



# Analyses Of Gender Literacy Rate And GDP Of Selective States Of India

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## Abstract:

According to studies, there is a strong relationship between gender literacy rate and GSDP. Men and women both are equal and play a paramount role in the creation and development of their families in particular and society in general. Gender inequality in India is a crucial reality. The top four and bottom four states of India have been taken into consideration for the analysis. Literacy is one of the most important indicators of economic development. Recent empirical research reveals the benefit of male and female education and describes the importance of this subject for economic development. Therefore the main objective of this research paper is to analyse the relationship between gender literacy and GSDP of selective states of India. The secondary data from the year 2011 has been used for the analysis. The methodology used for finding the relationship between gender literacy rate and GDP is a correlation, Descriptive statistics.

**Index Terms:** Gender inequality, Gender literacy, Gross State domestic product (GSDP), selective states.

## Introduction:

Literacy is one of the most essential indicators of the quality of a country's human capital. Generally 'literacy' also encompasses 'numeracy', the ability to make simple arithmetic calculations. The word human capital refers to the skills and expertise that allow the individual to do their task more productively. Skills and expertise in form of education, experience, and judgement. In studies of broad sets of countries, including both developed and developing countries, the standard measures of human capital that are based on educational achievement often have a positive and significant long-run level effect on the country's GDP. Gender inequality is the social phenomenon in which men and women are not treated equally. Literacy means the ability to use printed and written information to function in society, achieve one's goals, and develop one's knowledge and potential. This is a skill-based definition. Gender literacy means being able to name these gender rules while at the same time being aware of what can happen if you don't follow them. GDP means the total monetary or market value of all the finished goods and services produced within a country's border in a specific period. Gross State Domestic Product is a measure in monetary terms, of the total volume of all finished goods and services produced during a given period usually a year, within the geographical boundaries of a state. The word GDP and GSDP have different applications former applies to the whole country whereas the latter applies to only states of that country.

Gender inequality in education is a persistent problem within Indian society especially for girls, belonging to economically weaker sections of the society. Gender inequality is important in various sector which includes health, EDUCATION, employment and pay. Literacy is an important tool for communication, learning, or gaining some knowledge, informing which is preconditioning for the individual's evolution and national development. The linkage between gender inequality and economic growth has become one of the subjects in policy-making areas and social science areas. Gender equality is assumed to contribute to the overall development of the economy. This issue has led international agencies such as World Bank and United Nations (UN) to improve and have a well-structured development strategy designed to minimise differences

between men and women. A famous quote by 'Brigham Young' is, "If you educate a man, you educate an individual, but if you educate a woman, you educate a nation". Gender inequality has a negative relationship with GSDP.

The 15th official census in India was calculated in the year 2011. In a country like India, literacy is the main foundation for social and economic growth. When the British rule ended in the year 1947 the literacy rate was just 12%. Over the years India has changed socially, economically and globally. After the 2011 census, the literacy rate in India 2011 was found to be 74.04%. Compared to the adult literacy rate the youth literacy rate is about 9% higher. Though this seems like a very great accomplishment, it is still a matter of concern that still so many people in India cannot even read and write. The numbers of children who do not get an education, especially in rural areas are still high. Though the government has made a law that every child under the age of 14 should get free education, the problem of illiteracy is still at large.

Today, the female literacy levels according to the literacy rate 2011 census are 65.46% whereas the male literacy rate is over 80%. The literacy rate in India is always been a matter of concern but many NGO initiatives and government ads, campaigns and programs are being held to spread awareness amongst the people about the importance of literacy. Also, the government has made strict rules for female equality rights. India's literacy rate has shown a significant rise in the past 10 years. In India, different states are having different literacy rates. So Kerala is the only state in India to have a 100% literacy rate. It is followed by Goa, Tripura, Mizoram, Himachal Pradesh, Maharashtra and Sikkim. The lowest literacy rate in India is seen in the state of Bihar. The poor literacy rate in India is basically due to the increase in population day by day. Being the largest country in its population stands 2<sup>nd</sup> in the world after China.

The number of schools and educational centres especially in rural areas is less. Even today many people are below the poverty line. Also, people aren't aware that children should get free education according to the law. If government policies are favourable for education, educational institutes are more developed, more people become educated and employed. This leads to a higher standard of living. Thus, the literacy rate of countries is an indicator of their socioeconomic development. Literacy rate statistics can be used to determine the level of education of people living in a country and is usually tied to the country's GDP. Countries that invest more in the education of their citizens (more schools, training etc. ) normally have higher literacy rates and a higher GDP. A high literacy rate will allow people to avail better job employment opportunities and contribute to the growth of the economy. The literate population will be more aware of family planning, and better nutrition and health standards.

The spread of gender literacy has emerged as a major factor in economic and social development. The linkages between education, health and nutrition are mutual and complementary. The strong linkages between education, health, nutrition and reduced fertility results in synergies, which can transform the vicious cycle of poverty illiteracy, malnutrition, and diseases into a virtuous cycle of learning and health, equity and sustainable development. Closing the gap in well-being between males and females is as much a part of development as is reducing income poverty. Greater gender equality also enhances economic efficiency and improves other development outcomes.

### **Literature Review:**

Gender equality shows a positive effect on economic growth. This has been proved by empirical evidence. (Derek H.C. Chen, April 21 , 2004 )

Gender Inequality is a multi-dimensional term including economic, cultural, and social dimensions alike. (Poulomi Mukherjee And Dr Ishita Mukhopadhyay, July-Aug, 2013)

As there is a difference seen in various casts at all levels, the same thing is reflected in gender inequality. The analysis of literacy is done for the years 2001 and 2011. (DEVINA SARWATAY, December 2014 )

The problem of gender inequality in economic growth is a long-term problem. Hence it can not be removed wholly but by different policies of the government, it can be reduced to a very extent. (SINGH SUMANJEET , March 18 , 2016 )

Growth measures should be diverted from achieving a growth rate of GDP towards the spread of literacy. (Dr Neeraj Emmanuel Eusebius , June , 2017 )

Literacy is the answer to the development of economic growth. It underlines the importance of community participation for the success of reducing illiteracy with the help of the government's various policies and programmes. (TANUSHREE CHANDRA, October 31, 2019) .

### Objectives:

- 1) To analyse the literacy figures
- 2) To analyse the relationship between literacy and GSDP

### Hypothesis:

**H0:** there is no relationship between male and female literacy rates and GSDP

**H1:** there is a relationship between male and female literacy rates and GSDP

### Research Methodology:

Quantitative data has been used for this research paper. The secondary data has been collected from the sources of the census 2011. The research design used for this analysis is Descriptive. For quantitative data, the statistical analysis method is used to test the relationship between macroeconomic variables. The sample size is of 8 states the topmost and bottommost states of India. This state has been categorised based on gender literacy rate. Multiple regression is being used to find out the impact between the dependent variable concerning two independent variables. For this particular study, the data has been taken for the year 2011.

### Data Analysis:

A GDP is severely affected by one major variable that has been included in this particular study which is gender literacy rate ( male and female ). This study it is tried to analyse how the male literacy and female literacy rates have been consistently affected by the macroeconomic variable GDP. Here the dependent variable is gsdp and the independent variables are male and female literacy rates.

### Secondary data for the year 2011

States	Females literacy rate	Males literacy rate	GSDP
Kerala	92	96.1	364048
Mizoram	88.2	93.7	7259
Tripura	83.1	92.8	19208
Goa	81.8	92.2	42367
Bihar	52.7	73.4	247144
Arunachal Pradesh	53.3	73.7	11063

Rajasthan	56.2	75.6	434837
Jharkhand	58	77.2	150918

The top 4 and bottom 4 states have been categorised based on gender literacy rate. Of the top foremost states Kerala has the highest female literacy rate of 92% and a male literacy rate of 96.1%. And among the bottommost states, Jharkhand has the highest female literacy rate of 58% and a male literacy rate of 77.2%. And among the top four states Kerala has the highest GSDP having 364048. And among the bottom four states, Rajasthan has the highest GSDP having 434837. So this means that in the bottom four states, there is no relationship between male and female literacy rates and GSDP.

**Table 1.** Correlation

	Female	GSDP
Females	1	
GSDP	-0.20735715	1

Table 1 shows the relationship between the gender female literacy rate and GSDP. It is founded that there is a negative relationship between gender female literacy rate and GSDP. Thus, it means that the relationship is between -0.207.

**Table 2.** Correlation

	GSDP	Males
GSDP	1	
Males	-0.23536438	1

Table 2 shows the relationship between the gender male literacy rate and GSDP. It is founded that there is a negative relationship between the gender male literacy rate and GSDP. Thus, it means that the relationship is between -0.235.

**Table 3.** Regression statistics

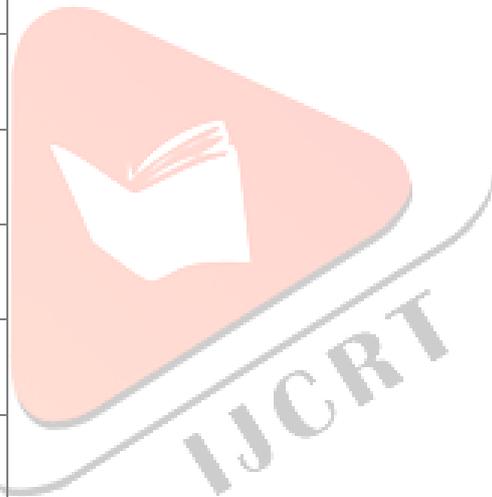
Multiple R	0.20735715
R Square	0.042996988
Adjusted R Square	-0.116503514
Standard Error	180391.2696
Observations	8

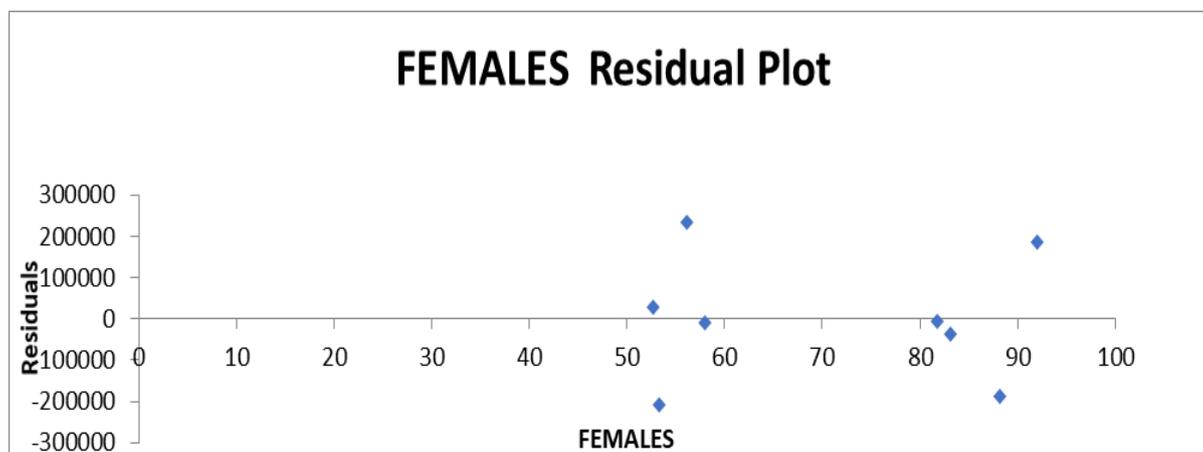
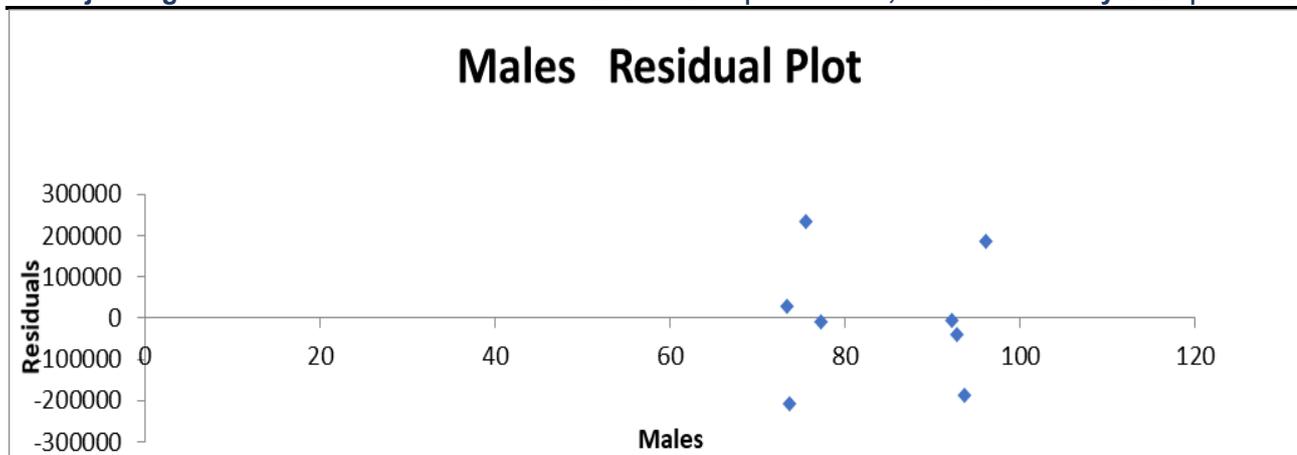
**Table 4.**

	Coefficients	Standard Error	t Stat	P-value
Intercept	3265641.938	3526508.332	0.926027002	0.396929169
FEMALES	39212.7808	49198.49432	0.797032132	0.461585983
Males	-69683.2318	82743.55337	-0.842159044	0.438113491

**Table 5. Residual Output**

Observation	Predicted GSDP	Residuals
1	176659.1964	187388.8036
2	194890.3857	-187631.3857
3	57620.11218	-38412.11218
4	48453.43621	-6086.43621
5	217406.2726	29737.72743
6	220028.9715	-208965.9715
7	201347.8954	233489.1046
8	160437.73	-9519.73001





The above residual plot shows the normality of the data. Because both the residual plots are showing the randomness of the data.

### Findings:

- According to table 4, the P-value of the female literacy rate is 0.461585983.
- The P-value of the male literacy rate is 0.438113491.
- The normal range for accepting the H1 hypothesis is less than 0.05. So accordingly, both the variables having P-values are more than 0.05.
- In 2011, there may not be a relationship between gender literacy rate (male and female) on GSDP.
- So according to this research paper, H0 is accepted which means there is no relationship between male and female literacy rates and GSDP.

### Conclusion:

India must take concrete steps needs to reduce gender inequality. As persistent gender inequalities continue, there is a need to rethink the concepts and strategies for promoting women's dignity and rights. There is a need for new kinds of institutions, incorporating new norms and rules that support equal and just relations between women and men. Man and woman are like two wheels of a carriage. The life of one without the other is incomplete. The only foolproof method to stop gender inequality is to bring about change in the mindsets of people. This problem can't be solved by a few but everyone must join hands to eradicate this inequality. GSDP is not significantly related to literacy rate. Therefore, GSDP plays a significant role in changing the literacy rate. To develop a country the government of that country can easily take some proper initiatives for example increasing the education budget, making primary/secondary education compulsory, etc. to increase the literacy rate. Increasing the literacy rate will increase GSDP resulting development of the country. According to this study, there may be other variables affecting which has the relation with GSDP in the year 2011. Because in this year in respect of the census of GSDP and male and female literacy rates, does not show any relation between the dependent and independent variables.

**Limitations:**

1. The variable taken in this research paper is male and female literacy rate and state GDP only.
2. This study is based only on the year 2011.
3. multiple regression is being used for analyses between both dependent and independent variables.

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