INDIAN HIGHER EDUCATION: TRENDS, GROWTH & CHALLENGES

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Abstract

It is widely recognised that higher education promotes social and economic development by enhancing human and technical capabilities of any country like India. It provides an opportunity to critically reflect upon the social, economic, cultural, moral and spiritual issues facing humanity. It contributes to national development through dissemination of specialized knowledge and skills. Indian higher education system has undergone massive expansion since independence in terms of growth, enrolment. Keeping in above backdrop, the present paper is an attempt to analyze the trend in growth and challenges of Indian higher education system in the present era. It is clear from the analysis that there has been considerable improvement in the higher education in India in both quantitative as well as qualitative terms. But issues like access, equity, inclusion, quality, privatization and financing concerning higher education, are very complex and interrelated with political, economical geographical and international dimensions. To develop India as a knowledge hub and to become a prosperous partner in global economy, India has to qualitatively strengthen education in general and higher education with research and development in particular. For providing ROTI (Bread) and employment to the manpower, we need to increase returns on training investment (ROTI). To achieve efficiency and deliver quality education, we certainly need good governance which means to us as SMART (SIMPLE, Moral, Action oriented Responsive and Transparent) administration for every institution at all levels in India.

Keywords: *Knowledge economy, ROTI, Privatization, Financing, SMART &SIMPLE*

Education has always been considered as the key component of human resouce development (HRD) and greatest liberating force in any country including India. It is considered as fundamental to all round development of the individual both at material and spiritual levels. The Education Commission 1964-66 described the role of education in social and economic transformation through a statement- the density of a nation is shaped in its class rooms. Education creates human capital which is the core of economic progress and assumes that the externalities generated by human capital are the source of self sustaining economic process. It hardly needs any justification that higher education is an engine of economic growth as well as human development which improves physical quality of life index (PQLI) in the knowledge economy of today. In order to become prosperous global economy with in first five ranks, India has to qualitatively strengthen her education in general and higher and technical education in particular. Higher Education is very vital to achieve sustainable growth and development of any country. It provides an opportunity to reflect upon the social, economic, cultural, moral and spiritual issues facing humanity. Noble Laureate, Amartya Sen (1999) argued that it is higher education besides elementary and secondary education that forms a "human capability" and a "human freedom" that helps in attaining other "freedoms". In this regard, higher education has significant role in supporting knowledge driven economic growth strategies. It contributes to national development through dissemination of specialized knowledge and skills. Investment in education leads to the formation of human capital, comparable to physical capital & social capital, and that makes a significant contribution to economic growth (Dickens et al., 2006; Loening, 2004; Gylfason and Zoega, 2003; Barro, 2001). Keeping in above backdrop, the second section of the present paper describes the growth of higher education in India. Section III is dedicated on the various issues of higher education in India. Section IV, provides policy implications with challenges ahead. And lastly, Section V concludes the study.

Growth of Higher Education in India

Higher education is recognized as a critical factor in inclusive and faster growth in any country including India. It generates skilled labour force and inputs for research and development. It fosters higher growth rate and enables people to compete in a globalize world. Therefore, for the development of nation with social justice, there is a rationale for equitable and balanced progress of all the sections of the society in general and in India particular. Over the period of time, enrolments in higher education have increased considerably which can be shown from the adult literacy rate that is literacy rate of those who are above the 15 years age. It is clear from the following table 1 that adult literacy rate of both male and female has increased in 2011 in comparison of 2001.

Table 1 - Adult Literacy Rates (15 + Age Group)

YEAR →		2001			2011	
	TOTAL	SC	ST	TOTAL	SC	ST
TOTAL	61	44.1	40.8	69.3	60.4	51.9
MALE	73.4	59.3	54.8	78.8	71.6	63 .7
FEMALE	47.8	28.5	26.7	59.3	48.6	40.2

Source: Educational Statistics at a Glance 2014

It is clear from the above table that adult literacy rates of both male and female have increased but female literacy rate has increased more rapidly to 59.3 per cent in 2011 from 47.8 per cent in 2001 which clearly implies that enrolments of women in higher education is increasing. Improvement in adult literacy rate is the result of massive expansion in Indian higher education since independence. Indian higher

education has expanded exponentially over the past six decades and there has been a considerable increase in the spread of educational institutions (universities, colleges) along with enrolments at every stage. There were 20 universities and 500 colleges at the time of independence and after then mushrooming growth have taken place in Indian higher education system. The institutions of higher learning in India fall into the broad categories such as Universities, Deemed Universities, Private Universities, Institutes of National Importance, and Colleges etc. The following table 2 presents the growth of higher education in India.

Table 2 - Growth of Higher Education Institutions and Their Intake Capacity in India

YEAR → INSTITUTIONS & ENROLEMENT↓	1951	1961	1971	1981	1991	2001	2012	2014
Number of University level institutions	28	45	93	123	177	266	574	712
Number of colleges	578	1816	3227	4738	7346	11146	35539	36671
Number of teachers (in 000')	24	62	190	244	272	395	933	NA
Number of students enrolled (in 000')	174	557	1956	2752	4925	8399	22373	NA

Source: UGC Higher Education at a Glance & Educational Statistics at a Glance 2014

The table 2 reveals that there has been appreciable growth of higher education since 1951. Number of university level institutions and colleges has grown up from 28 to 712 and 578 to 36671 respectively from 1951 to 2014. As a result, the number of teachers as well as students has also increased significantly. The growth of students' enrolment is more than the growth of number of teachers over the period of time, may be due to the massive investment by government at school level in form of primary as well as secondary education. Rise in enrolments and institutions at school level, there is mushrooming growth in higher education institutions. The table 3 shows the growth of central institutions (central, state universities, IIT, IIM etc.) during eleventh five year plan (2007-12) which is as follows:

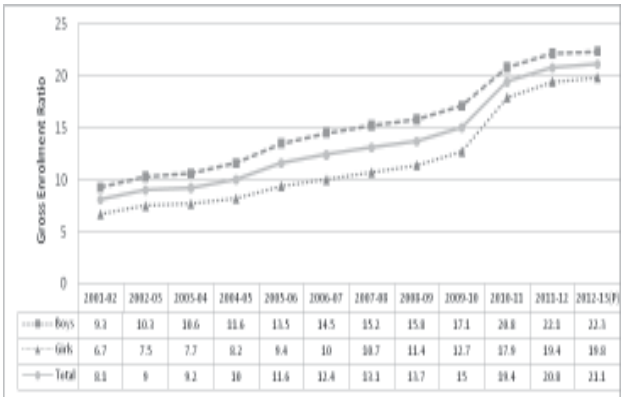
Table 3 - Growth of Central Institutions During 11th Five Year Plan

TYPE OF INSTITUTION↓	2006-07	2011-12	ABSOLUTE INCREASE
Central Universities	19	40	21
Indian Institute of Technology	7	15	8
Indian Institute of Management	6	13	7
Indian Institute of Science, Education & Research	2	5	3
School of Planning and Architecture	1	3	2
National Institute of Technology	20	30	10
Other technical institutions	15	15	0
Total	**70**	**121**	**51**

Source: MHRD, UGC

It is clear from the table 2 that growth of central institutions has taken place in 11th five year plan in a considerable manner. The total number of institutions has increased from 70 in 2006-07 to 121 in 2011-12 which is the result of government efforts to increase the opportunities in higher education. The correct assessment of the availability of higher education can be made in terms of number of gross enrolment ratio (GER) rather than just a number of institutions and their growth. Keeping this aspect in mind, gross enrolment ratio in higher education can be shown from following figure 1

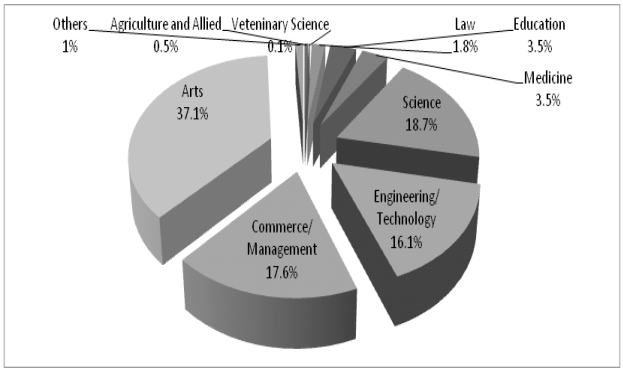
Figure 1 - Gross Enrolment Ratio (GER) of Higher Educatin in India



Source: All India Survey of Higher Education

It is clear from figure 1 that the GER is increasing of both boys and girls and it is consistent with the expansion of HEIs over the years. The GER in higher education has increased from 8.1 in 2001-02 to 21.1 in 2012-13 similarly boys and girls GER has also increased from 9.3 and 6.7 in 2001-02 to 22.3 and 19.8 in 2012-13 respectively. To make the analysis more clear, faculty wise students' enrolment has been shown in figure 2. The available data during academic year 2012 reveal that enrolment in arts faculty is maximum (37.1 per cent) followed by science (18.7 per cent), commerce/ management (17.6 per cent) and engineering/technology (16.1 per cent) faculties and so on which is as follows:

Figure 2 - Faculty-wise Distribution of Enrolement in Higher Education in India, 2012



Source: Twelfth Five Year Plan (2012-2017) - Social Sectors

To promote the research in Indian higher education system, it is very essential to know about the enrolments of students in various disciplines at Ph.d. and post graduate level in higher education. The following table 4 provides the information about the student's enrolments at Ph.d. and post graduate level.

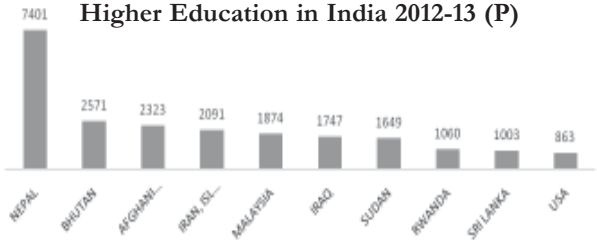
Table 3 - Enrolment in Different Disciplines at Ph.d & PG Level in Higher Education 2012-13

DISCIPLINE	PH.D.	POST GRADUATE
Agriculture & Allied	4.39	0.61
Commerce	3.21	8.04
IT & Computer	1.93	9.34
Engineering & Technology	17.45	6.34
Foreign Language	3.16	4.83
Home Science	0.68	0.21
Indian Language	6.14	8.78
Law	0.84	0.76
Management	4.47	16.92
Medical Science	6.5	4.17
Science	20.61	8.75
Social Science	18.27	20.58
Other	12.35	10.69

Source: AISHE Portal www.aishe.gov.in

The above table clearly states that maximum numbers of Ph.d students enrolled in science faculty (20.61 per cent) followed by social sciences (18.27 per cent). To improve the quality of Indian higher education there is a strong need to enhance quality research in all disciplines and involve maximum number of eligible and intelligent. It is only research through which we can improve our teaching and provides best research knowledge to our students. Due to massive expansion of Indian higher education, a number of foreigner students are coming for higher education. It is rightly said by Mr. Arjun Singh, (2007) that "India is not knocking at the doors of the world but world is knocking at the doors of India. It is up to us to open the doors or keep it shut". The following figure 3 shows the number of foreign students in higher education in India in 2012-13 year:

Figure 3 - Representation of Foreign Students in Higher Education in India 2012-13 (P)



Source: Educational Statistics at a Glance 2014

The above figure reveals the representation of foreign students in Indian higher education in which 7401 students of Nepal, 2571 students of Bhutan, 2323 students of Afghanistan are getting higher education from India in 2012-13. It is also clear from the figure that 863 students of USA are also getting higher education from India.

Education is defined as the investment of current time and resources for future earnings. Quality of higher education can be judged by the one of the important indicator viz. magnitude of public expenditure. Public expenditure on education is critically important to improve the educational levels of population. Strong and vibrant education systems with national values cannot be built by a heavy reliance on private finances. Public expenditure on education is positively associated with economic growth. Many studies have been made from time to time all over the world to assess the contribution of public expenditure on education to economic growth. Notable among them are, the studies made by Becker, Denison, Dholakia, Harbison and Myers, Mukerji and Krishna Rao, Psacharopoulos, Schultz, Solow, Tilak and Todaro. There is considerable evidence that investment in education has high pay off in terms of accelerating economic growth, and it is certainly true that which has a record of rapid economic development such as U.S.A., Japan and U.S.S.R., have made heavy investment in education. The public expenditure in education sector, especially in higher education has remained very low over the years; The National Education Policy 1968 and 1986 (revised in 1992) recommends government expenditure on education at 6% of GDP, whereas the 2010-11 (BE) expenditure was only at 3.8%. The following table 4 shows the trend of expenditure on higher education including adult and technical education in India.

Table4 - Expenditure (Revenue) on Higher Education by Education and Other Deptt.

SECTOR	EXPENDITURE ON EDUCATION			EXPENDITURE AS A % OF		
	STATE/ UT	CENTRE	TOTAL	STATE/UT	CENTRE	TOTAL
YEAR: 2010-11						
University & Higher Education	38489.77	24164.41	62654.18	0.53	0.33	0.86
Adult Education	361.85	470.53	832.38	0	0.01	0.01
Technical Education	17407.67	17674.85	35082.52	0.24	0.24	0.48
YEAR: 2011-12						
University & Higher Education	44267.7	24786.96	69054.66	0.53	0.3	0.82
Adult Education	502.99	602.4	1105.39	0.01	0.01	0.01
Technical Education	24318.53	20731.74	45050.27	0.29	0.25	0.54
YEAR: 2012-13						
University & Higher Education	50820.02	32739.21	83559.23	0.54	0.35	0.89
Adult Education	479.05	709.42	1188.47	0.01	0.01	0.01
Technical Education	26109.87	24283.82	50393.69	0.28	0.26	0.54

Source: Educational Statistics at a Glance 2014

It is clear from the above table 4 that over the period of time, expenditure on higher education including adult as well as technical education is increasing. Total expenditure on university and higher education has increased from 62654.18 in 2010-11 to 83559.23 in 2012-13 and similarly expenditure on technical education has increased from 35082.52 in 2010-11 to 50393.69 in 2012-13. It is very essential to improve the quality in higher education in general and technical education in particular. India has to qualitatively strengthen her higher education including technical education to create India not only as an education hub but as a knowledge hub.

Besides the growth of higher education in terms of higher education institutions, enrolments, expenditure etc over the period of time still issues like access, equity, quality, privatization and financing concerning higher education are very complex which need to be discussed.

Issues in Higher Education in India

The role of higher education in the emerging scenario of knowledge economy is very crucial and multifaceted for any country in general and India in particular. For last many

decades, we are facing many challenges to establish a great and strong higher education system. Various governments came and gone. Off course they tried to establish new education policies in the system but this is very sad to dictate that they were not sufficient for the country like India. Still there are many important issues related with higher education which is discussed are as follows:

Access and Equity

Today the world economy is experiencing an unprecedented change. A paradigm shift has been noticed in higher education now a day, from 'national education' to 'global education'. Consequently, access to higher education has increased to certain extent but not sufficiently. It is worth noting that while India has the second largest system of higher education, next only to USA, the total number of students hardly represent 6 per cent of the relevant age group, i.e., 18 - 23, which is much below the average of developed countries, which is about 47 per cent. It is true that enhancing social access to higher education is still important in the country. But, the major challenge before the Indian higher education system is to bring equity in quality of education across the length and breadth of the country. This is more close to the heart of students in rural, semi urban and urban areas, because they also wish to be able to participate in the new economic revolution. The twin issues of inclusion and equity need to be given due importance while making policies for expanding access to higher education. Imbalances whether related to gender, caste, religion, regional, need to be addressed so as to provide equal opportunities to students belonging to disadvantaged or vulnerable sections of the society. Thus, several social, economic and political reasons seem to act as constraints to access and equity in higher education in India. Enhancing social access as well as to bring equity in quality of higher education is still important in the country.

Quality

Absent of Quality in higher education is another burning issue which can be ensure through regular review of the functions of the institution either through self assessment or through outside agencies and by accrediting the institutions. The expansion of higher education over the years has also resulted in educational malpractices. The employability of the students graduating from the current higher education institutes is also questionable. There is no creativity in students. Our top class students are hard-worker but not innovative. They are not capable enough to produce new technology. The standards of research and teaching at Indian universities are also far below the international standards. No Indian university is currently featured in any of the rankings of the top 200 international universities. Unless the quality and standard of Indian higher education institutions is enhanced zealously and sustained at a high level through innovation, creativity and regular monitoring, it seems to be difficult for the Indian academics/professionals to compete in the World scene. This calls for suitable assessment and accreditation mechanisms to be available in the country to ensure the quality and standard of the academic programmes at higher educational institutions. Colleges and Private institutes should set up Internal Quality Assurance Cell and must follow a minimum standard to give degrees. The assessment has to be continuous and the process has to be transparent to gain the acceptance of the society at large. Accordingly, the various regulatory bodies regulating higher education have constituted autonomous bodies for monitoring quality standards in the institutions under their purview e.g., NAAC by UGC, NBA by AICTE, AB by ICAR, DEC by NCTE etc. But, the quality norms of such councils are not comparable with international standards to a certain extent and the enforcement process is not stringent. Further political interference and corruption dilute the role and impact of these intuitions in ensuring the desired quality standards. Therefore, it is need of the hour to bring revolution in higher education to maintain quality.

Financing

Financing of higher education is one of the most important constraints that have to be noticed. Expenditure on education in general and on higher education in particular by the government, is one of the parameters to judge the quality in education for any nation. The responsibility of financing higher education is shared by both public and private sector. Even in public sector it's a joint responsibility of Central as well as State government. India being a developing economy, amongst competing governmental priorities higher education is treated as a "Merit good. (Quasi Public & Quasi Private)" The State Government has already been spending 20-30 per cent of its revenue budget on education. It could not afford to spend more. In India, higher education has received less attention in terms of public spending than other levels. It is not feasible for India to make massive state investments in research and development that produced research led universities in the west such as MIT, University of California, Berkeley in the US or University of Cambridge in Britain, whose intellectual properties-a consequence of such investments-attracted industry to their doorsteps. In the view of withdrawal of government support to finance higher education, private institutions have been allowed to take over the responsibility of imparting education to all. Further, in government aided universities and colleges the model of self financing have been introduced. All these developments have added to the cost of education significantly and restrict the talent coming from the poor families to go for higher education.

Privatization

It is evident that over the period of time, the level of demand for higher education in India has increased well above the Government's capacity to finance. Privatization of higher education is absolutely necessary in a vast country like India as government alone is helpless to fulfil the rising demand of higher education. As a result, private higher education has flourished, with a boom in commercially oriented for-profit colleges. In the present scenario, privatization of higher education is apparently a fledgling but welcome trend and is critical to maintain creativity, adaptability and quality In India both public and private institutions operate simultaneously. Most of the growth in the rapidly expanding higher education sector took place in private unaided colleges or in self financing institutions. Since grant-in-aid to private colleges is becoming difficult, many government funded institutions/universities have granted recognition to unaided colleges and many universities have authorized new 'self-financing' courses even in

government and aided colleges. Private providers, in the interest of maximizing profit, have every incentive to 'minimize costs' by compromising on the quality of education provided in their institutions. Private providers are known to exploit the supply shortfall of higher education in order to maximize revenues through 'capitation fees', misrepresentation of courses, corruption in admissions practices, and other methods that ultimately harm the interests of students. Thus, there are serious implications for quality in private provision of higher education.

Last but not least, quality of teaching staff is one of the considerable issues for higher education sector to sustain in the future. The National Education Police, 1986 stated 'the status of teacher reflects the socio-cultural ethos of a society…….'. It is said that in the earlier era, teachers were less paid but they looked upon their works as a noble mission. They were committed to their students to their subjects and to their profession. Today, high salaries are available but the commitment is less. Thus, it is the need of the hour to free the higher education system from unnecessary constraints and political interference and provide academic and administrative system which is accountable, transparent and equitable.

Policy Implications With Challenges Ahead

Indian higher education system has undergone massive expansion since independence. And thus there has been considerable improvement in the higher education in India in both quantitative as well as qualitative terms. There is a rationale for broadening our vision, developing skill and integrating all those aspects which is important to meet the challenges of higher education. In order to respond to the global challenges more strongly than ever before, India today needs a knowledge- oriented paradigm of development to give the country a competitive advantage in all field of knowledge. According to Dr. Manmohan Singh (Ex. Prime Minister of India) 'The time has come to create a second wave of institution building and of excellence in the fields of education, research and capability building'. The present system of higher education produced some degree holders with mere knowledge and information in a particular area, but it has failed to develop general employability skills needed for entry level employee. Hence, it is high time for planners, policy makers and practitioners of higher education to ponder over it and make necessary reforms in the course and strategies so that employability skills can be developed among the students. To keep the higher education within the reach of poor aspirants, there is a strong case for effective monitoring and regulation of the private sector through appropriate policy measures – a judicious mix of policies, which ensure efficient use of the available educational resources. To meet the growing demand for higher education, there is a need to search alternative sources of financing. The new challenges facing the system of higher education in the country cannot be met without a total overhaul of the structure of management of higher education institutions. This has become all the more necessary because of internationalization, which requires talent, competence, drive, initiative and innovation at several levels. Therefore, there is a rationale of good governance at all levels in higher education system.

Designing the higher education with relevance to the present as well as future demands is really a challenging task. It is important to realize that we live in a fast changing world, dictated by the developments in technology. Quick access to information has made knowledge creation fast, and the multiplier effect has made it even explosive. All this calls for a team of professionals in different areas to come together to develop proactive strategies for higher education to meet the future demands. Indian student is required to develop a multifaceted personality to cope up with the rapid changes in the world at large. Rising demand for higher education and associated shortage of faculty resources leads to inevitable trade-off between quality and quantity. Unless the quality and quantity of Indian higher education institutions is enhanced zealously and sustained at a high level through innovation, creativity and regular monitoring, it seems to be difficult for the Indian academics/professionals to compete in the World scene.

The cause of concern for the gaps in the demand and supply of manpower in India is the imbalance between quality and quantity without manpower planning. To research the ways and means of solving unemployment problem, there is an intellectual debt on the economists and policy makers of India. For providing ROTI (Bread) and employment to the manpower, we need to increase returns on training investment (ROTI).

To achieve efficiency and deliver quality education, we certainly need good governance which means to me as SMART (SIMPLE, Moral, Action oriented Responsive and Transparent) administration for every institution at all levels in India. We are required to promote spiritual mathematics 1 (soul)+1 (GOD)= 1 with a smile of anticipation for bright future. Spiritual, humanitarian existence of a human being is capable of removing all kind of inequality (gender disparity) which is a social reality existing in India.

'SIMPLE' Model of Sustainable Human Development developed by me consisting of six human development activities such as Spiritual quotient (SQ) development, Intuition development, Mental level development, Love yourself attitude development and Emotional quotient (EQ) development is essential requirement of the entire World including Indians in India and elsewhere in all times to come. Being a researcher, I promote the role of non-economic factors more than economic factors towards sustainable development of India which stand for me as (Independent, non-violent, democracy with integrity and amity) attributes. We need to stop producing half baked products as semi educated and unemployable manpower in our educational institutions. This is essential to stop youth fall prey to destructive and anti social activities including terrorism and crimes of various kinds. Let the youth be provided employable skills with the trust in the dictum 'work works'. We need to bring hope, optimism, passion and enthusiasm (HOPE) by motivation through identification of the potential for achieving success with hard work and patience. Even at the risk of being misunderstood by the fraternity of economists, I wish to say that the economics of education at micro level instead of increasing the value of education has devalued the real value of education. There is a strong case for strengthening the educational value of education which is more than making a person capable of earning his/her livelihood

Let us create conducive environment for proper, productive and practical utilization of positive potential of youth as demographic dividend. Let them be really educated to use their hands, head and heart (3H) with a positive mindset. Let them understand sex as poise, sacred and secret allowed in a married life only. The polluted minds in India are committing crimes including rapes one after the other. The challenges of quality in globalized era calls for change in the mindset of all the stakeholders.

Conclusions

To conclude, we can say that over the period of time, growth have been take place in higher education in terms of institutions, enrolments etc. but it is not sufficient. Besides, Indian economy is facing various challenges regarding higher education in twenty first century, which need to overcome through appropriate policy formation and their effective implementation. India is today one of the fastest developing countries of the world so there is a strong need to increase the number of institutes and also the quality of higher education in India. To reach and achieve the future requirements there is an urgent need to relook at the Access and Equity, Quality Standards, Financial Resources and at the end Privatization. To develop India as a knowledge hub or to become a prosperous partner in global economy, India has to qualitatively strengthen education in general and higher education with research and development in particular. India has demographic advantage in the form of huge number of young people. To make the best, these young minds need to be provided opportunities for accessing quality higher education. For better contribution of higher education in Indian economy, there is emergence of paradigm shift from literature type education to productive, up to date, job oriented education as per requirements. We need job led growth and for this, the thrust should be on quality and vocational/technical education according to requirement. The cause of concern for the gaps in the demand and supply of manpower in India is the imbalance between quality and quantity without manpower planning. To research the ways and means of solving unemployment problem, there is an intellectual debt on the economists and policy makers of India. For providing ROTI (Bread) and employment to the manpower, we need to increase returns on training investment (ROTI). To achieve efficiency and deliver quality education, we certainly need good governance which means to us as SMART (SIMPLE, Moral, Action oriented Responsive and Transparent) administration for every institution at all levels in India.

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