



AN ANALYSIS OF EDUCATIONAL EXPENDITURE OF THE GOVERNMENT AND ITS IMPACT ON GDP IN INDIA: BEFORE AND AFTER GLOBALIZATION

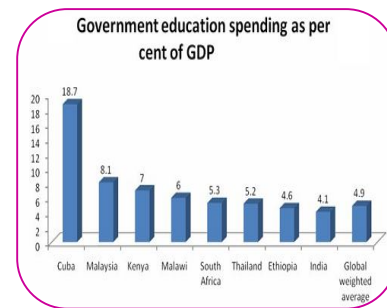
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ABSTRACT

Governments of different nations spend great proportions of their income on boosting the growth of their economies. Even though other factors can influence the economic growth, education is well-advised as one of the efficacious ways to causal factor of a countries economics growth. The history proves the same that is education can serve as the power bank to change the world in general and economic growth in particular even from the time of Adam Smith. Using Simple Linear Regression Model, this paper tries to identify the level of contribution of Government Expenditure on Education to GDP before and after Globalization in India. The results show that there is a positive relationship between government education expenditure and GDP and there is a contract in the contribution of Government education expenditure to GDP after globalization. It is suggested that Indian government should increase her budgetary allocation to education because of its importance to the economy, hoping that with proper monitoring of fund, it would contribute more significantly to the economy of the country.



KEYWORDS : Public expenditure on education, Effects of Globalization, Education expenditure and GDP.

1. INTRODUCTION

Governments of different nations spend great proportions of their income on boosting the growth of their economies. Nations achieve significant development of human resources through efficient good health care delivery system, education and adequate food security [1]. A handful of studies have been tried to find out the factors which are affecting the economic growth. There are many ways to increase the GDP growth rate which include foreign direct investment, investment in capital goods, better capacity utilization etc.[2] Even though other factors can influence the economic growth, education is well-advised as one of the efficacious ways to causal factor of a countries economics growth. The history proves the same that is education can serve as the power bank to change the world in general and economic growth in particular even from the time of Adam Smith. As per the economists point of view, expenditure on education is considered as an investment not an expenditure because any expenditure made on education will reflect in the form of enhancement of skill and ability. As a outcome, the earning capacity of the layman will improve and automatically the economic growth.

Using Simple Linear Regression Model, the present paper tries to identify the level of contribution of Government Expenditure on Education to GDP before and after Globalization in India. This paper is structured into four sections. The first section explicates the importance of education. Section two gives the

literature review. Section three provides the data source and methodology. Section four provides discussion of the results. The conclusion and recommendations are contained in the preceding section.

## 2. REVIEW OF LITERATURE

Lindauer and Valenchik (1992)[3] discovered that government disbursement is lead to economic growth and succeeding demographic transitions and there is a increase in income and taste of the people in a country. Okogie (1995)[4] found that investment in the form of education is positively associated with creativity and productivity of individuals of a country. Yusufu (2000)[5] opined that, to face the challenges in the workplace in the form of upgradation or innovative approach to solve the problems, human resources development is ineluctable one. Aziz, Khan and Aziz (2008)[6] traced a significant impact on economic growth by the higher education in Pakistan. The same results are witnessed bythe following authors Jung and Thorbecke (2001)[7], Ogujiuba and Adeniyi(2005)[8], and Chandra,(2010)[9]. Yet, Nurudeen and Usman(2010)[10] witnessed a negative relationship between expenditure on education and economic growth in Nigeria during the period 1970 to 2008.

## 3. OBJECTIVES

The objectives of the present study are as following

1. To analyze the trend of educational expenditure of the central government before and after Globalization
2. To analyze the contribution of educational expenditure to the development of economy before and after Globalization

## 4. METHODOLOGY

### 4.1 Data and Data Source

Secondary sources of data were used in the study because of the cosmos of the study which is an analysis of impact of Government expenditure on National Income, taking GDP as proxy. Time series data for the period 1971 – 1990 and 2000 – 2015. The time period is classified in to two; first one is 'before globalization' that is 1971 to 1990; second one is 'after globalization' that is 2000 to 2015. The period 1991 to 1999 is considered as breath taking period because the India took some time to observe the shocks of New Economic Policies introduced in the year 1991. The data were obtained from different issues of Economic Survey of India, RBI's Statistical Hand Book and Human Development Report by MHRD of India. The data on GDP and the government expenditure (Centre and State/UT) on education are deflated to 2004-05 prices so that the inflationary effect is removed from the data on both the variables.

### 4.2 The Model

Simple Linear Regression Model is run to establish the relationship between the variables. The model is formulated thus:

For the first objective

$$Y = a + bt$$

Y = Education Expenditure

a = Intercept

b = coefficient

t = time

For the second objective

$$GDP = f(Ed)$$

With a linear relationship such as:

$$\text{GDP} = \beta_0 + \beta_1 (\text{Ed}) + U$$

Where: GDP = Gross Domestic Product

$\beta_0$  = Intercept

$\beta_1$  = estimation coefficient

Ed = government expenditure on education

U = error term

## 5. RESULTS AND DISCUSSIONS

To satisfy the objectives of the study SLR model applied and the following results are obtained.

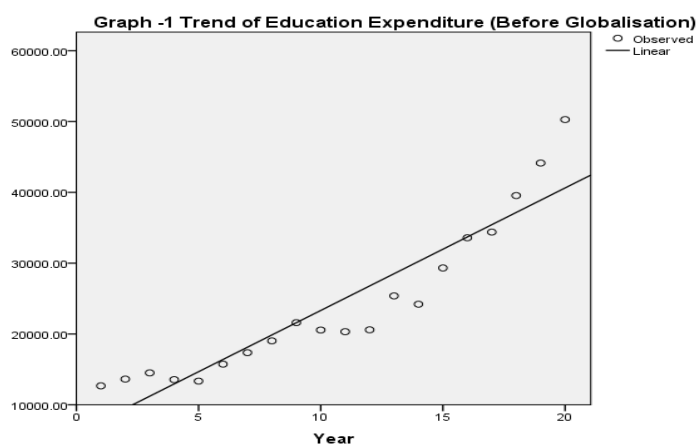
**Table – 1**  
**Regression Results of Government Expenditure on Education**

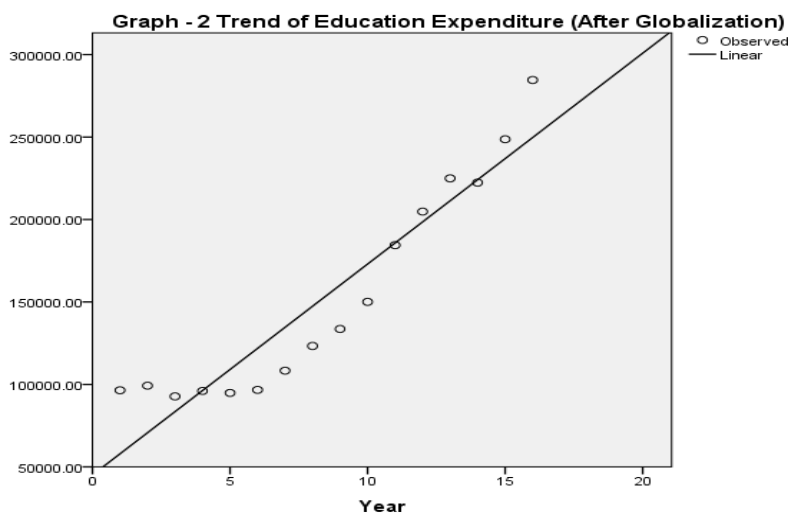
Time Period	$\beta_0$	$\beta_1$	SE	t	Sig.	R <sup>2</sup>	Adj.R <sup>2</sup>
1971-1990	9504.06	1200.98*	117.87	10.19	.000	.881	.873
2000- 2015	45132.93	12786.89*	1238.93	10.32	.000	.884	.876

\* Significant at 1 per cent level

Table -1 explicates the Simple Linear Regression models results during 1971 to 1990 and 2000 to 2015. The results show that if there is one unit increase in time (Year), the Education expenditure rose by 1200.98 crores during pre globalization period and by 12786.89 crores during post globalization period. To assess the goodness of fit of the model R<sup>2</sup> and adjusted R<sup>2</sup> are utilized. Both the periods having good R<sup>2</sup> and adjusted R<sup>2</sup> values that is 0.881 and 0.873 for the period 1971-1990; 0.884 and 0.876 for the period 2000-2015. The coefficients are significant at one percent level.

The following are the graphs show the Trend of Expenditure on Education Before and Globalisation based on the OLS coefficients calculated using simple linear regression model. It reveals that more or less there is a same trend during both the periods that is before and after globalization.





**Table – 2**  
**Regression Results of Government Expenditure on Education and GDP**

Time Period	$\beta_0$	$\beta_1$	SE	t	Sig.	R <sup>2</sup>	Adj.R <sup>2</sup>
1971 -1990 (Before Globalization)	409833.42	20.76*	.897	23.157	.000	.968	.966
2000 – 2015 (After Globalization)	898535.29	21.30*	.966	12.913	.000	.933	.927

\* Significant at 1 per cent level

From the above analysis, it is clear that there is a strong correlation between the variables during both the cases that is before and after globalization. The high value of R<sup>2</sup> shows a very good fitness of the Simple Linear Regression model used for the analysis. The estimated coefficients are significant at one per cent level. The equations are:

Before Globalization:  $GDP = 409833.42 + 20.76 Ed$

After Globalization:  $GDP = 898535.29 + 21.30 Ed$

The equations reveal that, even though there is no government expenditure on education, the GDP will be positive which is theoretically justified. The intercept value for the 'after globalization period' is higher than the 'before globalization period'. It conveys that there is a shrink in the contribution of Government education expenditure to GDP after globalization. It further explains that, if there is one crore rise in public education expenditure, the GDP rose by 20.76 crores during pre globalization period and by 21.30 crores during post globalization period. The coefficients show that, there is no significant difference between the two periods.

## 6. CONCLUSION AND SUGGESTION

The contribution of Government Education Expenditure to GDP of Indian Economy before and after globalization was analyzed. It was discovered that the contribution of the Government education expenditure to the GDP is in direct relationship for both the cases that is before and after the New Economic Policy 1991. More specifically, there is a shrink in the contribution of Government education expenditure to GDP after globalization. It is notable that Government Education Expenditure as a percentage to GDP is also shows a marginal decrease. This is not good for transitory economy like India.

It is suggested that government should increase her budgetary allocation to education because of its importance to the economy, hoping that with proper monitoring of fund, it would contribute more significantly to the economy of the country.

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