

## “Refurbishing & Leveraging Pecuniary Viability of Communal World by Development of Research Based Curriculum In Institutional Subsystem of India.”

SANDEEP R. SHUKLA

Professor, Bansal Institute of Science & Technology, Bhopal, MP  
Res:129/ Kalpana Nagar, BHEL, Bhopal, MP

### ABSTRACT

Economics is life blood of any business. Without improved financial capability no business, communal strata or establishment can ever flourish in ever changing fiscal environment. Our financial system can develop attractive micro- economic and macro -economic indicators only by improved financial viability of all the segments of economy viz. primary, secondary and tertiary sectors. Evenhanded and uniform all-round growth of economy is essential for articulation of revolutionary plans in India as well as communal world. The US economy has attained a leapfrogging growth vector because of research based curriculum in studies. It has been researched that many of the students are not in a situation to deliver their paramount knowledge in the complex industrial environment when they join gigantic trade and commerce activities. It has been witnessed that lack of research based curriculum and being deficient in research based instructional pedagogy in practical form leads to pecuniary sickness of communal world. There are many people in India who choose to serve in trans-national growing economies. If the research based Engineering and Management Curriculum is made more expanded and diversified in the Indian subcontinent basically at undergraduate and postgraduate level, it will affect profiteering capacity of entire communal world.

### INTRODUCTION

Our scholars who come into in the business world are many a time, not in a situation to significantly appraise the financial indicators of a corporate entity in a sensible approach and they are not in a position to take convincing resolution under threat and ambiguity, this results in erroneous financial and other conclusion in the corporate houses , which directly reflects in the profiteering capacity of even big blue-chip corporate entities. We can make our industries more profiteering and financially viable if we improve our education pedagogy in the Institutional subsystem according to ever changing needs in the civilization. The pedagogy should be based on Usable; deliverable and updatable research model so that cogent, prudent and profiteering research based futuristic strategic planning can be done in corporate world. The financial viability of industry can be improved if

pedagogy is designed in a manner, which induces serious and lateral thinking in the modern executives, who are prospects of our motherland. To elaborate further, the completion rate of PhD in India is only about 50 percent. With respect to gender, of the total number of PhDs awarded during present time, 66.4 per cent of the PhDs (i.e. 30,264) has been obtained by men, and only 33.6 per cent of the PhDs (15,297) has been obtained by women. Therefore, pedagogy at bachelor and masters level must be research driven.

DATA COLLECTION METHODOLOGY : Secondary data available from Ministry of Human resource and Development, Government of India and National Centre for Science and Engineering Statistics. Most of the data is from 2001 and 2011 census.

GUIDELINES FOR EFFECTIVE RESEARCHES:

- It is seen that useful and effective researches can be done adopting following recourse of action, the research methods, sampling methodology its importance etc. can be taught to budding managers and the executives , for improving revenue from operations for the corporate and Industry:
  1. Select a topic in reference to problem area.
  2. Perimeter your Subject Area.
  3. Explore for other probable topics.
  4. Examine your topic.
  5. Recognize potential source of Information.
  6. Carry out your research- Data Collection, Segregation, Analysis, and Interpretation by hypothesis tests etc.
  7. Try to use dependable sources.
  8. Preliminary evaluation.
  9. Edition or amendments.
  10. Substance scrutiny.

#### HOW TO IMPART RESEARCH BASED VALUED LEARNING TO PROSPECT EXECUTIVES:

The subsequent aspects must be articulated and taught in a research based manner to the prospect executives of modern blue- chip corporate entities for holistic improved growth trajectory of economy:

- Investigative learning in budgeting and variance reporting besides modus -operandi of making financial estimates and projections precisely, using sensitivity analysis. This will help future managers to articulate advanced plans easily.
- Exploratory based capital Structure planning and administration, so that cost of capital can be reduced and trading on equity can be done more appealingly. This will help managers to maintain solvency of the business endeavor.
- Research based cash flow management and projection in operating, financing and investing activities, which can throw a light on liquidity situation of corporate body. The business houses which have poor liquidity position can improve their liquidity in a logical and organized sense.
- Research based case studies in the areas of Forex management, Treasury Management, Bank Credit Management etc.

- Research oriented problem solving in the areas of Simulation Modeling, Inventory Management Supply Chain Management, Just -in -Time, Material Requirement Planning and Logistics etc. with advanced tools of operation research and management science.
- Research angled aspects related to Design of production organization, production planning and control , capacity development ,Total Quality Supervision, and Assembly Line Balancing of utilities. This will assist executives to improve pecuniary viability of industry.
- Researches which are functional in the areas of derivative marketing Viz. Swaps, Options, Future Contracts, Forward Buying & Selling of Securities can organize future managers to alleviate risks and use these risk hedging tools as and when necessary.
- Researches in the areas of creation of balanced portfolio of investment and use the concept of benchmark portfolio of investments and plan the investing activity accordingly. This activity will help them in investing in economic turmoil and future executives will be in a spot to invest funds in the avenues which have better marginal efficiency of capital.
- Researches in the areas of financial management and marketing research with the help of advanced software such as MATLAB, SPSS, SAS etc. which are used by several financial econometric scientists. Use of Qualtrics Insight Platforms interface and Question Pro provides powerful online survey software designed to help you make better industry pronouncements.
- Usable researches in the areas of forecasting of demand and use of tools such as regression, moving average, semi average, fitting of straight line and parabola, extrapolation, interpolation, correlation, exponential smoothing etc. These things will help business managers in forecasting vocations in the Industrial giants.
- Researches in the area of cost control dynamics, improvement in market share dynamics etc. may help future managers to increase profits and financial viability.
- Functional researches in the areas of reliability engineering, and maintenance management can

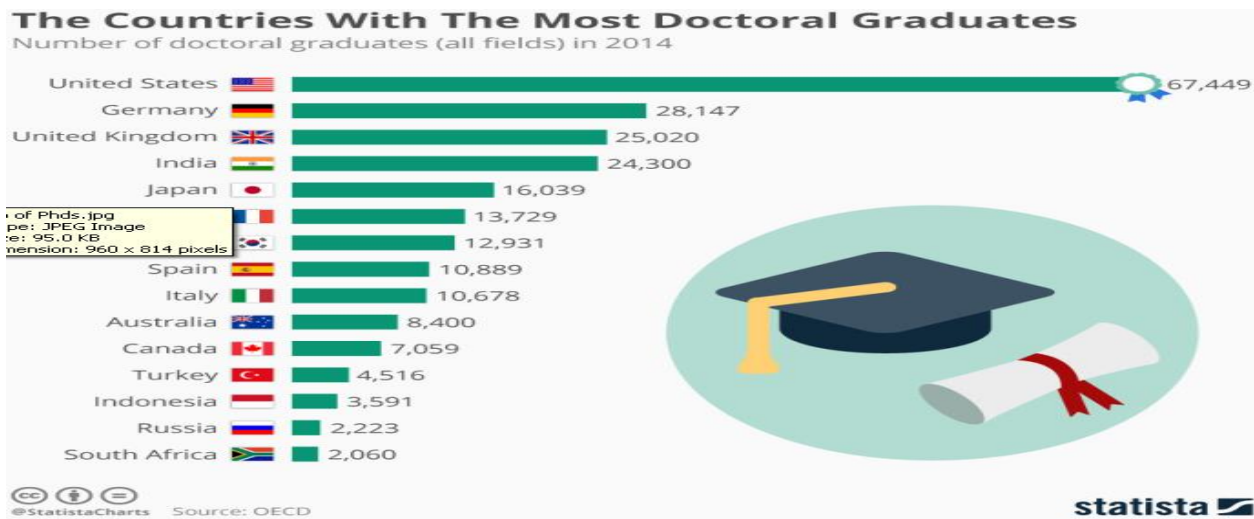
reduce bottlenecks in the production system. These things will help managers in planning preventive and predictive maintenance activities for production intensive industries.

- Advanced researches in the areas of knowing consumption function, propensity to consume and consumer utilitarian pattern, product innovation and improvements according to consumer taste and preferences can be instrumental in creating a niche in market. Innovation can be defined merely as a "novel idea, mechanism or process". However, innovation is often also viewed as the INTERPRETATION AND ANALYSIS OF DATA:

explanation that meet new requirements, unspoken needs, or existing marketplace needs.

- Researches in the area of mitigation of inflation, recession and improvements in GDP, GNP and other macroeconomic indices besides balance of payment of the country, can improve the latent revelation of future managers of corporate world.
- Improving cerebral horizon in the area of Financial Accounting and Management Accounting to improve over all position of liquidity, solvency, and profitability of the enterprise.

Pictorial Depiction Number -1

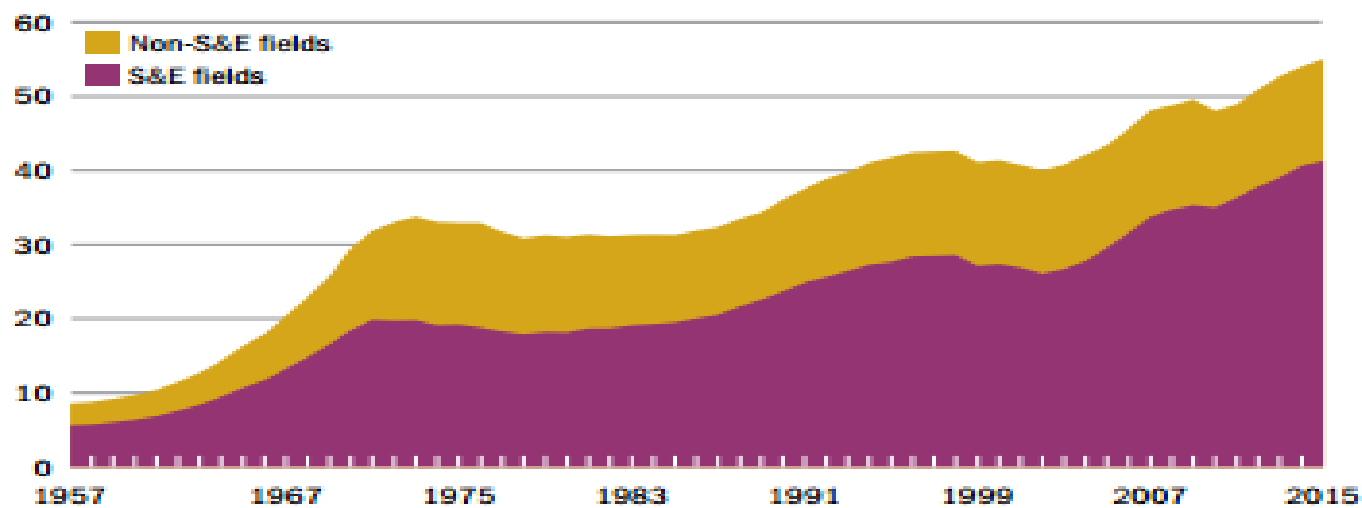


Source: Statista, National Centre for Science and Engineering Statistics.

It can be witnessed from the above pictorial depiction Number -1 that USA stands at first position for the most doctorate degrees as on 2014, followed by Germany and United Kingdom. So far as India is concerned, it stands at the fourth position. Japan stands at the fifth position i.e. after India, but is more developed than India because of Total Quality Management, Total Productive Management and Lean Manufacturing etc.

## Doctorates awarded by U.S. colleges and universities: 1957–2015

Doctorate recipients (thousands)



Pictorial Depiction Number 2

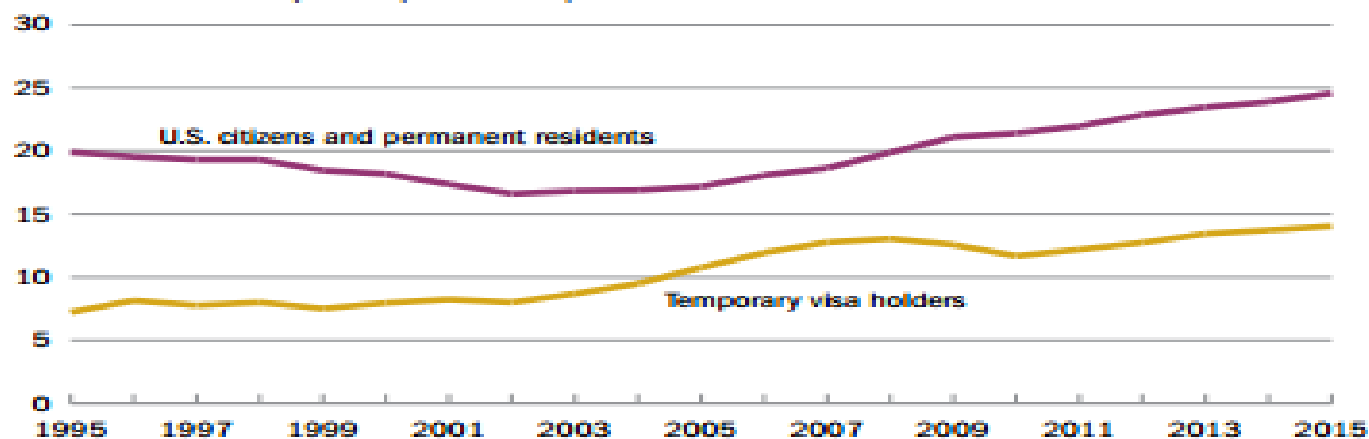
Source: National Centre for Science and Engineering Statistics.

S&E indicates Science and Engineering Fields.

It can be seen from Pictorial Depiction Number -2 :It can be witnessed that even in USA more number of people do researches in non Science and Engineering arenas and similar is the position in our country. But in United States of America the number of doctoral degree holders has been perpetually increasing and these doctoral programme holders are responsible to improve the pecuniary viability of both the continents Viz. South and North America.

## Doctorates awarded in science and engineering fields, by citizenship: 1995–2015

S&E doctorate recipients (thousands)



SoSource: National Centre for Science and Engineering Statistics.

S&E indicates Science and Engineering Fields. The table indicates the S&E Doctorates done by different people in USA. It is evident that in USA more number of Us citizen pursue doctoral programmes as compares to temporary visa holders. But it is also evident that the number of temporary visa holders who have been doing doctoral programme from USA has increased marginally in 2015. Similar growth trends have been witnessed in the recent past i.e. in 2019. Because of brain drain many Asians, and even people from Euro economy also pursue doctoral programme from USA.

Table 1

TABLE 1: DATA RELATED TO POPULATION OF INDIA

	2001	2011
<b>Total</b>	102.87	121.06
<b>Male</b>	53.22	62.31
<b>Female</b>	49.65	58.75

**Data Source:** Office of the Registrar General & Census Commissioner, India (website: <http://censusindia.gov.in/>)

After analysis of Table 1, it is evident that male population was 53.22 crores in the year 2001 which became 62.3 crores in the year 2011 in the span ten years, while female population has increased from 49.65 crores to 58.75 crores. Overall increase in population in the span of ten years from 2001 to 2011 has been 18.19 crores. This is not seen in the developed western countries. Basically western economies are practicing population control dynamics with more sacrosanct than Indian economy. India is a young country where 67% people fall in the age groups between 17 to 27 years of age. This is as per central statistical organization. This fleet of population must be focused for research based studies in the area of Management and Technology. A techno-commercial manpower can easily contribute better results in mega blue-chip companies.

Table 2

POPULATION BY AGE GROUP 2013-14 (IN THOUSANDS)

Age group	2013			2014			Corresponding Level of Education
	ALL	SC	ST	All	SC	ST	
6-10 Years	130896	23324	13020	130648	23286	12971	Primary (I-V)
11-13 Years	75223	13259	7194	74413	13127	7079	Upper Primary (VI-VIII)
6-13 Years	206119	36583	20214	205061	36413	20050	Elementary (I-VIII)
14-15 Years	50244	8803	4610	49801	8724	4559	Secondary (IX-X)
6-15 Years	256363	45386	24824	254862	45137	24609	I-X
16-17 Years	45085	7749	3963	44734	7680	3937	Sr. Secondary (XI-XII)
6-17 Years	301448	53135	28787	299596	52817	28546	I-XII
18-23 Years	140802	24077	11926	141046	24106	11949	Higher Education

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

The table number 2 shows that, India is a young country same has been witnessed in the survey of central statistical organization also that, today 67% of Indian population is in between 17 years of age to 27 years of age i.e. as on 2019. But it is a matter of concern that, population needs to be more be more focused, objective oriented, and techno-commercially sound. It is evident that during 2013 and 2014 maximum population was immature. It is desired that Schools, Colleges and Universities must develop research based teaching pedagogy to accelerate the growth vector dynamics of the country. Holistic growth of any country depends on the teaching

pedagogy and the quality of workforce involved in teaching profession. The Government of India tries its best to provide education to rural poor, unprivileged poor people of society. It has tried its best to provide institutions, as well as scholarship benefit to SC, ST, OBC and unprivileged poor and minorities all over the country, the young unprivileged rural poor must develop techno- managerial acumen and must pursue such Technical and Management Curriculums which open their dormant vision. During 2013 and 2014 most of the unprivileged economy of India was young and this fleet must be ready to take up challenges of the Corporate clients, Industrial economy and the ever increasing demands of the industry. The Industry and the service sector of any country are responsible to create growth vector of the community. For any economy Gross National Product, Gross Domestic Product and the Industrial Index of Production must be impressive. To encounter double digit growth it is essence of the time to develop better and more work-force with diversified skill, competence, and techno-commercial attributes. The growing economies of the world such as United States of America, North and South Korea, China and Japan have been creating good growth by disseminating their products in different countries and earning good foreign exchange and by improving balance of payments and balance of trade of the country. Our country is growing fast and now good teaching pedagogy, good and eminent faculty, good infrastructure , good instructional platforms are seen even in tier II cities of India. Education services can bring radical change in the overall growth of any economy and now India is moving in line with growth economies of the world.

**Table-3 : Literacy Rates( 7+ Age Group)**

(In percentage)

	2001			2011		
	ALL	SC	ST	All	SC	ST
<b>Total</b>	64.8	54.7	47.1	73.0	66.1	59.0
<b>Male</b>	75.3	67.0	59.0	80.9	75.2	68.5
<b>Female</b>	53.7	42.0	35.0	64.6	56.5	49.4

**Data Source:** Office of the Registrar General & Census Commissioner, India (website: <http://censusindia.gov.in/>)

**Table-4: Adult Literacy Rates(15+ Age Group)**

(In percentage)

	2001			2011		
	ALL	SC	ST	ALL	SC	ST
<b>Total</b>	61.0	44.1	40.8	69.3	60.4	51.9
<b>Male</b>	73.4	59.3	54.8	78.8	71.6	63.7
<b>Female</b>	47.8	28.5	26.7	59.3	48.6	40.2

**Data Source:** Office of the Registrar General & Census Commissioner, India (website: <http://censusindia.gov.in/>)

It is evident from Table 3 and 4 that, the literacy rates for the reserved category candidates viz. SC, ST has improved for less than 7 years of age for children category as well as above 15 years of age for adult people , in the span of ten years i.e. from 2001 to 2011. This shows Indian sub-continent has cared for the education of even the unprivileged sector of economy. But despite this, the work force still needs such

pedagogy at the institutional level which could stoke the engine of growth and the work force may be instrumental in achieving double digit growth in perpetual fashion. Any economy prospers because of overall growth of production sector, service sector and the agricultural sector in the economic environment. India is a vibrant economy which mainly depends on agricultural economy. It has been seen that growth economies of the world have good and impressive macro -economic indices and impressive self sustainable microeconomic entities. These economies flourish because of good Industrial Index of Production, better growth figures through contribution of service sectors. There are many economies in the world which have fairly good contribution through service sectors. The Education, Banking sector, Insurance sector, Supply of commercial inflammable gas, Telecom, Advertising, Warehousing services, Services related to supply of potable water and services related to sanitation, Services related to tax consultancy, Consultancy in the areas of project inception, erection, commissioning and inception of gigantic industries, Services related to export import documentation procedures and logistics and supply chain management , Railways and Transportation services, Health care services, and Services related to news broadcasting through radio and audio visual aids etc. are gaining paramount importance in ever changing global environment. More literate people in society will surely be responsible for all round communal growth.

**Table-5: Number of Institutions by Type 2014-15**

School Education*	Type		Number
		Primary	
	Upper Primary		425094
	Secondary		135335
	Senior Secondary		109318
	<b>Total</b>		<b>1516865</b>
Higher Education	University	Central University	43
		State Public University	316
		Deemed University	122
		State Private University	181
		Central Open University	1
		State Open University	13
		Institution of National Importance	75
		State Private Open University	1
		Institutions under State Legislature Act	5
		Others	3
	<b>Total</b>	<b>760</b>	
	College		<b>38498</b>
	Stand Alone Institution	Diploma Level Technical	3845
		PGDM	431
		Diploma Level Nursing	3114
Diploma Level Teacher Training		4730	
Institute under Ministries		156	
<b>Total</b>	<b>12276</b>		

**Data Source :**

**For School Education :** National University of Educational Planning & Administration, New Delhi (website: <http://dise.in/>)

\* Figures related to School Education are provisional.

**For Higher Education :** Ministry of Human Resource Development, Government of India (website: <http://mhrd.gov.in/statist>)

It is evident from the table number 5 that there were more than 15 lacs primary , upper primary, secondary and senior secondary schools while more than 750 central universities , state public universities, deemed universities, state private universities, central open universities, state open universities and more than 38 thousand colleges under ambit and umbrella of the above mentioned universities as on 2014-15 . That is why the subcontinent witnessed that many new institutions and the universities have been incepted during present regime i.e. , as on 2019 academic year. This has been witnessed that there has been disequilibrium of demand and supply parameters because of which, it has been seen that there has been stiff competition in the counterparts. The institutional subsystem must develop a research based teaching pedagogy to impart quality education to the disciples. The student fraternity must choose a curriculum which is in a position to generate ample opportunities to them. The student fraternity with technical as well as commercial bent of mind and techno-managerial acumen can easily achieve long term goal and objective of industrial giants, corporate houses and the institutional subsystem of the country.

The problem of brain drain should also be addressed properly so that our human resource can contribute in the own country and can improve the Gross Domestic Product as well as the position of Balance of Payment of the country.

Table - 6

PERCENTAGE ENROLLMENT IN Ph.D AND IN 2014-15

Discipline	Ph.D.	F
Agriculture & Allied	3.84	
Commerce	3.09	
Engineering & Technology	23.42	
Foreign Language	2.58	
Home Science	0.51	
Indian Language	5.01	
IT & Computer	1.69	
Law	0.99	
Management	5.31	
Medical Science	3.99	
Science	25.88	
Social Science	12.13	
Others	11.56	

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



From the analysis of above table it can be seen that the enrollment in PhD curriculum has not been impressive till 2014-15. So far as the branches, such as Law, Management, Medical science, Information Technology, Commerce etc. are concerned, the enrollment have been very low. The country must try to develop usable research based pedagogy, so that more people can articulate futuristic plans in an easy manner. If the enrollment in doctoral programme is low the overall PhD's in specific discipline are low in number. Science and technology are essence of life. No community can ever develop, grow and modernize without science and technology. A student with doctorate in Science, technology as also, management curriculum is a precious asset in the Industrial establishments. The enrollment in the doctoral programme has slightly increased than before. Now, it is seen that more people of Indian subcontinent are inclining towards such curriculums; this is a good move to provide fellow scholarships for the doctoral programmes in IITs, IIMs and other reputed universities of Indian peninsula. This will produce more effervescent human resource in the Industrial houses, corporate houses and the Institutional subsystem of the country as well as overseas communal world. Many people from India join trans - national world and the developed countries as well as other developing countries. These parts of the world can also utilize Indian manpower to their advantage.

Table-7

Percentage Enrollments in different disciplines in undergraduate level during 2014-15

Discipline	Under Graduate
Arts/ Humanities/ Social Sciences	40.24
Engineering & Technology	15.89
Science	15.38
Commerce	13.98
Education	3.25
Medical Science	3.05
IT & 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>)

It is evident from Table 7 that highest enrollment was in the arts, humanities and social science during 2014-15 in the undergraduate programmes. The enrollment in Engineering and Technology was not sufficient. For all round growth of economy the technical expertise is needed and it has been witnessed in the past that only 15.89% people were enrolled in Engineering and Technology curriculum which should be a matter of concern for the vibrant and developing economy like India. It has also been witnessed that because of demand and supply disequilibrium the viability of Technical institution may also be marginally affected.

## CONCLUSION:

If our country wants to attain impressive growth vector in all the corporate entities, then the management and technical professionals must be trained according to the needs of the industry. They

should be trained and developed by the institutions according to the profitability maximization, revenue maximization and wealth maximization objectives of the industry. Any country can attain impressive growth trajectory only if, the technical competence,

managerial competence & techno- commercial competence of the work force is enhanced, so that futuristic vision of every micro -economic entity is articulated within a short gestation period. So far as the Ministry of Human Resource and Development is concerned , India has 6,214 Engineering and Technology Institutes which are enrolling 2.9 million student scholars, and approximately 1.5 million engineers and technocrats are released into the job marketplace every year. This number should be and can be increased considerably and the technical institutes have been partially trying to imitate the model as well as pedagogy of most reputed Engineering Institutes of world such as Massachusetts Institute of Technology (MIT), Stanford University, and University of Cambridge etc. so that more institutes in India can develop similar branding as compared to the other developed counterparts. Research based pedagogy in the institutional subsystem of India will surely be instrumental in producing more efficient, learned, cross functional, dynamic and talented technocrats, who can be instrumental in product development, quality policy and specification, development of computer architecture in banks and insurance institutions as also in the development financial institutions, development of new as well as cost effective and user-friendly technology and the development of new method of production as well as optimization and allocation of resources for better utilization purpose. For achieving benefit through economy of scale and economy of scope, the students with technical bent of mind can articulate futuristic plans with ease. This will surely help our visionaries to develop, and modernize community for better satisfaction in long run.

#### BIBLIOGRAPHY:

- Aswath Damodaran, *Corporate Finance Theory and Practice*, Ed. 2<sup>nd</sup> Wiley Publication, 2017
- Apte P.G., *International Financial Management*, Ed. 4<sup>th</sup>, Tata McGraw Hill Publication, 2007
- Bhalla V.K., *Management of Financial Services*, Ed. 4<sup>th</sup> Anmol publishing, New Delhi, 2008.

- Bose Jayshree-*Bank Mergers -The Indian Scenario*-Ed.1<sup>st</sup>.ICFAI University Press Hyderabad.2007
- Desai Vasant - *Development Banking: Issues and Options Ed. 1st*–Himalaya Publishing House -. Mumbai.1988.
- Gupta Shashi K, Agrawal Nisha & Gupta Neeti – *Financial Institutions & Markets 1<sup>st</sup> ED* - Kalyani Publications, New Delhi 2004
- Pathak Bharati V -*Indian Financial System* – Ed1st. Pearsion Education – New Delhi. 2003.
- Rao Katuri Nageshwar – *Asset Reconstruction Companies Concept & Country Experiences 1<sup>st</sup> Ed* – ICFAI University Press, Hyderabad 2005.
- Seetapathi K.- *Risk Management In Banks*- Ed1st ICFAI University Press, Hyderabad 2002
- Sengubolta Latha – *Business Continuity Planning 1<sup>st</sup> Ed* – ICFAI University Press, Hyderabad 2003.
- Kothari CR , *Research Methodology*, Wishwa Prakashan , New Delhi
- Malhotra N.K. ,*Marketing Research An Applied Orientation*; Pearson Education.
- Yates E ,*Sampling Methods for Censuses & surveys*, Charles Giffen & Co.
- Annual Reports of Ministry of Human Resource, Government of India for different years.

#### WEBSITES:

- [www.mhrd.gov.in](http://www.mhrd.gov.in)
- [www.cmie.com](http://www.cmie.com)
- [www.mospi.gov.in](http://www.mospi.gov.in)
- [www.indianenvironmentportal.org.in](http://www.indianenvironmentportal.org.in)
- [www.csostat.gov.mm](http://www.csostat.gov.mm)
- [www.iste.org](http://www.iste.org)
- [www.nces.ed.gov](http://www.nces.ed.gov)

#### NEWS PAPERS :

Business Standard, Economic Times, Times of India, Hindustan Times etc. for different dates.

#### JOURNALS AND MAGAZINES :

Different issues of India Today, Economic Challenger, Journal of Applied Finance, Journal of Marketing Research, IIMB Journal Vikalpa, different journals of ICFAI etc.