

## EFFICIENCY AND PRODUCTIVITY ANALYSIS OF ELEMENTARY EDUCATION IN INDIA

---

Dr. Archana Anand\*

### ABSTRACT

*The education sector is one of the most important corridors of the country without which the entire economy fails to work duly. Everyone has to acquire essential knowledge and skill for structure capabilities in order to live a meaningful life and to serve in the society. Piecemeal from the natural value of education in shaping one's life, profitable annuity explosively depends on both the quality as well as the volume of education position. Swami Vivekananda said, "Education is the incarnation of the perfection formerly in man". Also the position of education is the high determinant of maintaining good health and keeping down from undesirable conditions in general. Also, it helps to induce mindfulness regarding health among women, which has veritably significant consequences in the well-being of the individual and the family and hence of the entire society. Without the growth of human capital the profitable system cannot work duly. Significance of human capital in determination of growth of the nation has been supposed by different endogenous growth literature. Therefore, upgradation of the quality of life through the enhancement in occupational skills has also been emphasized through the National Development Programme in various confines. Various systems have been initiated by the Government of India to enhance the overall performance of the abecedarian education system. Elementary education has been of need regarding sub-sectoral allotment with Indian five time plans. The present study uses district as unit of account and estimates the performance pointers of primary and upper primary situations independently for any district. Admitting that quality of training varies mainly from vill to vill or indeed from academy to academy depending on various socio-profitable factors and therefore takes into account total figure for the input and affair variables of the separate district, considering all the seminaries in the district.*

**Keywords:** *Economic, Education, Consequences, Awareness, Growth, Estimates, Primary, Elementary.*

---

### Introduction

There are two generalities of effectiveness of a producing unit-specialized effectiveness (TE) and allocative effectiveness (AE). Specialized effectiveness has affair addition and input conservation approach. TE refers to the capability of the producing unit to produce the maximum affair given the input operation and technology or to use as little input as needed by technology and affair product. On the other hand, in case of allocative effectiveness, it refers to the condition in which it isn't possible to produce maximum benefit or affair grounded on the being inputs or the circumstances where a number of individualities cannot be bettered by reallocating the inputs without converting others worse-off. The present thesis deals only with specialized effectiveness. For measuring performance of education sector, at both primary and upper primary situations of education, analysis regarding the effective application of inputs to produce the observed position of affair is an essential matter. The abecedarian query is whether there's any chance in perfecting effectiveness? Given this script, an analysis of measuring district wise input acquainted specialized (TEINP) score for the named countries is needed in Indian environment. This study principally helps to fete the sections that fall below the separate state specific normal (SSA) value of TEINP score and later suggests suitable programs for perfecting the effectiveness score.

---

\* Associate Professor, Government Girls College, Tonk, Rajasthan, India.

### **Development of Education Sector**

Development of education sector is one of the high factors for developing human capital in an economy. All modernised societies tend to emphasize on universalization of education for sustainable development. Government of India has emphasized it by taking different experimental programmes to boost the growth of the education system over the times and has continued to raise expenditure on education lately. piecemeal from this, experimental programme like Sarva Shiksha Abhiyan for opening new seminaries, construction of academy structures, fresh classrooms, and distribution of free handbooks, appointment of well-educated preceptors, toilets and drinking water installations has been initiated to enhance the quality and volume of the education system. Although the knowledge rate in our nation has increased over the times still this isn't uttered satisfactory as this rate is still far down from the world average rate. At the same time, there's a steady increase in registration corresponding to abecedarian education position, although difference is present amongst different sections within the state (DISE). In this environment, whether educational sector is performing efficiently or not is a major concern for policy makers. The introductory question is whether the seminaries in different sections of a particular state are producing maximum or optimum affair (outgrowth) with the help of fixed inputs. In other word, the question is related to hunch for the specialized effectiveness of the seminaries of the sections in every state. The introductory question is whether the seminaries in different sections of a particular state are technically effective in the sense that they're generating maximum affair given the being coffers. Identification of the factors responsible for variation of affair acquainted specialized effectiveness (TEOUT) across different sections within a particular state in abecedarian education position is also an important aspect. Therefore, it's worthwhile to measure the specialized effectiveness of the education sector which may be helpful for policy makers and academicians.

### **Advancement of Elementary Education**

Advancement of abecedarian position of education is pivotal among the different situations of education since it decides the occasion of any existent for getting profitable annuity by acquiring skills and knowledge. It's veritably important to assay whether educational services in various sections of the country are inversely and resourcefully used or not. This is why a relative study on effectiveness across the sections of each state is needed. The study will be veritably vital bone in order to fete the performance of backlog sections for which are below the effectiveness of the state normal and to decide suitable programs for adding educational effectiveness for those. Specialized effectiveness refers to a situation at which it's insolvable to produce further affair from the given position of inputs unless reducing the position of other affair( nominated as affair acquainted specialized effectiveness) and the same position of affair by using lower of one or further inputs unless adding the quantum of other inputs (nominated as input acquainted specialized effectiveness). There are substantial quantum of empirical literature dealing with estimation of specialized effectiveness in academy education, advanced education and farther education either by using parametric (stochastic frontier analysis) or nonparametric (data net analysis). Elementary Education sector plays pivotal part in determining the well- being of the entire society and the progress of the whole country. Thus, it needs special attention. Given the vast development of abecedarian education in India it'll be intriguing to concentrate on the district position performance in terms of specialized effectiveness and total factor productivity growth. The introductory question for the abecedarian education sector is whether the sector is producing maximum affair given the use of inputs or, alternately, whether it's using optimum quantum of inputs to produce the given position of affair. At the same time what's the extent of total factor productivity growth, measuring the extent of affair growth not reckoned by the growth of inputs is an important question. The reason behind the attention for district position study of major named countries is that, one needs to identify the countries sections which are bad players so that applicable programs can be framed to ameliorate the bad performing countries sections and hence to reduce the difference among sections as well as countries. Therefore, it's utmost important to have a clear idea regarding backward regions and their relative position with respect to good performing regions. The study gives a detailed analysis of the performance of the sector and to define applicable programs to enhance the position of performance. There's a dearth of similar type of study at the district position and independently for primary and upper primary situations of education over successive time frame. In tune with the literature, dimension of specialized effectiveness and total factor productivity growth requires supposition of product function, which necessitates identification of inputs and labors. Relevantly, it'll be useful to punctuate the ensuing difference between this educational product function and the standard product function used in micro proposition (a) the affair produced in case of education isn't the palpable affair. Therefore, one needs to represent the affair using some suitable measures. b) Both the affair and the inputs in the product process don't have prices. Therefore, one needs to gain their shadow prices for farther analysis.

### **Elementary Education and Expenditure on Education**

Expenditure on abecedarian education is one of the important tasks of the Governments. Due to inadequate resource base education sector is in competition with other sectors in allocations of finances. If a country has abundant resource base also there's no problem of choice in allocating coffers and it can invest sufficient share on each and every sector. But inadequate resource base produce introductory profitable problem of choice, which guides the decision about resource allocation. Various studies have shown that numerous countries have significantly spent on education sector but their performance in outgrowth is veritably poor. The empirical literature has shown how inefficiency in transfer of educational expenditure prevents better educational issues (Nigeria, Uganda, Tanzania and others). Thus, it's important to explore the relationship between coffers allocation to education and issues of education across different countries in India. Issues related to the acceptability of backing, effectiveness and efficacy of the expenditure, equity and equal distribution of benefits are important issues in the provision of public backing of abecedarian education in India. These enterprises have come more applicable in recent decades as the government's target is shifted from expenditure towards issues. In India, education was under the state list till 1976. Latterly it was shifted to the concurrent list with an important ideal to reduce the indigenous imbalance across countries and ameliorate educational issues. In recent decades precedence was given to educational issues rather than to expenditure through perfecting equal educational issues across countries with limited coffers. substantiation grounded planning involves relating divergences in issues, gaps in provision and process that affect in low issues, and backing to accommodate the real requirements of lagging regions countries in India. numerous countries in India are considered as dragging countries, as they've not reached their asked situations of participation and issues yet; because these countries still have patient inadequacy in terms of educational installations. In this regard the present study makes an attempt to dissect the differences in the expenditure of the countries on abecedarian education in India and their performance in achieving the standard issues and the results are presented in this section. Numerous countries have been significantly spending on abecedarian education in India; though some countries are unfit to efficiently use their allocated finances. Various factors are responsible for underutilization of countries. To impact the educational issues of the countries, hundred per cent application is important. Allocations under SSA are made to different countries UTs grounded in the morals specified under the programme and they're anticipated to use the finances as programmed. Though the morals are invariant to all countries and UTs, however there are large variations across countries UTs in the applications is set up. The factual quantum of plutocrat spent on abecedarian education is more important than the allocation itself because that's the quantum which has reached the target group. The application of education fund refers to that the share of factual spending in the total finances allocated. It's the chance of quantum spent on different education programmes with respect to allocated quantum under different heads. The application of finances, which is attained from allocation and expenditure, was calculated under the three important factors similar as Sarva Shiksha Abiyan (SSA), NPEGEL (National Programme for Education of Girls in Elementary Level) and KGBY (Kasturba Gandhi Balika Yojana).

### **The Part of Government in Improving Productivity and Efficiency of Elementary Education**

The significance of abecedarian education in transubstantiating the nation is linked by various studies. Numerous development economists, particularly endogenous growth proponents (Solow, Lucas, Mead, Gillbrith, Hanushek and others) have emphasized the significance of education in profitable development. Further, considering abecedarian education as a social good makes spending on education by the government an important task. Lack of acceptable coffers puts the education sector in competition with other sectors for the allocation of finances. A lack of coffers causes an introductory problem of choice. Studies have shown that various countries have significantly spent on the education sector but their performance in issues is veritably poor. The empirical literature supports the inefficiency of fund transfer in education, precluding better educational issues (Nigeria, Uganda, Tanzania, and others). Thus, it's imperative to explore the relationship between resource allocation to education and issues of education across different countries in India. The Right to Education (RTE) Act with its major decision made free and mandatory education for children a abecedarian right in India. Indeed, though the country has made a lot of progress in it's After- RTE period, it's still down from fulfilling all of its pledges. The main end of this analysis is to assay the trends in education spending in general, SSA in particular and understand the liaison between education spending, structure, education affair and issues. The analysis revealed that the After-RTE period witnessed an increase in spending. Still, a retardation in periodic growth of expenditure has been concerning. The response of conversion of expenditure into the creation of factual coffers has been mixed. The vacuity of girls' toilets and drinking water installations showed enhancement, but the attainability

of preceptors in seminaries with numerous vacant positions has been a major reversal. Concerning issues, an enhancement in enrolments at the upper primary position and reduction in dropouts is saluted. Still, declining performance in performing simple fine computations and reading skills in the After- RTE period raises questions about the quality of education communicated. There's a compass for enhancement in educational issues of countries by conforming their patterns of spending. Interstate differences bear state-specific results and better perpetration of being programs. In depth state-specific studies should be initiated to identify the causes of differences in fund application.

### Conclusion

The present study highlights the part of the broad pointers such like poor structure, favourable structure, social pointers and policy variables in explaining the performance of the pointers. Further, it isolates the individual element of each of the pointers which can accentuate affair acquainted specialized effectiveness, input acquainted specialized effectiveness and total factor productivity growth of primary and upper primary situations of education and also the common factors impacting the three performance pointers concertededly. The government programs for constructing academy structure, perfecting condition of the class room, adding the number of the preceptors in the academy, furnishing black board to the seminaries, furnishing both girls restroom and common restroom, furnishing free textbook books and stationery to the scholars and especially the girl scholars will probably to enhance affair acquainted specialized effectiveness, input acquainted specialized effectiveness and total factor productivity growth for both primary and upper primary situations of education. At the end it may be noted that the performance of tutoring services will rest on the chronicity of the preceptors. Circumstances which will be linked by the socio profitable condition of the ménage. Another issue is that, currently pupil takes private education that can affect effectiveness and productivity of education system. Also, effectiveness and productivity can be affected by the provision of mid-day mess. In order to get these goods, one needs to have primary data and also information on similar pointers such like income of the ménage, educational qualification of parents etc. These may be viewed as unborn direction of exploration work.

### References

1. Anand, S., Sen, A. K. (1995): Gender Inequality in Human Development: Theories and Measurement, Background Papers: Human Development Report 1995. United Nations Development Programme, New York.
2. Banker, R. D., Charnes, A., Cooper, W. W. (1984): Some Models for Estimating Technical and Scale Efficiencies in Data Envelopment Analysis. *Management Science*, 30(9), 1078-1092
3. Dutta, S. (2012): Evaluating the Technical Efficiency of Elementary Education in India: An application of DEA. *IUP Journal of Applied Economics*, 11(2), 31-47.
4. Farrell, M. J. (1957): The Measurement of Productive Efficiency. *Journal of the Royal Statistical Society, Series A, General*, 120(3), 253-281.
5. Ghose, A (2019): Total Factor Productivity Growth of Elementary Education in India and Its Determinants: Evidence from a Non-parametric Data Envelopment Approach in Bandyopadhyay S and Dutta M Edited *Opportunities and Challenges in Development*, Springer.
6. Kempkes, G., Pohl, C. (2008): Do Institutions Matter for University Cost Efficiency? Evidence from Germany. *CESifo Economic Studies*, 54, 177-203.
7. Kirjavainen, T. (2012): Efficiency of Finnish General Upper Secondary Schools: An Application of Stochastic Frontier Analysis with Panel Data. *Education Economics*, 20(4), 343-364.
8. Majumder, A., Chetty, P. (2017): Variable Returns to Scale in DEA and Summary of Efficiency and Slacks. <https://www.projectguru.in/variablereturns-scale-vrs-dea>.
9. Ray, S. C. (1991): Resource-Use Efficiency in Public Schools: A Study of Connecticut Data. *Management Science*, 37(12), 1620-1628., Printed in U.S.A.
10. Sengupta, A., Pal, N.P. (2010): Primary Education in India: Delivery and Outcome- A District Level Analysis based on DISE Data. *Journal of Educational Planning and Administration*, XXIV (1), 5-21.
11. Tyagi, P., Yadav, S.P., Singh, S.P. (2009): Efficiency Analysis of Schools using DEA: A Case Study of Uttar Pradesh State in India. [https://www.academia.edu/7539059/Efficiency\\_analysis\\_of\\_schools\\_using\\_DEA\\_A\\_case\\_study\\_of\\_Uttar\\_Pradesh\\_state\\_in\\_India](https://www.academia.edu/7539059/Efficiency_analysis_of_schools_using_DEA_A_case_study_of_Uttar_Pradesh_state_in_India).

