_3) and education(X_2) of the respondents. The variable total crop yield(X_{10}) has routed the highest indirect effect of as many as four variables to characterize the behaviour of the consequent variable, level of sanitation. This should indicate the variable total crop yield as got a fair amount of imbibing property while routing the effect of other variables.

The amount of residual effect shows that the combination of these 12 exogenous have explained 60% of the variability embedded with the consequent variable, level of sanitation.

ISBN: 978-93-85822-13-1



Paradigm 6.14(a). A Paradigm on Path Analysis: Level of Sanitation (x_6) vs 12 Exogeneous Variables

Table 6.15: Path analysis: Nutritional Status (Y_7) Vs 12 Exogenous Variables.

Variables	Direct Effect	Indirect Effect	Total Effect	Substantial Indirect Effect		
				I	II	III
Age (x1)	0.9212 (1st)	-0.0952	0.826 (1st)	-0.0573 (X2)	-0.0324 (X5)	-0.0114 (X8)
Education (x2)	-0.0608	0.8342 (1st)	0.7734 (2nd)	0.8680 (X1)	-0.0333 (X5)	-0.0197 (X8)
Parents Education (x3)	0.0348	-0.0225	0.0123	-0.0534 (X1)	0.0471 (X9)	-0.0442 (X8)
Family Size (x4)	-0.0008	0.0925	0.0917	-0.0607 (X7)	0.0502 (X8)	0.0489 (X5)
Size of Homestead Land (x5)	0.2007 (2nd)	-0.0812	0.1195	-0.0782 (X6)	-0.0328 (X9)	-0.0311 (X1)

ISBN: 978-93-85822-13-1

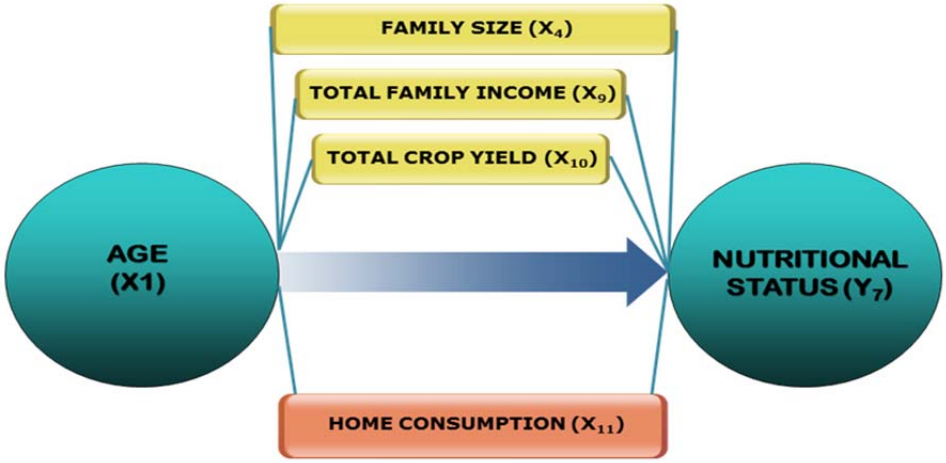
Size of Cultivable Land (x6)	-0.1177	0.1658 (2nd)	0.0481	0.1334 (X5)	0.0263 (X8)	0.0150 (X11)
Family Income (agri) (x7)	-0.124 (3rd)	0.1376 (3rd)	0.0136	0.0868 (X9)	0.0533 (X11)	0.0307 (X8)
Family Income (subsidiary) (x8)	-0.1149	0.1297	0.0148	0.0911 (X1)	0.0526 (X9)	-0.0299 (X11)
Total Family Income (x9)	0.1218	-0.13	-0.0082	-0.0884 (X7)	-0.0540 (X5)	-0.0496 (X8)
Total Crop Yield (x10)	0.0012	0.1331	0.1343	-0.0996 (X7)	0.0959 (X1)	0.0784 (X11)
Home Consumption (x11)	0.1155	0.0232	0.1387 (3rd)	-0.0572 (X7)	0.0298 (X8)	0.0285 (X9)
Training (x12)	-0.0126	-0.1221	-0.1347	-0.1725 (X1)	-0.0411 (X7)	0.0365 (X11)

Residual Effect: 0.2776

Table 6.15: It presents the path analysis between nutritional status and 12 exogenous variables in terms of direct, indirect and residual effect.

It has been found that the direct effect of age(X_1) on nutritional status has so far been the highest followed by size of homestead land(X_5) and family income through agriculture(X_7). In determining nutritional status of the children along with age the other important considerations are size of homestead land and family income through agriculture. So modernization of agriculture as well as effective management of homestead land both would be imparting on the nutritional level being achieved by the children.

ISBN: 978-93-85822-13-1



Paradigm 6.15(a). A Paradigm on Path Analysis: Nutritional Status (x_7) vs 12 Exogeneous Variables

The highest indirect effect has been exerted by education(X_2) and two other variables in this arena have been size of cultivable land(X_6) and family income through agriculture (X_7). So, the partial effect or intervening roles of these variables are significant in ultimately characterizing the nutritional level of the children.

The variable family income through agriculture(X_7) has routed the highest indirect effect of as many as four variables to characterize the performance of consequent variable, nutritional status of the children. Again, the economic variable is playing the pivotal role to decide on the nutritional status to be achieved by the children.

Nutritional status has here been a composite variables or a consultant one generated through the multiplication of other consequent variables (Y_1 – Y_6) and has been conceived as a cumulative resultant variables, branded as nutritional status of children.

ISBN: 978-93-85822-13-1

The residual effect is just only 27.76% to conclude that around 72% of the total variability embedded with the consequent variable has been successfully explained by having the combination of 12 exogenous variables. This has amply justified the relevance and utility of the inclusions of these all exogenous variables to conceptualize, both functionally and epistemologically the endogenous variable nutritional status of children.

Table 6.16: Discriminant Analysis: Food Intake Volume (Y_1) and 12 Independent Variables.

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	-2.4767	8.6684	107.0934	I
2.Education(x2)	0.2731	-0.8741	-10.7984	
3.Parents Education(x3)	-0.0046	-0.0018	-0.0227	
4.Family Size(x4)	0.1502	-0.0113	-0.1392	
5.Size of Homestead Land(x5)	-0.0256	-0.3188	-3.9383	
6.Size of Cultivable Land(x6)	0.0232	0.3725	4.6024	II
7.Family Income (Agri) (x7)	-0.0023	0.1024	1.2652	
8.Family Income Subsidiary) (x8)	-0.0006	0.0510	0.6301	
9.Total Family Income(x9)	0.0006	-0.0398	-0.4915	
10.Total Crop Yield(x10)	-0.0002	0.0196	0.2422	
11.Home Consumption(x11)	0.0057	0.0289	0.3573	
12.Training(x12)	0.1942	0.0971	1.1995	III

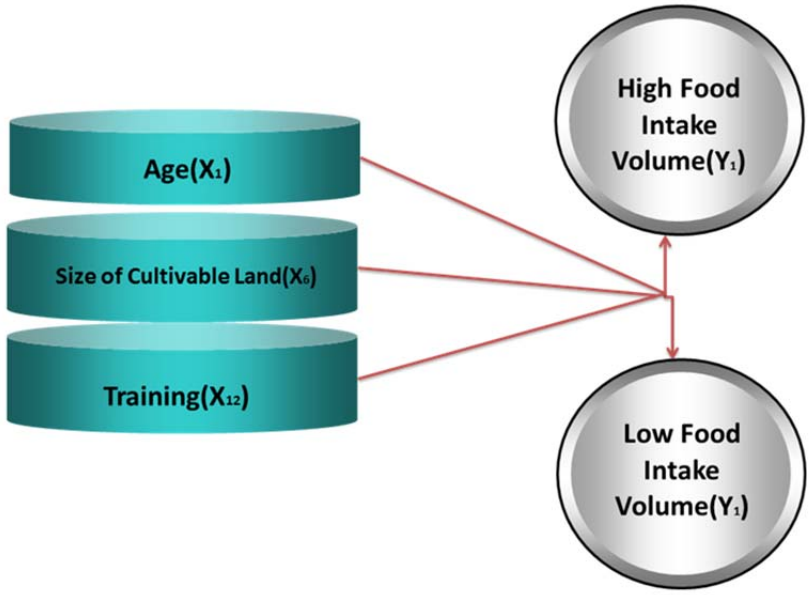
D-SQUARE=0.80942635E+01
HOTELLING T-SQUARE=0.16188530E+03
F VALUE FOR TESTING T-SQ=11.588 WITH 12 AND 67 D.F.
CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AND 2 ARE -17.2375 AND -25.3318

ISBN: 978-93-85822-13-1

Table 6.16: It presents the discriminant analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

The discriminant analysis reveals that the variable age has got the highest discriminatory function in creating variation of food intake volume among the respondents. It has been followed by the other two variables, size of cultivable land and training.

So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the food intake volume.



Paradigm 6.16(a) Discriminant Function: Food Intake Volume Vs 12 Causal Factors

ISBN: 978-93-85822-13-1

Table 6.17: Discriminant Analysis: Calorie Consumption from Primary Food (Y_2) and 12 Independent Variables.

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	-1.9812	5.9436	130.7401	I
2.Education(x2)	0.7180	-1.9027	-41.8525	
3.Parents Education(x3)	0.0321	-0.0080	-0.1768	
4.Family Size(x4)	0.0720	0.0018	0.0396	
5.Size of Homestead Land(x5)	-0.0173	-0.0030	-0.0667	
6.Size of Cultivable Land(x6)	-0.0002	0.0023	0.0511	
7. Family Income(Agri) (x7)	-0.0012	0.0224	0.4924	
8. Family Income(Subsidiary) (x8)	-0.0019	0.2388	5.2518	III
9.Total Income(x9)	-0.0002	0.0213	0.4686	
10.Total Crop Yield(x10)	0.0014	-0.1272	-2.7980	
11.Home Consumption(x11)	-0.0111	0.2630	5.7853	II
12.Training(x12)	0.2347	0.0939	2.0649	

D-SQUARE=0.45461292E+01

HOTELLING T-SQUARE=0.90922580E+02

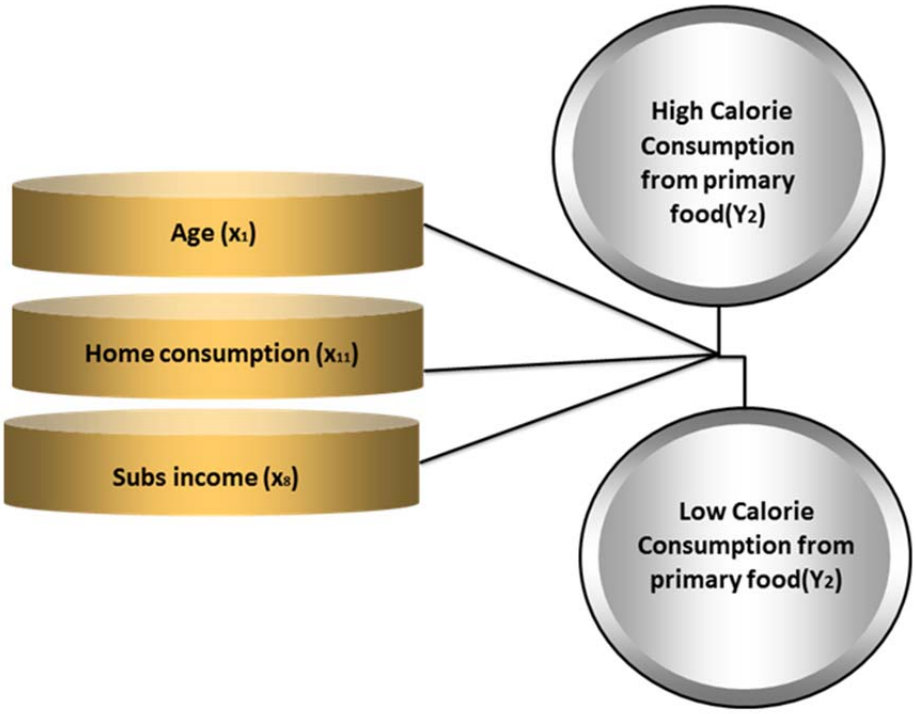
F VALUE FOR TESTING T-SQUARE= 6.508 WITH 12 AND 67 D.F.

CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AND 2 ARE -14.7006 AND -19.2468.

Table 6.17: It presents the discriminant analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

ISBN: 978-93-85822-13-1

The discriminant analysis in table 17 reveals that the variable age has got the highest discriminatory function in creating variation of calorie consumption level from primary food among the respondents. It has been followed by other two variables, home consumption and subsidiary income. So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the calorie consumption level from primary food.



Paradigm 6.17(a) Discriminant Function: Calorie Consumption from Primary Food Vs 12 Causal Factors

ISBN: 978-93-85822-13-1

Table 6.18: Discriminant Analysis: Intake of High Value Food (Y_3) and 12 Independent Variables.

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	0.5735	0.2867	30.8515	III
2.Education(x2)	-0.5085	-0.2034	-21.8844	
3.Parents Education(x3)	-0.1659	0.3235	34.8008	II
4.Family Size(x4)	0.0284	-0.0192	-2.0617	
5.Size of Homestead Land(x5)	0.0124	0.0178	1.9141	
6.Size of Cultivable Land(x6)	-0.0001	-0.0011	-0.1140	
7. Family Income(Agri) (x7)	-0.0028	0.4392	47.2502	I
8. Family Income(Subsidiary) (x8)	0.0005	0.0788	8.4735	
9.Total Income(x9)	0.0022	0.0258	2.7729	
10.Total Crop Yield(x10)	0.0008	-0.1115	-11.9967	
11.Home Consumption(x11)	-0.0032	0.0929	9.9939	
12.Training(x12)	0.1441	0.0000	0.0000	

D-SQUARE=0.92944646E+00

HOTELLING T-SQUARE=0.18588930E+02

F VALUE FOR TESTING T-SQUARE= 1.331 WITH 12 AND 67 D.F.

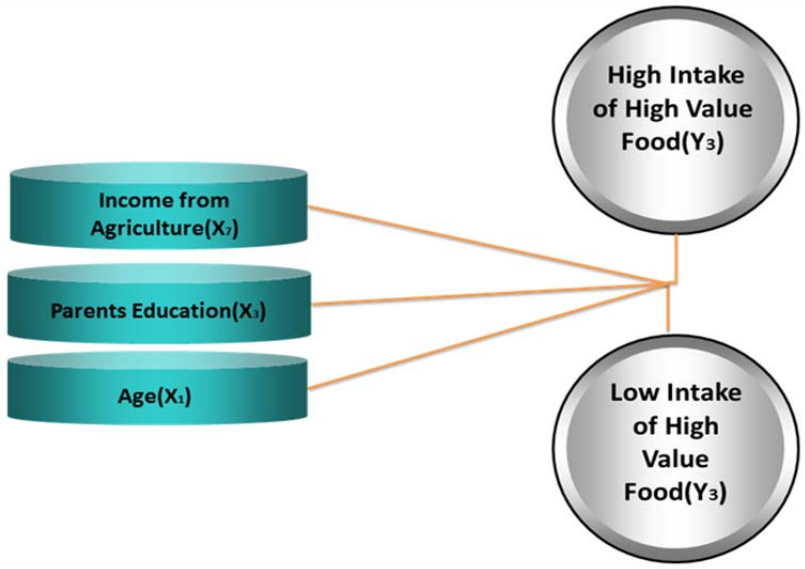
CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AND 2 ARE 3.7562 AND 2.8267

ISBN: 978-93-85822-13-1

Table 6.18: It presents the discriminant analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

The discriminant analysis in table 18 reveals that the variable income from agriculture has got the highest discriminatory function in creating variation of intake of high value food among the respondents. It has been followed by other two variables, parents' education and age. In a land based economy, the income from agriculture as a source, can dictate on the availability and intake of high value food.

So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the intake of high value food of the respondents.



Paradigm 6.18(a): Discriminant Function: Calorie Consumption from Intake of High Value Food (Y_4) Vs 12 Causal Factors.

ISBN: 978-93-85822-13-1

Table 6.19: Discriminant Analysis: Calorie Consumption from High Value Food (Y_4) and 12 Independent Variables:

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	0.4659	-o.0699	-9.2987	
2.Education(x2)	-0.5485	0.1371	18.2481	III
3.Parents Education(x3)	-0.1578	0.2130	28.3394	II
4.Family Size(x4)	0.3940	0.0099	1.3108	
5.Size of Homestead Land(x5)	0.0119	0.1304	17.3562	
6.Size of Cultivable Land(x6)	-0.0014	-0.0167	-2.2259	
7. Family Income(Agri) (x7)	-0.0019	0.2583	34.3755	I
8. Family Income(Subsidiary) (x8)	0.0015	0.0737	9.8133	
9.Total Income(x9)	0.0009	-0.0871	-11.5918	
10.Total Crop Yield(x10)	-0.0001	0.0124	1.6436	
11.Home Consumption(x11)	0.0041	0.0121	1.6150	
12.Training(x12)	0.3130	0.0783	10.4144	

D-SQUARE=0.75148470E+00

HOTELLING T SQUARE=0.15029690E+02

F VALUE FOR TESTING T-SQUARE= 1.076 WIYH 12 AND 67 D.F.

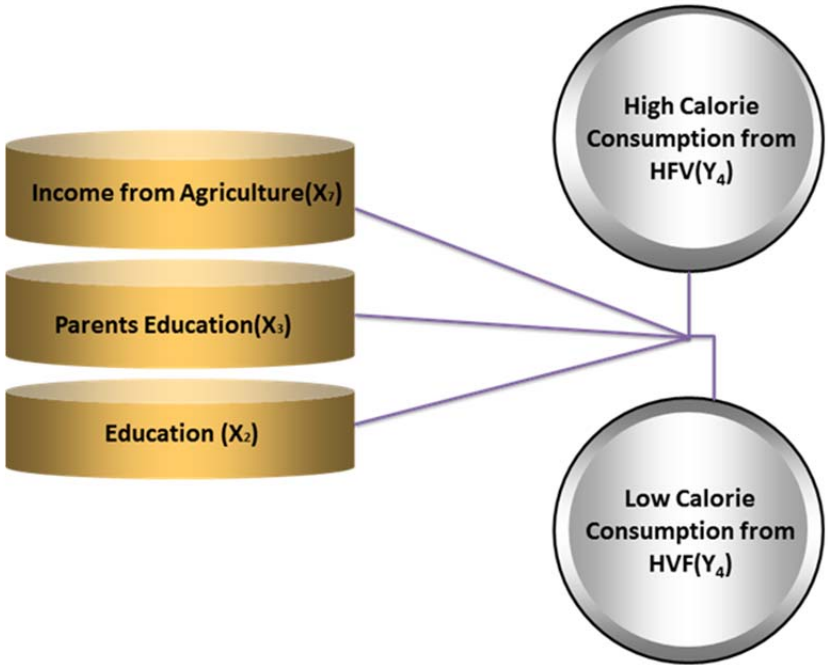
CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AND 2 ARE 5.4320 AND 4.6805

Table 6.19: It presents the discriminant function analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

ISBN: 978-93-85822-13-1

The discriminant function analysis in table 19 reveals that the variable income from agriculture has got the highest discriminatory function in creating variation of calorie consumption from high value food among the respondents. It has been followed by other two variables, parents' education and education of the respondents. The higher proportion of income from agriculture goes proximately with calorie consumption level.

So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the calorie consumption from high value food of the respondents.



Paradigm 6.19 (a): Discriminant Function: Calorie Consumption from Intake of High Value Food (Y_4) vs. 12 Causal Factors.

ISBN: 978-93-85822-13-1

Table 6.20: Discriminant Analysis: Total Calorie Consumption (Y_5) and 12 Independent Variables.

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	-0.9532	2.5260	80.4718	I
2.Education(x2)	-0.0678	0.1661	5.2910	III
3.Parents Education(x3)	-0.0169	-0.0051	-0.1611	
4.Family Size(x4)	0.1955	0.0147	0.4671	
5.Size of Homestead Land(x5)	-0.0132	0.0613	1.9538	
6.Size of Cultivable Land(x6)	-0.0022	0.0242	0.7719	
7. Family Income(Agri) (x7)	-0.0026	-0.1230	-3.9176	
8. Family Income(Subsidiary) (x8)	-0.0010	0.0555	1.7676	
9.Total Income(x9)	0.0010	0.0444	1.4136	
10.Total Crop Yield(x10)	0.0022	0.0940	2.9958	
11.Home Consumption(x11)	-0.0089	0.1097	3.4940	
12.Training(x12)	0.3112	0.1711	5.4520	II

D-SQUARE=0.31389470E+01

HOTELLING T-SQUARE=0.62778940E+02

F VALUE FOR TESTING T-SQUARE= 4.494 WITH 12 AND 67 D.F.

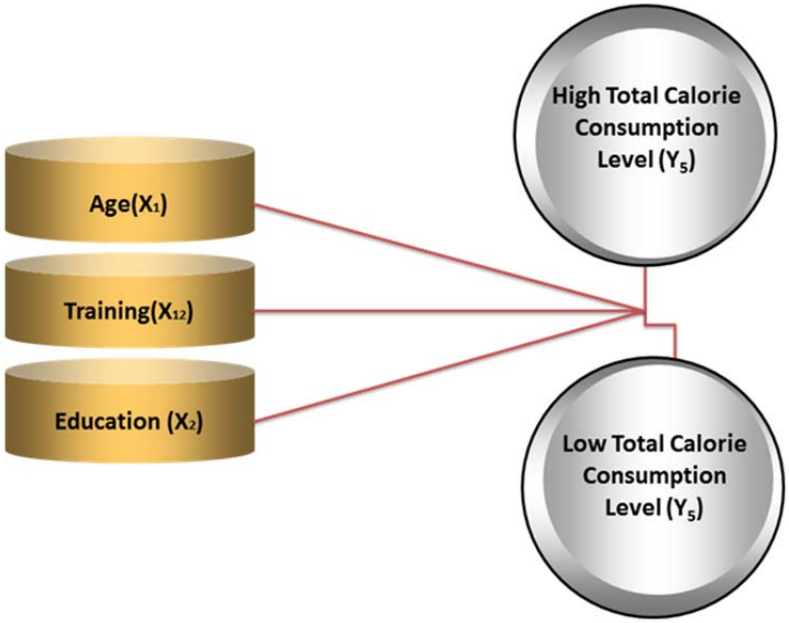
CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AND 2 ARE -6.4961 AND -9.6350

Table 6.20: It presents the discriminant analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

ISBN: 978-93-85822-13-1

The discriminant analysis in table 20 reveals that the variable age has got the highest discriminatory function in creating variation of total calorie consumption among the respondents. It has been followed by other two variables, training and education of the respondents.

So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the total calorie consumption level of the respondents.



Paradigm 6.20(a): Discriminant Function: Total Calorie Consumption vs. 12 Causal Factors

Table 6.21: Discriminant Analysis: Level of Sanitation (Y_6) and 12 Independent Variables.

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	-0.0777	0.0155	0.8040	
2.Education(x2)	0.1305	-0.0457	-2.3633	

ISBN: 978-93-85822-13-1

3.Parents Education(x3)	0.0359	-0.1150	-5.9524	
4.Family size(x4)	-0.6154	0.4254	21.4948	III
5.Size of Homestead Land(x5)	-0.0134	-0.0456	-2.3577	
6.Size of Cultivable Land(x6)	0.0129	0.1508	7.8037	
7. Family Income(Agri) (x7)	0.0062	-0.4108	-21.2552	
8. Family Income(Subsidiary) (x8)	0.0004	-0.0718	-3.7143	
9.Total Income(x9)	-0.0038	1.1701	60.5452	I
10.Total Crop Yield(x10)	-0.0034	0.9260	47.9152	II
11.Home Consumption(x11)	0.0045	-0.0532	-2.7536	
12.Training(x12)	0.0643	-0.0032	-0.1664	

D-SQUARE=0.19325719E+01

HOTELLING T –SQUARE=0.38651440E+02

F VALUE FOR TESTING Y-SQUARE= 1.767 WITH 12 AND 67 D.F.

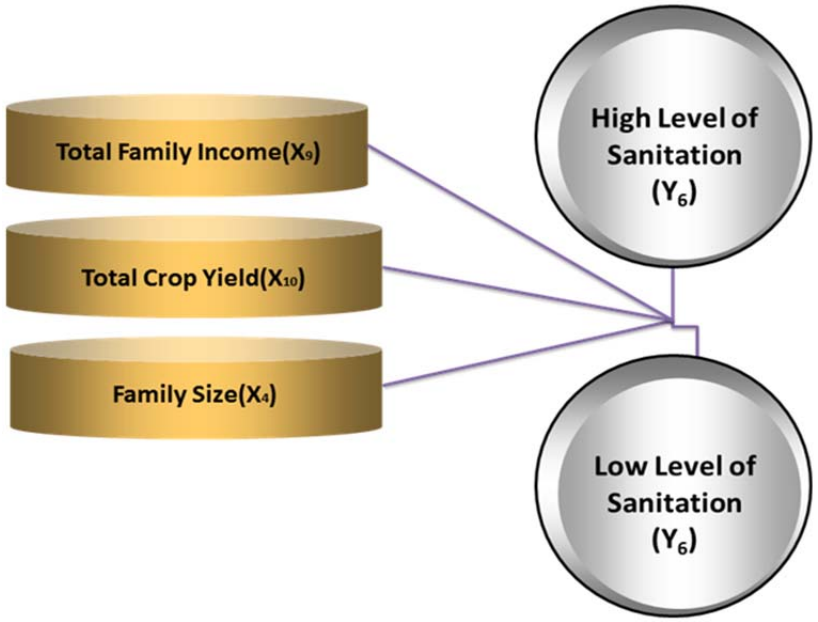
CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AND 2 ARE -5.4441 AND -7.3767

Table 6.21: It presents the discriminant analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

The discriminant analysis in table 21 reveals that the variable total family income has got the highest discriminatory function in creating variation of level of sanitation among the respondents. It has been followed by other two variables, total crop yield and family size.

ISBN: 978-93-85822-13-1

So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the level of sanitation among the respondents.



Paradigm 6.21(a) Discriminant Function: Level of Sanitation vs. 12 Causal Factors.

Table 6.22: Discriminant Analysis: Nutritional Status (Y_7) and 12 Independent Variables.

Variables	L(I)	L(I)*D(I)	L(I)*D(I)*100/D2 values	Rank
1. Age(x1)	-0.9456	2.6951	66.2830	I
2.Education(x2)	-0.3310	0.8936	21.9781	II
3.Parents Education(x3)	-0.0344	0.0120	0.2963	
4.Family size(x4)	0.1879	-0.0329	-0.8088	
5.Size of Homestead Land(x5)	-0.0180	0.0905	2.2259	

ISBN: 978-93-85822-13-1

6.Size of Cultivable Land(x6)	-0.0018	0.0249	0.6128	
7. Family Income(Agri) (x7)	-0.0039	0.3252	7.9983	III
8. Family Income(Subsidiary) (x8)	-0.0016	0.0969	2.3834	
9.Total Income(x9)	0.0013	-0.1154	-2.8386	
10.Total Crop Yield(x10)	0.0023	-0.2280	-5.6073	
11.Home Consumption(x11)	-0.0097	0.2389	5.8761	
12.Training(x12)	0.1860	0.0651	1.6008	

D-SQUARE=0.40660166E+01

HOTELLING T-SQUARE=0.81320340E+02

F VALUE FOR TESTING T-SQUARE= 5.821 WITH 12 AND 67 D.F.

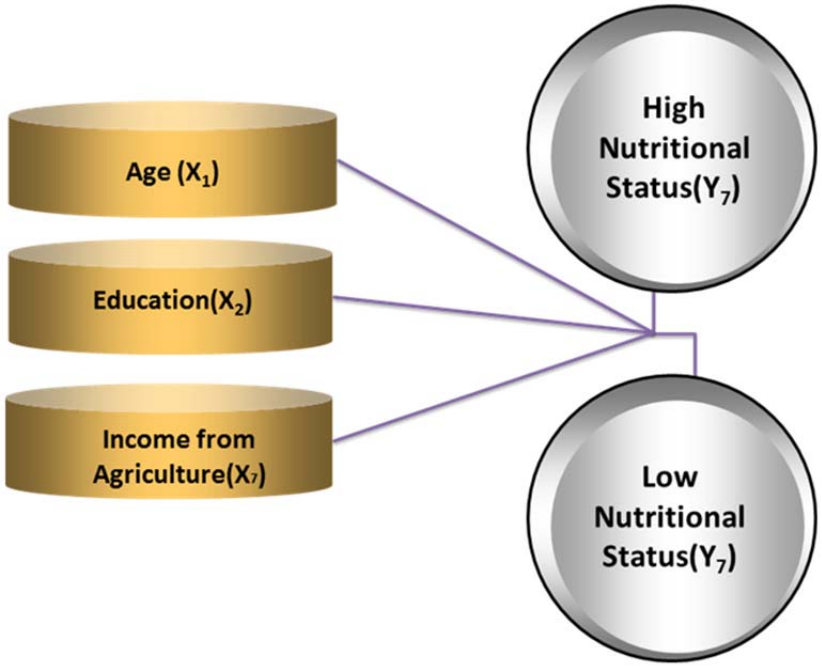
CENTROID DISCRIMINENT SCORES FOR GROUPS 1 AVD 2 ARE -8.7829 AND -12.8489

Table 6.22: It presents the discriminant analysis to assess the discriminatory function in creating a difference between high and low level behaviour of dependent variable and the respective contribution of different independent variable that has gone critical in creating this gap.

The discriminant analysis in table 22 reveals that the variable age has got the highest discriminatory function in creating variation of nutritional status among the respondents. It has been followed by other two variables, education and agriculture income.

So, these three variables in order of importance might be conceived while management strategy will be taken out to ensure the level of nutritional status among the respondents.

ISBN: 978-93-85822-13-1



Paradigm 6.22(a): Discriminant Function: Nutritional Status vs. 12 Causal Factors.

ISBN: 978-93-85822-13-1