

Chapter – V

*Analysis of Factors Determining
educational empowerment of
women in the Manaparai Taluk*

CHAPTER - V

ANALYSIS OF FACTORS DETERMINING EDUCATIONAL EMPOWERMENT OF WOMEN IN MANAPARAI TALUK

An attempt has been made in this study to examine the factors contributing to educational empowerment of women in the study area. Section I of this chapter brings out the contributions of factors determining income from knowledge. Section II furnishes the factors determining income from skills. Section III gives the factors determining the income from financial and economic empowerment.

5.1. ANALYSIS OF FACTORS DETERMINING INCOME FROM KNOWLEDGE

The educational empowerment of women's income from knowledge and values as one of the variables has been included in regression coefficients function along with family income, land income, domestic animal income, sale of agricultural produce, income from unorganized work, income from farm produce, business income and other income. The results are presented in the Table 5.5.1 (It indicates the income from knowledge of low population group).

TABLE - 5.1.1
OLS* ESTIMATES OF FACTORS DETERMINING
INCOME FROM KNOWLEDGE FOR LOW POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income	406.84 (0.455)
2.	Land income	0.83 (0.788)
3.	Domestic animal income	1.78 (2.139)
4	Sale of agricultural produce	908.70 (0.885)
5	Income from unorganized work	-0.11 (-0.048)
6.	Income from farm produce	7.21 (1.220)
7.	Business income	166.41 (0.130)
8	Other income	2346.30 * (4.899)
9	Constant	-1728.14 (-0.439)

$R^2 = 0.714$

$F = 9.696 *$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

In the analysis, the model is significant because F value is significant at one per cent probability level. The value of R^2 is high showing that the independent variables together account for 71.4 per cent variations in the income from knowledge per annum for low income group.

* Ordinary Least Square.

In the analysis, the regression coefficient for the variable domestic animal income is 1.78 and it is positive and statistically significant at five per cent probability level. The inference is that the educational empowerment of women increases by 17.8 units when the use of domestic animal income increases by one unit. The other income is another factor significantly and positively determining the income from knowledge per annum (for low population group) at one per cent level. The implication from its coefficient value is that the income from knowledge (for low population group) increases by 2346.30 units when the other income increases by one unit. The analysis reveals positive relationship between other income and income from knowledge (for low population group).

TABLE - 5.1.2
OLS ESTIMATES OF FACTORS DETERMINING INCOME FROM
KNOWLEDGE FOR MEDIUM POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income	3588.35 (1.711)
2.	Land income	1.19 (1.432)
3.	Domestic animal income	0.74 (0.531)
4	Sale of agricultural produce	-1251.09 (-0.769)
5	Income from unorganized work	9.30 (2.07)
6.	Income from farm produce	-10.25 (-0.342)
7.	Business income	1231.19 (0.575)
8	Other income	1911.05 * (2.516)
9	Constant	-3848.33 (-0.5333)

$R^2 = 0.493$

$F = 3.772^*$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

As shown in the Table 5.1.2, the model is significant because F value is statistically significant at one per cent level. The R^2 value is 0.493. The inference is that all the independent variables together explain 49.30 per cent

variations in the gross value of income from knowledge for medium group per unit per annum.

In the analysis, other income and income from organized work are the factors determining the gross value of income from knowledge (for medium population group) positively and significantly at one per cent and five per cent levels respectively. The inference from the coefficient value of other income is that the income from knowledge (for medium population group) increases by 25.16 per cent when number of other income increases per unit. That is, the income from knowledge (for medium population group) increases with the increase in other income in relation to income from knowledge (for medium population group).

Income from unorganized work coefficient shows that the gross value of income from knowledge (for medium population group) has increased by 20.7 per cent when the income from unorganized work increased by one unit per annum. The other explanatory variables namely, sale of agricultural produce, income from farm produce, and business income of the educational empowerment of women made insignificant impact on the gross value of income from knowledge (for medium population group) in the study area.

TABLE - 5.1.3
OLS ESTIMATES OF FACTORS DETERMINING INCOME
FROM KNOWLEDGE FOR HIGH POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income	1015.01 (0.802)
2.	Land income	0.44 (0.649)
3.	Domestic animal income	0.50 (0.719)
4	Sale of agricultural produce	-136.12 (-0.133)
5	Income from unorganized work	13.18 (1.542)
6.	Income from farm produce	14.15 * (2.570)
7.	Business income	-1514.50 (-1.116)
8	Other income	2151.71 (1.927)
9	Constant	2623. (0.515)

$$R^2 = 0.426$$

$$F = 2.875^*$$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

In the analysis, the model is significant because F value is significant at one per cent probability level. Value of R^2 is high showing that the independent variables together account for 42.60 per cent variations in the income from knowledge per respondent, per annum for high income group.

In the analysis, the regression coefficient for the variable of other income is 1.92 and it is positive and statistically significant at five per cent probability level. The inference is that the gross value of output per respondent increases by 19.92 units when the other income increases by one unit. Another factor namely income from farm produce significantly and positively determines the income from knowledge per annum per unit (for high population group) at one per cent level. The implication from its coefficient value is that the income from knowledge (for high population group) increases by 2151.71 units when the other income increases by one unit. The analysis reveals positive relationship between other income and income from knowledge (for high population group).

TABLE - 5.1.4
OLS ESTIMATES OF FACTORS DETERMINING INCOME
FROM KNOWLEDGE (EDUCATIONAL STATUS) FOR ALL THE
THREE GROUPS

(N = 120)

S. No.	Variables	Regression Coefficients
1.	Family income	962.01 (1.278)
2.	Land income	1.08 * (2.560)
3.	Domestic animal income	0.79 * (1.863)
4	Sale of agricultural produce	-311.65 (-0.471)
5	Income from unorganized work	4.22 (1.951)
6.	Income from farm produce	8.90 (2.003)
7.	Business income	806.12 (1.161)
8	Other income	1989.05 * (5.405)
9	Constant	1245.22 (0.414)

$R^2=0.470$

F =12.290 *

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

As shown in the Table 5.1.4, the model is significant because of high F value. The high value of R^2 shows that the independent variables together account for 47.0 per cent variations in the gross value of income from knowledge for the three groups per unit per annum.

In the analysis, the regression coefficient for the land income is 1.08 and it is positive and statistically significant at one per cent probability level. The inference is that the gross value of income from knowledge for the entire group increased by 25.6 per cent when the use of land income increased by one unit per annum. Domestic animal income is another factor significantly and positively determining the gross value of income from knowledge for the entire group at one per cent level. The implication from its coefficient value is that the gross value of income from knowledge (for the entire group) per unit increased by 18.63 per cent when domestic animal income increased by one unit per annum. The analysis reveals positive significant relation between income from knowledge and land income.

Income from unorganized work and income from farm produce are the other factors significantly and positively determining the income from knowledge for all the groups per unit per annum. The inference from the coefficient value is 19.51 per cent increase in income from unorganized work and 20.03 per cent increase in income from farm produce lead to one unit increase in output when these variables were increased by one unit per annum. The variable other income significantly influence the gross value of income from knowledge (for entire group) per unit per annum. The implication is that the gross value of income from knowledge for the three groups increased by 54.05 per cent per unit.

This implies that there is a positive and significant relationship between educational status and family condition. Therefore, the first hypothesis is proved.

5.2. ANALYSIS OF FACTORS DETERMINING INCOME FROM SKILLS

The income from skills values as one of the variables has been included in regression coefficients function along with Family income I, land income I, domestic animal income I, sale of agricultural produce I, income from unorganized work I, income from farm produce I, and business income I. The results are presented in the Table 5.2.1 for the income from skills for low group.

TABLE - 5.2.1
OLS ESTIMATES OF FACTORS DETERMINING INCOME FROM
SKILLS FOR LOW POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income I	-627.30 (-0.652)
2.	Land income I	-0.75 (-0.728)
3	Domestic animal income I	2.25 (0.775)
4	Sale of agricultural produce I	-1317.24 (-01.387)
5.	Income from unorganized work I	11.70 (0.494)
6	Income from farm produce I	650.09 * (2.325)
7	Business income I	425.01 (3.546)
8	Constant	5061.63 (1.476)

$$R^2 = 0.407$$

$$F = 2.664^*$$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

As shown in the table: 5.2.1, the modal is significant F-value. The value of R^2 shows that the independent variable accounts for 40.7 per cent variations in the gross value of output per unit.

In the Table 5.2.1, the regression coefficient for the variable income from farm produce I is 650.09 and it is positive and statistically significant at one per cent level. The inference is that the gross value of income from skills (for low group) per unit increases by 23.25 per cent when the use of income from farm produce I increase by one unit. Business income I is the other factor significantly and positively determining the gross value of income from skills (for low group) per unit at five per cent level. The implication from its coefficient value is that the gross value of income from skills per unit increases by 42.50 per cent when the business income I is increased by one unit. The analysis reveals a positive relationship between business income I and income from skills (for low group). A perusal of the field data collected from the respondents' reveals that in terms of quantity there is not much difference in the income per unit between the business incomes I. There is a positive relationship between business income I and gross value of income from skills (for low group). All other explanatory variables exerted insignificant influence on the gross value of income from skills (for low group) per unit.

TABLE - 5.2.2
OLS ESTIMATES OF FACTORS DETERMINING INCOME FROM
SKILLS FOR MEDIUM POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income I	104.19 (0.057)
2.	Land income I	9.89 * (3.684)
3	Domestic animal income I	1.53 (0.281)
4	Sale of agricultural produce I	3498.33 * (2.218)
5.	Income from unorganized work I	9.25 (0.397)
6	Income from farm produce I	-37.73 (-0.076)
7	Business income I	358.68 (0.816)
8	Constant	-4592.58 (-0.678)

$$R^2 = 0.389$$

$$F = 2.467^*$$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

As shown in the Table 5.2.2, the model is significant because F value is statistically significant at one per cent level. The R^2 value is 0.389. The inference is that all the independent variables together contributed to 38.9 per cent variations in the gross value of income from skills for medium group per unit per annum.

In the analysis, sale of agricultural produce and land income I are the factors determining the gross value of income from skills (for medium group) positively and significantly at five per cent and one per cent levels respectively. The inference from the coefficient value of sale of agricultural produce I is that the income from skills (for medium group) increased by 22.18 per cent when sale of agricultural produce I increased per unit. That is, the income from skills (for medium group) increased with the increase in the sale of agricultural produce I.

Land income I coefficient shows that the gross value of income from skills (for medium group) increased by 36.84 per cent per annum. The other explanatory variables namely Family income I, domestic animal income I, income from unorganized work I, income from farm produce I, income from farm produce I, business income I of the educational empowerment of women made insignificant impact on the gross value of income from skills (for medium group) in the study area.

TABLE - 5.2.3
OLS ESTIMATES OF FACTORS DETERMINING
INCOME FROM SKILLS FOR HIGH POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income I	124.03 (0.175)
2.	Land income I	0.94 * (1.078)
3	Domestic animal income I	-3.15 (-0.717)
4	Sale of agricultural produce I	-966.36 (-01.854)
5.	Income from unorganized work I	-18.93 (-0.930)
6	Income from farm produce I	9.66 (0.130)
7	Business income I	181.72 (1.924)
8	Constant	6067.34 (2.035)

$R^2 = 0.384$

$F = 2.418^*$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

In the analysis, the model is significant because F value is significant at one per cent probability level. Value of R^2 explains that the independent variables together account for 38.4 per cent variations in the income from skills, per annum for the high-income group.

In the analysis the regression coefficient for the variable business income I is 1.92 and it is positive and statistically significant at one per cent probability level. The inference is that the gross value of output per women

educational empowerment increased by 19.24 units when the use of business income I was increased by one unit.

Another factor land income I also significantly and positively determines the income from skills per annum per unit (for high group). The implication from its coefficient value is that the income from skills (for high group) increased by one unit. The analysis reveals positive relationship between land income I and income from skills (for the high group).

TABLE - 5.2.4
OLS ESTIMATES OF FACTORS DETERMINING INCOME FROM
SKILLS FOR ALL THE THREE GROUPS

(N = 120)

S. No.	Variables	Regression Coefficients
1.	Family income I	135.55 (0.186)
2.	Land income I	1.60 (1.911)
3	Domestic animal income I	0.86 (0.347)
4	Sale of agricultural produce I	28.87 (0.049)
5.	Income from unorganized work I	5.27 (0.405)
6	Income from farm produce I	79.47 (0.729)
7	Business income I	294.45 * (3.120)
8	Constant	2665.93 (0.939)

$R^2=0.139$

F = 2.241 *

Figures in the parentheses indicate calculated are t values

* indicates one percent level of significance

From the table: 5.2.4, it is evident that the model is significant with 2.241 F value. The value of R^2 shows that the independent variables together account for 13.9 per cent variations in the gross value of income from skills for all the three groups per unit per annum.

In the analysis the regression coefficient for the business income I is 294.45 and it is positive and statistically significant at one per cent probability

level. The inference is that the gross value of income from skills (for entire three groups) increased by 31.20 per cent when the use of business income I was increased by one unit per annum.

Land income I is the other factor significantly and positively determining the gross value of income from skills (for total group) at five per cent probability level. The implication from its coefficient value is that the gross value of income from skills (for total group) per unit increased by 19.11 per cent when land income I increased by one unit per annum. The analysis reveals a positive relationship between land income I and business income.

5.3. ANALYSIS OF FACTORS DETERMINING INCOME FROM ECONOMIC ACTIVITIES

The Economic income values as one of the variables has been included in regression coefficients function along with family income II, land income II, sale of agricultural produce II and income from farm produce II. The results are presented in the Table 5.3.1 (for the income from economic for low group).

TABLE - 5.3.1

OLS ESTIMATES OF FACTORS DETERMINING INCOME FROM ECONOMIC ACTIVITIES FOR LOW POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income II	-4.12 * (-0.066)
2.	Land income II	5.96 * (2.02)
3.	Domestic animal income II	150.05 (1.98)
4.	Business income II	62.94 * (2.98)
5.	Constant	25.98 (0.105)

$R^2 = 0.380$

F = 5.371 *

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

As shown in the Table 5.3.1, F statistics reveals that the overall model is significant at one per cent probability level. The R^2 value is 0.380. The inference is that all the independent variables together explain 38.0 per cent

variations in the gross value of income from economic activities for the low group per unit.

In the analysis, the income from Business II coefficient is 62.94. It is positive and statistically significant at one per cent probability level. The inference is that the gross value of income from economic activities for low group increased by 29.80 per cent when the income from business were increased by one unit. The point is that those respondents are making more income from business.

Family income is another factor significantly and negatively determining the gross value of income from economic activities (for low group) at five per cent level. The inference is that the gross value of income from economic (for low group) decreased by 41.2 per cent when the family income decreased by one unit. The implication is that those respondents who use more family income for income from economic activities (for low group) spend less. All other explanatory variables exerted negligible influence on the gross value of income from economic activities (for low group) per unit per annum.

TABLE - 5.3.2
OLS ESTIMATES OF FACTORS DETERMINING INCOME
FROM ECONOMIC ACTIVITIES FOR MEDIUM
POPULATION GROUP

(N = 40)

Sl. No	Variables	Regression Coefficients
1.	Family income II	-24.12 (-0.299)
2.	Land income II	10.68 (4.203)
3	Domestic animal income II	129.02 (1.763)
4.	Business income II	4.41 * (0.321)
5.	Constant	49.48 (0.157)

 $R^2 = 0.373$

F = 5.201*

Figures in the parentheses indicate calculated are t values

* indicates one percent level of significance

It is obvious from the F value 5.201 that the model is significant at one per cent level. The value of R^2 is 0.373. The implication is that all the independent variables together were responsible for 37.3 per cent variations in the gross value of income from economic activities for medium group.

In the analysis, the Income from business income II is 4.41. The coefficient has been positive and statistically significant at one per cent probability level. The meaning is that the gross value of income from economic activities (for medium group) per unit increased by 3.21 per cent when the Income from business II use was increased by one unit. Hence the hypothesis

that Income from business income II use is a positive and significant determinant of the gross value of income from economic activities (for medium group per unit per annum).

Sale of agricultural produce is another factor significantly and positively determining the gross value of income from economic activities (for medium group). The inference from its coefficient value is that the gross value of income from economic activities (for medium group) per unit increases by 17.63 per cent when domestic animal income II increases by one unit. It reveals a positive relationship between domestic animal income II and income from economic (for medium group); the other explanatory variables have negligible impact on the gross value of income from economic activities (for medium group per unit).

TABLE - 5.3.3
OLS ESTIMATES OF FACTORS DETERMINING INCOME FROM
ECONOMIC ACTIVITIES FOR HIGH POPULATION GROUP

(N = 40)

S. No.	Variables	Regression Coefficients
1.	Family income II	29.67 (0.455)
2.	Land income II	5.25 * (2.251)
3	Domestic animal income II	-142.08 (-2.631)
4.	Business income II	0.72 * (0.068)
5.	Constant	454.76 (1.490)

$R^2 = 0.390$

$F = 5.602^*$

Figures in the parentheses indicate calculated t values

* indicates one percent level of significance

As shown in the Table 5.3.3, the model is significant because F value is statistically significant at one per cent level. The R^2 value is 0.390. The inference is that all the independent variables together caused 39.0 per cent variations in the gross value of income from economic activities (for high group per unit). In the analysis, family income II and income from land II are the other factors determining the educational empowerment of women positively and significantly at five per cent and one per cent levels respectively. The inference from the coefficient value of land income II is that the gross value of educational empowerment of women increases by 25.51 per cent.

TABLE - 5.3.4
OLS ESTIMATES OF FACTORS DETERMINING INCOME
FROM ECONOMIC ACTIVITIES FOR ALL THE THREE GROUPS

(N = 120)

S. No.	Variables	Regression Coefficients
1.	Family income II	36.15 (0.894)
2.	Land income II	7.83 (5.188)
3	Domestic animal income II	-11.50 (-0.305)
4.	Business income II	4.90 * (0.616)
5.	Constant	187.54 (1.103)

$$R^2 = 0.237$$

$$F = 8.944^*$$

Figures in the parentheses indicate calculated are t values

* indicates one percent level of significance

The model is significant as F value is 8.944. The value of R^2 explains the fact that the independent variables together account for 23.7 per cent variation in the gross value of income from economic activities for all the three groups.

In the analysis the regression for the variables income from business II is the other factor significantly and positively determining the gross value of income from economic activities (for total group) at one per cent level. The implication from its coefficient value is that the gross value of income from economic activities (for total group) increases by 6.16 per cent. The analysis

reveals a positive relationship between income from business II and income from economic activities (for three group).

Land income II is yet another factor insignificantly and positively determining the gross value of income from economic activities (for entire group). The inference from the coefficient values is that the gross value of income from economic activities (for entire group) per unit increases by 51.88 per cent, when one unit increased these variables. All other explanatory variables exerted insignificant influence on the gross value of income from economic activities (for total group per unit).

Finally, it is observed that educational status provides women empowerment but based on the constraints faced by women respondents, it is clear that the women empowerment is positively related with their educational qualification. Therefore, second hypothesis is proved.