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PUBLIC EXPENDITURE ON EDUCATION– A NEED FOR POLICY DECISION

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Abstract: *Education is defined as an activity of facilitating learning through teaching, training and research. This era needs programs like Make in India, Skill Development and Digital India. This concept is not for the production of Goods and Services but its very purpose is to enhance the technical knowledge through innovation and invention.*

New Education Policy of 1986 states that the introduction of systematic well planned and rigorously implemented programme of higher education is crucial in the proposed educational reorganization. The main aim of new policy towards higher education is skill development and training to enhance economic productivity of education. Thus the demand for higher level of skill require higher investment in education sector.

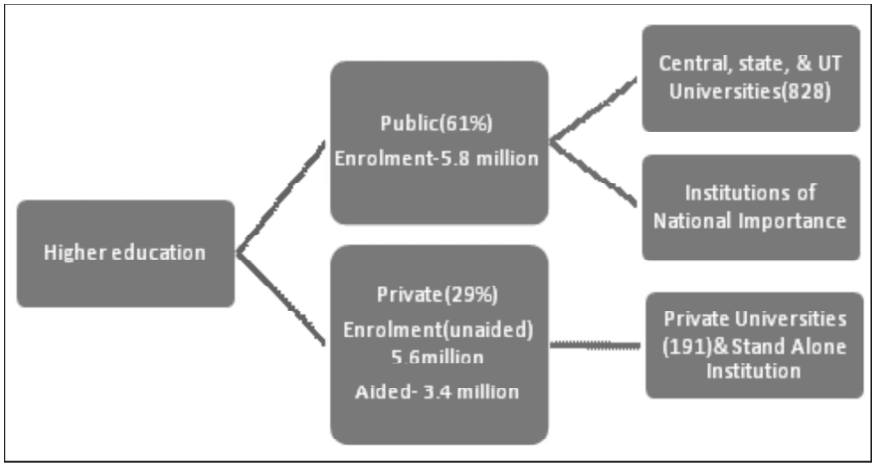
This paper focuses on expenditure on education. It analyzes, to what extent expenditure on education justifies the need of the economic system.

INTRODUCTION

India has a huge population of over 12 million people in the age group of 18-23 years *i.e.* 13 percent of the total population. This indicates that in the coming years a large labour force will need more skill, management and vocational training and learning. Secondly, this era needs programs like Make in India, Skill Development and Digital India. This concept is not for the production of Goods and Services but its very purpose is to enhance the technical knowledge through innovation and invention. All this undoubtedly requires more expenditure on education continuously to impart necessary skills and competence which can enable the students to enter the world of work.

The constitution of India (Article 45), accepted the free and compulsory education to all children upto the age of fourteen years. With this fundamental right enforced, out of total education expenditure primary level share is the highest expenditure with allocation of 55 percent, followed by secondary level, 30 percent and the share of higher education was lowest with 10 percent respectively.

In quantitative terms, the number of universities and colleges has increased since independence. Despite this increase an imbalance exists between the demand and



Flow Chart I

supply in the job market. Unfortunately, the system is not able to meet the criteria of job market and the increasing needs of the students of the country.

To prepare for the challenges of the 21st century, India needs more investment in the education system and particularly in higher education. All this requires investment in skill development and training to enhance economic productivity of education. This paper focuses on the relationship between expenditure on education. It analyzes, to what extent expenditure on education justify the needs of the economic system. As stated above, India has a well-established higher education system governed by UGC and AICTE. It produces large number of graduates in various field of technical and non-technical education.The concept of skill development, vocationalization, management training to a larger extent, is related to higher education system. Higher education is provided by both public and private institution.

As shown in above Flow Chart I public aided institution are around 61 percent with 828 in number while private or unaided are 29 percent and 191 in number. However, the enrolment ratio of both these institutions are nearly 5.6 million. The public institutions are the institution of national importance and the central and state universities. While the private institution, stand-alone institutions and private universities are aided by trust, individual and corporate companies.

METHODOLOGY

The study is based on secondary data and analytical in nature. Proportions and growth rates, ratio analysis and linear regression analysis have been used for the analysis of data. The data used in the study have been obtained from various reports of Analysis of Budgeted Expenditure on Education and Education Statistics at a Glance, AISHE reports. Time period considered for the study is of 10 years *i.e.* 2005-2015.

REVIEW OF LITERATURE

There arem any well researched papers on public expenditure on education. One such paper "Public expenditure on Education: A review of selected Issues and Evidence", (2007, Mukherjee), discussed the social rate of return from education and effectiveness of education. His paper provides an overview of the development theories of growth pertaining to human capital. He pointed out that both the public and the private sector are ineffective to achieve equitable and quality education that can lead to economic growth.

The paper on "Public Spending on Higher Education in Developing Countries: Too Much and Too Little" (1996, Birdsall), discussed the problems related with public expenditure for education in developing countries. He opined that it is difficult to know the exact size of social returns on education at each level because it does not reflect unmeasured social benefit of education. He suggested to maintain and to increase spending on higher education, as these funds can be directed towards research and other public goods functions of institutions.

Article on, "Public Subsidies in Education in India" (2004,Tilak), focuses on public subsidization of many social and economic services. He pointed out both positive and negative arguments about the rationale of government subsidies in higher education. The paper analysed the distribution of subsidies in education, such as free education, fee exemption, textbooks etc. and the method of cost recovery. He opined that the higher education suffered severely in terms of public subsidies, due to the decline in scholarships and fall in the ratio of per student public expenditure in the nineties. Its study found that, specific subsidies related to the poor are fairly progressively distributed in education.

The paper on, "Public Expenditure on Education in India: Recent Trends and Outcomes", (2008, De and Endow), examines the level and composition of public expenditure in terms of sharing, allocation and utilization of resources in India in nineties. She opined that there has been a major change in the composition of expenditure.

Many other studies on public expenditure on education have been conducted which provide valuable inputs to research. However, all these studies agreed the neglect of higher education in response to other expenditure on social sector both by the centre and the state governments. Higher education is deprived of many priorities of highly skilled knowledge, research, infrastructure, faculty development, for their rapid improvement major changes in the level of financing is needed.

TRENDS IN EXPENDITURE IN HIGHER EDUCATION

In India since independence, many committees are constituted related to education policy. Among them the most important are Kothari commission policy (1964) and National Education Policy (1986). These two policies recommended for increase in

public expenditure on education from 3-4 percent to 6 percent of the GDP for vocationalization of education and setting of universities of international standard. In each five year plan a large expansion plan has been proposed for expansion of higher education, for quality excellence through curriculum reforms and for its enhancement in its economic relevance. All these changes require a huge amount of expenditure on the part of Government.

In view of this lets first analyze the higher education system in terms of its structure, growth and the challenges related with financing of this system in India.This is analyzed in terms of four factors. They are listed below:

- Broad structure of higher education system
- Stagnant Public Expenditure-GDP Ratio
- Low and stagnant Enrolment Ratio
- High Pupil Teacher Ratio (PTR)

1. Broad Structure of Higher Education System

In every state or economic system of the world, like socialism, capitalism and mixed economy, education is provided publicly. The rationale behind is not only political but social and economic issues. Experience foretells us that the expenditure in social sector particularly education indicate a strong positive relationship between quality of workforce and economic growth. *i.e.* increased in expenditure on education leads to more economic growth of a country.

In India financing of higher education is done at four levels. They are at central level, state level, and local and external aid institutes. However, among these four tier system of financing higher education, government is sole responsible for the financing decision and delivery of education system.The Indian higher education system is one of the largest in the world. Table 1 shows the number of institution in India of both public and private sector.

Table 1
Structure of Higher Education in India (2014-15)

Universities	636
Institutions	75
Colleges	36671
Stand Alone Institutions	11445

Sources: AISHE portal

It evinced from the table 1 that India has a very broad structure of higher education. The total number of universities is around 636, categorized as Central, State, Deemed, State Private and Central Open Universities. These universities consist of 36671 colleges where more than 25 million students registered for different types of degree courses

in the year 2014-15. Besides universities, higher education system has 11,445 number institutions of national importance stand alone institutions under state legislature Act which offer various types of diploma and degree courses.

India education system, known as the third largest system in size has only 4 percent of GDP expenditure. In comparison with other countries India ranked at 143rd with 4.9 percent of GDP expenditure in 2014.

2. Stagnant Education Expenditure/GDP Ratio

We all know that higher education is of vital importance to the nation, to build knowledge based economy. At the time of independence, the total expenditure on education was around 60.46 cr. *i.e.* 0.64 percent of GDP. It has increased to 403 cr. in 2012-13 with 4.29 percent of GDP. Table 2 shows the total expenditure as percent of GDP.

Table 2
Expenditure–GDP ratio in India 2001-2015

Year	*Exp on education as % of GDP*	*Expenditure on higher education*		*Total of other Education expenditure*	
	Total	*Centre*	*State*	*Centre*	*state*
2000-01	4.28	–	–	–	–
2005-06	3.34	–	–	–	–
2006-07	3.48	0.29	0.51	0.69	2.10
2007-08	3.40	0.30	0.53	0.57	2.00
2008-09	3.56	0.31	0.59	0.67	2.20
2009-10	3.96	0.34	0.56	0.67	2.20
2010-11	4.05	0.33	0.53	0.78	2.41
2011-12	4.18	0.30	0.53	0.77	2.59
2012-13	4.29	0.35	0.54	0.81	2.59

Sources: Analysis of Budget Expenditure on Education, www.mhrd.gov.in

It is observed from table 2 that the expenditure on education as percent of GDP remains stagnant between 3 to 4 percent of GDP during the period 2000-2013. In actual terms there is 1.2 percent increase in it growth rate from 2005 to 2012 but at a very low marginal rate. If we look at the contribution of the centre and state, the same trend is witnessed in the period of 2006-2013. The state expenditure is around 75 percent while centre contribute only 25 percent in total expenditure on education. However, it is important to note that the state expenditure on an average declined over the years while the share of centre has marginally increased.

In terms of expenditure on higher education there is no drastic change in the percentage of expenditure as proportion to GDP during the period 2006-2013. It may be observed from table 2 that in case of higher education the share of centre in total expenditure is 40.11 percent while the state share is 59.89 percent. This means that in

higher education *i.e.* education beyond primary and secondary is inherently considered as subject of centre government. Although state has the power to form their own education policy, but these state policies are formed under the framework of centre government. Therefore, it may be concluded from the above table-2 that because of the centers unwillingness to spend on higher education, the education ratio of GDP/ Edu ExP remain constant during the period under consideration.

ENROLMENT RATIO IN HIGHER EDUCATION

Analyst believed a positive and significant relationship between public expenditure and enrolment ratio *i.e.* increases in expenditure leads to increase in enrolment ratio. Despite the increase in higher education facilities in terms of colleges, institution and universities the gross enrolment ratio remains low in higher education. Figure-1 shows that the growth rate in gross enrolment ratio is very negligible in the period 2005-2013, it range between 9 to 10 except in the year 2010-11 it was increased to 20.

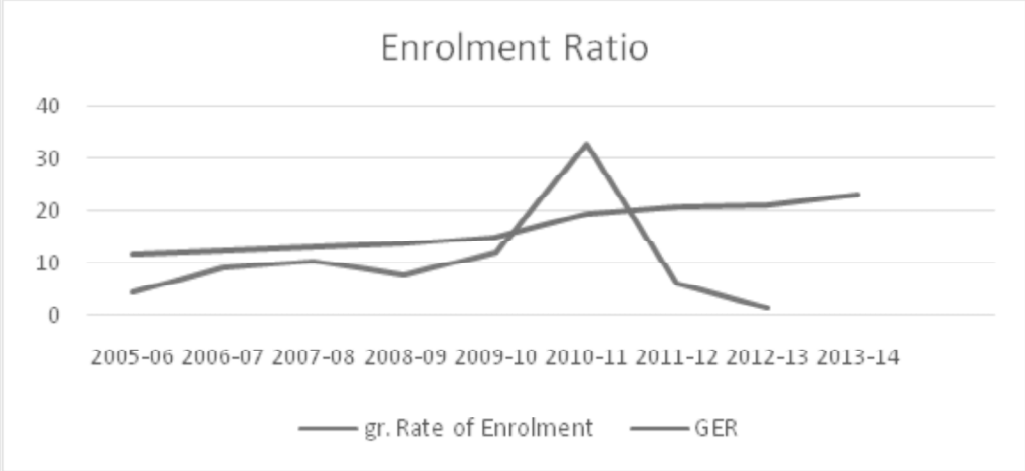


Figure 1: Entrolment Ratio

Source: Educational Statistics at a Glance. www.Gov.in

Figure 1 depicts the enrolment ratio in higher education. It can be evinced from the Figure 1 that case of all Categories of student enrolment ratio is very low (18) as compared to the secondary (65) and senior secondary (48) education. However, the GER in general is around 24 during the period 2005-2014. It is important to note that the highest number of students enrolled in higher education is in the non -technical courses.The total number of students enrolled in technical courses is very low, nearly 7 percent of the total enrolment during the period 2006-2013 as per AISHE report.The meager increase in enrolment is due to the increase in self-financed engineering and business institutions. Government has set atarget to increase the GER to 30 percent by 2020 in general.

HIGH PUPIL TEACHER RATIO (PTR)

According to AISHE survey report (2013) pupil teacher ratio in higher education is 1:25. This ratio is quite high as recommended by the UGC as 1:12. Pupil teacher ratio in central universities (29) is higher as compared to the state public universities (25) respectively.A report by ministry of education (2014), has estimated the shortage of faculty in higher education around 57 percent. Government is planning to increase the retirement age of teacher to 70 years instead of recruiting more teachers in order to overcome the situation. However, this seems to be a piecemeal solution and it would not affect the pupil teacher ratio in the long run.

Expenditure on education is considered as an investment in human development. If the government increases its expenditure in education, particularly, in higher education it will bring a positive effect, not only on productivity but also on national income. A large part of education expenditure is always in the form of revenue or current expenditure rather than capital expenditure. Table-3 outlines the budgeted expenditure on education during the period 2005-2013.

Table 3
Budgeted Expenditure on Education as percent of total budget of all sectors

Year	*RevenueAccount*	*CapitalAccount*	*Loans and Advances*	*Total*
2005	12.13	0.05	0.03	4.73
2006	12.68	0.14	0.19	5.82
2007	13.03	0.16	0.12	6.74
2008	13.63	1.16	0.05	11.60
2009	13.91	0.92	1.21	11.68
2010	14.73	1.10	0.20	12.36
2011	15.63	1.36	0.19	13.10
2012	15.08	1.61	0.25	13.09
2013	15.45	1.54	0.09	13.27

Sources: Various issues of Analysis of Budgeted Expenditure

Table 3 shows that Expenditure on education was 4.73 percent of the total budgeted expenditure in the year 2005. This accounts 12.13 percent of total revenue budget and 0.05 percent of total capital budget. It indicates that the budget for education from both the account was very low as compared to the total budget expenditure in all sectors. If we examine the loans and advances, it is always less than one fourth of one percent in terms of total loans and advances budget of all sectors except in the year 2009, it was 1.21 percent.

It is also observed from table 3 expenditure trend on revenue account has increased over the years, from 12.13 percent to 15.45 percent during the period 2005 to 2013 at a growth rate of 1.02 percent. Similarly, expenditure on capital account increased from 0.05 percent to 1.54 percent of the total budgeted expenditure on capital account.

In terms of percentage share of education expenditure from the total budget, the state contributes nearly 20 percent and the centre share is only 7 percent in the period 2005-2013. With respect to higher education, 97 percent spent on educational status while 3 percent is allocated for training from the total budget on education expenditure.

Out of the total budget expenditure spent on education, major share is given to the primary education. Funds for higher education were always a second priority and it is allocated for general purpose of education, research, scholarships and international cooperation. Some state governments also make provision for loans for education from the education department but its share is very negligible while in majority of the states the term does not exist in budget outlay.

The budget provision to education department of centre and state is also indicated in terms of plan and non-plan expenditure. Table 4 depicts the total budget estimate expenditure of revenue account into plan and non-plan expenditure.

Table 4
Plan and Non-Plan Expenditure on education.

Year	*Plan expenditure*	*Plan share in percent of total plan exp.*	*Non-plan expenditure*	*Non-plan share in percent of total non plan exp*	*Total expenditure*	*Total share in percent of total exp*
2005-06	1345.50	5.52	9342.01	13.01	10688.51	11.11
2006-07	2170.29	6.97	10006.42	12.39	12176.71	10.88
2007-08	4127.83	10.28	11449.21	12.51	15577.04	11.83
2008-09	5612.11	10.95	12743.76	12.35	18355.87	11.89
2009-10	5125.63	11.01	10315.35	12.56	15440.98	11.68
2010-11	8384.75	12.38	20403.43	12.97	28788.18	12.79
2011-12	9927.62	11.05	26306.42	13.79	36234.04	12.91
2012-13	11117.33	10.15	31387.28	14.65	42504.61	13.12
2013-14	11668.58	9.29	35791.94	14.89	47460.52	12.97

Sources: Analysis of Budget Expenditure on Education, www.mhrd.gov.in

Table 4 shows the allocation of expenditure in budget with respect to higher education. The total expenditure has been increased from 10688.51 cr. to 47460.52 cr. This shows an increase of 34 percent. However, in terms of percentage total expenditure on higher education remain same during the period 2005 to 2014.Table 4 also depicts the share of plan and non-plan expenditure. The share of non-plan expenditure is always greater than the plan expenditure. But rate of increase in growth rate of plan expenditure is more as compared to non-plan expenditure in the respective period. This reflects that the government is considering its significance for creating and implementing the desired changes it needs in the future.

One such policy decision in this direction is taken under the twelfth plan. To reform higher education, Rashtriya Uchchatar Skiksha Abhiyan (RUSA) scheme was launched to improve equity, quality, innovation, expansion of universities and research. Under

this scheme 80 new universities will open besides creating other infrastructure. The most vital change is with respect to funding. The states will receive funds on the performance and accountability.

Conclusion and Consequences of Spending Less on Higher Education

1. Limited access of public spending in higher education resulted to commercialization of education in private sector. Most of the private institution are profit institutions, their main motive is to earn money. They charge very high fees from students. These institutions are focused less on training and more on preparing students for competitive exams. Market competition among these institutions led the educational system to be a system of competence rather than collaboration.
2. Insufficient government investment led to poor infrastructure, poor training and skill development facilities in higher education system.
3. It has also effected the employment of meriteous faculty and their training and development programs. Due to this employment need of the student are not matched by educational skill.
4. Though public expenditure on higher education has increased over the period 2005-2014, but in terms of its quality of expenditure, less attention was focused than it required.
5. Higher share of capital outlay and developmental expenditure from the total expenditure on social sector is needed to revamp the higher education system

Therefore, there is a strong need to change the basics of the education system, not its pattern but a specific policy is needed in order to revive education economic importance.

References

De Anuradha and Endow T(2008), Public Expenditure on Education in India: Recent Trends and Outcomes,WP08/18, Research Consortium on Educational Outcomes and Poverty.

Tilak Jandhyala, (2004), Public Subsidies in Education in India. Economic and political weekly, vol. 39, No. 4, A Sameeksha Trust Publication, Mumbai pp 343-359.

Birdsall Nancy (1996), 'Public Spending on Higher Education in Developing Countries Too Much or too Little', Economies of Education Review, Oct Vol. 15, Issues 4, pg 407-419.

MukherjeeAnit, (2007), Public Expenditure on Education: A Review of Selected Issues and Evidence'. wwwNIPFP.org.in pp1-27.

Various Issues of AISHE Report, 'Educational Statistics at a Glance', Ministry of Human Resources, GOI, New Delhi.

Various Issues of Analysis of Budgeted Expenditure on Education, www mhrd.gov.in.

Various Issues of Economic Survey of India, GOI, New Delhi.