

## CHAPTER IX

### CONCLUSION:

Education is the backbone of the nation. This is not a mere saying; it is true to every word because literacy is the prime mover of 'Economic Development'. As a matter of fact, 'Literacy Rate' in any region increases the human resource of that region. Literate persons are more versatile than illiterate ones in so far else 'Economic Development' is concerned. This is because literate persons have the ability to work in all the sectors of economy – primary, secondary, tertiary, quaternary etc. while illiterate persons may contribute their physical labour only in the primary sector of the economy. In other words, illiterate persons are the source of only manual labour whereas literate persons are at the root of physical, mental and intellectual labour required for 'Economic Development' of any region.

There is no doubt that North Bengal as a region is economically more backward than South Bengal. In this dissertation however, the economic backwardness of North Bengal is being gauged by thirteen selected economic indicators by the comparison of standing of six different districts of North Bengal with respect to that of West Bengal as a state. The selected economic indicators are 'Estimated Net District Domestic Product in Industry', 'Annual Percapita Income', 'Fertilizer Consumption', 'Road Density per Ten Square Kilometers', 'Rail Density per Ten Square Kilometers', 'Percentage of Irrigated Area to Total Cultivated Area', 'Percapita Consumption of Electricity', 'Percentage of Electrified Villages to Total Villages', 'Number of Registered Small Scale Industry', 'Number of Commercial Bank Per Lakh Population', 'Percentage of Urban Population to Total Population', 'Work Participation Rate in Secondary Activities' and 'Work Participation Rate in Tertiary Activities'.

While Comparing the position of different districts of North Bengal with that of West Bengal it appears that in case of six economic indicators, namely, 'Fertilizer Consumption', 'Number of Registered Small Scale Industrial Unit per Lakh Population', 'Road Density Per Ten Square Kilometers', 'Annual Percapita Income', 'Percentage of Electrified Villages to Total Villages' and 'Percapita Consumption of Electricity', there are equal number i.e. three of six districts lie both above and below the state average. In

case of the remaining seven indicators it is further observed that North Bengal as a region is not backward in terms of the development of 'Railway Network'; instate, it is more developed in as much as four districts, namely, Jalpaiguri, Uttar Dinajpur, Koch Bihar and Darjiling have higher railway densities and only Dakshin Dinajpur and Maldah have lower railway densities than that of West Bengal. In respect of the remaining six economic indicators North Bengal region is definitely backward. However, it is more backward in respect of 'Percentage of Urban Population to Total Population', 'Number of Commercial Bank Per Lakh Population', and 'Percentage of Irrigated Area to Total Cultivated Area' than with regard to 'Estimated Net District Domestic Product in Industry', 'Work Participation Rate in Secondary Activities', 'Work Participation Rate in Tertiary Activities', since in case of the former three economic indicators, only one district each has the average above the state average whereas in case of the latter three economic indicators, two districts each have averages above state average. In order to asses the impact of 'Educational Development' on 'Economic Development' of North Bengal however, are composite index of 'Economic Development' of each district of North Bengal has been computed on the basis of standard score. The level of '*Economic Development*' of *different districts* of North Bengal as indicated by z-score is as follows (Table Number: 9.1):

***District wise Economic Development:***

Districts	Economic Development
Darjiling	+ 4.84
Jalpaiguri	+ 4.18
Koch Bihar	- 3.30
Uttar Dinajpur	- 4.58
Dakshin Dinajpur	- 4.16
Maldah	+ 3.02

Source: Computed by the author.

Table Number: 9.1

The major rationale behind the backwardness of the above stated three districts in respect of 'Economic Development' are the dominancy of backward classes i.e. scheduled caste and scheduled tribe population, the prevalence of rural area over the

urban area, maximum participation of workers in primary activities, more distance from urban centers etc.

The '*Economic Development*' of different districts of North Bengal has then being explained by *different rates of literacy* with the help of. Pearson's Product-moment Correlation Coefficient between 'Economic Development' and 'Rural Literacy Rate' (*Appendix Number:10.6*) is highest (+0.3901) which is successively followed by that (+0.3156) between 'Economic Development' and 'Female Literacy Rate', that (+0.3122) between 'Economic Development' and 'Urban Literacy Rate', that (+0.2842) between 'Economic Development' and 'Total Literacy Rate' and last of all that (+0.2472) 'Economic Development' and 'Male Literacy Rate'.

It is thus crystal clear that 'Rural Literacy Rate' is the major determinants of 'Economic Development' in North Bengal so far as 'Literacy Rate' is concerned.

However, an attempt may be made to explain 'Economic Development' of North Bengal as a function of 'Educational Development' as ascertained by different rates of literacy. With this end in view, education level of different districts of North Bengal has been determined on the basis of standard score which is as follows (*Table Number 9.2*)-

***District wise Educational Development:***

<b>Districts</b>	<b>Educational Development</b>
Darjiling	+ 21.74
Jalpaiguri	+ 5.88
Koch Bihar	+ 6.20
Uttar Dinajpur	- 18.90
Dakshin Dinajpur	+ 5.09
Maldah	- 19.32

*Source: Computed by the author.*

*Table Number: 9.2*

The foremost reasons behind the backwardness of 'Educational Development' are more distance from the educational institution, lower teacher-student ratio, the different mentalities of the population due to hesitant socio-cultural and socio-economic stipulation etc in contrast from the remaining four districts.

The Pearson's product-moment correlation coefficient between the '*Economic Development*' and the '*Educational Development*' is enunciated above is computed to be + 0.76 which is not only sufficiently strong but also statistically significant at 2.5 %level.

The '*Economic Development*' of North Bengal at district level may also be accounted for by educational infrastructure. For this purpose, again a composite standard score has been calculated for each district on the basis of the following indicators of

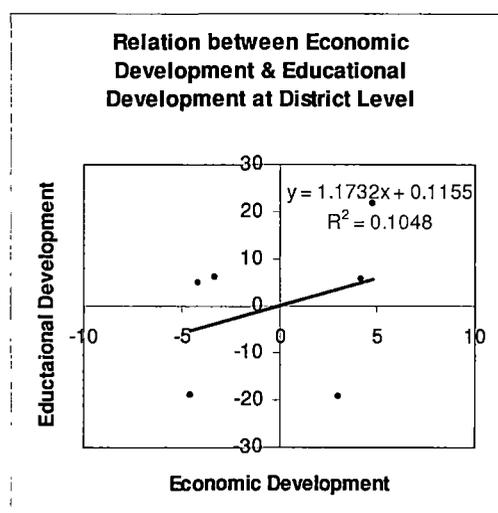


Figure Number – 9.1

educational infrastructure – ‘Density of Primary Schools Per Ten Square Kilometers’, ‘Density of Junior High Schools Per Ten Square Kilometers’, ‘Density of Secondary Schools Per Ten Square Kilometer’, Density of Higher Secondary Schools per Ten Square Kilometers’, ‘Density of Colleges per Ten Square Kilometers’, ‘Number of Primary Schools Per Lakh Population’, ‘Number of Junior High Schools Per Lakh Population’, ‘Number of Secondary Schools Per Lakh Population’, ‘Number of Higher Secondary Schools Per Lakh Population’, ‘Number of Colleges Per Lakh Population’, ‘Teacher-Student Ratio in Primary Schools’, ‘Teacher-Student Ratio in Junior High Schools’, ‘Teacher-Student Ratio in Secondary Schools’, ‘Teacher-Student Ratio in Higher Secondary Schools’, and ‘Teacher- Student Ratio in Colleges’.

Pearson's Product-moment Correlation Coefficient between '*Economic Development*' and '*Educational Development*' has defined by '*Educational*

*Infrastructure* is calculated to be +0.70 which again is not only high but also statistically significant at 2.5 % level.

**District wise Educational Infrastructure Development:**

Districts	Educational Infrastructure Development
Darjiling	+ 20.01
Jalpaiguri	- 11.31
Koch Bihar	- 1.98
Uttar Dinajpur	- 6.29
Dakshin Dinajpur	- 2.38
Maldah	- 0.26

Source: Computed by the author.

Table Number: 9.3

It is surprising to note that two 'correlation coefficients' obtained between 'Economic Development' and 'Educational Level' as ascertained by different 'Literacy Rate' as well as 'Educational Level' as defined by educational infrastructure are very nearly equal to each other in respect of magnitude. It suggests that the 'Educational Development', in whatever way it may be defined, influences strongly the 'Economic Development' of North Bengal at district level.

'*Economic Development*' of 69 C.D. Blocks of North Bengal have been determined on the basis of z-scores taking into account such ten variables as follows- 'Work Participation Rate in Secondary Activities', 'Work Participation Rate in Tertiary Activities', 'Percentage of Urban Population to Total Population', 'Road Density Per Ten Square Kilometers', 'Number of Bus Routes', 'Distance from Nearest Railway Station', 'Percentage of Electrified Villages to Total Villages', 'Percentage of Irrigated Area to Cultivated Area', 'Percentage of Villages having Drinking Water Facilities'. The value of z-scores ranges from the minimum of -8.59 in Goalpokhar-I C.D.Block of Uttar Dinajpur district to the maximum of +11.53 in Alipurduar-I C.D.Block of Jalpaiguri district. Taking into account this range of z-scores all the C.D.Blocks have been classified into five categories according to the level of development, the categories of 'Economic

Development' as well as the corresponding number of C.D. Block included in them are as follows:

**C.D.Blockwise Economic Development:**

Categories of Economic Development	Number of C.D.Blocks
Very High(> +10.00)	1
High(+ 5.01 - + 10.00)	7
Moderately High(+ 0.01 - + 5.00 )	23
Moderately Low(- 0 - 4.99 )	35
Low(< -5.00)	3

*Source: Computed by the author.*

*Table Number: 9.4*

From the table above, it appears that high & very high 'Economic Development' occurs only in seven C.D.Blocks distributed in all the districts of North Bengal except Darjiling district. Almost half of the C.D.Blocks has experienced only moderately low level of 'Economic Development' suggesting that on the average the levels of 'Economic Development' at C.D.Block level in North Bengal is low, although three C.D.Blocks have been categorically mentioned as lowly developed economically.

The level of '*Educational Development*' of *69 C.D.Blocks of North Bengal* has again been ascertained using z-score calculated on the basis of five variables which are as follows- 'Total Literacy Rate', 'Rural Literacy Rate', 'Urban Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate'. The value of z-scores i.e. 'Educational Development' ranges from the minimum of -8.59 recorded again by Goalpokhar-I C.D.Block of Uttar Dinajpur district to the maximum of +8.89 in Kalimpong-I C.D.Block of Darjiling district. It is interesting to note here that Goalpokhar-I of Uttar Dinajpur district has experienced lowest level of development with respect to education and economically but the highest level of economic and educational development is shared respectively by Alipurduar-I C.D.Block of Jalpaiguri district and Kalimpong-I C.D.Block of Darjilling district. Any way, taking into account the range of z-score of 'Educational Development' all the C.D.Blocks have been grouped into four categories. The categories of 'Educational Development' and the corresponding number of C.D.Blocks occurring with in them are as follows:

### C.D.Block wise Educational Development:

Categories of Educational Development	Number of C.D.Blocks
High	7
Moderately High	27
Moderately Low	26
Low	9

Source: Computed by the author.

Table Number: 9.5

From the table above (Table Number: 9.5), it appears that almost equal number of C.D.Blocks experiences high and moderately high as well as moderately low and low level of 'Educational Development'. As a matter of fact, there are seven C.D.Blocks, all of which belong to Darjiling district except Kumar Gram C.D.Block in Jalpaiguri district and Koch Bihar-II C.D.Block in Koch Bihar district; which have recorded high level of 'Educational Development'. On the other hand, there are nine C.D.Blocks belonging to Maldah, Dakshin Dinajpur and Uttar Dinajpur districts which display low levels of 'Educational Development'. That is to say, there is almost bipolarity in the pattern of 'Educational Development' high level being concentrated in the extreme north and the low level being wide spread in the south of North Bengal region.

The relationship between '*Economic Development*' and different '*Literacy Rates*' at *C.D.Block level* in North Bengal has been brought out by Pearson's product-moment Correlation Coefficient. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' is given in the table (*Appendix Number: 10.12*). From the table it appears that the 'Rural Literacy Rate' bears the highest positive relationship with 'Economic Development', suggesting that of all the rates of Literacy, 'Rural Literacy Rate' in North Bengal is the principal determinant of 'Economic Development'.

'*Total Literacy Rate*' has also been explained individually by ten selected '*Economic Indicators*' at *C.D.Block level* using multivariate regression analysis. From the correlation matrix of this analysis it appears that the highest positive Person's product-moment correlation coefficient (+ 0.6356) is obtained between 'Total Literacy

Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>), which is followed successively by that (+0.5619) between 'Total Literacy Rate' and 'Percentage of Urban Population to Total Population'(X<sub>4</sub>), by that (+0.3565) between 'Total Literacy Rate' and 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>), by that (+0.0685) between 'Total Literacy Rate' and 'Total Work Participation Rate'(X<sub>1</sub>) and by that (+ 0.0472) between 'Total Literacy Rate' and the 'Number of Bus Routes'(X<sub>6</sub>). Out of which, the coefficients between 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>) shows weak relationship being statistically significant at 5% level according to Student's t test. Moreover, it must be mentioned here that both 'Work Participation Rate in Tertiary Activities' (+0.636) and 'Percentage of Urban Population to Total Population' (+0.562) have strong and moderate relationship respectively with 'Total Literacy Rate', the level of significance of both of them is 0.05% according to Student's t test.

The multiple correlation coefficients between these ten variables and 'Total Literacy Rate' is calculated to be 0.8258 which is significant at 0.05% level according to Student's t test. Thus, it can be concluded here that there is a very strong relationship between 'Total Literacy Rate' ten selected 'Economic Indicators' in North Bengal.

From the correlation matrix of multivariate regression analysis among '**Male Literacy Rate**' and ten selected '**Economic Indicators**' at **C.D.Block level** it appears that the highest positive Pearson's product-moment correlation coefficient (+0.4816) is obtained between 'Male Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>), which is followed successively by '+0.4308' between 'Male Literacy Rate' and 'Percentage of Urban Population to Total population'(X<sub>4</sub>), '+0.3524' between 'Male Literacy Rate' and 'Percentage of Irrigated Area to Total Cultivated Area'(X<sub>9</sub>), '+0.2807' between 'Male Literacy Rate' and the 'Villages having Drinking Water Facility'(X<sub>10</sub>), '+0.1776' between 'Male Literacy Rate' and 'Distance from Nearest Railway Station' (X<sub>7</sub>), '+0.1693' between 'Male Literacy Rate' and 'Road Density Per Ten square Kilometers'(X<sub>5</sub>), '+0.1428' between 'Male Literacy Rate' and 'Percentage of Electrified Villages'(X<sub>8</sub>), '+0.0971' between 'Male Literacy Rate' and 'Number of Bus Routes'(X<sub>6</sub>), '+0.0629' between 'Male Literacy Rate' and 'Work Participation Rate in

Secondary Activities'(X<sub>2</sub>) and '+0.0385' between 'Male Literacy Rate' and 'Total Work Participation Rate'(X<sub>1</sub>).

Out of them two variables, e.g. 'Percentage of Irrigated Area to Total Cultivated Area'(X<sub>9</sub>) and 'Villages having Drinking Water Facility'(X<sub>10</sub>) show weak relationship as the coefficients between these two variables and 'Male Literacy Rate' are statistically significant at 0.5% level and 1% level according to Student's t test respectively. It is worth mentioning that both 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>) and 'Percentage of Urban Population to Total Population'(X<sub>4</sub>) have moderate positive relationships with 'Male Literacy Rate', the level of significance of these two coefficients being 0.05% according to Student's t test.

Moreover, the multiple correlation co-efficient between 'Male Literacy Rate' and the selected 'Economic Indicators' is calculated to be 0.7202 which displays a strong correspondence among the selected variables being significant at 0.05% level significant according to Student's t test. Thus, it appears that there is a very strong relationship between 'Male Literacy Rate' ten selected 'Economic Indicators' in North Bengal.

The correlation matrix obtained from the multivariate regression analysis between '***Female Literacy Rate***' and the '***Economic Indicators***' at ***C.D.Block level*** provides that the highest positive Pearson's product-moment correlation coefficient (+0.6160) is obtained between 'Female Literacy Rate' and 'Percentage of Urban Population to Total Population'(X<sub>4</sub>), though it has the second highest correlation coefficients with 'Total and Male Literacy Rate'. It is followed in descending order by '+0.5837' between 'Female Literacy Rate' & 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>), '+0.3507' between 'Female Literacy Rate' & 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>), '+0.2585' between 'Female Literacy Rates' & 'Percentage of Irrigated Area to Total Cultivated Area'(X<sub>9</sub>), '+0.2314' between 'Female Literacy Rate' and 'Distance from Nearest Railway Station'(X<sub>7</sub>), '+0.1521' between 'Female Literacy Rate' and 'Percentage of Electrified Villages'(X<sub>8</sub>), '+0.1166' between 'Female Literacy Rate' and 'Percentage of Village having Drinking Water Facility'(X<sub>10</sub>), '+0.0608' between 'Female Literacy Rate' and Number of Bus Routes'(X<sub>6</sub>), '+0.0306' between 'Female Literacy Rate' and 'Total Work Participation Rate'(X<sub>1</sub>) and '+0.0273' between 'Female Literacy Rate' and

'Work Participation Rate in Secondary Activities'(X<sub>2</sub>). The correlation coefficient between 'Female Literacy Rate' and five out of these ten variables, namely, 'Total Work Participation Rate'(X<sub>1</sub>), 'Work Participation Rate in Secondary Activities'(X<sub>2</sub>), 'Number of Bus Routes'(X<sub>6</sub>), 'Percentage of Villages having Electricity'(X<sub>9</sub>) and 'Percentage Villages having Drinking Water Facility'(X<sub>10</sub>) are statistically not significant at all. Even the coefficients between 'Female Literacy Rate' & 'Distance from Nearest Railways Station'(X<sub>7</sub>) and 'Percentage of Irrigated Area to Total Cultivated Area'(X<sub>9</sub>) show weak relationship being statistically significant at 5% level and 2.5% level respectively according to Student's t test. The point to be noted here that the 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>) has weak relationship though the coefficient between 'Female Literacy Rate' and this indicator is statistically significant at 0.5% level according to Student's t test. However, 'Percentage of Urban Population to Total Population'(X<sub>4</sub>) and 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>) depict strong and moderate relationship respectively with 'Female Literacy Rate', as the correlation coefficients of them are statistically significant at 0.05% level according to Student's t test.

However, the multiple correlation co-efficient between 'Female Literacy Rate' and the selected 'Economic Indicators' has been computed to be 0.7877 which depict a strong relationship among them being statistically significant at 0.05% level according to Student's t test.

The correlation matrix obtained from the multivariate analysis of '**Rural Literacy Rate**' and the selected '**Economic Indicators**' reveals that the highest positive Pearson's product-moment correlation coefficient (+0.3624) is obtained between 'Rural Literacy Rate' and 'Percentage of Urban Population to Total Population'(X<sub>4</sub>) which is followed in descending order by '+0.3148' between 'Rural Literacy Rate' and 'Total Work Participation Rate'(X<sub>1</sub>), '+0.3041' between 'Rural Literacy Rate' and 'Distance from Nearest Railway Station'(X<sub>7</sub>), '+0.2945' between 'Rural Literacy Rate' and 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>), '+0.2552' between 'Rural Literacy Rate' and 'Percentage of Irrigated Area to Total Cultivated Area'(X<sub>9</sub>), '+0.2154' between 'Rural Literacy Rate' and 'Work Participation Rate in Secondary Activities'(X<sub>2</sub>), '+0.1415' between 'Rural Literacy Rate' and 'Percentage of Villages having Drinking Water

Facility'(X<sub>10</sub>), '+0.1376' between 'Rural Literacy Rate' and 'Number of Bus Routes'(X<sub>6</sub>), '+0.1143' between 'Rural Literacy Rate' and 'Percentage of Electrified Villages'(X<sub>8</sub>) and '+0.0132' between 'Rural Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>). The correlation coefficients between 'Rural Literacy Rate' and four variables namely, 'Work Participation Rate'(X<sub>1</sub>) 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>), 'Number of Bus Routes'(X<sub>6</sub>), 'Percentage of Electrified Villages'(X<sub>8</sub>) and 'Villages having Drinking Water Facility'(X<sub>10</sub>) are hardly statistically significant according to Student's t test. These four variables represent very weak relationship. The correlation coefficients of 'Work Participation Rate in Secondary Activities'(X<sub>2</sub>) and 'Percentage of Irrigated Area to Total Cultivated Area'(X<sub>9</sub>) with 'Rural Literacy Rate' are statistically significant at 5% and 2.5% level respectively according to Student's t test. Beside these, the 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>) and 'Distance from Nearest Railway Station'(X<sub>7</sub>) also yield correlation coefficients that are statistically significant at 1% level according to Student's t test. Lastly, the correlation coefficients between 'Rural Literacy Rate' and 'Total Work Participation Rate'(X<sub>1</sub>) & 'Percentage of Urban Population to Total Population'(X<sub>4</sub>) are statistically significant at 0.5% level according to Student's t test.

Moreover, the multiple correlation coefficient (0.7457) represents a strong relationship of 'Rural Literacy Rate' and the selected 'Economic Indicators' being significant at 0.05% level according to Student's t test.

The correlation matrix of multivariate regression analysis between '**Urban Literacy Rate**' and the selected ten '**Economic Indicators**' at **C.D.Block level** discloses that the highest positive correspondence is occurred between 'Urban Literacy Rate' and 'Road Density Per Ten Square Kilometers'(X<sub>5</sub>) since the Pearson's product-moment correlation coefficient between these two is '+0.4593'. The Pearson's product-moment correlation coefficients go behind it in descending order are (+ 0.3158) between 'Urban Literacy Rate' and 'Percentage of Urban Population' (X<sub>4</sub>), (+0.2542) between 'Urban Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>3</sub>), (+0.2445) between 'Urban Literacy Rate' and 'Work Participation Rate'(X<sub>1</sub>), (+0.2113) between 'Urban Literacy Rate' and 'Distance from Nearest Railway Station'(X<sub>7</sub>), (+0.0135)

between 'Urban Literacy Rate' and 'Number of Bus Routes'(X<sub>6</sub>). However, two out of the above stated Pearson's product-moment correlation coefficients, i.e. coefficients between 'Urban Literacy Rate' & 'Road Density per Ten Square Kilometers'(X<sub>5</sub>) and 'Urban Literacy Rate' & 'Percentage of Urban Population'(X<sub>4</sub>) are statistically significant at 0.5% and 5% level according to Student's t test.

The multiple correlation coefficient (0.6282) represent a strong correspondence between 'Urban Literacy Rate' and the selected 'Economic Indicators' at C.D.Block level. It is further corroborated by Student's t test being statistically significant at 0.05% level significant.

Therefore it can be said that the selected 'Economic Indicators' of this region can explain the 'Total Literacy Rate' more admirably than the others. It is successively followed by 'Female Literacy Rate', 'Rural Literacy Rate', 'Male Literacy Rate' and 'Urban Literacy Rate' at C.D.Block level in North Bengal. In other words, there are some other favourable factors to explain 'Male Literacy Rate' and 'Urban Literacy Rate' than the other 'Literacy Rate'.

The relationship between '*Economic Development*' and '*Educational Development*' at C.D.Block level has also been studied by Pearson's product-moment correlation coefficient which is +0.17 which again not at all statistically significant. That is to say, even though 'Rural Literacy Rate' has some thing to with 'Economic Development' at C.D.Block level in North Bengal, 'Educational Development' as

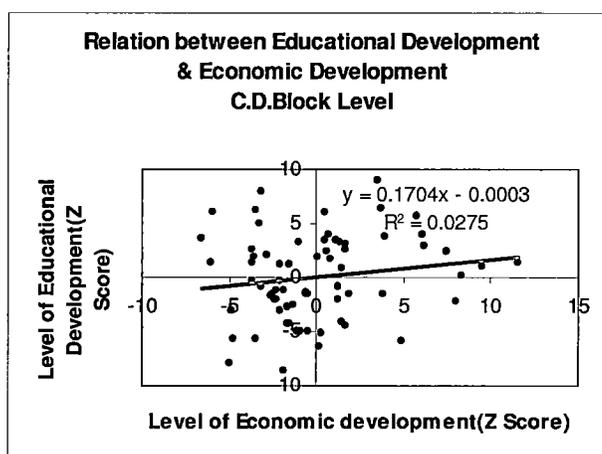


Figure Number-9.2

ascertained by different 'Literacy Rate' has practically almost no bearing of 'Economic Development'.

However, if the '*Educational Infrastructure Development*' at *C.D.Block level* is taken into consideration for analytical study between it and 'Economic Development' it becomes crystal clear that the Pearson's product-moment correlation coefficient between 'Economic Development' and 'Educational Infrastructure Development' +0.31 is not only higher than at between 'Economic Development' and 'Educational Development' and statistically significant at 0.05% level according to Student's t test.

The '*Economic Development*' in *Siliguri Municipal Corporation* as ascertained by z-scores taking into account eight selected indicators, namely, 'Work Participation Rate in Secondary Activities', 'Work Participation Rate in Tertiary Activities', 'Monthly Percapita Income Per Household', 'Monthly Expenditure on Education Per Household', 'Amount of Land Ownership Per Household', 'Average Number of Rooms Per Household', 'Amount of Monthly Consumption of Electricity Per Household' and 'Weighted Score of Telephone Used Per Household' of forty seven wards of Siliguri Municipal Corporation range from the minimum of - 4.54 in Ward Number 28 to the maximum of +25.63 in Ward number 11. Taking into consideration this range in z-scores all the wards have been grouped into five categories according to the level of 'Economic Development'. The classes of 'Economic Development' and the corresponding numbers of wards included in them are as follows:

#### **Economic Development in Siliguri Municipal Corporation:**

<b>Categories of Economic Development</b>	<b>Number of Wards</b>
Very High(> +15.00)	1
High(+10.01 - + 15.00)	1
Medium(+ 5.01 – + 10.00)	11
Low(+ 0.01 - + 5.00 )	16
Very Low(< - 5.00)	18

Source: Computed by the author.

Table Number: 9.6

From the above table (*Table Number: 9.6*) it appears that high and very high 'Economic Development' occurs only in two wards of Siliguri Municipal Corporation. Beside these, other ten wards recorded medium 'Economic Development'. Therefore, maximum number of wards i.e. thirty four wards of the Siliguri Municipal Corporation belong to low and very low class of 'Economic Development' respectively. As a result, there is a disparity in 'Economic Development' in the wards of Siliguri Municipal Corporation and, moreover, the tendency of the maximum number of wards is towards the low and very low level of 'Economic Development'.

The level of '*Educational Development*' of forty seven wards of *Siliguri Municipal Corporation* has again been ascertained using z-scores calculated on the basis of three variables of 'Literacy Rate', namely, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate'. The value of z-scores of 'Educational Development' ranges from the minimum of -6.44 again in Ward Number 28 to the maximum of +4.95 in Ward Number 17. Taking into consideration this range of z-scores of 'Educational Development', all the wards of Siliguri Municipal Corporation have been grouped into three categories of 'Educational Development' and the corresponding number of wards occurring within them are as follows –

**Educational Development in Siliguri Municipal Corporation:**

<b>Categories of Educational Development</b>	<b>Number of Wards</b>
High(> + 0.01)	32
Medium(- 5.00 - 0.01 )	14
Low(< - 5.00)	1

*Source: Computed by the author.*

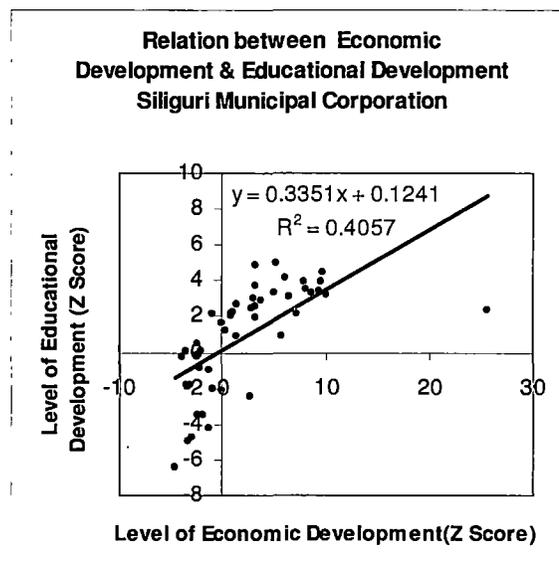
*Table Number: 9.7*

Maximum number of wards i.e. thirty two wards of Siliguri Municipal Corporation are included in the high class whereas another fourteen wards recorded medium number of 'Educational Development'. The remaining one ward surprisingly

displays low 'Educational Development'. Therefore, there is a crystal clear supremacy of high 'Educational Development' over the wards of Siliguri Municipal Corporation.

The relationship between '*Economic Development*' and different '*Literacy Rates*' in different wards of Siliguri Municipal Corporation has been brought out by Pearson's product-moment correlation coefficients. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' is given in table (*Appendix Number: 10.18*) form.

From the table(*Appendix Number:10.18* ) it appears that 'Female Literacy Rate' bears the highest (+0.6424) positive relationship with 'Economic Development' suggesting that, of all three rates of literacy, 'Female Literacy Rate' in Siliguri Municipal Corporation is the main determinant of 'Economic Development'. It is interesting to note here that all of the three correlation coefficients are statistically significant at 0.05% level according to Student's t test.



*Figure Number – 9.3*

Beside this, the relationship between '*Economic Development*' and '*Educational Development*' has also been studied by Pearson's Product-moment Correlation Coefficient, which is + 0.6270 which again is statistically significant at 0.05% level according to Student's t test. That is to say, 'Female Literacy Rate', 'Total Literacy Rate' and 'Male Literacy Rate' either individually or in the aggregate have a significant bearing on 'Economic Development' in Siliguri Municipal Corporation.

The multivariate linear regression analysis has been performed between '**Total Literacy Rate**' and eight selected economic indicators of **Siliguri Municipal Corporation** to get the individual relationship of 'Total Literacy Rate' and the '**Economic Indicators**'.

The correlation matrix displays that the maximum positive correspondence is observed between 'Total Literacy Rate' and 'Telephone Used Per Household'(X<sub>8</sub>), having the Pearson's product-moment correlation coefficient (+0.7436), which is subsequently followed by that (+0.6843) between 'Total Literacy Rate' and 'Number of Rooms Per Household'(X<sub>6</sub>), by that (+0.6415) between 'Total Literacy Rate' and 'Monthly Expenditure on Education Per Student'(X<sub>4</sub>), by that (+0.6142) between 'Total Literacy Rate' and 'Monthly Per Capita Income'(X<sub>3</sub>), by that (+0.4690) between 'Total Literacy Rate' and 'Amount of Land Owned Per Household'(X<sub>5</sub>). As a result, the first four variables arranged according to Pearson's product-moment correlation coefficient represent strong correspondence with 'Total Literacy Rate' whereas the remaining one variable displays moderate correspondence with 'Total Literacy Rate'. This fact is further substantiated as all the Pearson's product-moment correlation coefficients are significant at 0.05% level according to Student's t test.

Paralelly, the multiple Pearson's product-moment correlation coefficient between eight selected 'Economic Indicators' and 'Total Literacy Rate' is evaluated to be 0.8654 depicting a very sturdy affiliation which is furthermore corroborated by Student's t test being statistically significant at 0.05% level in Siliguri Municipal Corporation.

The correlation matrix provided by the multivariate linear regression analysis of '**Male Literacy Rate**' and eight selected '**Economic Indicators**' in **Siliguri Municipal Corporation** discloses that the maximum positive association is found between 'Number of Telephone Used Per Household'(X<sub>8</sub>) and 'Male Literacy Rate' having the Pearson's product-moment correlation coefficient (+0.6464) which is successively followed by that (+0.5914) between 'Male Literacy Rate' and 'Number of Rooms Per Household'(X<sub>6</sub>), by that (+0.5701) between 'Male Literacy Rate' and 'Monthly Expenditure on Education per Student'(X<sub>4</sub>), by that (+0.4285) between 'Male Literacy Rate' and 'Amount of Land Owned per Household'(X<sub>5</sub>). As a result, the highest Pearson's product-moment

correlation coefficient displays a strong correspondence between 'Male Literacy Rate' and 'Telephone Used Per Household', being statistically significant at 0.05% level according to Student's t test. The subsequent three coefficients depict moderate relationship, being further substantiated by Student's t test, since the first two are statistically significant at 0.05% level and the remaining one i.e. the coefficients between 'Male Literacy Rate' & 'Amount of Land Owned Per Household'(X<sub>5</sub>) is statistically significant at 0.5% level according to Student's t test.

The multiple Pearson's product-moment correlation coefficient of the above is 0.7721 which reveal a strong correspondence with 'Male Literacy Rate' as it is statistically significant at 0.05% level according to Student's t test.

The correlation matrix obtained from the multiple regression analysis of '*Female Literacy Rate*' and the eight selected '*Economic Indicators*' in *Siliguri Municipal Corporation* affirms that the maximum positive correspondence is gained between 'Female Literacy Rate' and 'Telephone Used Per Household'(X<sub>8</sub>) since the Pearson's product-moment correlation coefficient of the above is +0.7562, which is successively followed by that (+0.6818) between 'Female Literacy Rate' and 'Number of Rooms per Household'(X<sub>6</sub>), by that (+0.6347) between 'Female Literacy Rate' and 'Monthly Expenditure on Education Per Student'(X<sub>4</sub>), by that (+0.6344) between 'Female Literacy Rate' and 'Monthly Percapita Income'(X<sub>3</sub>), by that (+0.4379) between 'Female Literacy Rate' and 'Amount of Land Owned Per Household'(X<sub>5</sub>).

Out of these Pearson's product-moment correlation coefficients the former four coefficients have strong relationships which are further corroborated by Student's t test being significant at 0.05% level. Another coefficient between 'Female Literacy Rate' and 'Amount of Land Owned Per Household'(X<sub>5</sub>) also depicts a moderate relationship, being significant at 0.5% level according to Student's t test.

The multiple correlation coefficient (0.8622) displays a very strong correspondence of 'Female Literacy Rate' and the selected 'Economic Indicators' in *Siliguri Municipal Corporation* being significant at 0.05% level according to Student's t test.

From the above it appears that the 'Total Literacy Rate' bears the highest positive relationship with 'Economic Indicators', suggesting that of all the rates of Literacy, 'Total Literacy Rate' in Siliguri Municipal Corporation is the principal determinant of the selected 'Economic Indicators'

Similarly, the '*Economic Development*' as ascertained by z-scores taking into account eight selected indicators of twenty five wards of *Jalpaiguri municipality* ranges from the minimum of -10.64 in Ward Number 9 to the maximum of +6.55 in Ward Number 8. Taking into consideration this range of z-scores all the wards have been grouped into four categories according to the level of 'Economic Development'. The classes of 'Economic Development' and the corresponding numbers of wards included in them are as follows:

**Economic Development in Jalpaiguri Municipality:**

Categories of Economic Development	Number of Wards
High(> +5.00)	2
Moderately High(+0.01 - + 5.00)	14
Moderately Low(- 0.01 – -5.00)	7
Low(< - 5.00)	2

Source: Computed by the author.

Table Number: 9.8

From the adjoining table (Table Number: 9.8) it comes into view that high 'Economic Development' occurs only in two wards of Jalpaiguri municipality. On the other hand, other two wards recorded low 'Economic Development'. As a result, maximum number of wards i.e. twenty one wards of the Jalpaiguri municipality have moderately high and moderately low class of 'Economic Development' respectively. Therefore, there is a disparity in 'Economic Development' in the wards of Jalpaiguri municipality and, surprisingly, the number of wards having moderately high level of 'Economic Development' is just double of number of wards of moderately low level of 'Economic Development'.

Beside these, the level of '*Educational Development*' of twenty five wards of *Jalpaiguri municipality* has again been determined using z-scores calculated on the basis

of three variables of 'Literacy Rate', namely, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate'. The value of z-scores of 'Educational Development' ranges from the minimum of -6.63 in Ward Number 10 to the maximum of +3.27 in Ward Number 13. Taking into consideration this narrow range of z-scores of 'Educational Development', all the wards of Jalpaiguri municipality have been grouped into three categories of 'Educational Development' and the corresponding number of wards occurring within them are given in table(*Table Number: 9.9*).

The adjoining table reveals that equal number of wards i.e. twelve wards of Jalpaiguri municipality are included in the high and medium class, of 'Educational Development'. The remaining one ward surprisingly displays low 'Educational Development'. Therefore, there is parity in 'Educational Development' over the wards of Jalpaiguri municipality.

#### **Educational Development in Jalpaiguri Municipality:**

<b>Categories of Educational Development</b>	<b>Number of Wards</b>
High( + 0.01 - + 5.00)	13
Medium(-5.00 - -0.01)	11
Low( <-5.00 )	1

*Source: Computed by the author.*

*Table Number: 9.9*

Likewise, the relationship between 'Economic Development' and different 'Literacy Rates' in different wards of Jalpaiguri municipality has been brought out by Pearson's product-moment correlation coefficients. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' is as given in (*Appendix Number: 9.24*)

From the table it appears that here again 'Female Literacy Rate' bears the highest (+0.1588) positive relationship with 'Economic Development' suggesting that, of all three rates of literacy, 'Female Literacy Rate' in Jalpaiguri municipality is the dominant determinant of 'Economic Development'. Though, it is interesting to note here that all of

the three correlation coefficients are not statistically significant according to Student's t test.

The individual correspondence of literacy rate and the economic indicators have been analysed by multivariate analysis of '*Total Literacy Rate*' and selected '*Economic Indicators*' in *Jalpaiguri municipality*.

The correlation matrix provides that the major positive correspondence (+ 0.3104) is occurred between 'Total Literacy Rates' and 'Land Owned Per Household'(X<sub>5</sub>), following by that (+0.2255) between 'Total Literacy Rate' and 'Telephone Used Per Household'(X<sub>8</sub>), and by that (+ 0.005) between 'Total Literacy Rate' and 'Consumption of Electricity Per Household'(X<sub>7</sub>).

It is astonishing to point out here that all the Pearson's product-moment correlation coefficients stated above are not only statistically significant according to Student's t test but are also either weak or very weak

On the other hand, the multiple correlation coefficient is 0.5662 which is statistically significant at 0.5% level according to Student's t test.

The correlation matrix obtained from the multiple linear regression equation of '*Male Literacy Rate*' and the selected eight '*Economic Indicators*' for *Jalpaiguri municipality* reveals that the highest positive correlation is obtained between 'Male Literacy Rate' and 'Telephone Used Per Household' (X<sub>8</sub>) as the correlation coefficient of it is (+0.1830). It is followed by that (+0.0506) between 'Male Literacy Rate' and 'Consumption of Electricity Per Household'(X<sub>7</sub>). However, both of them have very weak relationship and are not statistically significant according to Student's t test.

Nevertheless, the multiple correlation coefficient evaluated from the above analysis is 0.5322 which is statistically significant at 0.5% level according to Student's t test. Therefore, all the variables are collectively determines a moderate relationship with 'Male Literacy Rate' in Jalpaiguri municipality.

The correlation matrix obtained from the multivariate regression analysis of '*Female Literacy Rate*' and the selected eight *Economic Indicators* for *Jalpaiguri municipality* reveals that the leading positive Pearson's product-moment correlation coefficient (+0.4320) is obtained between 'Female Literacy Rate' and 'Monthly Per

Capita Income'(X<sub>3</sub>) provides a moderate positive correspondence which is respectively followed by that (+0.3695) between 'Female Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>2</sub>), by that (+0.3659) between 'Female Literacy Rate' and 'Work Participation Rate in Secondary Activities'(X<sub>1</sub>) depicting weak correspondence. Lastly the correlation coefficient (+0.2119) between 'Female Literacy Rate' and 'Telephone Used Per Household' (X<sub>8</sub>) determines a very weak but positive relationship of the above.

The Person's product-moment correlation coefficient (+0.432), explicitly, between 'Female Literacy Rate' & 'Monthly Per Capita Income'(X<sub>3</sub>) is statistically significant at 2.5% level according to Student's t test. However, those between 'Female Literacy Rate' & 'Work Participation Rate in Secondary Activities'(X<sub>1</sub>) and 'Female Literacy Rate' & 'Work Participation Rate in Tertiary Activities'(X<sub>2</sub>) are statistically significant at 5% level according to Student's t test.

On the other hand, the multiple correlation coefficient (0.6715) evaluated from the above analysis in Jalpaiguri municipality presents a moderate relationship being statistically significant at 0.05% level according to student's t test.

From the above it appears that the 'Female Literacy Rate' bears the highest positive relationship with the selected 'Economic Indicators', suggesting that of all the rates of Literacy, 'Female Literacy Rate' in Jalpaiguri municipality is the principal determinant of the selected 'Economic Indicators'.

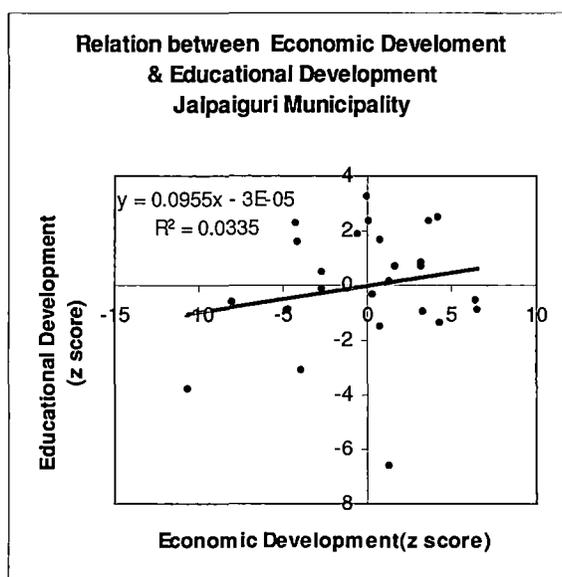


Figure Number – 9.4

Beside this, the relationship between '*Economic Development*' and '*Educational Development*' has also been studied by Pearson's product-moment correlation coefficient, (+0.13700) which again is not statistically significant according to Student's t test. Therefore, 'Female Literacy Rate', 'Total Literacy Rate' and 'Male Literacy Rate' either separately or collectively have a very little significant bearing on 'Economic Development' in Jalpaiguri municipality.

In case of *Koch Bihar Municipality* the '*Economic Development*' obtained from z-scores of the eight selected indicators of twenty wards of Koch Bihar municipality reveals minimum z-score (- 6.46) in Ward Number 6 and maximum z-score (+ 6.90) in Ward Number 15. Considering this range in z-scores, all the wards have been grouped into four categories according to the level of 'Economic Development'. The classes of 'Economic Development' and the corresponding numbers of wards belong to them are -

#### **Economic Development in Koch Bihar Municipality:**

<b>Categories of Economic Development</b>	<b>Number of Wards</b>
High(> +5.00)	4
Moderately High(+0.01 - + 5.00)	4
Moderately Low(- 0.01 – -5.00)	9
Low(< - 5.00)	3

Source: Computed by the author.

Table Number: 9.10

From the table (Table Number: 9.10) it appears that high and moderately high 'Economic Development' occurs in equal number of wards i.e. in four wards of Koch Bihar municipality. Moreover, low level of 'Economic Development' occurs in other three wards. Beside these, nine wards recorded moderately low 'Economic Development'. As a result, there is a disparity in 'Economic Development' in the wards of Koch Bihar municipality and, moreover, the tendency of the maximum number of wards is towards the moderately low level of 'Economic Development'.

The level of '*Educational Development*' of *Koch Bihar municipality* obtained from z-scores computed on the basis of three variables of 'Literacy Rate', namely, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate' reveals that minimum and maximum z-scores ( $- 4.40$ ) and ( $+ 6.30$ ) occurs in Ward Number 19 and Ward Number 14 respectively. Considering this range in z-scores, all the wards have been grouped into three categories according to the level of 'Educational Development'. The classes of 'Educational Development' and the corresponding numbers of wards belong to them are -

#### **Educational Development in Koch Bihar Municipality:**

<b>Categories of Educational Development</b>	<b>Number of Wards</b>
High( $> + 5.00$ )	1
Medium( $+0.01 - + 5.00$ )	10
Low( $-0.01 - -0.05$ )	9

Source: Computed by the author.

Table Number: 9.11

From the adjoining table it appears that high '*Educational Development*' occurs only in one ward of *Koch Bihar municipality*. Beside these, remaining ten and nine wards recorded medium and low 'Educational Development' respectively. As a result, there is parity in 'Educational Development' in the wards of Koch Bihar municipality.

The correlation between 'Economic Development' and different 'Literacy Rates' in different wards of Koch Bihar municipality has been brought out by Pearson's product-moment correlation coefficients. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' is given in (*Appendix Number: 10.30*).

From the table it appears that 'Total Literacy Rate' bears the highest ( $+ 0.2524$ ) positive relationship with 'Economic Development' suggesting that, of all three components of literacy, 'Total Literacy Rate' in Koch Bihar municipality is the most important determinant of 'Economic Development' despite the fact that all of the three correlation coefficients are statistically not significant according to Student's t test.

The correlation matrix provided by the multiple regression analysis of '**Total Literacy Rate**' and the '**Economic Indicators**' in **Koch Bihar municipality** depicts that the highest positive correlation coefficient (+ 0.3091) is occurred between 'Total Literacy Rate' and 'Number of Rooms Per Household'(X<sub>6</sub>) which is followed by that (+0.2718) between 'Total Literacy Rate' and 'Land Owned Per Household'(X<sub>5</sub>), that (+0.0834) between 'Total Literacy Rate' and 'Work Participation Rate in Secondary Activities' (X<sub>1</sub>), that (+ 0.0691) between 'Total Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>2</sub>) and finally, that (+0.0314) between 'Total Literacy Rate' and 'Monthly Per Capita Income'(X<sub>3</sub>).

Out of which the first two establish weak correspondence whereas the remaining one shows a very weak relationship of the above variables in Koch Bihar municipality. It is worth mentioning here that all the correlation coefficients stated above are statistically not significant according to Student's t test.

However, the multiple Pearson's product-moment correlation coefficient between 'Total Literacy Rate' and the selected eight 'Economic Indicators' is 0.5950 which is statistically significant at 0.5% level according to Student's t test . As a result, it is clear from the above that these economic indicator individually have no significant bearing on 'Total Literacy Rate' though in the aggregate those have notable bearing on 'Total Literacy Rate' in Koch Bihar municipality.

The correlation matrix obtained from the multiple regression analysis of '**Male Literacy Rate**' and the selected '**Economic Indicators**' in **Koch Bihar municipality** depicts that the maximum positive correlation exists between 'Male Literacy Rate' and the 'Telephone Used Per Household'(X<sub>8</sub>) having the Pearson's product-moment correlation coefficient '+0.2855' which is successively followed by that (+0.2363) between 'Male Literacy Rate' and 'Number of Rooms Per Household'(X<sub>6</sub>), by that (+0.0431) between 'Male Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>2</sub>) and finally by that (+0.0425) between 'Male Literacy Rate' and 'Work Participation Rate in Secondary Activities'(X<sub>1</sub>) . It is important to note here that all the

correlation coefficients stated above are statistically not significant according to Student's t test.

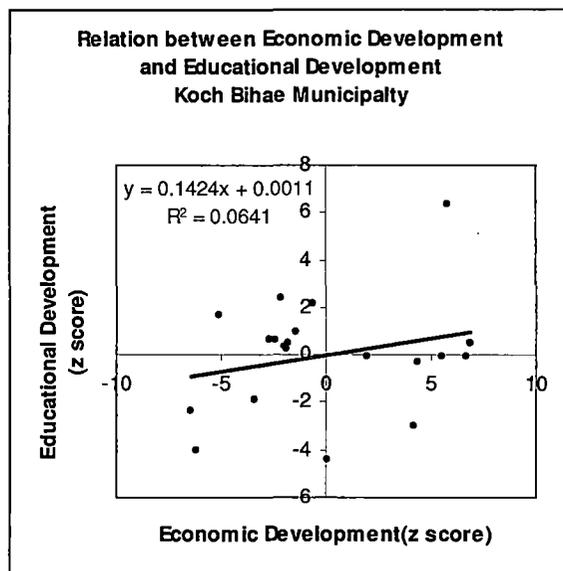
However, the multiple coefficient (0.6977) shows a strong correspondence between 'Male Literacy Rate' and the eight indicators in Koch Bihar municipality being statistically significant at 0.05% level according to Student's t test. Therefore, it can be concluded that though these economic indicator individually have no significant bearing on 'Male Literacy Rate' but in the aggregate those have noteworthy bearing on 'Male Literacy Rate' in Koch Bihar municipality.

The multiple linear regression analysis carried out between '*Female Literacy Rate*' and the selected '*Economic Indicators*' provide the resultant correlation matrix which reveals that the highest positive correlation exists between 'Female Literacy Rate' and 'Number of Rooms Per Household'(X<sub>6</sub>) with the Pearson's product-moment correlation coefficient (+0.2184) which is successively followed by that (+0.2138) between 'Female Literacy Rate' and 'Land Owned Per Household'(X<sub>5</sub>), by that (+0.1813) between 'Female Literacy Rate' and 'Work Participation Rate in Secondary Activities'(X<sub>1</sub>), by that (+0.1630) between 'Female Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>2</sub>) and finally that (+ 0.1203) between 'Female Literacy Rate' and 'Monthly Expenditure on Education Per Student' (X<sub>4</sub>).

The first two Pearson's product moment correlation coefficients, evidently suggest weak relationships whereas the remaining three Pearson's product-moment correlation coefficients encompass very weak correspondence. However, each of the eight correlation coefficients is statistically insignificant according to Student's t test. Nevertheless, the multiple correlation coefficient is 0.4872 establishes a moderate correspondence of 'Female Literacy Rate' and the eight economic variables being statistically significant at 2.5% level according to Student's t test. For that reason, it can be concluded that though the selected economic indicators individually have no significant bearing on 'Female Literacy Rate' in the aggregate those have remarkable bearing on 'Female Literacy Rate' in Koch Bihar municipality.

More over, From the above it appears that the 'Total Literacy Rate' bears the highest positive relationship with the selected 'Economic Indicators', suggesting that of

all the rates of Literacy, 'Total Literacy Rate' in Koch Bihar municipality is the principal determinant of the selected 'Economic Indicators'.



*Figure Number – 9.5*

Beside this, the relationship between '*Economic Development*' and '*Educational Development*' in *Koch Bihar municipality* has also been studied by Pearson's product-moment correlation coefficient, which is + 0.2532 which again is statistically not significant according to Student's t test. That is to say, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate' either individually or in the aggregate have no significant bearing on 'Economic Development' in Koch Bihar municipality.

The '*Economic Development*' as determined by z-scores taking into account of twenty seven wards of *Raiganj municipality* ranges from the minimum of -12.62 in Ward Number 26 to the maximum of +7.50 in Ward Number 9. Taking into account this range in z-scores all the wards have been grouped into five categories according to the level of 'Economic Development'. The classes of 'Economic Development' and the corresponding numbers of wards included in them are as follows(*Table Number: 9.12*):

### Economic Development in Raiganj Municipality:

Categories of Economic Development	Number of Wards
Very High(> +5.00)	6
High(+0.01 - +5.00)	8
Medium(-5.00 – - 0.01)	8
Low(- 10.00 - 5.01 )	3
Very Low(< - 10.00)	1

Source: Computed by the author.

Table Number: 9.12

From the above table it appears that low and very low 'Economic Development' occurs in three and one wards of Raiganj municipality. Beside these, equal number of wards recorded high and medium 'Economic Development' whereas very high 'Economic Development' occurs in six wards of Raiganj municipality. Therefore, maximum number of wards i.e. twenty two wards of the Raiganj municipality belong to high and medium class of 'Economic Development' respectively. As a result, there is a disparity in 'Economic Development' in the wards of Raiganj municipality and, moreover, the tendency of the maximum number of wards is towards the medium to very high level of 'Economic Development'.

### Educational Development in Raiganj Municipality:

Categories of Educational Development	Number of Wards
High(+0.01 - +5.00 )	14
Low(-5.00 - -0.01)	13

Source: Computed by the author.

Table Number: 9.13

The level of '*Educational Development*' of twenty six wards of Raiganj municipality has again been ascertained using z-scores calculated on the basis of three variables of 'Literacy Rate', namely, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate'. The value of z-scores of 'Educational Development' ranges from the minimum of - 4.28 in Ward Number 26 to the maximum of + 4.97 in Ward Number 21. Taking into consideration this range of z-scores of 'Educational Development', all the

Development' and the corresponding number of wards occurring within them are given in (Table Number: 9.13).

More or less equal number of wards i.e. fourteen wards and thirteen wards of Raiganj Municipality are included in the high and low classes of 'Educational Development'. Therefore, there is a crystal clear uniformity of high and low 'Educational Development' over the wards of Raiganj municipality.

The relationship between 'Economic Development' and different 'Literacy Rates' in different wards of Raiganj municipality has been brought out by Pearson's product-moment correlation coefficients. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' has given in table (Appendix Number: 10.36).

From the above table it appears that alike Siliguri Municipal Corporation and Jalpaiguri municipality, 'Female Literacy Rate' bears the highest (+ 0.5342) positive relationship with 'Economic Development' suggesting that, of all three rates of literacy, 'Female Literacy Rate' in Raiganj municipality is the principal determinant of 'Economic Development'. It is interesting to note here that out of these three correlation coefficients first two are statistically significant at 1% and 5% level according to Student's t test whereas, the remaining one is not statistically significant at all according to Student's t test.

The correlation matrix acquired from the multiple linear regression analysis between ward wise distribution of '*Total Literacy Rate*' and these eight '*Economic Indicators*' of Raiganj municipality portrays that the highest positive correspondence has been observed between 'Total Literacy Rate' and 'Monthly Percapita Income' ( $X_3$ ) as the Pearson's product-moment correlation coefficient (+ 0.6902) between these two suggests a strong correspondence. It is followed by that (+ 0.2847) between 'Total Literacy Rate' and 'Telephone Used Per Household' ( $X_8$ ) suggesting an weak relationship of them. Therefore, the first one encompasses a strong correspondence between them whereas the remaining one has a weak correspondence only the first Pearson's product-moment correlation coefficient between 'Total Literacy Rate' & 'Monthly Per Capita Income' ( $X_3$ ) is statistically significant at 0.05% level according to Student's t test.

However, the multiple correlation coefficient (0.8052) unquestionably discloses a very strong association of 'Total Literacy Rate' and the selected eight 'Economic Indicators' in Raiganj municipality being significant at 0.05% level according to Student's t test.

The correlation matrix obtained from the multiple linear regression analysis of '*Male Literacy Rate*' and the selected '*Economic Indicators*' in *Raiganj municipality* exposes that the highest positive correlation coefficients (+0.3371) is occurred between 'Male Literacy Rate' and 'Monthly Per Capita Income'(X<sub>3</sub>) which is followed by that (+0.0034) between 'Male Literacy Rate' and 'Telephone Used Per Household'(X<sub>8</sub>). That is to say, 'Monthly Per Capita Income(X<sub>3</sub>) has a weak relationship with 'Male Literacy Rate' whereas the remaining one portrays a very weak association with 'Male Literacy Rate'. Naturally the sole correlation coefficient between 'Male Literacy Rate' and 'Monthly Per Capita Income'(X<sub>3</sub>) is statistically significant at 5% level according to Student's t test.

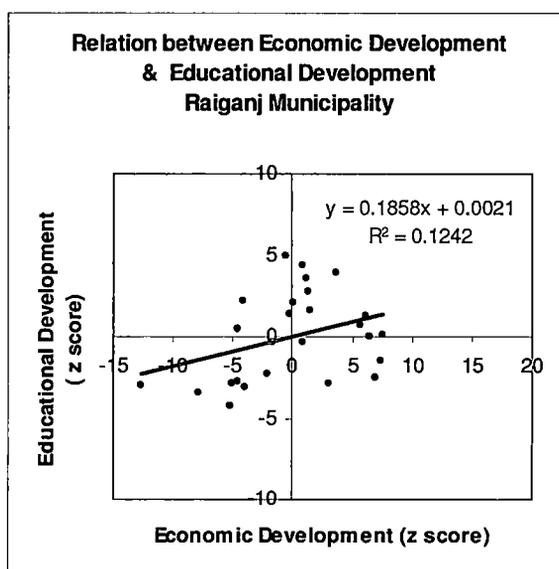
On the other hand, the multiple correlation coefficient (0.5751) indicates a moderate relationship between 'Male Literacy Rate' and the selected 'Economic Indicators' in Raiganj municipality. It is statistically significant at 0.5 % level according to Student's t test.

The correlation matrix obtained from the multivariate linear regression analysis of '*Female Literacy Rate*' and the selected '*Economic Indicators*' in *Raiganj municipality* discloses that the highest positive correlation coefficient (+0.7675) is occurred between 'Female Literacy Rate' and 'Monthly Per Capita Income'(X<sub>3</sub>) which is successively followed by that (+0.4174) between 'Female Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(X<sub>2</sub>), by that (+0.4122) between 'Female Literacy Rate' and 'Telephone Used Per Household'(X<sub>8</sub>), by that (+0.3426) between 'Female Literacy Rate' and 'Amount of Land Owned Per Household'(X<sub>5</sub>) and last of all by that (+0.2835) between 'Female Literacy Rate' and 'Work Participation Rate in Secondary Activates'(X<sub>1</sub>).

Out of these Pearson's product-moment correlation coefficients, those between 'Female Literacy Rate' & 'Monthly Per Capita Income' ( $X_3$ ), 'Work Participation Rate in Tertiary Activities' ( $X_2$ ) and 'Amount of Land Owned Per Household' ( $X_5$ ) are statistically significant at 0.05%, 0.5% and 5% levels respectively, whilst those between and 'Telephone Used Per Household' ( $X_8$ ) is statistically significant at 2.5% level according to Student's t test. Naturally, 'Monthly Per Capita Income' ( $X_3$ ) represents a strong relationship with 'Female Literacy Rate'. Beside this 'Work Participation Rate in Tertiary Activities' ( $X_2$ ) and 'Telephone Used Per Household' ( $X_8$ ) depicts a moderate correspondence with 'Female Literacy Rate'.

However, the multiple correlation coefficient (0.8536) reveals a very strong correspondence between 'Female Literacy Rate' and the selected 'Economic Indicators' in Raiganj municipality it is further corroborated by Student's t test being significant at 0.05% level.

More over, From the above it appears that the 'Female Literacy Rate' bears the highest positive relationship with the selected 'Economic Indicators', suggesting that of all the rates of Literacy, 'Female Literacy Rate' in Koch Bihar municipality is the principal determinant of the selected 'Economic Indicators'.



*Figure Number – 9.6*

Beside theses, the relationship between '*Economic Development*' and '*Educational Development*' has also been studied by Pearson's product-moment correlation coefficient, which is + 0.2835. It is statistically not significant according to Student's t test. That is to say, though 'Female Literacy Rate' and 'Total Literacy Rate' individually have a significant bearing on 'Economic Development' in Raiganj municipality but in aggregation it hardly has any significant bearing on 'Economic Development' in Raiganj municipality.

The '*Economic Development*' as ascertained by z-scores taking into account eight selected indicators, of twenty five wards of *English Bazar Municipality* ranges from the minimum of -7.27 in Ward Number 25 to the maximum of +7.17 in Ward Number 5. Taking into consideration this range in z-scores all the wards have been grouped into four categories according to the level of 'Economic Development'. The classes of 'Economic Development' and the equivalent numbers of wards included in them are as follows (*Table Number: 9.14*):

#### **Economic Development in English Bazar Municipality**

<b>Categories of Economic Development</b>	<b>Number of Wards</b>
High(> +5.00)	4
Moderately High(+0.01 - + 5.00)	12
Moderately Low(- 0.01 – -5.00)	4
Low(< - 5.00)	5

*Source: Computed by the author.*

*Table Number: 9.14*

From the above table it appears that equal number of wards i.e. four wards have high and moderately low 'Economic Development' in English Bazar municipality. Beside these, other five wards recorded low 'Economic Development'. Therefore, maximum number of wards i.e. twelve wards of the English Bazar municipality belong to moderately high class of 'Economic Development' respectively. As a result, there is a prominent disparity in 'Economic Development' in the wards of English Bazar municipality and moreover, the tendency of the maximum number of wards is towards the moderately high level of 'Economic Development'.

### Educational Development in English Bazar Municipality:

Categories of Educational Development	Number of Wards
High(> +5.00)	4
Moderately High(+0.01 - + 5.00)	12
Moderately Low(- 0.01 – -5.00)	4
Low(< - 5.00)	5

*Source: Computed by the author.*

*Table Number: 9.15*

The level of '*Educational Development*' of twenty five wards of *English Bazar Municipality* has again been determined using z-scores calculated on the basis of three variables of 'Literacy Rate', namely, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate'. The value of z-scores of 'Educational Development' ranges from the minimum of  $-7.27$  in Ward Number 1 to the maximum of  $+7.17$  in Ward Number 5. Considering this range of z-scores of 'Educational Development', all the wards of English Bazar municipality have been grouped into four categories of 'Educational Development' and the corresponding number of wards occurring within them are given in table (*Table Number: 9.15*).

Surprisingly it can be noted here that the number of wards belong to the above stated categories of 'Educational Development' are exactly similar to that of 'Economic Development'. Therefore, again there is a crystal clear supremacy of moderately high 'Educational Development' over the wards of English Bazar municipality.

The relationship between 'Economic Development' and different 'literacy Rates' in different wards of English Bazar municipality has also been brought out by Pearson's product-moment correlation coefficients. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' is given in table (*Appendix Number: 10.42*)

From the table it appears that 'Total Literacy Rate' bears the highest ( $+0.7177$ ) positive relationship with 'Economic Development' suggesting that, of all three rates of literacy, 'Total Literacy Rate' in English Bazar municipality is the most important determinant of 'Economic Development'. Moreover, it is interesting to note here that all

of the three correlation coefficients are statistically significant at 0.005% level according to Student's t test.

Form the correlation matrix acquired from the multivariate analysis of '*Total Literacy Rate*' and selected '*Economic Indicators*' in *English Bazar municipality* it emerges that the upper most positive correlation coefficient (+0.8268) is occurred between 'Total Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(x<sub>2</sub>) which is successively followed by that (+0.8142) between 'Total Literacy Rate' and 'Work Participation Rate in Secondary Activities'(x<sub>1</sub>), by that(+ 0.7355) between 'Total Literacy Rate' and 'Number of Rooms Per Household'(x<sub>6</sub>). Both of these Pearson's product-moment correlation coefficients are significant at 0.05% level according to Student's t test. Therefore it can be said that 'Work Participation Rate in Secondary Activities'(x<sub>1</sub>) establishes very strong correlation with 'Total Literacy Rate' whereas the remaining one ascertains a strong correspondence between 'Total Literacy Rate' and 'Number of Rooms Per Household'(x<sub>6</sub>) in English Bazar municipality.

However, the multiple correlation coefficient of the above stated eight variables with 'Total Literacy Rate' in English Bazar municipality is 0.9209 which demonstrates a very strong correspondence with 'Total Literacy Rate' in English Bazar municipality. Unquestionably, the multiple correlation coefficient is 0.05% level according to Student's t test.

The correlation matrix obtained from the multiple regression analysis of '*Male Literacy Rate*' and selected '*Economic Indicators*' in *English Bazar municipality* divulges that the premier positive correspondence is detected between 'Male Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(x<sub>2</sub>) as the Pearson's product moment correlation coefficient between these two is +0.8262 which is trailed by that (+0.7250) between 'Male Literacy Rate' and 'Work Participation Rate in Secondary Activities'(x<sub>1</sub>), by that (+0.7051) between 'Male Literacy Rate' and 'Number of Rooms Per Household'(x<sub>6</sub>), by that (+0.7048) between 'Male Literacy Rate' and 'Consumption of Electricity Per Household'(x<sub>7</sub>) and end with that (+0.3836) between 'Male Literacy Rate' and 'Monthly Expenditure on Education Per Student'(x<sub>4</sub>).

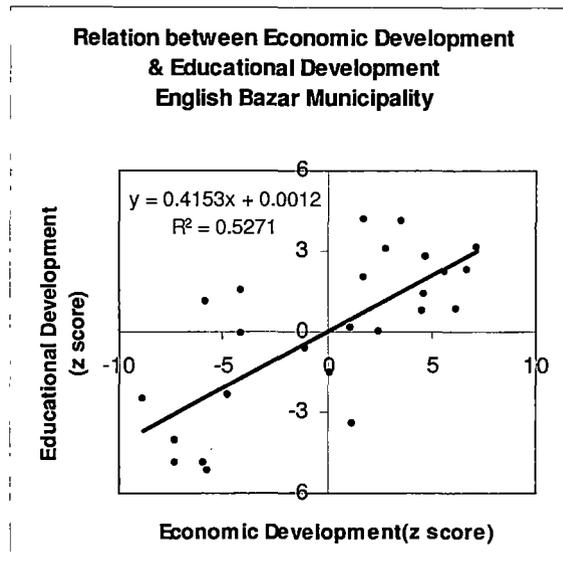
Out of the above Pearson's product-moment correlation coefficients the first four are statistically significant at 0.005% level according to Student's t test. Therefore, the first variable represents a very strong correlation with 'Male Literacy Rate'. The subsequent three stand for strong correlation whereas the last one comprises a weak correlation with 'Male Literacy Rate' in English Bazar municipality.

The multiple correlation coefficient (0.8566) symbolizes a y strong correspondence of 'Male Literacy Rate' and the selected 'Economic Indicators'. It is further substantiated by Student's t test being significant 0.05% level in English Bazar municipality.

The correlation matrix obtained from the multiple linear regression analysis of '*Female Literacy Rate*' and the selected '*Economic Indicators*' of *English Bazar municipality* emerges that the utmost positive Pearson's product moment correlation coefficient (+0.8228) is observed between 'Female Literacy Rate' and 'Work Participation Rate in Tertiary Activities'(x<sub>2</sub>) which is subsequently followed by that (+0.8103) between 'Female Literacy Rate' and 'Work Participation Rate in Secondary Activities'(x<sub>1</sub>), by that (+0.6193) between 'Female Literacy Rate' and 'Number of Rooms Per Household'(x<sub>6</sub>), by that (+0.6225) between 'Female Literacy Rate' and 'Land Owned Per Household'(x<sub>5</sub>), by that (+0.6193) between 'Female Literacy Rate' and 'Consumption of Electricity per Household'(x<sub>7</sub>). The foremost five out of these Pearson's product-moment correlation coefficients are statistically significant at 0.05% level according to Student's t test. Moreover, the first two out of these six Pearson's product-moment correlation coefficients are symbolizing, very strong relationship whilst the remaining three variables have strong correspondence.

However, the multiple correlation coefficient (0.9171) depicts a very strong correspondence between 'Female Literacy Rate' and selected eight 'Economic Indicators' simultaneously, being significant at 0.05% level according to Student's t in English Bazar municipality.

There fore, of all the 'Literacy Rate' 'Total Literacy Rate' have established maximum correspondence with selected 'Economic Indicators' in English Bazar Municipality.



*Figure Number – 9.7*

Beside this, the relationship between '*Economic Development*' and '*Educational Development*' has also been studied by Pearson's Product-moment correlation coefficient, which is + 0.6996 which again is statistically significant at 0.05% level according to Student's t test. That is to say, 'Total Literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate' either individually or in the aggregate have a significant bearing on 'Economic Development' in English Bazar municipality.

If we compare ward wise '*Economic Development*' of *five municipalities*, namely, Siliguri Municipal Corporation, Jalpaiguri municipality, Koch Bihar municipality, Raiganj municipality and English Bazar municipality of North Bengal, it appears that the maximum disparity occurs in Siliguri Municipal Corporation and minimum in Koch Bihar municipality. In fact, in Koch Bihar municipality the highest and negative z-scores are almost the same where as in Siliguri Municipal Corporation highest positive z-score is + 25.63 and the lowest negative score is - 4.54. Among the remaining three municipalities the disparity in 'Economic Development' is relatively higher in Raiganj municipality, followed successively by Jalpaiguri municipality and English Bazar municipality. However, the range of z-score in Koch Bihar and English Bazar municipalities is almost equal to each other.

As regards the disparity in 'Educational Development' (ward wise) in the above five municipalities we observed that the range of z-scores is almost the same in all the municipalities. Nevertheless, it is worth mentioning that maximum disparity in 'Educational Development' is displayed by Siliguri Municipal Corporation and Koch Bihar municipalities whilst the minimum disparity is recorded by Raiganj and English Bazar municipalities. The disparity in 'Educational Development' is exactly intermediate in Jalpaiguri municipality between these two extremes.

Thus from the comparative study of '*Economic Development*' and '*Educational Development*' in five municipalities it is apparent that Siliguri Municipal Corporation has the maximum disparity in both 'Economic' and 'Educational Development', while Koch Bihar municipality has the maximum diversity also in 'Educational Development' but minimum disparity in 'Economic Development'.

Lastly, from Pearson's Product-moment correlation coefficients between 'Economic Development' and 'Educational Development' in these five municipalities, it may be concluded that English Bazar municipality has the highest correlation coefficient (+0.6996) followed by those of Siliguri Municipal Corporation (+0.6270), Raiganj municipality (+ 0.2835), Koch Bihar municipality (+ 0.2532) and Jalpaiguri municipality (+ 0.1370). The first two correlation coefficients are not only strong but also statistically significant at 0.05% level according to Student's t test. The remaining three coefficients are not only weak but also statistically not significant at all. In other words, among five municipalities, it is only English Bazar municipality and Siliguri Municipal Corporation that the 'Educational Development' has considerable impact on 'Economic Development' there.

The '*Economic Development*' of eighty three *villages* of selected eight C.D.Blocks of six districts of North Bengal region have been computed on the basis of z-scores taking into consideration such eleven variables as follows- 'Distance from Nearest Phone Facility', 'Distance from Nearest Bus Stoppage', Distance from Nearest Railway Station', 'Distance from Nearest Commercial Bank', Distance from Nearest Cooperative Commercial Bank', Distance from Nearest Non-Agri Credit Society', 'Electricity Used

for Domestic Purpose', 'Work Participation Rate', 'Distance from Nearest Town', 'Annual Percapita Income' and 'Annual Percapita Expenditure'.

The value of z-scores ranges from the minimum of -12.79 in Biswambhar Binodpur village of Manikchak C.D.Block of Maldah district to the maximum of +11.63 in Ghugumari village of Mathabhanga-II C.D.Block of Koch Bihar district. Taking into account this range of z-scores all the villages have been categorised into six classes according to the level of development, the categories of 'Economic Development' as well as the corresponding number of villages included in them are given in table (*Table Number: 9.16*).

From the table (*Table Number: 9.16*) it appears that exceptionally high and very high 'Economic Development' occurs only in fourteen villages of the eighty three selected villages whereas moderately low and low 'Economic Development' occurred in another fifteen villages,. On the other hand, maximum number of villages i.e. thirty two and twenty three villages display high and moderately high 'Economic Development' at village level.

#### **Economic Development at Village Level:**

<b>Categories of Economic Development</b>	<b>Number of Villages</b>
Excessively High(> + 10.00)	1
Very High(+ 5.01 - + 10.00)	13
High(+ 0.01 + 5.00)	32
Moderately High(0.01 - + 5.00)	23
Moderately Low(-5.00 - -0.01)	10
Low(<-5.00)	4

*Source: Computed by the author.*

*Table Number: 9.16*

The level of '*Educational Development*' of eighty three *villages* of North Bengal have also been obtained using z-scores computed on the basis of three variables which are 'Total literacy Rate', 'Male Literacy Rate' and 'Female Literacy Rate'.. The value of z-scores of 'Educational Development' ranges from the minimum of - 7.16 in Rajapur village of Kushmundi C.D.Block of Dakshin Dinajpur district to the maximum of +5.38

in Mahaldiram Forest village of Kurseong C.D.Block of Darjiling district. Taking into account this range of z-scores of 'Educational Development', all the villages have been grouped into four groups according to the level of 'Educational Development'. The categories of 'Educational Development' and their corresponding number of villages belonging to them are as follows (*Table Number: 9.17*).

#### **Educational Development at Village Level**

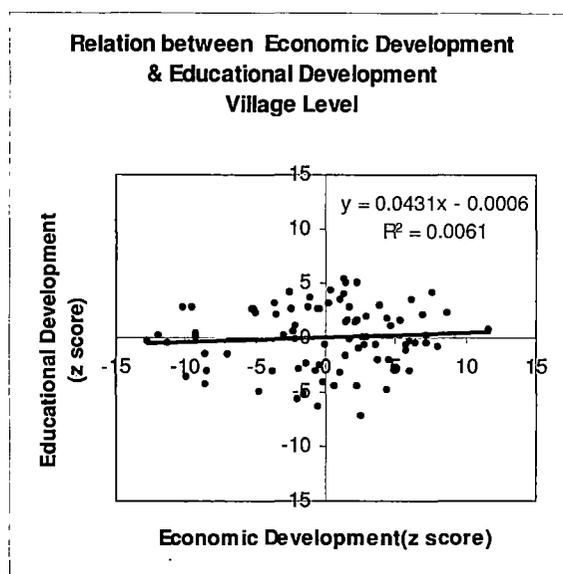
<b>Categories of Educational Development</b>	<b>Number of Villages</b>
High(> + 5.00)	2
Moderately High(0.01 - + 5.00)	39
Moderately Low(-5.00 - -0.01)	37
Low(<-5.00)	5

*Source: Computed by the author.*

*Table Number: 9.17*

From the above table it appears that almost equal numbers of villages belong to moderately high and moderately low level of 'Educational Development' as thirty nine and thirty seven villages of different C.D.Blocks of six districts of North Bengal were recorded in those two classes respectively. Moreover, two villages of Kurseong C.D.Block of Darjiling district and five villages mainly of Chopra C.D.Blocks of Uttar Dinajpur district and Kushmundi C.D.Block of Dakshin Dinajpur district display low 'Educational Development' at village level. However, the relationship between 'Economic Development' and different 'Literacy Rates' at village level have been explained by the Pearson's product-moment correlation coefficients. The nature and degree of relationship between 'Economic Development' and different 'Literacy Rates' are given in the table (*Appendix Number: 10.48*).

From the table (*Appendix Number: 10.48*) it appears that 'Male Literacy Rate' have the highest (+0.0892) positive correlation with 'Economic Development' which is followed by that between 'Total Literacy Rate' and 'Economic Development' (+0.0752) and that between 'Female Literacy Rate' and 'Economic Development' (+0.0649). It is



*Figure Number -9.8*

interesting to note here that all the three correlation coefficients are statistically not significant according to Student's t test. The relationship between 'Economic Development' and 'Educational Development' at village level has again been studied by Pearson's product-moment correlation coefficient which is + 0.1658 which is again not at all statistically significant according to Student's t test. As a result, neither the 'Educational Development' in aggregation nor different 'Literacy Rates' in isolation has practically almost any bearing on 'Economic Development'.

From the correlation matrix obtained from the multivariate analysis '**Total Literacy Rate**' and the selected '**Economic Indicators**' at *village level* appears that the highest positive correlation coefficient (+0.4326) is obtained between 'Total Literacy Rate' and 'Electricity Used for Domestic Purpose'(X<sub>7</sub>) which is followed by that (+0.0616) between 'Annual Per Capita Expenditure'(X<sub>11</sub>) and finally, by (+0.0177) between 'Total Literacy Rate' and 'Distance from Nearest Commercial Bank'(X<sub>4</sub>). Out of these eleven Pearson's product-moment correlation coefficients the first one is statistically significant at 0.05% level according to Student's t test.

The multiple correlation coefficient (0.5593) indicates that there is a moderate correlation between 'Total Literacy Rate' and the selected 'Economic Indicators' at village level being significant at 0.05% level.

From the correlation matrix of the multiple regression analysis of '*Male Literacy Rate*' and eleven selected '*Economic Indicators*' at *Village level* analysis it comes into view that the maximum positive Pearson's product-moment correlation coefficient (+0.3737) is obtained between 'Male Literacy Rate' and 'Percentage of Villages having Electricity' ( $X_7$ ) which is successively followed by that (+0.0146) between 'Male Literacy Rate' and 'Total Work Participation Rate' ( $X_8$ ), by that (+0.0049) between 'Male Literacy Rate' and 'Per Capita Annual Expenditure' ( $X_{11}$ ) and lastly, that (+0.0012) between 'Male Literacy Rate' and 'Distance from Nearest Commercial Bank' ( $X_4$ ).

Therefore, out of these the 'Percentage of Villages having Electricity' displays a weak correlation whereas the remaining three represent very weak correspondence with 'Male Literacy Rate' in English Bazar municipality. Naturally, the Pearson's product-moment correlation coefficients between 'Male Literacy Rate' & 'Percentage of Electrified Villages' ( $X_7$ ) is statistically significant at 0.05% level according to Student's t test.

Despite the above stated fact, all the variables collectively represent a moderate relationship since the multiple correlation coefficient is 0.5022 being significant at 0.05% level according to Student's t test.

The correlation matrix acquired from the multiple correlation regression analysis of '*Female Literacy Rate*' and eleven '*Economic Indicators*' at *village level* exhibits that the highest positive Pearson's product-moment correlation coefficient (+0.4571) is occurred between 'Female Literacy Rate' and 'Percentage of Electrified Villages' ( $X_7$ ) which is followed by that (+0.1145) between 'Female Literacy Rate' and 'Distance from the Nearest Agri-Credit Society' ( $X_6$ ), by that (+0.1136) between 'Female Literacy Rate' and 'Annual Per Capita Expenditure' ( $X_{11}$ ), and lastly, by that (+0.0234) between 'Female Literacy Rate' and 'Distance from the Nearest Commercial Bank' ( $X_4$ ). The coefficient between 'Female Literacy Rate' and 'Percentage of Village having Electricity' ( $X_7$ ) is statistically significant at 0.05% level according to Student's test.

The multiple correlation coefficient (0.5866) depicts a moderate correspondence between 'Female Literacy Rate' and the selected 'Economic Indicators' being significant at 0.05% level according to Student's t test.

### ***Testing of Hypothesis:***

For this research project two hypotheses were formulated. The first hypothesis, which reads: "*There is positive relationship between level of 'Literacy' and 'Economic Development'*" have been tested at different levels of the research work separately. The above referred tables, that is to say, table numbers – 10.6, 10.12, 10.18, 10.24, 10.30, 10.36, 10.42 and 10.48 prove that 'Literacy Rate' and its components independently display positive correspondence with 'Economic Development' (*discussed in chapter-vii*). Beside this, the 'Educational Development' has been determined on the basis of different components of 'Literacy Rate' using composite score method. The correlation between 'Economic Development' and 'Educational Development' have been analysed at different level of this study. The correlation coefficient '+0.395646' between 'Economic Development' and 'Educational Development' at district level reveals that there is an weak though positive correlation between these two variables though it is statistically insignificant according to Student's t test. The 'Pearson's product moment correlation coefficient '+ 0.309313' confirms weak but positive relationship at C.D.Block level and it is further substantiated being statistically significant at 0.05% level according to Student's t test. The correlation coefficient '+ 0.0781986' obtained from the bivariate regression analysis between 'Economic Development' and 'Composite Score of Literacy' presents very weak however a positive correspondence between these two variables though it is statistically not significant according to Student's t test. The correlation coefficients obtained from the linear regression analysis between 'Economic Development' and 'Educational Development' of five selected towns of North Bengal further corroborated the above stated fact of first hypothesis. However, the Pearson's product moment correlation coefficient between the above stated two variables for Siliguri Municipal Corporation is '+ 0.62704' which being statistically significant at 0.005% level provides high positive affiliation between those two variables. The correlation coefficients '+ 0.137021' and '+ .25320' substantiate very weak and weak but

positive correlation between 'Economic Development' and 'Educational Development' in case of Jalpaiguri as well as Koch Bihar municipality respectively. Moreover, the correlation coefficient '+0.28353' stands not only for a weak positive correspondence between 'Economic Development' and 'Educational Development' in Raiganj municipality, it is also corroborated being statistically significant at 5% level according to Student's t test. Last of all, the correlation coefficient '+ 0.69957' achieved from the bivariate linear regression analysis between 'Economic Development' and 'Composite Score of Literacy Rate' in English Bazar municipality be evidence of strong positive correspondence between these two variables. It is once more substantiated being statistically significant at 0.05% level according to Student's t test. As a consequence the first hypothesis is endorsed effortlessly in this research work.

The Pearson's product-moment correlation coefficient between 'Economic Development' and 'Educational Development' at district level for the year of 2001 '+0.395646' as well as the estimated regression equation ' $Y_c = 0.000921 + 0.347769X$ ' reveals that there is a positive correlation between these two variables. On the other hand, the similar bivariate regression analysis between 'Economic Development' and 'Educational Development' for the year of 1991 provides the following estimated regression equation ' $Y_c = 0.01058 + 0.173071X$ ' along with the correlation coefficient '+0.325098' divulges once more a positive correspondence between these two attributes. It should be noted here that the magnitude of correlation coefficient of the year of '2001' is greater than that of the '1991' though both of them are not statistically significant according to Student's t test. However, it should be concluded here that with the progress of time in any region if there is 'economic growth' or 'economic development' there will be the augmentation of between 'Economic Development' and 'Educational Development' 'literacy rate' simultaneously. Thus the second hypothesis formulate in this study: *'The higher the growth of 'Literacy', the higher will be the level of 'Economic Development'* is approved.

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