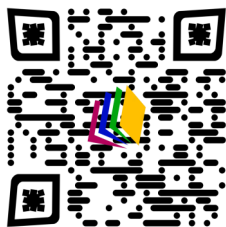




e-ISSN: 2582-502X

Asiatic Society for Social Science  
Research. 1(1): Dec, 2019, 18 - 24.

### Research Article



www.asssr.in  
(Peer Reviewed)

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Received on 13.10.2019

Modified on 31.10.2019

Accepted on 10.11.2019

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## **Demand on Higher Education and Dynamism in Employment**

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### **ABSTRACT:**

Developed nations are reaping both the utility and commercial advantages of education and continued research. They are successful in market utilization of the research in terms of enriching academics, skilled labour force and towards more productive production process. With transfer of technology and fewer restrictions on movement of capital we now find developing and underdeveloped nations adopt similar line of production process in a gap of few years. Nevertheless, rewards for copyrights, intellectual property rights are add on to the return on investment which is shared across as per law. Most of the India is still confused whether pursuing education is for enhancement of the decision making to better quality of life or merely for job purpose. The acceptable parameter worldwide is that education helps better decision making in life.

Introduction of machines, high yielding seeds and provisioning of capital is yielding production per acre. It is also reflected in higher growth of productivity of labour of course at the cost of replacing a large labour pool worldwide. In short world needs multi-tasked well informed and skilled labour that can handle the modern capital and contribute to production with minimal wastages. Product and service standardization make it easier. A new force of artificial intelligence and predictability with real time data and efficiency in machines and sales are competing with humans for employment. This paper explores dynamism in linking employment to higher education and culture of research in higher education and to read the actual value addition to students' life and generating a thought in opportunity cost in education.

**KEY WORDS:** Higher Education, Employment, Academics

### **Introduction**

Rigved describes "Education is something which makes man self-reliant and selfless". Education facilitates learning, acquisition of

knowledge, skill values and correct habits. Panini puts it as "Human education means the training which one gets from nature". It engraves attitude for the greater goods, critical thinking, democratic living and importantly motivated towards democratic living. Socrates puts it "Education means the bringing out of the ideas of universal validity which are latent in the mind of every man". Educated ones get some skills in writing, speaking, calculating, drawing, operating some equipment etc. We see worldwide scarcity, wastages, poverty, unemployment, mechanizations, artificial intelligence and concentration of capital in the hands of few. Education is continuous process conducive for the good of the individual or the welfare of the society. In today's world it is stabilizer of social order, conservator of culture, an instrument of change and social reconstruction.

Education has become diversified, competitive and commercialized. Continuous investments make it more linked to adaptability, productivity. It encompasses changes and factor demand and grows solid reading behaviour of humans, market and capital. Developed nations who have been at the forefront of capitalist system are reaping the utility and commercial advantages of continued research. They have been successful in portraying it as return to education at the primary, secondary and even higher education. Apart from building of characters and initiating life decisions in the long run, education is all about reading and preparedness for changes for adaptability to technology in every small interval. It is a continuous investment. Countries in forefront of progress make market utilisation of the research, reinforcing culture for skills through education process. Additional investments in human resources and technology make products more productive and limited in supply in few hands. Looking at the present GDP growth of countries, we find it to be going beyond factor endowments

statistics. These systematic attempts to avail technological improvements in production process and services sector gradually reduces labour aspects of growth in terms of absolute engagements. On a positive note this simply adds to the productive capacity of the labours retained to be engaged in the system. This is a continued approach as they add more markets for the products or services. Overseas markets come to their fold on different agreed principles of sharing the revenues.

The role, utility and allocation both private and public money for education and opportunity costs involved is one of the most pertinent questions in today's scenario. Bhandari (2014) rightfully suggested that Indian government needs to change its education policy orientation to quality, from infrastructure to services and from inputs to outcomes in terms of happier and more productive workforce. Employment enjoys dynamic positive relations with higher education which continuously assimilate research values. Employment volume, pattern and return continuously change with time. It is no more primary sectors hold their sway as in past though they are the necessity goods. Manufacturing edged past primary sector. Now service sector is more powerful in India. Inside dynamics is also changing. Current wages in across all sectors is as important as future gaps and requirement. Extending product and service lifecycle management is as important as creative disruptions and destructions. Sorry to say more scope of more jobs in primary and manufacturing sectors is less. In many cases machines are competing with humans for jobs. Managing these machines are new few jobs created at the expense of regular and repetitive nature of jobs gradually being lost to these machines. More successful infusion of artificial intelligence is definite to create future structural imbalances in employment. It is difficult

to predict cost and return to education when there is heavy concentration of capital in the hands of few and artificial intelligence driven robots are there. At human level we see more protective policies even by US to safeguard jobs for natural citizens. The cycle appears curious with investment in research and spread of higher education. The phases can be (i) Foreign products are found to be superior in India, (ii) foreign capital seems superior, (iii) 60% mechanizations in Indian agriculture, (iv) Indian labour equally productive as foreign labour in some sectors at lesser price, (v) Investment in machines and information system to reduce the dependence on outside locations by US and other developed economies, etc for which demand for oscillates between sectors and between countries.

### Growth of Enrolment Across Education Levels

Table 01: Enrolment across Education Levels (millions)

	1951	1961	1971	1981	1991	2001	2011	2014
Primary	19.2	35.0	57.0	73.8	97.4	113.8	135.3	130.50
Upper Primary	3.1	6.7	13.3	20.7	35.6	42.8	62.0	67.2
Higher and Senior Secondary (9-12)	1.5	3.4	7.6	11.0	20.4	27.6	51.2	61.80
University and Above	0.4	0.9	3.3	4.8	4.9	8.6	26.7	34.21

Source [http://mhrd.gov.in/sites/upload\\_files/mhrd/files/statistics/ESG2016\\_0.pdf](http://mhrd.gov.in/sites/upload_files/mhrd/files/statistics/ESG2016_0.pdf)

In 30 years between the years 1981 to 2011 we find a growth of 83% in primary enrolment, a growth of 199% that in upper primary education. The ratio enrolment between upper primary to primary enrolments was 28.04 % in 1981 which was subsequently increased to 45.82 %. This talks about much improved conversion ratio. Similarly in those thirty years we find a growth of 365% in higher and senior secondary education. The ratio enrolment between Higher and Senior Secondary to upper primary enrolments was 53 % in 1981 which was subsequently increased to 82.58 %. For University

and above there is 456% rise in enrolment to 26.7 million. The ratio enrolment between University and above to Higher and Senior Secondary was 43.63 % in 1981 which was subsequently increased to 52.14 %. Humanities/ Social science still dominates at under graduate level at 40.24%, followed by engineering and technology at 15.89%, science at 15.38 % and commerce at 13.98% of the total under graduate enrolment. This talks about preferences, skill limitations with respect to the changing sector specific demands. Table 03 talks about distribution of enrolments amongst at the disaggregated levels for graduates and post graduates.

Table 02: Percentage Enrolment in various disciplines at under graduate level in Higher Education (2014-15)

Discipline	Under Graduate
Arts/Humanities/ Social Science	40.24
Engineering & Technology	15.89
Science	15.38
Commerce	13.98
Education	3.25
Medical Science	3.05
IT and Computer	2.57
Management	1.93
Law	1.13
Agriculture	0.61
Oriental Learning	0.39
Others	1.58

Data Source: Ministry of Human Resource Development, Government of India (website: <http://mhrd.gov.in/statist>)

Table 03: Percentage enrolment in various programmes in Higher Education (2014-15)

Data Source: Ministry of Human Resource Development, Government of India

Programmes	Total
Bachelor of Arts	28.44
Bachelor of Science	11.80
Bachelor of Commerce	10.87
Bachelor of Technology	6.43
Bachelor of Engineering	5.75
Master of Arts	4.23
Bachelor of arts- Honors	3.73
Bachelor of Education	2.05
Master of Science	1.70
Master of Business Administration	1.61
Bachelor of Computer application	1.40
Bachelor of Science (Hons)	1.32
Bachelor of Business Administration	1.11
Master of Commerce	1.07
Bachelor of Law	0.82
Others	17.67

(website: <http://mhrd.gov.in/statist>)

**Price is There, But Time is More Important**

It is more important to know both the opportunity cost of education, quality of education and most importantly historical facts additional return to education as one opts for one level higher education. Higher education has opportunity costs in terms of time that it consumes. It is more defined when you are already a part of legally defined labour pool by your age and willingness for availability. So you are sacrificing these likely earning opportunities with respect to availability of jobs. Now for many (when they are around 20 yrs) time factor may not mean much. Well in that case just think of money that is involved given that subsidy is zero. Well jobs are as always is market determined. Depending on growth and the phase of business cycles you may have different waiting period. Besides there are structural changes/ shift in the economy, innovations to alter the demand for labour. Not to lose heart here, they mostly require short term courses to reorient their skillsets. Indian IT industry is undergoing similar changes. There are big structural changes within the sectors and adaptability to new demand may not be uniform across professionals. This is more an outcome of innovations providing solutions to the market. The challenges are aggravated by immigration policies, fiscal and corporate policies of foreign governments too.

More important question is degree of differential in dynamism between two markets (market and consumer choices) and offerings of educational system. No matter markets try to stay ahead as consumer choices are exercised with the proliferation of information and alternatives. There are both challenges and bottlenecks for both. An interesting case develops here for all. Labours know the finite amount in terms of money and time. Both are voluntary decisions, may or may not involve future loan burden etc. But time cannot be replaced.

Labour is disappointed if his skill sets, decision making power is not positively enhanced as he/she has to face world one day or other and enact the role of responsible family member and more importantly pay back to society. In higher education the delivery part is the most important rather than the degree.

A study by Laveesh Bhandari and Madhusmita Bordoloi find interesting results. This result is asymmetrical to the theories already advocated development economists. If we look at table 04 you find that incremental income as one spends more time with education is all the more encouraging. Those who have completed primary education tend to get 31% higher median income than that of illiterates. For middle schools completion the figure is 45.5%, for high schools it is 71.1%. With professional degree the salary is up by 172% and for post graduate and above it is 190 %.

Table 04: Percentage difference in Income from those who are illiterate

Educational Completion level	Impact on income compared to illiterates	Percentage Difference in Likelihood of Employment from Illiterates
Primary Schools	31.0	1.5
Middle Schools	45.5	2.5
High Schools	71.1	3.4
Higher Secondary	89.8	3.3
Tech. Education./ Diploma	137.0	3.8
Graduate	136.3	4.2
Professional Degree	171.8	5.1
Post Graduate and above	190.0	5.1

Source: Laveesh Bhandari and Madhusmita Bordoloi, "Income Differentials and Returns to Education", Economic and Political Weekly 41, no. 36, September 09, 2006.

**Unemployment in India**

Unemployment rate measures the no. of people actively looking for a job as a percentage of labour force. In order to judge the scenario of people who are mostly remained unemployed we may look at the

graph given below. Youth unemployment rate in India has been in between to 12.00 to 18.00 in recent times averaged around 15.5%. Total unemployment rate in India increased to 3.52 percent in 2017. It averaged 4.05 % from 1983 until 2017. As per information of the Centre for Monitoring Indian Economy (CMIE), we have 31 million jobless in India. Normally we are expected to 6 million new jobs in 2018. By February 2018 the figure reached close to 6%. Labour participation rate decreased from 48 to 43 % during demonetization. Job seekers focused on acquiring new skills instead of waiting for jobs in a hard-hitting economy. It affected household economy though you don't see a quantum jump in unemployment. So our backlog unemployment is assuming a dangerous proportion in absolute numbers. This dismal showing of unemployment rate and poor household income between 2017 and 2018 can be attributed to jobs suffered due to the volatility in the agricultural sectors mostly an outcome of less rains, uneven rains, unseasonal rains and bad crops. Madan Sabnavis, Chief Economist of CARE Ratings told FE Online that there has been a trend of replacements than adding new jobs with corporate sector contributing 2-3 % growth rate and no growth in jobs offered in PSUs. Small business loans through Mudra Scheme are yet to bring a noticeable rise in self employment.

Table 05 states Unemployment rate in India (usual status) between years 2008 to 2017. Our natural rate of unemployment seems to 3.50 percent. You get a comparative picture on unemployment rate of some of the leading countries in the world in table 05. Euro area is struggling with 8.10%, where as Canada and Australia are 5.90 and 5.30 %. Japan has 2.40% unemployment rate. Rise in the gainful employment and rise in the wage rate are other important factors to be studied along this to understand the dynamism of the sector.

Table 05: Unemployment Rate in India

2008	4.12	2013	3.46
2009	3.75	2014	3.41
2010	3.54	2015	3.49
2011	3.53	2016	3.51
2012	3.62	2017	3.52

Source: TradingEconomics.com, International Labour Organization

Table 06: Unemployment rate in India (2017)

Country	Unemployment rate
Spain	15.30
Brazil	12.10
Italy	9.70
France	9.10
Euro Area	8.10
Canada	5.90
Australia	5.30
United Kingdom	4.00
China	3.83
USA	3.70
India	3.52
Japan	2.40

<https://tradingeconomics.com/india/unemployment-rate>

### Quality of Higher Education and Culture of Research

Research has very low probability of success. But, research is done for better way of solving problems. Identification of problems, seriousness, spreads and ability to read it from syndromes all is taken into analysis when we search for remedial. Research adds to market, segments markets, creates new employment, and raises revenues. And market believes it, supports it. A government also supports it, pushes for more concessions to increase the faith in the outcome and cushion the risks.

Quality of higher education stands solidly behind the culture of research. Opportunities in higher education are very much important. For any Higher Education Institute, commercial feasibility at present and commercial feasibility for future is important. Research drives higher education to higher orbit and is a way of ensuring more accountability, in the

process that sustains the market. This generates future flow of jobs.

Research serves more needs of human beings, widens the market and equips labour with more support. One sees an interesting correlation between higher education and return to labour (wage). Employability and incremental earnings from higher education in skill oriented courses are positive and well documented. Those without opportunities are set to add more skill sets. So, availing further higher education is the survival mantra. The bar set for new normal is higher. This has been well exploited by entrepreneurs of higher education as the demand for further higher education is fuelled by future chances of better employability. This is there for both categories (i) in the job and (ii) likely to join the job pool. Not going further detail into it, one can simply say industry and society at large always expect employability and skill sets are industry worthy with investment in higher education. This is across all sectors i.e. manufacturing and service. It is expected when you face interviews or challenges of serving your organizations. It is a normal trend to believe higher education is for better adaptability to jobs and providing further dimensions to it.

Institutions to be known by delivery mechanisms

Delivery part is where the institution comes.

Institutions to be favoured are the ones who boast of those agile mindsets which bring out those preparedness and thoughts in the students. Research is ongoing part in the whole delivery system. Faculty base understand the depth of the theory, applicability and degree of adaptability to different scenarios across time and geographical zones when they take it to society. Not only the straight forward solutions envisaged as efficient are to be known, the other best feasible strategies and outcomes are to be analysed and extrapolated. Labour involved both mental preparedness and physical endurance in the fields/

factory is to be assessed.

Every risk taker is a good worker first. Feedbacks on above points have the capacity increase our entrepreneurial ability as more home grown solutions are developed and services are rendered. India needs more of these. In a nutshell, it is the nature of the higher education that is more important. In no case it can be segregated from research irrespective of the grade of the institute. Beyond current revenue to patents, innovations and leaders Higher education is more knowledge and more preparedness. It is disappointing to hear 75% of engineering graduates, MBAs woefully lack skills. This figure would reduce by 25-30% given that research element; market feasibility had been added to the skill-sets of the stakeholders including teachers and institutions. Higher education need not be discriminatory, but definitely has to be meritorious in delivering. Research is mostly intangible, ongoing and involves cost. Both private and government support is needed. Many researches cannot start if one demands for successful commercial angle. Sustainability issues of institutions of higher education cannot be limited to current revenue rather to patents, innovations and leaders that they produce.

### **Assimilate Market Dynamics in Labour Force**

Employment enjoys dynamic positive relations with higher education which continuously assimilate research values. Employment volume, pattern and return continuously change with time. Primary sectors or necessity goods sector no more hold their sway as in past. Manufacturing has edged past primary sector in return to labour. Now service sector is more powerful in India. Inside dynamics is continuously changing.

Current wage gaps in across all sectors serve clues

for future gaps and requirement. Extending product and service lifecycle management is as important as creative disruptions and destructions for continuing employment numbers and adding to it. Scope of more creation of jobs in primary and manufacturing sectors is less. Now machines are competing with humans for jobs. Employing these machines in jobs of repetitive nature and at the expense of regular employees, we find more being lost to these machines. Jobless growth is going to be more severe with more successful infusion of artificial intelligence. It is definite to create future structural imbalances in employment.

## Conclusion

It is difficult to predict cost and return to education when there is heavy concentration of capital in the hands of few and artificial intelligence driven robots are there. At human level we see more protective policies even by US to safeguard jobs for natural citizens. The cycle appears curious with investment in research and spread of higher education. It is time to bring an overall vision in the education regime looking into tomorrow's requirement of course keeping value system intact. Poor learning outcomes in large numbers of educated unemployed are leading to depression and low employability. We need greater public expenditures to facilitate actions to overhaul India's education regime. We need to increase labour market flexibility too. We need to protect unorganized sector. In india 90% of employment is in the unorganized sector. This provides us a breathing space as they are beyond the reach of contract labour laws. Higher growth and greater purchasing power in the hands of many can create structures for gainful additional employment for 30 million backlogs. This requires extreme inequities to reduce.

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