

## FACTORS AFFECTING COST BENEFIT ANALYSIS OF EDUCATIONAL INSTITUTIONS IN TAMILNADU

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**ABSTRACT:** Higher education, post-secondary education, or third level education is an optional final stage of formal learning that occurs after completion of secondary education. The right of access to higher education is mentioned in a number of international human rights instruments. Higher education includes teaching, research, exacting applied work and social services activities of universities. India's higher education system is the third largest in the world, next to the United States and China. The main governing body at the tertiary level is the University Grants Commission, which enforces its standards, advises the government, and helps coordinate between the centre and the state. Indian higher education system has expanded at a fast pace by adding nearly 20,000 colleges and more than 8 million students in a decade from 2000-01 to 2010-11. As of 2016, India has 799 universities, with a break up of 44 central universities, 540 state universities, 122 deemed universities, 90 private universities, 5 institutions established and functioning under the State Act, and 75 Institutes of National Importance which include AIIMS, IIT's and NIT's among others. Other institutions include 39,071 colleges as Government Degree Colleges and Private Degree Colleges, including 1800 exclusive women's colleges, functioning under these universities and institutions as reported by the UGC in 2016. Indian higher education is in need of radical reforms. A focus on enforcing higher standards of transparency, strengthening of the vocational and doctoral education pipeline, and professionalization of the sector through stronger institutional responsibility would help in reprioritizing efforts and working around the complexities.

### 1 Introduction

Higher education, post-secondary education, or third level education is an optional final stage of [formal learning](#) that occurs after completion of [secondary education](#). The right of access to higher education is mentioned in a number of [international human rights instruments](#). Higher education includes teaching, research, exacting applied work and social services activities of universities. India's higher education system is the third largest in the world, next to the [United States](#) and [China](#). The main governing body at the [tertiary level](#) is the [University Grants Commission](#), which enforces its standards, advises the government, and helps coordinate between the centre and the state. Indian higher education system has expanded at a fast pace by adding nearly 20,000 colleges and more than 8 million students in a decade from 2000-01 to 2010-11. As of 2016, India has 799 universities, with a break up of 44 [central universities](#), 540 [state universities](#), 122 [deemed universities](#), 90 [private universities](#), 5 institutions established and

functioning under the State Act, and 75 [Institutes of National Importance which](#) include AIIMS, IIT's and NIT's among others. Other institutions include 39,071 colleges as [Government Degree Colleges](#) and Private Degree Colleges, including 1800 exclusive women's colleges, functioning under these universities and institutions as reported by the UGC in 2016. Indian higher education is in need of radical reforms. A focus on enforcing higher standards of transparency, strengthening of the vocational and doctoral education pipeline, and professionalization of the sector through stronger institutional responsibility would help in reprioritizing efforts and working around the complexities.

#### 1.1. STATEMENT OF THE PROBLEM

In Tamil Nadu, the government and government aided Arts and Science colleges are providing the free education for the students (there is no fee for the students) under EVR Nagammai Scheme. And the private unaided Arts and Science colleges are receiving the fee from the students on the basis of the course (G.O.Ms.No.187). The Private

unaided Arts and Science College taught same syllabus of the course but cost of the education is based on demand for seats in colleges, which varies from one college to another.

Private colleges offer transport facilities at high cost but it is lagging in government colleges, simultaneously infrastructural facilities and technical aspects will be poor in government and government aided colleges except few colleges than that of private unaided self-financing colleges. Moreover the students studying in government colleges are getting more scholarships than that of self-financing one. In government colleges only qualified staffs are recruited but this is not so in the case of private colleges. In government colleges the students are admitted only on government roaster basis but it is not so. On keeping all these things in mind, the researcher have undergone this study.

## 1.2. OBJECTIVES OF THE STUDY

- To study about the socio-economic conditions of the respondents.
- To study about the profile of Erode district and its growth in higher education.
- To analyze the Cost and Benefit of selected respondents of the colleges.
- To analyze the government expenditure on higher education.
- To analyze the problems faced by the students respondents in higher education
- To suggest better ways and means for providing quality education to the students.

## 2. REVIEW OF LITERATURE

1. Prakash Pradhan (2009) in his paper "Education and Economic Development in India" investigates the causalities between education and economic growth in India during the period of 1951-2001. The author collected the gross domestic product and educational expenditure from the Indian economic survey and selected educational Statistics in India. The study concluded that Unit root test provide the both economic growth and educational expenditure are non-stationary at any level and economic

growth and educational expenditure are co-integrated.

2. Hamid, et al.(2010)<sup>30</sup> in their study entitled on "An Analysis of Student satisfaction in higher education courses delivered online and in the live Class room" - regression analysis was used to compare degrees of student satisfaction with learning as affected by class size, technical content, interaction, feedback, and course duration. In online classes, having more students in a class enhances student satisfaction with the level of student interaction. In live classes, we find the opposite: larger class sizes have a negative effect on satisfaction with student-to-student interaction. Student satisfaction with instructor feedback in online classes declines with class size. Average levels of student satisfaction with technical courses taken over the internet are significantly lower than with non-technical online courses. These findings were providing helpful insights to best practices research, especially in targeting the course activities, functions and format to achieve the best learning outcomes. Technical courses achieve lower satisfaction scores than non-technical courses, and this gap appeared in courses taught both online and in the live classroom. Thus, one strategy would be for course designers and faculty to collaborate in developing more effective approaches for the design and delivery of technical content in both environments, online and live class.

## 3. RESEARCH METHODOLOGY

The process used to collect information and data for the purpose of making business decisions. The methodology may include publication research, interviews, surveys and other research techniques, and could include both present and historical information.

### 3.1. RESEARCH DESIGN

The research design refers to the overall strategy that you choose to integrate the different components of the study in a coherent and logical way, thereby, ensuring you will effectively address the research problem; it constitutes the blueprint for the collection, measurement, and analysis of data.

### 3.2. TOOL USED

The statistical tool used for this study is Multiple Regression Analysis.

### 4. DATA ANALYSIS AND INTERPRETATION

#### MULTIPLE REGRESSION ANALYSIS

A regression is a statistical tool used to find out the relationship between two or more variables. One variable is caused by the behavior of another one. The former variable is defined as independent and the later variable is defined as the dependent. When there are two or more independent variables, the analysis that describes the relationship between the two is called multiple regression analysis. The main objective of using this technique is to predict the variability of the dependent variable based on its co-variance with all the independent variables. It is useful to predict the level of dependent phenomenon through multiple regression analysis, if the levels of independent variables are given.

**TABLE NO 4.1  
INFLUENCE OF STUDNTS BENEFIT**

Variables	B	Std. error	T	P
Constant	35.95	3.723	9.65	.000
Age	-.032	.55	-.058	.954
Gender	-.031	.656	-.048	.962
Mode of conveyance	.686	.679	1.01	.002
Mode of transport	.237	.327	.725	.469
Distance	.961	.359	2.67	.008
Residential area	-.016	.469	-.035	.972
Community	.168	.247	.681	.496
Course	-.623	.295	-	.005
Nature of institution	-2.458	.784	-	.002
Nature of	-.030	.387	-.079	.937

eligibility				
Privileges provided By the Institution	-.081	.326	-.248	.804
Reason for course	.370	.249	1.48	.138
Fees structure	.221	.444	.497	.619
Method of teaching	.795	.308	2.58	.010
Family size	-1.302	.443	-	.003
Family annual	.371	.329	1.12	.260
siblings' education	-.283	.346	-.817	.414

The Table No 4.1 revealed that the coefficient of mode of conveyance, mode of transport, distance, community, reason for undergoing study, fees structure, method of teaching, and family annual income are positively associated with the Benefit and higher education, further it indicates that these variables that contribute that the level of Benefit in higher education are statistically significant implying that their influence is stronger than the other variables.

The rate of increasing the level of benefit shows better results of the independent variables such as respondents' mode of conveyance with 1.011 units, with mode of transport 0.725 units, with distance 2.678 units, with community 0.681 units with reason for undergone studies 1.483 units, with fees structure 0.497 units, with method of teaching, 2.585 units and family annual income 1.126 units changes in the level of benefit.

#### ANOVA

To put this way, in ANOVA we can directly manipulate the factors and measure the resulting change in the dependent variable. In multiple regression we simply measure the naturally occurring scores on a number of predictor variables and try to establish which set of the observed variables gives rise to the best prediction of the criterion variable.

Beta (standardized regression coefficients)

The beta value is a measure of how strongly each predictor variable influences the criterion variable. The beta is measured in units of standard deviation.

**R, R Square, Adjusted R Square**

R is a measure of the correlation between the observed value and the predicted value of the criterion variable. In our example this would be the correlation between the levels of Benefit reported by our participants and the levels predicted for them by our predictor variables. R Square (R<sup>2</sup>) is the square of this measure of correlation and indicates the proportion of the variance in the criterion variable which is accounted by model

The following table explains the R and R square and adjusted R square and standard error of estimate, which can be used to determine how well regression model fit for the data.

The R represents value of multiple correlations co-efficient. R can be measured of the quality of the prediction of the dependent variable. In this case a value of 0.217 indicates a good level of prediction. The R square column represents the proportion of variation of dependent variable that can be explained by the independent variable. From the below table the R square value is 4.7percent of the variability of dependent variable.

**TABLE NO 4.2**

Model	R	R Square	Adjusted R Square	Std. Error of the estimate
1	.217 <sup>a</sup>	.047	.029	9.150

	Sum of Squares		Mean square	F	Sig .
Regression	3658.462	17	215.204	2.570	0.00 <sup>a</sup>
Residual	73847.470	882	83.727		
Total	77505.932	899			

**(Compiled from Primary Data)**

**5. FINDINGS**

1.Regression result showed that, it is good fit for data. It shows independent variable statistically significant to dependent variable. i.e., student's benefits statistically significant to higher education.

2.In Tamil Nadu the allocation to expenditure was 12.2 percent in 2006-07 and it was increased to 15.2 in 2010-11 and comes down in 2011-12 as 14.5 percent and it was 15.0 percent in 2012-13. In India, 14.0 percent was allocated for education in 2006-07 and it was decreased to 13.8 in 2007-08 and again it reached 16.5 percent in 2012-13

3.The government investment in education in India was 10.7 per cent. (Human Resource Development Report 2007-08)

**6. SUGGESTIONS**

The following detailed suggestions also offered for improvement of education system in Tamil Nadu.

1. Higher educational authorities may regulate the fees structure with adequate analysis on infrastructure and other facilities provided by the higher educational institutions.
2. Necessary steps must be taken to initiate the skill development such as hardware, soft ware skill, communication skill, etc.
3. Higher educational institution may conduct various seminars, workshop, symposium, and various cultural and entertainment activities for development of students, faculty members, and institutions
4. Proper guidance may be provided by staff and management to encourage the students in studies and other activities

**7. CONCLUSION**

This article examines various aspects of benefit analysis of higher education system in Tamilnadu. An evaluation, through cost-benefit analysis (CBA), shows that the net present value (NPV) of the program and its redistribution benefits in favour of the student community. Nevertheless, the program has bestowed and generated a considerable number of other non-quantifiable and non-measurable benefits such as 'psychic', 'inter-generation', 'advanced education options', 'hedging options', as well as many social benefits of a demographic, political, environmental, dynamic nature, and the community in general. Accordingly, the authors believe that the cost benefit analysis program has considerable social and political advantages and therefore should be continued during the remainder of this decade with proper and careful monitoring of all outcome aspects before the program is either scaled down or phased out. Unfortunately, apart from this preliminary and tentative study conducted by the authors, no

attempt has been made to date by either the Indian or Tamil Nadu governments to appraise the cost and benefit of such an important program which attempts to eradicate the extremely disadvantaged conditions of the students, a still controversial one in India.

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