

CHAPTER-V

DATA ANALYSIS, RESULTS AND DISCUSSION

This chapter deals with the analysis and the interpretation of the primary data collected through household survey. The data collected in the field survey are processed and analyzed systematically in this section to estimate the results. The collected data are analyzed in the light of research question to draw conclusion. Broadly, the study uses the five methods of analysis. The first is the analysis of the survey outcomes using the descriptive statistics, tables and diagrams. Secondly, the Principal component Analysis is done to determine the mothers' empowerment level in Karimganj District. In the third method of analysis, econometric technique like the OLS regression model is estimated. In the fourth method of analysis, small sample t- test and correlation coefficient is calculated and tested for statistical significance and in the final method of analysis, multinomial logistic regression is estimated.

5.1. Sample Households and their Characteristics

This section contains the socio-economic characteristics of the selected households and its members. In the descriptive statistical analysis, first of all a detailed statistics has been presented about the socio economic characteristics of sample households, respondent's attitude and various other aspects of the information received from the respondents.

5.1.1 General Characteristics of the Sample Units

Table-5.1 presents Block and Ward wise households covered in the study. The present study covered two hundred and fifty households of the district. Among these two hundred and fifty households, hundred and fifty are from rural areas and the rest one hundred are from urban areas of the district. In case of development block, there are seven development blocks in the district. These are Badarpur Development Block (BDB), North

Karimganj Development Block (NKDB), South Karimganj Development Block (SKDB), Patherkandi Development Block (PDB), Lowaipowa Development Block (LDB), Ramkrishna Nagar Development Block (RDB) and Dullevcherra Development Block (DDB). Selection of households from each block is based on the population of that block. SKDB has the highest number of population, so highest numbers of households are selected from this block. Forty households are selected from this block. Thirty households are selected from PDB, twenty households from BDB, twenty households from RDB, twenty households from DDB, ten households from NKDB and the rest ten households from LDB.

Table-5.1: Rural-Urban Distribution of Sample Households

Block/Ward	Rural	Urban	Total
BDB	20	0	20
NKDB	10	0	10
SKDB	40	0	40
PDB	30	0	30
LDB	10	0	10
RDB	20	0	20
DDB	20	0	20
BMB Ward No.1	0	7	7
BMB Ward No.2	0	5	5
BMB Ward No.3	0	7	7
BMB Ward No.4	0	5	5
BMB Ward BRTC	0	6	6
KMB Ward No.3	0	14	14
KMB Ward No.4	0	10	10
KMB Ward No.6	0	12	12
KMB Ward No.11	0	5	5
KMB Ward No.14	0	9	9
KMB Ward No.22	0	5	5
KMB Ward No.24	0	6	6
KMB Ward No.26	0	6	6
KRC	0	3	3
Total	150	100	250

Source: Primary Field Survey 2013(BDB=Badarpur Development Block., NKDB=North Karimganj Development Block SKDB=South-Karimganj Development Block, PDB=Patherkandi Development Block, LDB=Loaipowa Development Block, RDB=Ramkrishnanagar Development Block, DDB=Dullevcherra Development Block, BMB= Badarpur Municipality Board, KMB= Karimganj Municipality Board, KRC=Karimganj Railway Colony)

In case of urban areas households are selected Ward wise. There are two Municipality Board in the District. Karimganj Municipality Board (KMB) and Badarpur Municipality Board (BMB). In the study seventy households are covered from KMB and the rest thirty households from BMB. In case of KMB, highest number of households is selected from KMB Ward No.3. i.e., fourteen households. Twelve households are selected from KMB Ward No.6. Ten households from KMB Ward No.4, nine households from KMB Ward No.14, six households from KMB Ward No.24, six households from KMB Ward No.26, five households from KMB Ward No.22 and five households from KMB Ward No.11. And finally the rest three households are selected from KRC. In case of BMB, seven households are selected from BMB Ward No.1, seven households from BMB Ward No.3, six households from Ward BRTC, five households from BMB Ward No.2 and the rest five households from BMB Ward No.4.

Table 5.2 highlights Religion and Caste-wise distribution of the sample households in urban areas. Out of 100 sample households, 90 households practice Hindu Religion and the rest 10 households practice Islam religion. Furthermore, in the study, there are no Muslim households under KMB. 10 Muslim households are from BMB [Ward No.1, (2 households) Ward No.3 (7 households) and Ward no.4 (1 household)]. Out of 90 Hindu households, 4 are from BMB Ward No.4, 6 households from BMB BRTC, 14 households from KMB Ward No.3, 10 households from KMB Ward No.4, 12 households from KMB Ward No.6, 5 households from KMB Ward No.11, 9 households from KMB Ward No. 14, 5 households from KMB Ward No.22, 6 households from KMB Ward No.24, 6 households from KMB Ward No.26 and the rest 3 households from KRC.

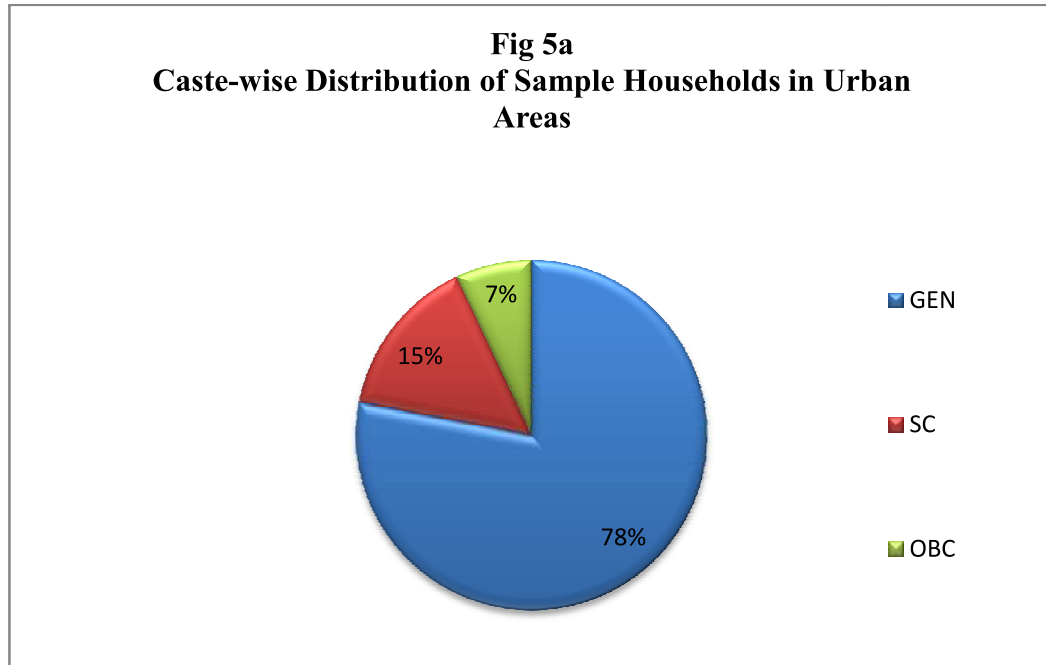
In case of Caste-wise distribution of sample households in urban areas, out of 100 households, 78 are from General Caste, 15 are from SC and 7 are from OBC Caste. In the study, households of the General category are the largest group compared to SCs and OBCs in urban areas of the district.

Table-5.2: Distribution of Sample Households on the basis of Religion and Caste (Urban)

Ward No.	Hindu	Islam	General	SC	OBC	Total
BMB Ward No.1	5	2	4	0	3	7
BMB Ward No 2	5	0	4	1	0	5
BMB Ward No .3	0	7	7	0	0	7
BMB Ward No .4	4	1	5	0	0	5
BMB Ward BRTC	6	0	4	0	2	6
KMBWard No.3	14	0	13	1	0	14
KMBWard No .4	10	0	9	1	0	10
KMBWard No .6	12	0	9	3	0	12
KMBWard No.11	5	0	4	1	0	5
KMBWard No 14	9	0	7	2	0	9
KMB Ward No .22	5	0	3	2	0	5
KMB Ward No 24	6	0	5	0	1	6
KMBWard No .26	6	0	3	2	1	6
KRC	3	0	1	2	0	3
TOTAL	90	10	78	15	7	100

Source: Primary Field Survey 2013 (SC=Schedule Caste, OBC= Other Backward Classes, BMB= Badarpur Municipality Board, KMB= Karimganj Municipality Board, KRC= Karimganj Railway Colony)

From the Fig 5a it is seen that in case of caste-wise distribution of sample units in urban areas of the district, the share of General category is the highest (78 percent) followed by SCs (15 percent) and OBCs (7 percent).



Source: Primary Field Survey 2013

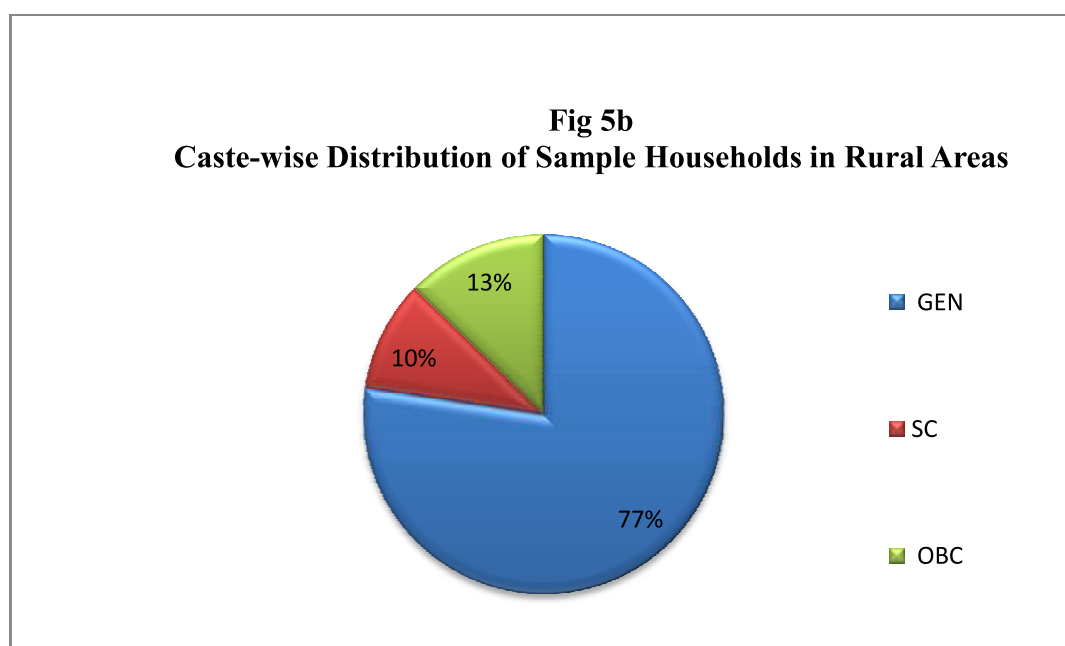
Table 5.3 highlights Religion and Caste-wise distribution of the sample households in rural areas of the district. Out of 150 sample households, 80 households are from Hindu religion and the rest 70 households are from Islam religion. There are no Hindu households in BDB and NKDB in the study and there are no Muslim households in LDB, RDB and DDB in the study. Out of 80 Hindu households 10 households are from SKDB, 20 households are from PDB, 10 households from LDB, 20 households from RDB and the rest 20 households from DDB. In case of Muslims, out of 70 households in rural areas, 20 households are from BDB, 10 households from NKDB, 30 households from SKDB and the rest 10 households are from PDB.

In case of Caste-wise distribution of sample households, out of 150 households, 116 are from General, 15 are from SC and 19 are from OBC Caste. In the study, households belonging to General category are largest group compared to SCs and OBCs in the rural areas of the district.

**Table-5.3: Distribution of Sample Households on the basis of Religion and Caste
(Rural)**

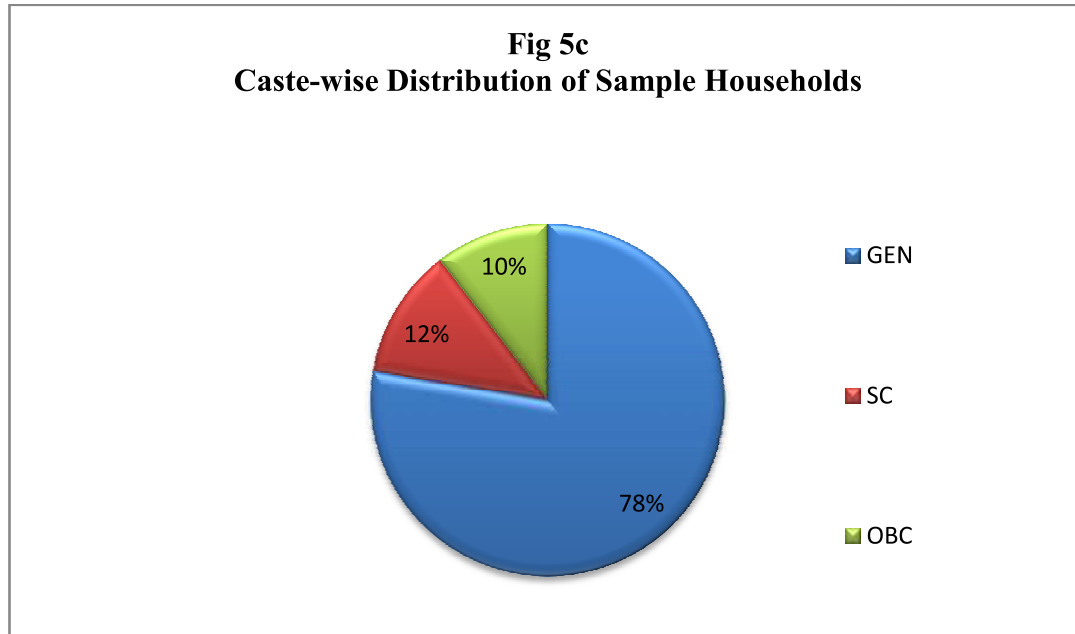
Block	Hindu	Islam	General	SC	OBC	Total
BDB	0	20	20	0	0	20
NKDB	0	10	10	0	0	10
SKDB	10	30	36	1	3	40
PDB	20	10	19	7	4	30
LDB	10	0	5	1	4	10
RDB	20	0	12	4	4	20
DDB	20	0	14	2	4	20
Total	80	70	116	15	19	150

Source: Primary Field Survey 2013 (SC=Schedule Caste, OBC=Other Backward Classes, BDB=Badarpur Development Block., NKDB=North Karimganj Development Block, SKDB=South Karimganj Development Block, PDB=Patherkandi Development Block, LDB=Loaipowa Development Block, RDB=Ramkrishnanagar Development Block, DDB=Dullecherra Development Block)



Source: Primary Field Survey 2013

From the Fig 5b it is seen that in case of caste-wise distribution of sample units in rural areas of the district, the share of General category is the highest (77 percent) followed by OBCs (13 percent) and SCs (10 percent)



Source: Primary Field Survey2013

From Fig 5c it is seen that in the case of caste-wise distribution of sample households in the district, the share of General category is the highest (78 percent) followed by SCs (12 percent) and OBCs (10 percent)

Table 5.4 reveals the picture of block-wise socio-demographic features of sample households. The table highlights the picture of 150 households. It is visible in the table that the average family size of 150 rural households is 6.06. The family size in SKDB is highest at 7 and in DDB the lowest i.e., 5.25. Number of children per household is 3.28. In BDB number of children per household is highest i.e. 4 and in DDB it is the lowest i.e. 2.45. Father's average education is 10.3 years in completed years of education. In RDB Father's average education is highest i.e. 11.15 years and it is the lowest in LDB i.e. 8.1 years. Mother's Average education is 9.35 years in rural areas of the district. In RDB mother's average education is highest i.e. 10.35 years and it is lowest in LDB i.e. 6.9 years. Male children's average education in 150 households is 9.24 years. In NKDB male

children's average education is highest i.e. 10.15 years and it is the lowest in DDB i.e. 7.58 years. Female children's average education in sample households of rural areas is 8.35 years. In RDB female children's average education is highest i.e., 9.79 years and it is the lowest in DDB. i.e., 6.98 years in completed years of education.

Table 5.4: Socio-Demography Characteristics of the Sample Households (Rural)

Blocks	Average Family Size	Number of Children Per Households	Father's Average Education	Mother's Average Education	Male Children's Average Education	Female Children's Average Education
BDB	6.3	4	9.25	8.8	9.81	9.2
NKDB	6.5	3.7	12.5	10.3	10.15	9.65
SKDB	7	3.93	10.18	9.05	9.18	8.09
PDB	5.63	2.8	10.97	10.07	9.75	8.02
LDB	5.7	3.3	8.1	6.9	8.41	7.38
RDB	6.1	2.75	11.15	10.35	9.53	9.79
DDB	5.25	2.45	9.95	9.95	7.58	6.98
SampleAverage	6.06	3.28	10.3	9.35	9.24	8.35

Source: Primary Field Survey 2013 (BDB=Badarpur Development Block., NKDB=North Karimganj Development Block SKDB=South-Karimganj Development Block, PDB=Patherkandi Development Block, LDB=Loaipowa Development Block. RDB=Ramkrishnanagar Development Block, DDB=Dullecherra Development Block)

Table 5.5 reveals the picture of ward-wise socio-demographic features of urban sample households. The Table highlights the pictures of 100 households. The Table reveals that the average family size of 100 urban households is 5.39. The family size in BMB Ward No.4 is highest at 6.6 and in KMB Ward No.22, it is lowest i.e., 4.4. Number of children per households is 2.71. In BMB Ward No.3 number of children per households is highest i.e. 4.14 and in KMB Ward No.3 it is the lowest i.e. 2.21. Father's average education is 11.34 years in urban Karimganj in the study. In KMB Ward No.11 Father's average education is highest i.e. 13.60 years and it is the lowest in KRC i.e. 8.33 years. Mother's average education is 10.84 years in urban areas. In KMB Ward No.11 mother's average education is highest i.e. 14 years and it is lowest in KRC i.e. 7.33 years. Male children's

average education in 100 households are 9.34 years. In BMB Ward No.3 male children's average education is highest i.e. 11.83 years and it is lowest in KMB Ward No.24 i.e. 6.83 years. Female children average education in sample households is 8.47 years. In KMB Ward No.4 female children's average education is highest i.e., 10.98 years and it is lowest in KRC. i.e., 3.33 years.

Table-5.5: Socio-Demography Characteristics of the Sample Households (Urban)

Ward No.	Average Family Size	Number of Children Per Households	Father's Average Education	Mother's Average Education	Male Children's Average Education	Female Children's Average Education
BMB Ward No.1	5.57	3.14	11.71	10.14	9.69	10.09
BMB Ward No.2	4.8	2.6	12.8	12.4	11.43	6.25
BMB Ward No.3	6.14	4.14	10.43	9.57	11.83	9.54
BMB Ward No.4	6.6	2.6	10.4	11.6	9.2	9.43
BMB BRTC	5.17	2.5	9.5	9	9	9.16
KMB Ward No.3	4.71	2.21	13.57	11.86	8.04	6.25
KMB Ward No.4	5.7	2.6	13.5	13.5	9.25	10.98
KMB Ward No.6	5	2.67	12.75	11.5	8.93	6.76
KMB Ward No.11	5.8	2.6	13.6	14	10.03	9.7
KMB Ward No.14	5.78	2.44	11.33	11.11	11.52	7.85
KMB Ward No.22	4.4	2.4	10.2	9.4	7.2	9.63
KMB Ward No.24	5.67	3	10.83	10.67	6.83	10.11
KMB Ward No.26	5.5	2.67	9.83	9.67	9.5	9.75
KRC	4.67	2.33	8.33	7.33	8.33	3.33
Sample total and Average	5.39	2.71	11.34	10.84	9.34	8.47

Source: Primary Field Survey 2013 (BMB= Badarpur Municipality Board, KMB= Karimganj Municipality Board, KRC= Karimganj Railway Colony)

5.1.2 Economic Characteristics of the Sample Units (Rural)

Table- 5.6 shows households' average land holding in katha, income in average and per capita income in average of sample households of rural areas and standard deviation of above mentioned areas. Average land holding (in katha) of sample households in rural areas is 107.05 katha. The largest size of average land holding is in SKDB i.e. 202.22 katha and in DDB it is the lowest i.e. 53.26 katha. Average annual family income of the sample households is Rs.301160.71 in rural areas. The highest average annual family income is in NKDB i.e.Rs.465200 and the lowest average annual family income is in LDB i.e. Rs.190400. Average annual per capita income of sample households in rural areas is Rs.57821.43. The highest average annual per capita income is in NKDB i.e. Rs.92035.24 and in LDB it is lowest i.e. Rs.38789.29.

Table-5.6: Economic Characteristics of the Sample Households (Rural)

Blocks	Average Land Holding (in katha)	Average Family Income (in Rs.)	Average Per capita Income (in Rs.)
BDB	76.40	239100	39280.24
NKDB	155.91	465200	92035.24
SKDB	202.22	316825	54970.30
PDB	73.76	332100	73702.96
LDB	103.20	190400	38789.29
RDB	84.63	294500	56025
DDB	53.26	270000	49946.97
Sample Average	107.05	301160.71	57821.43
Standard Deviation	53.077	86839.24	19157.98

Source: Primary Field Survey 2013 (BDB=Badarpur Development Block., NKDB=North Karimganj Development Block SKDB=South-Karimganj Development Block, PDB=Patherkandi Development Block, LDB=Loaipowa Development Block. RDB=Ramkrishnanagar Development Block, DDB=Dullecherra Development Block)

Note: 1 Bigha=20 Katha.

5.1.3 Economic Characteristics of the Sample Units (Urban)

Table-5.7 shows households' average land holding in katha, income in average and Per capita Income in average of sample households of urban areas and the standard deviation of the above mentioned areas. The average size of land holding (in katha) of sample households in urban areas is 44.42 katha. The largest size of average land holding is in KMB Ward No.6 i.e.120.61 katha and in KMB Ward No.22 it is the lowest i.e. 4.29 katha. Average annual family income of the sample households is Rs.381119.28. The highest average annual family income is in BMB Ward No.11 i.e. Rs. 610000 and the lowest average family income is in KRC i.e. Rs.218666.67. Average annual per capita income of sample households in urban areas is Rs.82929.81. The highest average annual per capita income is in BMB Ward No.11 i.e. Rs.140500 and in BMB Ward No.3 it is lowest i.e. Rs.46166.67.

The Standard deviation of variables average land holding in katha, average family income in Rs. and average per capita income in Rs. are also estimated for rural and urban areas and are shown in Table 5.6 and Table 5.7 respectively. The comparison between these two sets of values revealed that there is more variability in case of average land holding in rural areas. However, in case of average family income and average per capita income, much higher variation is observed in urban areas in comparison to rural areas of the district implying higher degree of income disparity in urban areas.

Table-5.7: Economic Characteristics of the Sample Households (Urban)

Block	Average Land Holding (in katha)	Average Family Income (in Rs.)	Average Percapita Income (in Rs.)
BMB Ward No.1	34.39	349428.57	65785.71
BMB Ward No.2	52.87	487200	125173.33
BMB Ward No.3	88.67	237142.86	46166.67
BMB Ward No.4	55.76	446400	69574.60
BMB Ward BRTC	14.29	389333.33	84902.78
KMB Ward No.3	33.23	414142.86	104026.08
KMB Ward No.4	59.57	573300	117042.86
KMB Ward No.6	120.61	379500	88126.85
KMB Ward No.11	43.18	610000	140500
KMB Ward No.14	20.48	369555.56	69518.52
KMB Ward No.22	4.29	242000	57500
KMB Ward No.24	7.86	342000	78250
KMB Ward No.26	20.93	277000	64783.33
KRC	65.72	218666.67	49666.67
Sample Average	44.42	381119.28	82929.81
Standard Deviation	32.644	119607.9	28885.02

Source: Primary Field Survey 2013 (BMB= Badarpur Municipality Board, KMB= KarimganjMunicipality Board, KRC= Karimganj Railway Colony)

Note: 1 Bigha=20 Katha

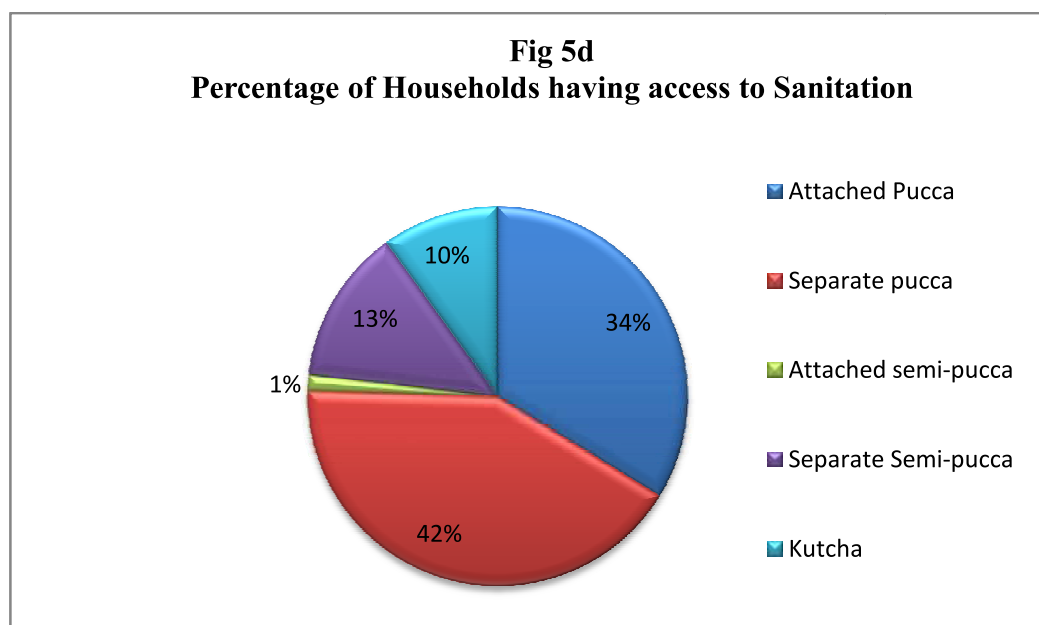
5.1.4 Percentage of Households having access to Sanitation

Table –5.8 shows the Percentage of Households having access to Sanitation. In the study area, highest number of the rural households is having separate pucca sanitation. i.e., 42 percent followed by attached pucca i.e. 13.33 percent, kutchha 10 percent and attached semi-pucca 1.33 percent. In regard to sanitation system in urban areas, there is no household having kutchha sanitation as well as attached semi-pucca sanitation system in the household. Highest number of households are having attached pucca sanitation i.e. 77 percent followed by separate pucca sanitation i.e. 21 percent and separate semi-pucca sanitation in 2%.households only.

Table-5.8: Percentage of Households having access to Sanitation

Area	Attached Pucca	Separate pucca	Attached semi-pucca	Separate Semi-pucca	Kutchha
Rural	34%	42%	1.33%	13.33%	10%
Urban	77%	21%	0	2%	0
Total	51.2%	33.6%	0	8.798%	6%

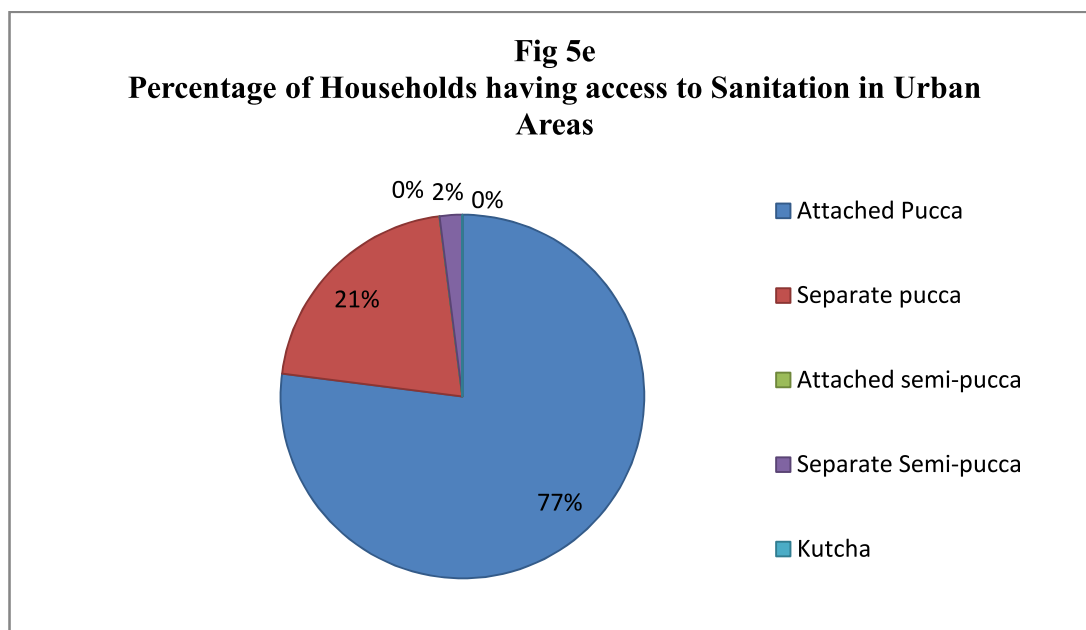
Source: Primary Field Survey 2013



Source: Primary Field Survey 2013

The Fig 5d shows the picture of rural areas where percentage of Households having access to Sanitation is highest in case of separate pucca (42 percent) and percentage of Households having access to Sanitation in attached semi-pucca system is the lowest at 1 percent only.

Fig 5e shows the picture of urban areas. The percentage of Households having access to attached sanitation is the highest at 77 percent and the lowest percentage of Households are having access to Sanitation is separate semi-pucca (2 percent) system.



Source: Primary Field Survey 2013

5.1.5 Percentage of Households having Access to Electricity

Table 5.9 shows the Percentage of Households having access to Electricity in both rural and urban areas of the district. In case of rural areas, 86.87 percent households are having electricity in the study whereas only 13.33 percent households have no-electricity. Again in case of urban areas, there is no household without electricity. All households in urban areas are having electricity in their houses.

Table-5.9: Percentage of Households having Access to Electricity

Area	Yes	No
Rural	86.67%	13.33%
Urban	100%	0

Source: Primary Field Survey 2013

5.1.6 Percentage distribution of Sample Households on the Basis of their Sources of Drinking Water

Table-5.10 shows the Source of Drinking Water of Sample Households in terms of percentage in both rural and urban areas. In case of rural areas, 64 percent households have Deep tube well, 40 percent households have pond and well and 28.67 percent households have water supply. Furthermore, 31.33 percent households are having these sources of drinking water inside their houses whereas 68.67 percent households are having these sources of drinking water outside their houses. In case of urban areas of Karimganj, 93 percent households are having water supply and 83 percent households are having deep tube well. Further, 84 percent households in urban areas are having these drinking water sources inside their houses and only 16 percent households are having these drinking water sources outside their houses.

Table-5.10: Percentage distribution of Sample Households on the Basis of their Source of Drinking Water

Area	Pond and Well	Supply	Deep Tube Well	Others	Inside House	Outside House
Rural	40%	28.67%	64%	0	31.33%	68.67%
Urban	0	93%	83%	0	84%	16%
Total	24%	54.4%	71.6%	0	52.4%	47.6%

Source: Primary Field Survey 2013

5.1.7 Distribution of Sample Households according to Their Possession of Number of Assets

Table-5.11 shows distribution of Sample households according to ownership of Number of Assets in both rural and urban areas. In rural areas, 6 to 9 assets are available in maximum households (71 in number) followed by 4 to 5 assets in 43 households and 1 to

3 assets in 26 households. No household is there that is having 15 to 17 assets. Only few households (i.e., 10 in number) are having 10 to 14 assets. In case of urban areas, maximum households (52 in number) have 6 to 9 assets followed by 10 to 14 assets in 22 households and 4 to 5 assets in 16 households. Only 10 households have 1 to 3 assets. No household is there that is having 15 to 17 assets in urban areas also.

Table-5.11: Distribution of Sample Households according to Possession of Number of Assets

Number of Assets under Position	Number of Households	
	Rural	Urban
1 – 3	26	10
4-5	43	16
6-9	71	52
10-14	10	22
15-17	0	0
Total	150	100

Source: Primary Field Survey 2013 *Out of 17 Selected assets (1=Electric Iron, 2=Fans, 3=Sewing machine, 4= washing machine, 5=Television, 6=Tape recorder, 7=VCR/VCD/DVD, 8=Computer, 9= Air cooler, 10=Refrigerator, 11= Cell/land phone, 12=Micro oven, 13=Air conditioner, 14=Vacuum cleaner, 15=Geysers, 16=Two Wheeler, 17= Four wheeler.)

5.1.8 Distribution of Sample Households according to their Average of Number of rooms

Table-5.12 shows distribution of sample households according total number of rooms in both rural and urban areas. In case of rural areas, highest number of households have 4 to 5 rooms i.e., 68 households followed by 42 households which have 1 to 3 rooms and 38 households have 6 to 9 rooms. Only 2 households have 10 to 14 rooms. No households have 15 to 17 rooms in rural areas in the study. In case of urban areas, maximum households have 4 to 5 rooms i.e. 49 households followed by 25 households which have

6 to 9 rooms and 20 households have 1 to 3 rooms. Only 5 households have 10 to 14 rooms and only one household has 15 rooms in urban Karimganj in the study.

Table-5.12: Distribution of Sample Households according to Average Number of rooms

Number of rooms in the House	Number of Households	
	Rural	Urban
1 - 3	42	20
4-5	68	49
6-9	38	25
10-14	2	5
15-17	0	1

Source: Primary Field Survey 2013

5.2 Mother’s Empowerment Level: Principal Component Analysis

This section estimates the results by applying Principal Component Analysis for determining the level of mother’s empowerment of Karimganj District as at the time of survey period.

5.2.1 Application of PCA to construct the indices of different component of Mother’s Empowerment and to find the Relative Weights of the Selected Indicators of mother’s empowerment regarding different components of empowerment in Karimganj District of Assam

(a) Mother’s Decision making Power within Family (MDMPWFI)

The Factor Analysis Results of Decision Making Power within Family is shown in Table-5.13 and 5.14. **Table 5.13** shows the KMO-Bartlett’s test which is significant implying application of factor analysis is possible.

Table-5.13: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.813
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	910.750
	36
	.000

Table-5.14: Factor Analysis Results of Mother's Decision Making Power within Family

SI No.	Variables	Factor1	Factor 2	Communalities	Weight	Weight (%)
1	FHC	0.663	-0.122	0.455	29.095755	11.17
2	MLHP	0.756	-0.105	0.583	33.17706	12.73
3	MRHP	0.722	0.068	0.526	31.68497	12.16
4	FS	-0.242	0.861	0.800	15.336993	5.89
5	FPS	0.104	0.889	0.800	15.835757	6.08
6	JOW	0.744	-0.103	0.564	32.65044	12.53
7	GOH	0.793	-0.172	0.659	35.800805	13.74
8	FDTDE	0.747	0.019	0.559	32.782095	12.58
9	SPI	0.779	0.028	0.607	34.186415	13.12
Percentage of Variance Explained		43.885	17.813			
Cumulative Variance		43.885	61.697		Total=260.55	Total=100

Rotated Component Matrix (for Two Factors): Principal Component Analysis.

Table 5.14 represents Factor Analysis results of Mother's Decision Making Power within Family of Karimganj district of Assam in terms of factor loadings and communalities for nine selected variables. The objective weights worked out for the variables are given in column six and seven. Again two 'Factors' are derived from nine selected variables. First 'Factor' and second 'Factor' have explained 43.89 percent and 17.81 percent respectively of the total variance and they together have explained 61.70 percent of the total variance. Communalities of most of the variables are more than 55 percent. Hence the two factors derived are sufficient for explaining the variations in the original variables. All variables

are strongly associated with first ‘Factor’ which have explained 43.89 percent of total variance. Only two variables are significantly associated with second ‘Factor’ that have explained only 17.81 percent of total variance. Thus, objective weights of first, second, third, sixth, seventh, eighth and ninth variables are factor loading of first factor weighted by variance explained by this factor. In this case the first Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. Similarly, objective weights of fourth and fifth variables are factor loading of second factor weighted by variance explained by this factor. In this case the second Principal Component is proved to be a guiding principle for assigning the weights to fourth and fifth variables. The objectives weights so have derived are varied in a range of 35.800805 and 15.336993. From the Table-5.14, it is clear that ‘Family Size (FS)’ has the lowest weight and ‘Going Outside of Home (GOH)’ has the highest weight indicating that decision of mother regarding ‘Going Outside of Home (GOH)’ within family has improved the empowerment level of mother. By using the weights a composite index is estimated.

The formula of the index is

$$E_m = \frac{\sum Z_i W_i}{\sum W_i} \dots \dots \dots (1) \quad \forall i = 1, 2, \dots \dots \dots 9$$

Where, E_m is the composite index of mothers’ empowerment regarding Decision making within Family, Z_i is the i th aspect of empowerment and W_i is the weight of the i th aspect derived from Factor Analysis. The index value is calculated for each household. Further, for comparison the index is standardized to a scale of 0 to 1. Standardized index of j th household is

$$I_i = (H_j - H_{\text{minimum}}) / (H_{\text{maximum}} - H_{\text{minimum}}) \dots \dots \dots (2) \quad \forall j=1,2,\dots\dots j$$

Index value is 0.501 implies that there is a moderate level of empowerment of mother in Karimganj District regarding Decision making Power within family.

(b) Mother’s Freedom of Mobility (MFOMI)

The Factor Analysis Results of Mother’s Freedom of Mobility is shown in Table-5.15 and 5.16. **Table-5.15** shows the KMO-Bartlett’s test which is significant implying application of factor analysis is possible.

Table-5.15: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.756
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	569.493
	36
	.000

Table-5.16: Factor Analysis Results of Mother’s Freedom of Mobility

SI No.	Variables	Factor1	Factor 2	Factor 3	Communalities	Weight	Weight (%)
1	LMFP	0.644	0.416	0.249	0.649	16.33055	11.55
2	LHC/LDC	0.158	0.512	0.217	0.334	11.70534	8.28
3	HOR/HOF	0.004	0.498	0.699	0.736	10.17395	7.19
4	OC/OV	0.145	0.804	-0.177	0.698	18.38105	13.00
5	C/F/VF	0.128	0.769	0.057	0.611	17.58088	12.43
6	VPH	0.284	-0.099	0.673	0.544	9.795515	6.93
7	PICP	0.837	0.180	0.222	0.782	21.22465	15.01
8	PIRP	0.763	0.001	0.162	0.609	19.34815	13.68
9	PIMOWO	0.665	0.308	-0.386	0.687	16.86307	11.92
Percentage of Variance Explained		25.358	22.862	14.555			
Cumulative Variance		25.358	48.220	62.775		Total=141.40	Total=100

Rotated Component Matrix (for Three Factors) Principal Component Analysis.

Table-5.16 represents Factor Analysis results of Mother’s Freedom of Mobility in Karimganj district of Assam in terms of factor loadings and communalities for nine

selected variables. The objective weights have worked out for the variables are given in column seven and eight. Again three 'Factors' are derived from nine selected variables. First 'Factor', second 'Factor' and third 'Factor' have explained 25.36 percent, 22.86 percent and 14.56 percent respectively of the total variance and they together have explained 62.78 percent of the total variance. Communalities of most of the variables are more than 60 percent. Hence the three factors have derived are sufficient for explaining the variations in the original variables. Four variables are strongly associated with first Factor which has explained 25.36 percent of the total variance. Three variables are significantly associated with second 'Factor' that has explained only 22.86 percent of the total variance and only two variables are significantly associated with third 'Factor' that has explained only 14.56 percent of the total variance. Thus, objective weights of first, seventh, eighth and ninth variables are factor loading of first factor weighted by variance explained by this factor. In this case the first Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. Similarly, objective weights of second, fourth and fifth variables are factor loading of second factor weighted by variance explained by this factor. In this case the second Principal Component is proved to be a guiding principle for assigning the weights to second, fourth and fifth variables. Lastly, objective weights of third and sixth variables are factor loading of third factor weighted by variance explained by this factor. In this case the third Principal Component is proved to be a guiding principle for assigning the weights to third and sixth variables. The objectives weights so have derived are varied in a range of 21.22465 and 9.795515. From the Table-5.15 it is clear that 'Visiting Parental Home (VPH)' has lowest weight and 'Participation in Cultural Programme (PICP)' has highest

weight indicating that ‘Participation in Cultural Programme (PICP)’ has improved the empowerment level of mother.

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). Index value is 0.561 implies that there is also a moderate level empowerment of mother of Karimganj District regarding their Freedom of Mobility.

(c) Mother’s Political Participation (MPPI)

The Factor Analysis Results of Mother’s Political Participation is shown in Table-5.17 and Table-5.18. **Table-5.17** shows the KMO-Bartlett’s test which is significant. Thus, application of factor analysis is possible.

Table-5.17: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.733
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	440.962
	21
	.000

Table-5.18: Factor Analysis Results of Political Participation of Mother

SI No.	Variables	Factor1	Factor 2	Communalities	Weight	Weight (%)
1	CVIE	-0.098	0.674	0.464	18.86459	11.86751
2	VCOOC	0.120	0.798	0.651	22.33522	14.05084
3	ASEC	0.842	0.094	0.718	27.35742	17.21026
4	UACPS	0.362	0.625	0.522	17.49313	11.00473
5	DPOLPF	0.851	0.164	0.752	27.64984	17.39421
6	FHCIE	0.821	0.028	0.674	26.67511	16.78102
7	SWCEOP	0.110	0.664	0.453	18.5847	11.69143
Percentage of Variance Explained		32.491	27.989			
Cumulative Variance		32.491	60.480		Total=158.96	Total=100

Rotated Component Matrix (for Two Factors): Principal Component Analysis.

Factor Analysis results of Mother's Political Participation Index of Karimganj district of Assam in terms of factor loadings and communalities for seven selected variables are shown in Table-5.18. The objective weights have worked out for the variables are given in column six and seven. Again two 'Factors' are derived from seven selected variables. First 'Factor' and second 'Factor' have explained 32.49 percent and 27.99 percent respectively of the total variance and they together have explained 60.48 percent of the total variance. Communalities of most of the variables are more than 60 percent. Hence the three factors have derived are sufficient for explaining the variations in the original variables. Three variables are strongly associated with first Factor which have explained 32.49 percent of the total variance and the rest four variables are significantly associated with second 'Factor' that have explained only 27.99 percent of the total variance. Thus, objective weights of third, fifth and sixth variables are factor loading of first factor weighted by variance explained by this factor. In this case the first Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. Similarly, objective weights of first, second, fourth and seventh variables are factor loading of second factor weighted by variance explained by this factor. In this case the second Principal Component is proved to be a guiding principle for assigning the weights to first, second, fourth and seventh variables. The objectives weights so have derived are varied in a range of 27.64984 and 17.49313. From the Table-5.17 it is clear that the variable 'Update herself About Changing Political Situation (UACPS)' has lowest weight and 'Discuss the Problems of Local People at any Forum (DPOLPF)' has highest weight indicating that the attribute 'Discuss the Problems of Local People (DPOLPF)' at any Forum' has improved the empowerment level of mother regarding political participation.

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). Index value is 0.459 which implies that there is low level of empowerment of mother regarding Political Participation in Karimganj District.

(d) Mother’s Decision Regarding Control over Economic Resources (MDRCOERI)

The Factor Analysis Results of Mother’s Decision Regarding Control over Economic Resources is shown in Table -5.19 and 5.20. **Table-5.19** shows that the KMO-Bartlett’s test which is significant. Therefore, application of factor analysis is possible.

Table-5.19: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.809
Bartlett's Test of Sphericity	Approx. Chi-Square
	Df
	Sig.
	643.218
	45
	.000

Table-5.20: Factor Analysis Results of Mother’s Decision Regarding Control over Economic Resources

SI No.	Variables	Factor1	Factor 2	Communalities	Weight	Weight (%)
1	RHS	0.666	0.187	0.478	17.40191	9.725624
2	PJ/B/S	0.162	0.759	0.602	19.54425	10.92294
3	PGFR	0.496	0.369	0.382	12.95998	7.243108
4	COEFPDN	0.680	-0.009	0.463	17.76772	9.930067
5	PCMA	0.645	0.203	0.457	16.85321	9.418961
6	CWOCFU	0.642	0.030	0.413	16.77482	9.375152
7	S/EOL	-0.017	0.851	0.725	21.91325	12.24693
8	E/EOC	0.722	0.184	0.556	18.86514	10.54339
9	PDF	0.248	0.675	0.518	17.38125	9.714076
10	POL	0.151	0.756	0.594	19.467	10.87976
Percentage of Variance Explained		26.129	25.750			
Cumulative Variance		26.129	51.879		Total=178.93	Total=100

Rotated Component Matrix (for Two Factors): Principal Component Analysis.

Factor Analysis results of Mother's Decision Regarding Control over Economic Resources of Karimganj district of Assam in terms of factor loadings and communalities for ten selected variables are shown in **Table-5.20**. The objective weights worked out for the variables are given in column six and seven. Again two 'Factors' are derived from ten selected variables. First 'Factor' and second 'Factor' have explained 26.13 percent and 25.75 percent respectively of the total variance and they together have explained 51.88 percent of the total variance. Only two variables have communality value more than required level of 60 percent. Six variables are strongly associated with first Factor which has explained 26.13 percent of the total variance and the rest four variables are significantly associated with second 'Factor' that has explained only 25.75 percent of the total variance. Thus, objective weights of first, third, fourth, fifth, sixth and eighth variables are factor loading of first factor weighted by variance explained by this factor. In this case the first Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. Similarly, objective weights of second, seventh, ninth and tenth variables are factor loading of second factor weighted by variance explained by this factor. In this case the second Principal Component is proved to be a guiding principle for assigning the weights to second, seventh, ninth and tenth variables. The objectives weights so have derived are varied in a range of 21.91325 and 12.95998. From the Table-5.19 it is clear that the variable 'Purchasing Gifts for Relatives (PGFR)' has lowest weight and 'Sale or Exchange of Land (S/EOL)' has highest weight indicating that decision of mother regarding 'Sale or Exchange of Land (S/EOL)' has improved the empowerment level of mother in the area of her Control over Economic Resources.

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). Index value is 0.514 which implies that there is moderate level of empowerment of mother regarding her Control over Economic Resources or economic matter in Karimganj District.

(e) Husband’s Cooperation with Wife (Husband’s Relation with Wife) (HRWWI)

The Factor Analysis Results of Husband’s Cooperation with wife is shown in Table-5.21 and 5.22. **Table-5.21** shows the KMO-Bartlett’s test which is significant so application of factor analysis is possible.

Table-5.21: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.897
Bartlett's Test of Sphericity	Approx. Chi-Square
	2331.454
	Df
	55
	Sig.
	.000

Table-5.22: Factor Analysis Result of Husband’s Relation with Wife

SI. No.	Variables	Factor1	Factor 2	Communalities	Weight	Weight (%)
1	HDWWP	0.934	0.178	0.904	43.37683	12.50973
2	HHHW	0.103	0.693	0.491	17.60081	5.076014
3	HSPWW	0.647	0.461	0.631	30.04797	8.665732
4	HRWP	0.916	0.093	0.849	42.54087	12.26864
5	HAWHW	0.279	0.721	0.598	18.31196	5.281105
6	HTCOW	0.901	0.147	0.833	41.84424	12.06773
7	HGITWO	0.700	0.495	0.736	32.5094	9.375598
8	HTW	0.920	0.121	0.861	42.72664	12.32222
9	HIWM	0.200	0.701	0.532	17.804	5.134611
10	HHWC	0.053	0.833	0.697	21.15653	6.101471
11	HAWTGOH	0.836	0.271	0.772	38.82551	11.19714
Percentage of Variance Explained		46.442	25.398			
Cumulative Variance		46.442	71.840		Total=346.7448	Total=100

Rotated Component Matrix (for Two Factors): Principal Component Analysis.

Factor Analysis results of Husband's Relation with Wife variable of Karimganj district of Assam in terms of factor loadings and communalities for eleven selected variables are shown in Table-5.22. The objective weights worked out for the variables are given in column six and seven. Again two 'Factors' are derived from eleven selected variables. First Factor and second Factor have explained 46.44 percent and 25.40 percent respectively of the total variance and they together have explained 71.84 percent of the total variance. Only three indicators have communality value less than required level of 60 percent signifying the fact that factors derived from variables are sufficient to account for most of the variations. Seven variables are strongly associated with first Factor which have explained 46.44 percent of the total variance and the rest four variables are significantly associated with second 'Factor' that have explained only 25.40 percent of the total variance. Thus, objective weights of first, third, fourth, sixth, seventh, eighth and eleventh variables are factor loading of first factor weighted by variance explained by this factor. In this case the first Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. Similarly, objective weights of second, fifth, ninth and tenth variables are factor loading of second factor weighted by variance explained by this factor. In this case the second Principal Component is proved to be a guiding principle for assigning the weights to second, fifth, ninth and tenth variables. The objectives weights so have derived are varied in a range of 43.37683 and 17.60081. From the Table-5.22 it is clear that the variable 'Husband's Helps in Household Works (HHHW)' has lowest weight and 'Husband Deals With Wife Politely (HDWWP)' has highest weight indicating that husband's polite behaviour has improved the empowerment of mother (wife in this case).

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). The overall index value is 0.742 which implies that there is moderately high level of empowerment of mother of Karimganj district regarding the constituent Husband's Cooperation.

(f) Mother's willingness for Change (in respect to some selected aspects) (WWCI)

The Factor Analysis Results of Women willingness for change is shown in Table-5.23 and Table-5.24. **Table-5.23** shows the KMO-Bartlett's test which is significant. Therefore, application of factor analysis is possible.

Table-5.23: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.728
Bartlett's Test of Sphericity	Approx. Chi-Square
	3
	Df
	10
	Sig.
	.000

Table-5.24: Factor analysis Results of Mother's Willingness for Change

Sl. No.	Variables	Factor1	Factor 2	Communalities	Weight	Weight (%)
1	WRSLAW	0.190	0.892	0.831	30.34762	18.91459
2	HEDNFW	0.203	0.883	0.821	30.04143	18.72375
3	WATGFJ	0.793	0.262	0.698	32.58516	20.30917
4	WTJWO	0.832	0.223	0.741	34.18771	21.30798
5	HSHWWW	0.810	0.089	0.664	33.28371	20.74455
Percentage of Variance Explained		41.091	34.022			
Cumulative Variance		41.091	75.113		Total=160.45	Total=100

Rotated Component Matrix (for Two Factors): Principal Component Analysis.

Factor Analysis results of Women willingness for change in Karimganj district of Assam in terms of factor loadings and communalities for five selected variables are shown in

Table-5.24. The objective weights worked out for the variables are given in column six and seven. Again two 'Factors' are derived from ten selected variables. First 'Factor' and second 'Factor' have explained 41.09 percent and 34.02 percent respectively of the total variance and they together have explained 75.11 percent of the total variance. Only two indicators have communality value less than required level of 60 percent signifying the fact that factors derived from variables are sufficient to account for most of the variations. Three variables are strongly associated with first Factor which have explained 41.09 percent of the total variance and two variables are significantly associated with second 'Factor' that have explained only 34.02 percent of the total variance. Thus, objective weights of third, fourth, and fifth variables are factor loading of first factor weighted by variance explained by this factor. In this case the first Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. Similarly, objective weights of first and second variables are factor loading of second factor weighted by variance explained by this factor. In this case the second Principal Component is proved to be a guiding principle for assigning the weights to first and second variables. The objectives weights so have derived are varied in a range of 34.18771 and 30.04143. From the Table-5.24 it is clear that the variable, 'Higher Education is Necessary For Women (HEDNFW)' has lowest weight and 'Women Should Be Allowed To Join Women Associations Or Organizations (WATJWO)' has highest weight indicating that women willingness for change about joining Women Associations Or Organizations will improve the empowerment level of women.

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). The index value is calculated

for each household. The overall index value in this area is 0.719 implies that there is moderately high level of empowerment of mother regarding willingness for change in Karimganj District.

Mother's Empowerment Index (MEI)

The overall Mother's Empowerment Index (MEI), taking the above selected constituents (a, b, c, d, e and f above) only, is measured by assigning equal weight to each of the above six aspects of participation/ decision making. Therefore,

$$\text{MEI} = 1/6 [\text{MDMPWFI} + \text{MFOMI} + \text{MPPI} + \text{MDRCOERI} + \text{HRWWI} + \text{MWFCI}].$$

The value of Mother's Empowerment Index (MEI) is 0.583 which implies that there is a medium or moderate level of empowerment of mothers in Karimganj district of Assam.

5.3. Regression Analysis to identify factors affecting Mother's Empowerment Level

For identifying the factors affecting Mother's Empowerment level, descriptive analysis and Ordinary Least Squares (OLS) method is used for regression analysis where Mother Empowerment Index (MEI) is the dependent variable and Mother's Education (MEDU), Religion (RLGN), Family Type (FT), Mother's Age (MA), Place of Residence (POR), Category (CATRYOBC), Category (CATRYSC), Property Owned by Mother (POM), Husband living with wife, (HLWW), Mother's Have bank or post office account. (MBPA) and Mother's Yearly Income (MYI) are the independent variables. The R-square value is used to show the percentage of total variation in dependent variable that can be explained by the selected independent variables. The regression equation is specified as,

$$Y = \alpha + \beta_1 \text{MEDU} + \beta_2 \text{RLGN} + \beta_3 \text{FT} + \beta_4 \text{M} + \beta_5 \text{POR} + \beta_6 \text{D}_1 \text{CARTYOBC} + \beta_7 \text{D}_2 \text{CARTYSC} + \beta_8 \text{POM} + \beta_9 \text{HLWW} + \beta_{10} \text{MBPA} + \beta_{11} \text{MYI} + \mu$$

Here α is the constant term, β_j 's are the regression coefficients and μ is the random disturbance term.

5.3.1 Results and Interpretation of Results

The descriptive statistics and the regression results are presented in Table-5.25 and Table-5.26 respectively. The Descriptive Statistics Table-5.25 reveals that the sample size is 250. The Mean MEI value is 0.5827 with SD value of 0.16101. These figures indicate that the average Mother's Empowerment Index value is moderately high. The average Mother's Yearly Income (MYI) is found to be on the lower side. However, there exists high level of income disparity as reflected by the SD value of MYI. The average education level of mothers (only target group) is found to be on the higher side at 10.12 completed years of education with high SD at 3.10 which implies that there is high level of disparity in the educational attainments of mothers. The mean value of Mother's Age (MA) indicates that the respondent mothers largely belong to older cohorts. The low SD value of this variable substantiates this point. Apart from mother's Yearly Income (MYI), the variable POM (number of property owned by mother) also reflects on the economic condition of the respondents. The low value of this variable along with low value of MYI indicated the poor economic conditions of mothers of the study area. The dummy variables also throw important light on the characteristics of the sample units. For example, the mean value of the variable representing religion (RLGN) shows that 68 percent of the respondent women are Hindu by Religion. Similarly, the mean value of the

variable Family Type (FT) shows that 62 percent of the households of the respondents are nuclear in type.

Table 5.25: Descriptive Statistics of Selected Variables N=250

Variables	Mean	Std. Deviation
MEI	0.5827	0.16101
MEDU	10.1200	3.10227
RLGN	0.6800	0.46741
FT	0.6240	0.48535
MA	43.8160	5.76847
POR	0.4000	0.49088
D ₁ CARTYOBC	0.1360	0.42689
D ₂ CARTYSC	0.1200	0.32561
POM	1.4560	0.80664
HLWW	0.9240	0.28025
MBPA	0.6080	0.50533
MYI	51544.0000	99203.25199

**Table 5.26: Regression Results of the Factors Affecting Mother's Empowerment.
Dependent Variable: MEI**

Variables	Coefficients	Std. Error	t-value	P- Value	Colinearity Statistics	
					Tolerance	VIF
(Constant)	0.054	0.058	0.936	0.350	-----	-----
MEDU	0.028*	0.003	10.103	0.000	0.499	2.002
RLGN	0.066*	0.016	4.177	0.000	0.686	1.458
FT	0.001	0.013	0.110	0.912	0.928	1.078
MA	0.003*	0.001	2.647	0.009	0.816	1.226
POR	0.015	0.014	1.044	0.297	0.777	1.288
D ₁ CARTYOBC	0.008	0.015	0.503	0.615	0.886	1.129
D ₂ CARTYSC	0.016	0.020	0.802	0.423	0.860	1.163
POM	0.024**	0.011	2.261	0.025	0.507	1.972
HLWW	0.003	0.022	0.146	0.884	0.959	1.042
MBPA	0.018	0.015	1.228	0.221	0.671	1.490
MYI	4.15E-008	0.000	0.503	0.615	0.561	1.783
Adjusted R ² =0.639	*significant at 1% level					
F value=41.089	** significant at 5% or less than 5% level					

The regression result is presented in Table-5.26. The variables included in the model as explanatory variables, together explain 64 percent of the variation in the values of the dependent variable (adjusted $R^2 = 0.639$) and The F-value is found statistically significant at 1 percent level implying good model fit. The results therefore, can be accepted for further analysis and interpretation.

From the regression result it is found that all the variables have positive influence on Mother's Empowerment Index. Religion (RLGN) has significant positive influence on MEI implying that mothers of Hindu religion are more empowered than Muslims. Education Level of mother has also significant positive influence on MEI implying that educated mothers have higher level of empowerment. Mother's Age has also significant positive influence on MEI implying mothers belonging to older cohorts have higher level of empowerment. POM has also significant positive influence on MEI. The other variables i.e., FT, POR, D₁CATRYOBC, D₂CATRYSC, HLWW, MBPA, RYI, have no significant influence on MEI.

5.4 Mother's Decision Making Power Regarding Children Education (MDMPCEDUI)

To find impact of mother's decision making power regarding children's education, another index i.e. Mother's Decision Making Power Regarding Children Education Index is constructed by using Factor Analysis. This index is separately calculated for male and female children in a household. This is because mother's opinion regarding her male and female children (child) was recorded separately at the time of survey.

The Factor Analysis Results of Mother’s Decision Making Power Regarding Male Children Education is shown in Table-5.27 and Table-5.28. **Table-5.27** shows the KMO-Bartlett’s test which is significant implying application of factor analysis is possible.

Table- 5.27:- KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.	.894
Bartlett's Test of Sphericity	2460.705
Approx. Chi-Square	15
Df	.000
Sig.	

Table- 5.28: Factor Analysis Results of Mother’s Decision Making Power Regarding Male Children’s Education

SI. No.	Variables	Factor1	Communalities	Weight	Weight (%)
1	SOS/SOCFMC	0.940	0.883	83.34	16.64
2	SOCOSFMC	0.952	0.907	84.41	16.85
3	AMCFS/CRM	0.958	0.917	84.94	16.96
4	HEDUMC	0.957	0.916	84.85	16.94
5	MMC	0.939	0.881	83.26	16.62
6	CBMHEDUMC	0.903	0.815	80.06	15.98
Percentage of Variance Explained		88.664			
Cumulative Variance		88.664		Total=500.86	Total=100

Extraction Method (for One Factor): Principal Component Analysis.

Factor Analysis results of Mother’s Decision Making Power Regarding Male Children’s Education of Karimganj district of Assam in terms of factor loadings and communalities for six selected variables are shown in Table-5.28. The objective weights worked out for the variables are given in column five and six. Only one ‘Factor’ is derived from six selected variables. The Factor has explained 88.66 percent of the total variance. All the indicators have communality value greater than required level of 60 percent signifying the fact that factor derived from variables is sufficient to account for most of the variations. All the variables are strongly associated with the Factor which explained

88.66 percent of total variance. Thus, objective weights of six selected variables are factor loading of the factor weighted by variance explained by this factor. In this case only one Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. The objectives weights so have derived are varied in a range of 84.94 and 80.06. From the Table-5.28 it is clear that Decision Making Power of Mother Regarding ‘Choice between Marriage and ‘Higher Education of Male Child (CBMHEDMC)’ has lowest weight and Decision Making Power of Mother Regarding ‘Accompany Male Child for School or College Related Matters (AMCFS/CRM)’ has highest weight.

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). The index value is calculated for each household. The overall index value is 0.690 implies that there is moderately high level of decision making power of mother of Karimganj district regarding their male children’s education.

The Factor Analysis Results of Mother’s Decision Making Power Regarding Female Children’s Education is shown in Table-5.29 and Table-5.30. **Table-5.29** shows the KMO-Bartlett’s test which is significant. Therefore, application of factor analysis is possible.

Table- 5.29: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.900
Bartlett's Test of Sphericity	Approx. Chi-Square	2937.545
	Df	15
	Sig.	.000

Table-5.30: Factor Analysis Results of Mother’s Decision Making Power Regarding Female Children’s Education

SI. No.	Variables	Factor1	Communalities	Weight	Weight (%)
1	SOS/SOCFFC	0.957	0.915	88.55	16.68
2	SOCOSFFC	0.969	0.939	89.66	16.89
3	AFCFS/CRM	0.969	0.939	89.66	16.89
4	HEDUFC	0.969	0.939	89.66	16.89
5	MFC	0.961	0.923	88.92	16.75
6	CBMHEDUFC	0.946	0.895	87.53	16.48
Percentage of Variance Explained		92.525			
Cumulative Variance		92.525		Total=530.98	Total=100

Extraction Method (for One Factor): Principal Component Analysis.

Factor Analysis results of Mother’s Decision Making Power Regarding Female Children’s Education of Karimganj district of Assam in terms of factor loadings and communalities for six selected variables are shown in Table-5.30. The objective weights worked out for the variables are given in column five and six. Only one ‘Factor’ is extracted from six selected variables. The Factor explained 92.53 percent of the total variance. All the indicators have communality value greater than required level of 60 percent signifying the fact that factor derived from variables was sufficient to account for most of the variations. All the variables are strongly associated with the Factor which explained 92.53 percent of total variance. Thus, objective weights of six selected variables are factor loading of the factor weighted by variance explained by this factor. In this case only one Principal Component is proved to be a guiding principle for assigning the weights to the mentioned variables. The objectives weights so have derived are varied in a range of 89.66 and 87.53. From the Table-5.30 it is clear that Decision Making Power of Mother Regarding ‘Choice Between Marriage And Higher Education of Female

Child (CBMHEDUFC)' has lowest weight and Decision Making Power of Mother Regarding 'Selection Of Course Of Studies For Female Children (SOCOSFFC)', 'Accompany Female Child For School Or College Related Matters (AFCFS/CRM)', and decision regarding 'higher education of female children (HEDUFC)', all these three variables have higher weights.

A composite index is developed by using the formula as given in equation (1) and standardized by using the formula as given in equation (2). The index value is calculated for each household. The overall index value is 0.589 implies that there is moderately higher level of decision making power of mother of Karimganj district regarding decision about female children's education.

5.5 Result of t test with Analysis

The result of the t test for small sample, as detailed in chapter-iv are presented below with analysis.

The hypothesis that the means are equal i.e. mean of male children's education= mean of female children's education. $H_0: (\mu_1 = \mu_2)$ is tested against alternative hypothesis $H_1: (\mu_1 \neq \mu_2)$

If two population standard deviations are assumed to be equal, an unbiased estimator of the common variance is given by.

$$s^2 = \frac{n_1 S_1^2 + n_2 S_2^2}{n_1 + n_2 - 2}$$

Where S_1 and S_2 are the sample standard deviations. Thus the statistic is

$$t = \frac{\bar{x}_1 - \bar{x}_2}{s \sqrt{\frac{1}{n_1} + \frac{1}{n_2}}}$$

Five age group of children are categorized and the test is applied in five different age groups of children. The Table-5.31 shows that at the age group 14-16 of children, total number of children is 58, average empowerment of mother is 0.54. Average decision making power of mother regarding male children's education is 0.76 and for female children it is 0.75. Average education of male children is 9.35 years and average education of female children is 9.21 years. The t test result for this group of children is insignificant which implies that there is no significant difference between the mean education of male and female children at moderate level of mother's empowerment. In the next age group 17-18, total number of children is 42; average empowerment of mother is 0.55. Average decision making power of mother regarding male children's education is 0.84 and for female children it is 0.61. Average education of male children is 11.33 years and average education of female children is 10.48 years. The t test result for this group of children is significant at 1% level which implies that there is a significant difference between the mean education level of male and female children and in this category the empowerment level of mother is higher than the previous category of children. It implies that as empowerment level of mother increases children education also increases and the male children's mean education becomes statistically significantly different than female children. In case of age group 19-21, total number of children is 74; average empowerment level of mother is 0.61. Average decision making power of mother regarding male children's education is 0.90 and for female children it is 0.72. Average education of male children is 13.41 years and average education of female children is 11.91 years. The t test result for this group of children is significant at less than 1% level which implies that there is a statistically significant difference in the mean education of

male and female children at high level of empowerment of mother. It implies that as empowerment of mother increases the difference in male and female children mean education becomes statistically significant. In the next age group of children i.e. 22-23, total number of children is 32, average empowerment of mother is same as the previous level i.e. 0.61. Average decision making power of mother regarding male children's education is 0.86 and for female children it is 0.81. Average education of male children is 14.94 years and average education of female children is 13.29 years. The t test result for this group of children is significant at less than 5% level which implies that there is statistically significant difference in the mean education of male and female children at high level of empowerment of mother. In the last age group of children i.e. 24-27, total number of children is 39, average empowerment level of mother is same as the previous level i.e. 0.61. Average decision making power of mother regarding male children's education is 0.91 and for female children it is 0.78. Average education of male children is 15 years and average education of female children is 12.55 years. The t test result for this group of children is significant at less than 1% level which implies that there is a statistically significant difference in the mean education of male and female children at high level of empowerment of mother.

Table-5.31: Result of t test

Age Group of Children	Number of Children	Average Empowerment of Mother	Average Decision of Mother Regarding Children Education		Average Education of Children		t- values	Significant
			Male	Female	Male	Female		
14-16	58	0.54	0.76	0.75	9.35	9.21	0.642	Insignificant
17-18	42	0.55	0.84	0.61	11.33	10.48	2.90	Significant at 1% level
19-21	74	0.61	0.90	0.72	13.41	11.91	4.05	Significant at less than 1% level
22-23	32	0.61	0.86	0.81	14.94	13.29	2.40	Significant at less than 5% level
24-27	39	0.61	0.91	0.78	15	12.55	2.95	Significant at less than 1% level

It can be concluded from Table-5.31 that the average empowerment level of mother is higher for higher cohort group of children and for this groups of children the male-female difference in the average education of children is statistically significant. This implies that there exists a statistically significant difference in the mean educational attainments of male and female children and for these corresponding groups the average empowerment level of mother is relatively higher than the group for which such difference is found to be statistically insignificant. However, except for the group of children belonging to age group 24-27, the difference in the average education of male and female children is nominal.

5.6 Relationship between Mother's Empowerment Level and Gender differential in children's educational attainments

In order to investigate the connection between mother's empowerment level and the educational attainment of male and female children, Table-5.32 is constructed by taking into consideration all the children belonging to the sample households. The age of the children are classified here into 1 year age grouping from 7 to 21 and above and for each age category the mean educational attainments of male and female children is estimated along with the average empowerment level of mother. These are shown in Table-5.32. In case of mean education of children the picture of male and female children is more or less similar. In some cases, the mean education of male children is marginally higher than that of female (for example, children of age , 8 years, 9 years, 10 years, 11 years, 14 years, 15 years, 16 years, 17 years, 21 years and above etc). In some other cases, the mean education of female children is found to be marginally higher than that of males (for example, female children of age 12, 13, 18, 19, 20). In respect to mother's average empowerment level, it is very clear from Table-5.32 that beyond category representing children of age 10 years the average mother's empowerment increases and remains moderately higher for the subsequent age categories. However, one thing is very clear from Table-5.32 that at higher ages of both male and female children, their corresponding mean educational attainment steadily increases with age and for corresponding levels, the average empowerment level of mother is also high. It means that higher empowerment level of mother improves the educational attainment of both male and female children.

Table-5.32:Age-wise Average education of Children and Average Mother’s Empowerment

Age	Number of Children		Average Education of Children		Average Empowerment of Mother (AME)	Mean Difference (MDICEDU)
	Male	Female	Male (MCAEDU)	Female (FCAEDU)		
7	2	2	1	1	0.35	0
8	1	2	2	1.5	0.27	0.5
9	2	2	4	3.5	0.46	0.5
10	6	7	4.67	4.29	0.43	0.38
11	5	6	5.2	5	0.45	0.2
12	7	15	5.71	6	0.53	-0.29
13	17	16	7.47	7.69	0.5	-0.22
14	14	16	8.29	8.13	0.52	0.16
15	35	35	8.97	8.89	0.55	0.08
16	53	61	9.86	9.62	0.6	0.24
17	25	24	10.04	10	0.58	0.04
18	34	31	11.29	11.32	0.56	-0.03
19	28	23	11.96	12.04	0.58	-0.08
20	31	27	12.42	12.89	0.57	-0.47
21&Above	150	90	12.6	12.4	0.55	0.2

In order to substantiate/negate this point the correlation coefficient is estimated between variables MCAEDU, AME and FCAEDU, AME. The results of correlation are shown in Table-5.33 and Table-5.34. Both these results show that there exists statistically significantly very high degree of association between MCAEDU and AME ($r = 0.879$ significant at 1% level). The correlation coefficient between FCAEDU and AME is also found to be positive and statistically significant at 1% as shown in Table-5.34 ($r = 0.875$, statistically significant at 1%). This point is further investigated by finding out the correlation coefficient between MDICEDU and AME. The result is shown in Table-5.35. The correlation coefficient between these two variables is found to be statistically insignificant. All these results substantiate the observation made in the preceding paragraphs that educational attainment of both male and female children has positive

association with mother’s empowerment level. But gender-wise no bias in this regard could be established.

Table-5.33: Correlations between Male Children Average Education and Average Mother’s Empowerment

		MCAEDU	AME
MCAEDU	Pearson Correlation	1	.879(*)
	Sig. (2-tailed)		.000
	N	15	15
AME	Pearson Correlation	.879(*)	1
	Sig. (2-tailed)	.000	
	N	15	15

*Correlation is significant at the 0.01 level (2-tailed).

Table- 5.33 shows the Correlations between Male Children Average Education and Average Mother’s Empowerment. The result shows that $r = 0.879$ which is significant at 1% level which means there is a positive relationship between empowerment of mother and male children average education which further implies that as the empowerment of mother increases male children’s education also increases.

Table-5.34: Correlations between Female Children Average Education and Average Mother’s Empowerment

		FCAEDU	AME
FCAEDU	Pearson Correlation	1	.885(*)
	Sig. (2-tailed)		.000
	N	15	15
AME	Pearson Correlation	.885(*)	1
	Sig. (2-tailed)	.000	
	N	15	15

* Correlation is significant at the 0.01 level (2-tailed).

Table- 5.34 shows the Correlations between Female Children’s Average Education and Average Mother’s Empowerment. The result shows that $r = 0.885$ which is significant at

1% level which means there is a positive relationship between empowerment of mother and female children's average education which further implies that as the empowerment of mother increases female children's education also increases.

Table- 5.35 shows the Correlations between Average Mother's Empowerment and Mean difference in children's education. The result shows that $r = -0.461$ which is significant at 10% level of significance. This means that as mother's average empowerment level increases the difference between male children's average education and female children's average education decreases in a statistically significant manner.

Table-5.35: Correlations between Average Mother's Empowerment and Mean Difference in Education of Children

		AME	MDICEDU
AME	Pearson Correlation	1	-0.461
	Sig. (2-tailed)		.084
	N	15	15
MDICEDU	Pearson Correlation	-0.461	1
	Sig. (2-tailed)	.084	
	N	15	15

Correlation is significant at the 0.10 level (2-tailed).

5.7 Multinomial Logistic Regression Analysis

In order to examine further the connection between children's (male and female) education and mother's empowerment level, a multinomial logistic model is constructed where the dependent variables are categorical in nature and values from 0 to 3 are assigned to the categorical variables as shown below. Here the model is based on a subsample which is drawn as follows. One child from each household is drawn at random.

Dependent variable: Children's Education in categorical form as,

Completion of elementary including illiterate = 0, Up to Completion of high school = 1,

Up to completion of higher secondary = 2, Up to completion of graduation and above = 3

The set of independent variables used in the multinomial logistic model is comprised of the following variables:

(1) Mother's Empowerment Level (MEI which is the index value of the mother's empowerment level),

(2) Mother's Age (MA),

(3) Mother's Educational Decision Making Power Regarding male/female child (MDRMC/ MDRFC) and

(4) Annual Family Income (AFI) in Rs.

Table-5.36: Multinomial Logistic Regression Result

Variables	Male			Variables	Female		
	Up to completion of high school (versus up to elementary including illiterate)	Up to completion of higher secondary (versus up to elementary including illiterate)	Above Higher secondary (Versus up to elementary including illiterate)		Up to completion of high school (versus up to elementary including illiterate)	Up to completion of higher secondary (versus up to elementary including illiterate)	Above Higher secondary (Versus up to elementary including illiterate)
MEI	-0.09035	7.171915	-0.64296	MEI	8.1479	10.051	5.731
	-4.20671	-4.42501	-4.42501		-4.5333	-5.118	-6.482
	p> Z =0.983	p> Z =0.097**	p> Z =0.884		p> Z =0.07***	p> Z =0.05**	p> Z =0.37
MA	-0.06582	-0.0578	-0.08297	MA	0.0277	0.254	0.6123
	-0.07481	-0.07748	(-0.082967)		-0.0972	-0.1109	-0.1512
	p> Z =0.379	p> Z =0.456	p> Z =0.304		p> Z =0.776	p> Z =0.02**	p> Z =0.00*
MDMPRMC	0.08693	0.482157	5.48065	MDMPRMC	-0.8161	2.6787	13.237
	-2.3631	-2.45163	-2.93061		-2.5126	-3.007	-5.609
	p> Z =0.971	p> Z =0.844	p> Z =0.061**		p> Z =0.745	p> Z =0.37	p> Z =0.02**
AFI	3.45E-06	2.74E-07	2.58E-06	AFI	5.37E-07	3.42E-07	-7.002
	(2.712-06)	-2.72E-06	-2.71E-06		-3.38E-06	-3.54E-06	-3.93E-06
	p> Z =0.203	p> Z =0.920	p> Z =0.341		p> Z =0.874	p> Z =0.92	p> Z =0.79
Log likelihood = -148.88049 LR chi ² = 31.72 Prob> chi ² = 0.0015 Pseudo R ² = 0.0963			Log likelihood = -92.468634 LR chi ² = 101.34 Prob> chi ² = 0.0000 Pseudo R ² = 0.3540				

The model is estimated separately for male children and female children in order to assess the impact of mother's empowerment level on male children's education and female children's education. The result is shown in Table-5.36. Here children's educational level is a categorical variable and it is categorized into four groups viz. illiterate or having elementary level of education (category 1), Up to completion of high school education (category 2), Up to completion of higher secondary education (category 3) and children above higher secondary level of education (category 4). Category 1 is considered as a base category. The multinomial logit model shows the comparison of educational level of each category (category 2, category 3 and category 4) with respect to the base category (category 1). From Table-5.36, it is observed that mother's empowerment is a crucial variable for determining the level of education of both male and female children. It is observed that if mother's empowerment increases by 1 unit, the multinomial log odds relative to category 1 would be expected to increase by 7.17 unit in case of male children holding other variables in the model as constant. Therefore, mother's empowerment has a positive statistically significant (at 10 percent) impact on the successful completion of higher secondary level of their son's education in comparison to category 1. But in case of male children's high school completion and above higher secondary level of education, the multinomial log odds are negative and statistically insignificant. Mother's empowerment level is found to improve their daughter's level of education up to Higher Secondary stage of education. The multinomial log odds to girl's student's education are expected to increase if mother's empowerment increases holding other variables constant. This is true for girl's students in case of completion of high school and completion of higher secondary school in

comparison to the base category. In these cases the result shows positive and statistically significant impact of mother's empowerment level on category 2 and category 3 female children.

Mother's decision regarding her male and female children's education is found to be another crucial determining variable especially for the level of education of both male and female children at their higher secondary and above level of education (category 4). Here it is observed that the impact of mother's decision making regarding their girl's children's education is found to be more fruitful for their daughter's education than their son's education at this level. The multinomial log odds for both male and female students at this level are very high and positively significant. However, in case of other categories this log odds ratio is very low which implies that the impact of mother's decision making power on their children's education is not that affective. Another variable that has significant impact on only the girl's education level is mother's age. The result shows that the log odds improve in case of female children of category 3 and category 4 as mother's age increases (the result being positive and statistically significant). Surprisingly, income is found to be a non-crucial determinant for the level of education of both male and female children. The extent of the impact of family income on the level of their children's education at all levels is very low and insignificant.

5.8 Comparative analysis of rural –urban scenario of mother's empowerment and children's education in Karimganj district

To make a comparative analysis of rural-urban scenario of mother's empowerment and its link with children's education we used t test for rural and urban areas separately for

testing the equality of two means where standard deviation is unknown, as is done in part 5.5.

5.8.1 Analysis of rural scenario of mother's empowerment and children's education in Karimganj district

The result of t test in case of rural areas is shown in Table-5.37. The total sample size is 250 households. One child belonging to age group 14 -27 years, either male child or female child, is taken from each household. Five age groups of children are categorized and the test is applied in five different age groups of children. The Table-5.37 shows that in rural areas, at the age group 14-16 of children, total number of children is 34, average empowerment of mother is 0.49. Average decision making power of mother regarding male children's education is 0.69 and for female children it is 0.67. Average education of male children is 9.13 years and average education of female children is 9.17 years. The t test result for this group of children is insignificant which implies that there is no difference between the mean education of male and female children at low level of mother's empowerment. In the next age group 17-18, total number of children is 25; average empowerment of mother is 0.49. Average decision making power of mother regarding male children's education is 0.84 and for female children's education it is 0.55. Average education of male children is 11.67 years and average education of female children is 10.31 years. The t test result for this group of children is significant at less than 1% level which implies that there is a statistically significant difference in the mean education of male and female children education at low level of empowerment of mother. In case of age group 19-21, total number of children is 54, average empowerment of mother is 0.59. Average decision making power of mother regarding male children's

education is 0.93 and for female children' education it is 0.68. Average education of male children is 13.31 years and average education of female children is 11.5 years. The t test result for this group of children is significant at less than 1% level which implies that there is a difference in mean education level between male and female children at moderate level of empowerment of mother. It implies that as empowerment of mother increases children's mean education also increases but male children's education increases more than that of female children. In the next age group of children i.e. 22-23, total number of children is 18, average empowerment of mother is 0.56. Average decision making power of mother regarding male children's education is 0.77 and for female children it is 0.71. Average education of male children is 14.73 years and average education of female children is 12.14 years. The t test result for this group of children is insignificant which implies that there is no difference in the mean education between male and female children at moderately high level of empowerment of mother. In the last age group of children i.e. 24-27, total number of children is 17, average empowerment of mother is same as the previous level i.e. 0.56. Average decision making power of mother regarding male children's education is 0.65 and for female children it is 0.72. Average education of male children is 14.67 years and average education of female children is 11 years only. The t test result for this group of children is significant at less than 5% level which implies that there is a statistically significant difference in the mean education level between male and female children at moderately high level of empowerment of mother. It implies that at moderately high level of empowerment of mother children's education increases but male children's education increases more than that of female children.

Table-5.37: Result of t test for rural areas

Age Group of Children	Number of Children	Average Empowerment of Mother	Average Decision of Mother Regarding Children Education		Average Education of Children		t-values	Statistically Significant Level
			Male	Female	Male	Female		
14-16	34	0.49	0.69	0.67	9.13	9.17	0.118	Insignificant
17-18	25	0.49	0.84	0.55	11.67	10.31	3.24	Significant at less than 1% level
19-21	54	0.59	0.93	0.68	13.31	11.5	4.02	Significant at less than 1% level
22-23	18	0.56	0.77	0.71	14.73	12.14	1.19	Insignificant
24-27	17	0.56	0.65	0.72	14.67	11	2.56	Significant at less than 5% level

5.8.2 Analysis of Urban scenario of mother's empowerment and children's education of Karimganj district

The result of t test in case of urban areas is shown in Table- 5.38. By applying same methodology as above, the results in Table-5.38 shows that in urban areas, in the age group 14-16 of children, total number of children is 24, average empowerment of mother is 0.62. Average decision making power of mother regarding male children's education is 0.90 and for female children it is 0.91. Average education of male children is 9.6 years and average education of female children is 9.44 years. The t test result for this group of children is insignificant which implies that there is no difference between male and female children's education at moderately high level of mother's empowerment. In the next age group of 17-18, total number of children is 17, average empowerment of mother

is 0.64. Average decision making power of mother regarding male children's education is 0.90 and for female children it is 0.86. Average education of male children is 11.15 years and average education of female children is 11.25 years. The t test result for this group of children is also insignificant which implies that there is no difference between mean education level of male and female children at moderately high level of empowerment of mother. In case of age group 19-21, total number of children is 20, average empowerment of mother is 0.65. Average decision making power of mother regarding male children's education is 0.92 and for female children it is 0.85. Average education of male children is 13.31 years and average education of female children is 13.14 years. The t test result for this group of children is also insignificant which implies that there is no statistically significant difference in the mean education level between male and female children at moderately high level of empowerment of mother. It implies that as empowerment of mother increases both male and female children's education also increases in urban Karimganj. In the next age group of children i.e. 22-23, total number of children is 14, average empowerment of mother is 0.69. Average decision making power of mother regarding male children's education is 0.92 and for female children it is 0.91. Average education of male children is 15.29 years and average education of female children is 14.43 years. The t test result for this group of children is also insignificant. In the last age group of children i.e. 24-27, total number of children is 22, average empowerment of mother is 0.66. Average decision making power of mother regarding male children's education is 0.95 and for female children it is 0.81. Average education of male children is 15.63 and average education of female children is 13.64 years. The t test result for this group of children is significant at less than 5% level which implies that there is a

statistically significant difference in the mean education level of male and female children at moderately high level of empowerment of mother. It implies that at moderately high level of empowerment of mother children's education increases but male children education increases more than that of female children.

Table-5.38: Result of t test for urban Areas

Age Group of Children	Number of Children	Average Empowerment of Mother	Average Decision of Mother Regarding Children Education		Average Education of Children		t- values	Statistically Significant Level
			Male	Female	Male	Female		
14-16	24	0.62	0.90	0.91	9.6	9.44	0.62	Insignificant
17-18	17	0.64	0.90	0.86	11.15	11.25	-0.19	Insignificant
19-21	20	0.65	0.92	0.85	13.31	13.14	0.22	Insignificant
22-23	14	0.69	0.92	0.91	15.29	14.43	0.99	Insignificant
24-27	22	0.66	0.95	0.81	15.63	13.64	2.03	Significant at less than 5% level

From Table-5.37 and Table-5.38 it is clear that in case of rural areas empowerment of mother is comparatively low than in urban areas and educational attainment of children is also low in rural Karimganj than in Urban Karimganj. However, in case of mother's empowerment and its link with children's education, in rural Karimganj at the moderate level of mother's empowerment educational attainments of male children are higher than female children. Whereas, in Urban Karimganj at the moderately high level of

empowerment, there is no difference in the educational attainment of both male and female children except in the age group 24-27 of children. In urban areas, the difference between mean education level of male and female children is found statistically insignificant for age groups 14-16, 17-18, 19-21 and 22-23. But it is statistically significant for age group 24-27 implying gender differential in educational attainments of children in the past. In rural areas, however, the gender differential in the educational attainments of children prevails even among the children of younger cohorts.

5.9 Research Questions

Two research questions are framed to give direction to the research. The study throws meaningful lights on these two areas as well. The place of residence of mother is found to have statistically insignificant (Table 5.26, dependent variable MEI; independent variable POR) impact on her empowerment level. However, mother's empowerment level has significant positive impact on female children's attaining higher grades in education up to Higher Secondary level. Beyond that it does not enhance the chances of female children's education relative to her completing education up to elementary level of education (Table 5.36, independent variable MEI, reference group- up to completion of higher secondary [vs. up to elementary including illiterate] for female).