Chapter 2

Literature Review

2.1 Education and Entrepreneurship Development

2.1.1. Introduction

In India there are many universities from which a number of graduates pass out every year in all streams of education. All students perusing their education hope to get a good job in the flourishing economy. Most of the students may be getting jobs of their choice and the rest of students then think for other activities of earning money. The other activities could be various kinds of business activities. The percentage of these people is again very less compared to those who give preference to paid/salaried job. The basic reason behind this is our education system which does not concentrates on development of entrepreneurship. At present Indian economy is growing on an average nine to ten percent every year which creating ample scope for all kind of business activities.

Centuries back the great Indian scholars and sages imparted knowledge on various subjects like philosophy, management, religion, medicine, literature, mathematics, sociology, etc and this education in India was available to anyone who wanted it. This led to the creation of some famous monasteries and universities like Nalanda, Vikramshila and Takshashila in the 13th century.

After independence in 1947 it was very necessary to develop technical education in the county to face the challenge to move the country ahead, and hence the major steps were taken to start Indian Institutes of Technology (IIT's), Indian Institutes of Sciences (IISc's) and Indian Institutes of Management (IIM's).

India has the world's largest higher secondary education system in the world. Indian universities and institutions of higher education and research have made a significant contribution to transmission of knowledge. Today, India is known as the talent-pool of the world, there are a number of intelligent, educated people. This fact has definitely given a boost to Indian education. India is having the largest population of the world and hence the government of India is trying to provide education to

maximum number of people and for that the Indian government is formulating the policy of promoting education at all the levels of the society.

2.1.2. Vocational Education

National Sample Survey data for 2004-05 reveals that only 5% of the population of age-group 19-24 years in India has acquired some form of skills through vocational education. It may be noted that Education Commission in 1966 visualized that 25% of the students at secondary stage would undertake vocational stream by 1986. Later Kulandaiswamy Committee Report had targeted this figure at 15% to be achieved by 2000. But as facts stand, the country has failed to fulfill any of the targets.

Making an assessment about the failure of vocational education, JBG Tilak mentions: "Vocational education, particularly in secondary schools did not really take off, as it was planned to be of a second rate, meant for the poor, and as a terminal one having inter-connectivity neither with higher education nor with the industrial or agricultural sector. It is viewed as strategy to reduce demand for higher education. Vocational education is costlier than general secondary education. Employment opportunities have not been particularly better for vocational education school graduates and as result, economic rates of return to vocational education were generally less than those to secondary general education."

Eleventh Plan has visualized that emphasis will be on demand-driven vocational education programmes in partnership with the employees. During the Eleventh Plan, vocational education would be extended to cover 20,000 schools with an intake capacity of 25 lakhs by 2011-12. The programmes will be so designed that they permit mobility between vocational, general and technical education. Thus, there should be enough flexibility in the approach.

2.1.3. Higher and Technical Education

At the time of independence, there were only 20 universities, with around 500 colleges and an enrolment of only one lakh in higher and technical education. The

¹ Tilak JGB (2006), Education – a Saga of Spectacular Achievements and Conspicuous Failures, *India Social Development Report*, p.36.

higher education system has grown into one of the largest in the world with 378 universities, 18,064 colleges, 4.92 lakh teachers and 1.40 crore students in 2007. The higher education institutions include 23 Central Universities, 216 State Universities, 110 Deemed Universities and 30 institutions of national importance and other 5 institutions established through state legislations.

Our Gross Enrolment Ratio (GER) around 11% is very low compared with the world average of 23.2%, as against 54.6% in developed countries, 36.5% for countries in transition and 22% for Asia. obviously, there is a need to promote higher/tertiary education still further as India intends to grow form a nation in the transition phase to a developed country. The Eleventh Plan, therefore, lays down the following objective for higher education: "Our long term goal must be to set India as a nation in which all those who aspire to good quality higher education can access it, irrespective of their paying capacity."

Table 2.1: No. of Higher Education Institutions (2005-06)

Sr.		No.	% of Total
1.	General Education	12,751	65.7
2.	Professional Education	-5,179	26.7
3.	Other (Including Research institutions)	1,473	7.6
	Total (1+2+3)	19,403	100.0
4.	Universities/Deemed Universities/Institutions of		
	national important	350	

Source: Provisional figures as provided by university Grant Commission

Notes: General education includes Arts, Science and Commerce.

2.1.4. Growth of Private Institutions in Higher Education

Another development during the Tenth Plan is that the share of private unaided higher education institutions increased from 42.6% in 2001 to 63.2% in 2006. The share of enrolment has also increased form 32.9% to 51.5% during the same period. Private institutions have improved access in a few selected areas like engineering, management, medicine and IT etc. where students are willing to pay substantially

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² Planning Commission (2007), Eleventh Five Year Plan (2007-012), Vol.II, p.22.

higher fees. The expansion of private institutions in higher education is not motivated by any philanthropic social purpose, but views investment in higher education as a very lucrative option, promising a very sumptuous and assured rate of return of the order of 20 to 30 percent. In other words, it is a good business option for investment. Moreover, its out-turn is absorbed in the expanding corporate and service sectors. Thus, its provides an elite group which becomes votaries of the private sector as the best alternative to growth by promoting unhindered growth of the corporate sector. Even brilliant students from lower and middle classes cannot afford this education, not to speak of the weaker sections of the society. The country must enforce the entry of the brilliant students in such institutions drawn from lower rungs of ladder of society so as to promote their vertical mobility.

The Eleventh Plan estimates that nearly about half of incremental enrolment target for higher education will come from private providers.

2.1.5. Technical Education

Technical institutions in India comprise of:

- 7 Indian Institutes of Technology (IITs) and 6 Institutions of Management (IIM)
 which are institutes of National Importance;
- 1,617 engineering and technology colleges, 1,292 polytechnics;
- 525 institutions of Diploma in pharmacy;
- 91 schools for hotel management and Institutions of Architecture in 2006.
- For post-graduates course, there are 1,147 educational institutions for MBA/PGDM and 953 for MCA.
- To deemed-to-be-universities, viz., Indian Institute of Science(IISC), Bangalore, Indian School or Mines (ISM), Dhanbad, Schools of Planning and Architecture (SPA), New Delhi, Indian Institute of Information Technology and Management (IIITM), Gwalior, Indian Institute of Information Technology (IIT), Allahabad, Indian Institute of Information Technology, Design and Manufacturing, Jabalpur and Kanchipuram.
- 20 National Institutes of Technology (NITs) which are institutions of national importance.
- There are many other Technology and Engineering, Technical Teacher Training Institutes in India.

The All-India Council for Technical Education was given a statutory status in 1987 for co-ordinated development of Technical Education, Promotion of qualitative improvement and maintenance of norms and standards. During the Tenth Plan, the number of AICTE approved Degree Engineering/Technology institutions has risen from 1,057 to 1,522 and the annual intake from 2.96 lakhs to 5.83 lakhs. However, the aggregate number of technical institutions by the end of the Tenth plan was 4,512 with an intake capacity of 7.83 lakhs.³

2.2 Global Initiatives in Developing Entrepreneurship

All around the world many countries have taken various initiatives to promote entrepreneurial activities. The researcher studied and reviewed the successful programmes as follows –

2.2.1. U S universities Initiatives

Universities are the primary source that attract and create talents and play a vital role in generating innovations. Universities have a great impact on the knowledge economy of the US. The innovations initiated by them have led to increased economic growth.

With the enactment of the Bayh Dole Act 1980, the scenario changed drastically. Universities started commercializing their researches and patenting their inventions. The universities were provided funds by the government as well as the industries.

As per the Association of University Technology Managers (AUTM) survey, in 1997, 6000 patent applications were filed by 158 universities. Of these, universities granted around 3000 licenses to the industries in 1998, which was higher compared to 1000 in 1991. This generated a royalty income of approximately \$500 mn.

³ Ministry of Human Resource Development, Department of Higher Education, Government of India, Educational Statistics at a Glance

Thus, it can be seen that the university, industry, and the government triad became involved in a very dynamic system of innovation, technology transfer, and funding of new ventures. And the scale of the phenomenon increased with time.⁴

i. Policy Initiatives - There were three very important policy decisions, which impacted university research. They were Bayh Dole Act 1980 (also known as Patent and Trademark Act), The Economic Recovery Tax Act 1981, and various programs of National Science Foundation (NSF).

The Bayh Dole Act 1980, allowed universities to avail patents, and to license the rights on inventions from the researches carried on by the federal funds.

The Economic Recovery Tax Act 1981, introduced industrial R&D Tax breaks to researches carried out at universities.

There were various programs initiated by the NSF. One of them included setting up of the Institutional Patent Agreements (IPAs) in 1973. NSF provided government support to the industry-university partnership through initiatives like science and technology centers and engineering research centers.

But among all three, Bayh Dole was the landmark Act. It made a huge impact and needs to be discussed in detail.

ii. Bayb Dole Act: The Landmark Act - It was the enactment of the Bayh Dole Act, which resulted in the emergence of many university research centers. The concept came from a report, "Science- the Endless Frontier" by Vannevar Bush in 1945, which was submitted to the president of the US. He could see the importance of the role of academic research in the economic growth of the country. This led to an increase in the funds obtained from the government. Institutions like National Institute of Health (NIH) and National Science Foundation (NSF) were formed. Bayh Dole Act thus facilitated patenting and licensing of inventions made by universities funded through Federal Government. This resulted in technology transfer, which involves

⁴ Ashiya M. and Dave P. "Universities and Entrepreneurship in US" *The Icfai Journal of Enterpreneurship Development*, Vol. IV.NO. 2, 2007,P18-24

transfer of invention or research outcomes to the industrial sector. These academic researches made great contribution in improving the position of the US in the worldwide market.

Even before this conceptualization, universities were engaged in technology transfer but the government did not fund these. Moreover, there was no uniform patent policy for the intellectual property rights for inventions funded through government or their agencies. During the 1960s many US universities did not involve directly into patenting, while some of them avoided patenting itself. Prohibitions on medical patenting also continued, but in the case of biomedical inventions, patenting was allowed if they were in public interest.

iii. Effects of the Bayh-Dole Act - In aggregate there was an increase in university patenting activity after 1981, but the increasing trend had started during the 1970s. Patenting in biomedical field expanded and the universities increased their involvement in the management of patenting and licensing. In the financial year 2000, more than 4000 license agreements were signed by the US universities, which were double the number of agreements made in the financial year 1991.

The number of members of AUTM before the Act was only 113 (year 1979), but later it increased to 691 in 1989, and further to 2,178 in 1999.

In 1980, not more than 25-30 universities were commercializing their research. The situation has undergone a great change. The activity today is around ten times that of what prevailed in the 1980s. An estimate says that around \$30 bn of economic activity per annum can be attributed to the commercialization of research from the universities. This supported 250,000 jobs every year. Thus, the Bayh-Dole Act created incentives for the government, academia and industry to work together. No doubt, the success has been phenomenal.⁵

⁵ "The Bayh-Dole Act: A Guide to the Law and Implementing Regulations", (Council on Governmental Relations, Washington DC, USA, October 1999), http://www.cogr.edu/docs/bayh_dole.pdf

iv. Universities and Commercialization Activities - Commercialization of inventions by research universities has continued as an increasing trend, especially after the passage of the Bayh Dole Act. It had started in the US after the Second World War and was initially funded by the venture capital firms. Venture capital has emerged as a multi-billion dollar financial sector encouraging risky and high return ventures. These venture capital firms were located in close vicinity of the university campuses and thus enjoyed the benefits from their laboratories. One such example is Genentech, a biotechnology firm formed in 1976 by venture capitalists based on the research assistance provided by its scientific partner, the University of California, San Francisco.

We look at the kind of commercialization activities undertaken by the universities. These include patenting and licensing, setting up venture funds, and establishing incubators.⁶

v. Patenting and Licensing - Commercialization activities included patenting and licensing activities. There were around 500 research universities actively pursuing research out of the total 3600 in the US. One out of every 12 research universities had technology-licensing offices. All such offices put together had 4800 patent applications in 1998. They produced 350 spin-off companies per year. Technology licensing provided them with 2% of their total revenue. Also, the researchers had to disclose the inventions intended to be commercialized through technology licensing offices.

Ranks of US universities with respect to patents held in 2005 and 2004 are given in Table 1. It shows how universities compete with each other on this count and how their prestige in academic circles depends on this parameter.

⁶ "Commercialization of Publicly Funded Research", 2005, http://www.forfas.ie/icsti/statements/commercialisation/appendix 1.htm

Table 2.2: Ranking of the US Universities According to the Number of Patents Held

Rank		Universities	No. of Patents	
2005	2004	Universities	2005	2004
1	1	University of California	390	424
2	3	Massachusetts Institute of Technology	136]32
3	2	California Institute of Technology	101	135
4	6	Stanford University	90	75
4	4	University of Texas	90	101
5	8	University of Wisconsin	77	64
6	5	John Hopkins University	71	94
6	7	University of Michigan	71	67
7	13	University of Florida	64	41
8	10	Columbia University	57	52
9	19	Georgia Institute of Technology	43	37
9	24	University of Pennsylvania	43	32
10	16	Cornell University	41	40

Source: US Patent and trademark office.

(http://www.uspto.gov/web/offices/com/speeches/06-24.htm)

vi. Venture Funds - Universities also created venture funds, which made investment in companies, in their early stage. One such case is that of University of Michigan. It created Wolverine Venture Fund in 1997, which mainly invested in companies affiliated to the university. It is run as a joint effort of the private sector, the faculty and the students of the university. It provided funds ranging from \$50,000 to \$200,000 for seed capital and initial expenditures in the project. Another such example is that of University of Maryland, which created New Market Growth Fund, a venture capital fund that provided start-up investments. Also, the University of Utah Fund began in 2002, in Salt Lake City, with initial assistance provided by the local businessmen and later by the Stanford graduate, Tim Draper and other investors.

vii. Business Incubators - Universities had also started building business incubators to support the start-up firms. A business incubator facilitates businesses,

provides resources to establish them, and sustains them during their start-up phase. They provide assistance in the form of infrastructure, business advice and services, access to investors and markets, mentoring, and an active management team. The incubation period for a particular business is generally two to three years. As showed by US statistics, the survival rate of the start-up businesses improved from 35% to 87% because of the facilities provided by the business incubators. Earlier, business incubator programs emphasized on the technology companies, while recently new incubators are increasingly concentrating on industries such as, food processing, software development, etc.

There are universities like Berkeley, Caltech, Stanford, MIT, and Wisconsin which consistently produce around 100 patents every year. These very same names have the credit of building the highest number of new businesses on technologies which were created in their laboratories. They treat business people as allies and equals. Students are encouraged to think about materializing the business potential of their academic research. Stanford and MIT welcome community of outside investors on their campus.

Moreover, universities have also been engaged in the incubation of spin-off companies, for example, Carnegie Mellon University and University of Texas, Austin. The Boston University has some of the finest on-campus business incubation facilities in the US. The Berkeley Entrepreneurship Laboratory is located near the business school in the basement of the Bancroft Hotel. The lab is the successor to the Berkeley Business Incubator founded in 1997.

viii. Contribution of Universities in Clusters - The universities have played a great role in the emergence of clusters and industrial regions. They have proved to be an active source of new research developments, as a result of which many clusters have been formed in the regions like Silicon Valley in California, Route 128 in Boston, industrial regions in Austin, Texas, Seattle, and Salt Lake City, Utah, etc. However, it is essential that the economic agents neighboring these universities are able to apply the new ideas and technologies generated by these universities. For

⁷ "Business Incubators", http://www.nzte.govt.nz/section/11735.aspx#abo

regional development to occur, presence of universities is a necessary but not a sufficient condition.

- a) Silicon Valley The Silicon Valley has grown as an industrial hub of companies specializing in electronic components, power grid tubes, microwave tubes, and semiconductors. Its power grid tube industry was established during the Great Depression by electronic hobbyists. During the World War IT, the US military was also supplied tubes by these tube manufacturers. Following the World War IT, students and researchers at Stanford University established the microwave tube manufacturing company on the San Francisco Peninsula. Due to continuous innovations, these firms had evolved as the finest in tube design and processing. As a result of the success of these firms, another component industry, that is semiconductor, was established in the late 1950s and 1960s.
- **Route 128, Boston -** Route 128, earlier known as the bypass, was made to solve the problem of traffic congestion on Boston's streets. It evolved into the nation's first high-tech corridor. It has its proximity to the Massachusetts Institute of Technology (MIT), Harvard University and Boston University. The region soon came to be recognized as a perfect location, and first modern industrial parks were developed at the place, by real estate developers.
- c) Austin, Texas This region emerged as an ideal location for ingenious and capable people. Michael Dell had first exploited this region by selling computers from his dorm room in the University of Texas. The IC2 Institute at the University of Texas has been encouraging technology commercialization program. The University of Texas stands at third position according to the number of patents earned.

Moreover, Austin has been ranked amongst the top 12 biotech and life science centers. It is one of the fastest growing metro areas. In this area, there are

⁸ "Semiconductor and Semiconductor Equipment Cluster", 2005, http://www.siliconvalleyonline.org/cluster-semiconductor.html

firms related to automotive industry, biomedical and pharmaceutical industry, clean energy technologies, digital media and Hi-Tech semiconductor industry, and wireless industry.⁹

d) Research Triangle in North Carolina - The Research Triangle is formed of cities namely, Raleigh, Durham and the town of Chapel Hill, located in the Piedmont region of North Carolina in the US. The region also covers major universities like Duke University, North Carolina State University and the University of North Carolina at Chapel Hill. In the 1950s, Research Triangle Park was established, where lot of high-tech companies and enterprises got established. This region has many high technology companies and life science companies.

The park also includes the North Carolina Supercomputing Center, North Carolina Biotechnology Center and MCNC (Microelectronics Center of North Carolina). These centers jointly facilitate resources to the universities, firms and the entrepreneurs in close proximity. The economic performance of this area has been outstanding. It attracts businesses due to the availability of research infrastructure and educated manpower.

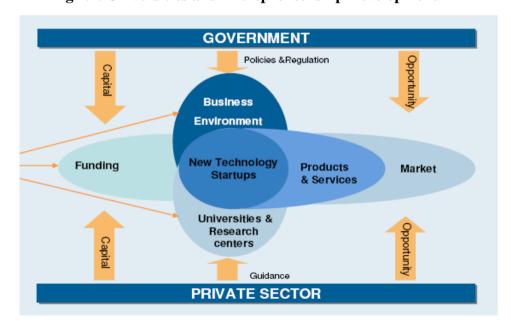


Fig 2.1: Universities and Entrepreneurship Development

⁹ Business and Industry: The Greater Austin Chamber", http://www.austin-chamber.org/DoBusiness/Greater AustinProfile/business.html

Table 2.3: Best business schools for entrepreneurship

GRADUATE	UNDERGRADUATE
1. Babson College	1. Babson College
2. University of Pennsylvania	2. University of Pennsylvania
3. Harvard University	3. Massachusetts Institute of Technology
4. Stanford University	4. University of Southern California
5. University of California-Los Angeles	5. University of Texas-Austin
6. University of Southern California	6. New York University
7. University of Texas-Austin	7. Ball State University
8. Massachusetts Institute of	8. University of California-Berkeley
Technology	
9. Northwestern University	9. Baylor University
10. University of California-Berkeley	10. University of Michigan-Ann Arbor
11. University of Michigan-Ann Arbor	11. Indiana University-Bloomington
12. New York University	12. University of Maryland-College Park
13. Baylor University	13. Rensselaer Polytechnic Institute
14. University of Virginia	14. University of Virginia
15. Columbia University	15. Case Western Reserve University
16. University of Colorado-Boulder	16. St. Louis University
17. Indiana University-Bloomington	17. University of Wisconsin-Madison
18. University of Chicago	
19. University of Maryland-College Park	
20. Ball State University	
21. Carnegie Mellon University	
22. University of Arizona	
23. University of Georgia	
24. Bentley College	
Duke University	
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Source: Adapted from U.S News & World Report.

2.2.2 Global Initiative to Advance Entrepreneurship (G.I.V.E.)

The Global Initiative to Advance Entrepreneurship (GIVE) is a non-profit corporation founded by Steven Van Yoder of Get Slightly FamousTM that is dedicated to addressing the growing problem of global poverty in the developing world.

GIVE works to reduce global poverty by using a unique multi-faceted approach to advance entrepreneurship among individuals and nonprofits in struggling countries.

GIVE's members and project partners are drawn from the small business, corporate and non-profit sectors.

GIVE's overarching mission is to produce job creators rather than job seekers through entrepreneurial education and small business development projects. GIVE achieves its mission by forging complementary relationships between the for-profit and non-profit sectors, and by linking proven models and resources to eventually alleviate global poverty.

Global Initiative to Advance Entrepreneurship (GIVE) will work to address the growing problem of diminishing job opportunities in the United States and the developing world.

The overarching mission of this project is to teach youth (grades 8-12) and young adults (ages 18-30) essential business skills, including the ability to develop an entrepreneurial mindset, create a sound business plan, launch their own small businesses, and improve their local communities.

Steven Van Yoder established GIVE in 2005. The organization includes board members and supporters drawn from the small business, corporate and non-profit sectors, including author and marketing Guru Jay Conrad Levinson of Guerrilla Marketing book series. Cincom Systems, Inc., a Cincinnati-based software firm, provided initial seed funding and will play a role in the execution of this initiative.

Mission Statement: The Global Initiative to Advance Entrepreneurship (G.I.V.E.) will work to reduce global poverty by initiating, developing and supporting microbusiness initiatives around the world. Its overarching mission is to create job creators, rather than job seekers, through entrepreneurial education and development projects, forging complimentary relationships between the profit and non-profit sectors, and linking proven models and resources toward the alleviation of global poverty.

Interacting with local businesspersons who will lecture students on specific business activities and personal experiences; Participating in classroom.

Fund Raising and Earned Revenue Goals: GIVE pursues a variety of approaches to garner support and raise funds, including traditional donor and foundation fundraising, grassroots individual fundraising via the Internet and other marketing channels, celebrity sponsorship, and philanthropic joint ventures.

The goal is to raise funds from sponsors and supporters to implement the program, purchase books and materials, hire necessary staff and teachers, and cover related expenses including computers, Internet access, etc.

2.2.3. Global entrepreneurship Week

Global Entrepreneurship Week is a civil-society initiative to promote the entrepreneurial aspirations of young people everywhere. It runs from 17–23 November 2008. During this week, partner organizations will conduct a range of activities designed to inspire, connect, mentor and engage young people, to help them acquire the knowledge, skills, networks and values needed to grow innovative and sustainable enterprises.

The model for this global initiative is locally-based. Host organizations in each of the participating countries are responsible for recruiting partners, and coordinating national activities. Overlaid upon this are two global activates: Unleash it! And Speed network the Globe.

Participating Countries

Hosts from 75 countries are currently involved with the planning and organization of events for the Week.

Africa: Botswana, Burkina Faso, Cameroon, Ghana, Kenya, Madagascar, Mali, Morocco, Nigeria, South Africa, Uganda

Americas: Argentina, Bahamas, Bolivia, Brazil, Canada, Chile, Colombia, Dominican Republic, Mexico, Paraguay, Peru, United States, Uruguay.

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Asia: China, India, Indonesia, Japan, Kyrgyzstan, Malaysia, Nepal, Pakistan,

Philippines, Singapore, Sri Lanka, United Arab Emirates, Vietnam.

Europe: Bulgaria, Croatia, Denmark, Finland, France, Germany, Greece, Hungary,

Ireland, Italy, Latvia, Macedonia, Netherlands, Norway, Poland, Portugal, Romania,

Russia, Serbia, Spain, Sweden, United Kingdom, Turkey

Oceania: Australia and New Zealand

Global Entrepreneurship Week uses a number of methods to reach out to the general

public and encourage participation. Part of its mission is to leverage educational and

professional networking channels and encourage youth to seize overlooked

opportunities. It is a highly Internet-focused campaign, facilitating dialogue and

information sharing, helping to achieve greater levels of entrepreneurship across the

world. Despite its global scope, the Week is a local initiative driven by community

based activities

Unleash It!

This competition, conducted through the main website, is an example of Crowd

sourcing. Individuals/organisations upload challenges onto a global database, and

individuals/teams from around the world are invited to submit solutions. This global

activity is designed to inspire young people to think in an enterprising way.

Speed network the Globe

This activity is locally-based, with thousands of networking events being organised by

hundreds of partners around the world. Speed networking is a fast-paced version of a

standard networking event: every 5 minutes, a whistle is blown by the moderator, and

participants are required to change interlocutor. It is seen as a more youth-friendly

way of networking.

2.2.4. YES Campaign – Youth for entrepreneurship and Sustainability

The YES Campaign was launched by 1600 delegates from 120 countries at the

Alexandria Youth Employment Summit, in Egypt on September 11, 2002. The

Alexandria Summit was hosted by the Arab Republic of Egypt and was co-chaired by

H.E. Mrs. Suzanne Mubarak, First Lady of Egypt and Hon. William J. Clinton, the 42nd President of the United States.

The campaign goals

- 1. Develop capacity of youth to lead in-country youth employment initiatives
- 2. Promote youth employment to address key development challenges
- 3. Build in-country coalitions to develop national strategies addressing youth unemployment

The yes methodology - The YES Campaign strives to build the individual capacity of youth in order to create sustainable livelihoods and to establish an entrepreneurial culture where young people move toward formal employment. The 83 YES country networks are a unique platform from which to accomplish this goal, spanning many cultures, contexts, and geographies. To date, the lives of 1 million youth have been affected by YES programming and there has been extensive community reinvestment. With the support of diverse stakeholders, networks organize and facilitate customized programming that relies on youth to drive the implementation process. Since its launch in 2002, the YES Campaign has validated the concept that young people, if given access to the right resources, can effectively craft their own advancement opportunities.

2.2.5. Global Entrepreneurship Monitor

The Global Entrepreneurship Monitor (GEM) research program is an annual assessment of the national level of entrepreneurial activity. Started as a partnership between London Business School and Babson College, it was initiated in 1999 with 10 countries, expanded to 21 in the year 2000, with 29 countries in 2001 and 37 countries in 2002. GEM 2007 conducted research in 42 countries.

The research program, based on a harmonized assessment of the level of national entrepreneurial activity for all participating countries, involves exploration of the role of entrepreneurship in national economic growth. Systematic differences continue, with few highly entrepreneurial countries reflecting low economic growth. There is, further, a wealth of national features and characteristics associated with entrepreneurial activity.

Overview - GEM is the largest survey-based study of entrepreneurship in the world. During the course of its history since 1999, over 60 countries have been involved with the research.

GEM Research has three main objectives:

- 1. To measure differences in the level of early stage entrepreneurial activity between countries
- 2. To uncover factors determining the levels of entrepreneurial activity
- 3. To identify policies that may enhance the level of entrepreneurial activity

The GEM approach - Every year each national team is responsible for conducting a survey of at least 2000 people within its adult population. The Adult Population Survey is a survey of attitudes towards entrepreneurship in the general population but it also asks people whether or not they are engaged in start up activity or own or run a business.

The individual national team surveys are all collected in exactly the same way and at exactly the same time of year to ensure the quality of the data.

The individual national team surveys are harmonised into one master dataset that allows users to investigate entrepreneurial activity at various stages of the entrepreneurial process, as well as to study a variety of factors characterizing both entrepreneurs and their businesses in each participating nation and across countries.

Overall, GEM's unique ability to provide information on the entrepreneurial landscape of countries in a global context makes its data a necessary resource for any serious attempt to study and track entrepreneurial behaviour worldwide.

Developments in GEM Research - Clearly, entrepreneurship is a complex phenomenon and can be found in a variety of settings and situations. Thus, no single measurement, no matter how precise, can capture the entrepreneurial landscape of a country. As a result, GEM takes a holistic approach to the study of entrepreneurship and provides a comprehensive set of measurements aimed at describing several aspects of the entrepreneurial make-up of a country. In addition to early-Stage

Entrepreneurial Activity, GEM identifies "established business owners." Established business owners are entrepreneurs who have paid salaries and wages for more than 42 months. Their businesses have survived the most risky stage of the entrepreneurial process and much can be learned from comparing early-stage and established business owners.

GEM documents entrepreneurial motivation. Thus, business owners are classified as being either necessity-driven or opportunity-driven. In addition, GEM documents the characteristics of all entrepreneurs with respect to product novelty, intensity of competition, employment and expansion plans, and use of technology. Finally, GEM looks at the socioeconomic characteristics of populations; as well as their subjective perceptions and expectations about the entrepreneurial environment.

Some countries include questions in their survey to enable them to analyse family-based entrepreneurs and social entrepreneurship. These are areas that we are seeking to develop internationally.

2.2.6. EDGE

EDGE is an online network and community of practitioners and professionals working in the field of entrepreneurship, enterprise development and education in Europe.

EDGE provides its members with an opportunity to:

- 1. Make contact with like-minded entrepreneurship professionals.
- 2. Find project partners for participation in EU-funded enterprise development programmes.
- 3. Collaborate with individuals and organisations working in entrepreneurship.
- 4. Share ideas, experience and expertise with other members.
- 5. Research and locate best practice in the entrepreneurship and enterprise development field.
- 6. Keep up to date with news, latest developments and new European funding programmes and events.

There are currently 371 members of EDGE located in 52 countries primarily based in Europe, although membership is also open to entrepreneurship professionals from elsewhere in the world. Members' specialist areas of expertise are focused around:

- 1. Business start up support and advice
- 2. Small business development
- 3. Professional education
- 4. Business training
- 5. Entrepreneurship consultancy and research
- 6. Supporting minority and disadvantaged groups
- 7. Microfinance and seed finance
- 8. Information and best practice

2.2.7. Enterprise Asia

Enterprise Asia is a regional non-governmental organization think-tank founded in 2006 by a group of entrepreneurs headquartered in Kuala Lumpur, Malaysia with presence in Indonesia, Brunei Darussalam and Thailand currently. The organization strives to pursue entrepreneurship development across Asia and to promote fair and equal opportunities for emerging entrepreneurs.

The organization is being supported by a panel of prominent industry and government leaders who share the same sentiment as Enterprise Asia.

Enterprise Asia has following missions

- i) Championing entrepreneurship development and cultivating a culture of honesty, fairness and corporate social responsibility. In championing entrepreneurship development, Enterprise Asia works with governments, NGOs and other related organizations to promote competitiveness of entrepreneurs.
- ii) The organization also strive to cultivate a culture of honest, fair and responsible entrepreneurship which could eradicate various social and economic issues such as urban poverty, income disparity, labor exploitation, etc.

Enterprise Asia provides services to a wide range of clients including governmental bodies, trade associations, multinationals, small and medium enterprises and private individuals on the following areas:

- 1. Strategic and Financing Solutions
- 2. Enterprise wide corporate social responsibility
- 3. Investment in people and resources
- 4. Development and support structure for native products
- 5. Sustainable rural enterprises
- 6. Media and information framework for entrepreneurs
- 7. Youth, women and minority enterprise development
- 8. Urban poverty eradication
- 9. Entrepreneurship Education and development

2.2.8. Cambodian Entrepreneur Building Ltd.

Cambodian Entrepreneur Building Limited (CEB) was established as a NGO in 1995, under the name of Cambodia Community Building (CCB), to offer financial and health education services to poor communities. In collaboration with World Relief, CCB pursued an integrated microfinance approach, combining financial services (village banking) with free health education services. In 1999, CCB decided to adopt a more minimalist approach, centred on financial services, in order to transform into a self-sufficient MFI. It also shifted from a village banking methodology to a mix of individual and group lending. In February 2003, CEB registered with the Ministry of Commerce as a private limited company, and obtained a licence from the National Bank of Cambodia in April 2003.

CEB offers financial services to both individuals and groups. Group financial services include lending through groups where poor women in a local community form solidarity groups of 2 - 8 members. Solidarity group loans ranges between US\$100 and US\$500, where women members in each group serve as guarantors for each other. Collateral, usually in the form of a land or a market stall deed, is requested from each group member. Loans are issued either in US dollars or the Cambodian Riel.

CEB Ltd. plans to expand to 33 branches office, reaching to 36,770 clients and portfolio outstanding at USD 35 millions with 620 employees by the end of December 2008. Cost reduction is the strategy to reduce interest rate charge to client. In response to this plan management and staff committed to increase its productivities and efficiency together reduce cost of fund. To reduce cost of fund CEB is seriously attracting public deposit as belief that will bring a cheaper source and provides a long term funding strategy to support its growth plan. To attract deposit many strategies have been defined: building trust in the market by showing transparency in management, improving service quality together with products innovation, renovating offices to be more professional and finally we decided to change original long name of Cambodian Entrepreneur building Limited into a short form in Khmer call SATHAPANA Limited in belief that this short name will enhance in marketing purpose.

2.2.9. Hong Kong

In Hong Kong ,the tradition of lone business person striking out on his /her own with a loan from his/her friends or relatives goes back a long way .The concept of starting ones own business is actually well ingrained in the psyche of most Chinese people ,regardless of their family background and education qualifications.

The government is dedicated to create Hong Kong an ideal place for domestic and international entrepreneurs to venture into business. The government has created a favourable business environment, fair practices, economic stability, simplified tax structure, best quality infrastructure, fair judiciary and legal system, adequate supply of skilled and quality manpower.

To promote and encourage entrepreneurship a lot of efforts have been made to cut down red tapism, streamline licensing procedures and deregulation. The Hong Kong government also provides a first hand information and advisory centre to provide business starters and entrepreneurs with whole range of services, including information, advice and infrastructural facilities. The centre also runs a mentorship program foe SME entrepreneurs ,providing them one to one free counselling by accomplishing business person over a period of nine months. They have business start

up centres which provides office accommodation at a preferential rate to business starters as well as training program and secretarial services to them.

Hong Kong sciences and technology parks corporation offers incubation to new ventures to conduct research and development. Technology based projects are given funding support from innovation and technology fund to conduct R& D project that can be commercialized.

The economic downturn in past few years and the outbreak of SARS have posed grave challenges for Hong Kong. The business began shrinking and the profit margin narrowing in many sectors. The unemployment rate began growing. There is an apparent lack of confidence among people of Hong Kong about their competitiveness with other economies. However some business go down ,new ones have cone into their place. There are also a lot of success stories of individuals whose perseverance has helped them ride out storm and lately more encouraging signs of a recovery.

This highlights the important relation ship between entrepreneurship and economic recovery, and the need for government to do all that, which can bring out this precious value in people.

2.2.10. Japan

Japan is vigorously making two pronged efforts on structural reforms of the entire economy, with bad debt disposal on the financial side and structural reform on the industrial side, with a view of revitalizing economy. The disposal of non performing loans is a priority issue on the financial system reform agenda. Japan is accelerating the speed of bad debt disposal, by strengthening equity capital base of financial institution such as banks. At the same time, with respect to industrial structural reform, promoting of business start-ups and management reforms are very important as source of economic vitality. Therefore Japan is implementing policies for creating powerful, innovative SMEs by supporting individuals and companies who take on business challenges even after difficult conditions. The key to success in meeting this challenge is to encourage entrepreneurship.

In order to come out of current economic doldrums, Japan has created an environment in which large number of entrepreneur are developed which has resulted into revitalizing the Japanese economy and creating employment opportunities.

Hiranuma Plan - At the first meeting of the newly established taskforce to implement structural reform and employment measures in Japan, Minister of Economy, Trade and Industry Takeo Hiranuma presented a "Hiranuma Plan" containing specific measures to encourage new market and job creation. Prime Minister Junichiro Koizumi himself has characterized his cabinet as a "Structural Reform Implementation Cabinet". This taskforce, led by the Prime Minister and joined by all his cabinet, will take a leading role in developing the roadmap that will guide Japanese efforts to revitalize the economy.

Creating new markets and business opportunities is the primary challenge that Japan will face moving forward, linked with a need to resolve problems of the past, such as the writing off of non-performing loans. The development of jobs and new employment measures is also essential to provide the necessary "safety net" that will allow Japan to achieve this important transformation.

The following summary outlines the goals and objectives of the Hiranuma Plan.

Japan needs to resolutely and aggressively implement structural reform measures in order to prepare both for a "liquidation of past debts" and for the economic "challenges of the future".

It has just begun to move ahead with the final disposition of non-performing loans. To deal with concerns about employment and other issues that arise during this process, it will need to proceed in a comprehensive way with measures to enhance skill development, while rebuilding businesses and accelerating reforms aimed at the creation of new markets and new jobs.

One reason for the stagnation of the Japanese economy is the "shrinkage of demand" that has resulted from anxiety about the future and the "lack of innovation" that prevents the development of potential demand. The essential challenge for a new

growth track lies in presenting a clear vision of an economic society in which the Japanese people will be able to feel secure and hopeful. It will also require a dramatic shift of public and private sector resources to programs that will help to promote these developments, thereby starting a positive cycle in which innovation begets demand and demand begets innovation.

The Hiranuma plan establishes specific goals that are easy to understand. They provide clear direction toward "investment in the future" and present a package of policy measures that will help to achieve these objectives. This will help the Japanese government to draw out the potential vitality of its economy. It will also encourage the creation of new markets and new jobs, and over time enhance the competitiveness of Japan's business environment.

These fifteen policy proposals include:

- **Preparing the infrastructure for innovation -** Encouraging university reform and the creation of "1,000 Venture Firms Originating in Universities" through a strategy of transferring technology from academia to industry.
- 2 Concentrating investment in strategic bases and cross-disciplinary fields Realization of technological innovations in strategic areas such as the environment, biotechnology, IT/telecommunications, nano-technology and materials, by combining the forces of industry, government and academia.
- 3 "Doubling New Business Opening" Program Preparation of a multifaceted venture support environment including the use of human resources, funds and management, creation of local industrial clusters and networks for human contact
- 4 Creation of health market Establishment of competitive medical and nursing care systems by making maximum use of private sector vitality and the adoption of electronic systems.
- Establish a socioeconomic infrastructure that allows women to continue working Expansion of ability of women to continue working after they have had children through improved access to, and availability of, private day care services and consideration of current pension and other systems
- 6 Promotion of employment and realization of fulfilling lifestyles for the elderly Development of a nursing care services industry that responds to the

- diverse needs of elderly people, correction of age limits at time of soliciting and hiring, consideration of reverse mortgage systems
- **Switch to environment and energy as growth engines -** Transformation of all industrial structures and economic systems to "environmentally friendly models"
- **Rebuilding of distribution systems -** Enhancement of competitiveness of distribution bases and development of a "Comprehensive Distribution Policy Outline" aimed at a competitive distribution services market
- 9 Regeneration of urban living environment Encourage maximum use of urban land and space
- 10 Creation of new lifestyles and social systems using information technology
 - Realization of socioeconomic systems that make use of a truly fair and competitive environment for IT/telecommunications and IT development such as Intelligent Transport Systems, smart appliances, and IC cards
- 11 Cultivation of Non-Profit Organizations Support for Non-Profit Organizations and streamlining of public sector
- **Creation of a variety of employment styles -** Review of systems based on the assumption of lifetime employment
- New skill development system Transition from "corporate human resource development" to "social systemization of human resource development"
- **Facilitation of labor mobility -** Resolution of imbalances in employment through private-sector activity, and development of measures to enhance pension portability
- Maintenance of safety nets Support for re-employment, review of current support for part-timers, etc., and facilitated access to financing for small and medium-sized businesses.

2.2.11. Malaysia

The Malaysian government has taken several initiatives in promoting entrepreneurship; it takes care of a particular race the ethnic Malays or bumiputras. These initiatives are primarily addressed to social and economic in equities resulting from very old colonial policy, which makes a particular race responsible for economic activities. The government assists middle class Malay's considering them as the main agents of economic growth. The government has adopted various supporting

instruments and policies for Malay entrepreneurs. They include funding, physical infrastructure, and business advisory services.

Bumiputra commercial and industrial community was created to foster bumiputra entrepreneurs and professionals.

Co-operative and Entrepreneurship Development Institute, university Utara, Malaysia - CEDI began operations on 1 march 1990. Three years later on November 1993 it was upgraded to become an institution in conjunction with development of entrepreneurial activities and needs of the country.

Mission - To be a proactive and effective supporting agent to the government in developing entrepreneurs and co-operatives.

Vision - To establish University Utara Malaysia (UUM) as a main reference centre in all aspects of entrepreneurial development in Malaysia and worldwide

Objectives - The main objectives of CEDI are as the following:

- 1. To produce student entrepreneurs based on acquired knowledge through student business programmes known as *Siswaniaga*.
- 2. To be a consultation and research centre in entrepreneurship and cooperatives.
- 3. To generate income to the university through consultations and research programmes.
- 4. To be an information centre in entrepreneurship and co-operative development.
- 5. To be a centre of networking and international relations in entrepreneurship and co-operative development.

2.2.12. Singapore

The private sector entrepreneurs were major contributor to economic development of Singapore prior to independence in 1965.But after independence; the government assumed the role of key agent in economic development and established the statutory boards and companies. This affected the entrepreneurial activities in the country. Later on due to pain of recession in 1985, the country had to change its outlook and

started entrepreneurship as a solution to their problem. The first SME master plan came into existence in 1989. The plan introduced measures, assistance, schemes and entrepreneurial infrastructure. The development of SMEs holds out great promise to the Singapore's next engine of growth.

A subcommittee on entrepreneurship and internationalization subcommittee (EISC) was set up and tasked to recommend ways to strengthen the spirit of entrepreneurship and innovation in Singapore, and to foster the growth and internationalization of Singapore based companies.

6-C framework - The ESIC identified a 6-C framework to realize the vision of an entrepreneurial Singapore. This 6-C comprises culture, capabilities, conditions, connections, capital and catalysts

2.2.12.1. The Action Community for Entrepreneurship - The Action Community for Entrepreneurship (ACE) is a movement that involves both the private and public sectors to create a more entrepreneurial environment in Singapore. It was launched on 26 May 03 in response to the Economic Review Committee's (ERC) recommendation of remaking Singapore into "a creative and entrepreneurial nation willing to take risks to create fresh businesses and blaze new paths to success". Its portal features news and activities, information and resources, calendar of events, and a link to a library of archived feature stories, articles, reports, speeches and press releases. It includes useful links to statistical sources, market research services and a deal flow portal hosted by Spring Singapore, which connects businesses to sources of funds such as financial institutions, venture capitalists and investors.

Global entrepreneurship week 2008 was organized by NUS Enterprise and Action Community for Entrepreneurship (ACE), the event was held from 17-23 Nov 2008. The action community for entrepreneurship (ACE) had organised Blue-Sky Exchange & Evening networking event - Challenging Times & Managing Challenges on 17 Nov. Entrepreneurs, industry experts and financial institution representative had come together and discussed the current economic outlook and share on how to manage the company's financial issues in such turbulent times. The event was huge success which gave rise to many budding entrepreneurs.

2.2.13. Harvard Business School -

- > About fifty-year history of research and teaching in the field of entrepreneurship, Harvard Business School enables students to test their business ideas in a risk-free environment.
- > Students are free to follow their inspiration and imagination while benefiting from a deep collection of resources: faculty advisors, access to technology and a network of HBS alumni, and the diverse expertise of their classmates.
- > The entrepreneurship curriculum was introduced at HBS over fifty years ago.
- > Entrepreneurial management is now part of the first-year Required Curriculum, while over thirty faculty members teach more than twenty courses offered in entrepreneurship in the second-year Elective Curriculum.
- > The hugely popular Business Plan Contest—the twelfth annual in 2008—gives second-year students the chance to put their learning to the test and submit their business plans for evaluation in pursuit of prizes for the most promising ideas.

2.2.14. Columbia University -

- > The Eugene Lang Entrepreneurship Center at Columbia Business School offers one of the most comprehensive and respected entrepreneurship programs in the world.
- > The first emphasis is on the process of identifying, valuing and capturing opportunity. These activities, crucial in any organization, require using business disciplines in a highly integrative way.
- > The second is an emphasis on individual initiative in the context of uncertainty and tight resources.
- > While these concepts are distinguishing features of entrepreneurial opportunity, virtually all business students will encounter these challenges in some form, whether as entrepreneurs, consultants, financiers or managers of firms.
- Entrepreneurship Partners participate and support the program in a variety of roles including as mentors, judges, evaluators, and guest speakers as appropriate.
- The Entrepreneurial Sounding Board provides opportunities for Columbia MBA students and alumni to meet individually with faculty members and

practitioners affiliated with the Lang Center to discuss their entrepreneurial ideas and potential business opportunities.

2.2.15. Massachusetts Institute of Technology (MIT) –

- > Establishment of MIT Entrepreneurship Center having mission to educate & nurture the leaders who can make start up companies successful.
- > It launched Entrepreneurship Development program in 1999 & more than 1,400 students attend over 20 entrepreneurship courses each year.
- > Alumni of the program form a vibrant and dynamic worldwide support network for the next generation of aspiring entrepreneurs.

2.2.16. The University of Chicago –

- Small Business and Alumni Entrepreneurship Conference is designed to assess the real-life needs of small business owners. It is open to both alumni entrepreneurs and small business owners; each conference focuses on different aspects of growing small businesses.
- Exploring Entrepreneurship is a year-long program designed to explore a specific industry that is key to the economic growth of the region. Students, faculty, and members of the industry are brought together to study both the challenges and opportunities facing an industry's ability to grow and maintain leadership.
- > Through the Entrepreneurial Internship Program students have the opportunity to participate in a subsidized internship with a start-up company or venture capital firm over the summer.

2.2.17. University of Oxford –

- At Oxford Business School entrepreneurship and innovation scholarship is of primary importance, which understands better the vital driver of economic wealth creation - in developing economies as well as knowledge-based economies.
- The Oxford Centre for Entrepreneurship and Innovation brings together innovators from across the world, from Silicon Valley and India, as well as the 2,000 high-tech companies based around Oxford, that form part of the innovation system centered on the School.

- Oxford is fundraising to build a new centre the Oxford Centre for Entrepreneurship and Innovation – that draws together the academic and the practitioner, creating new knowledge to fuel the knowledge economy and the entrepreneurs to lead the new ventures.
- Oxford Business School is in a truly unique position to create new knowledge in entrepreneurship and innovation – knowledge which supports policy, creates leaders, and brings social and economic impact.

2.2.18. University of Tokyo –

- > The University of Tokyo's organization for supporting venture businesses has moved from the stage of planning to the stage of implementation. The first stage consisted of establishing the tripartite system of the Division of University Corporate Relations; TOUDAI TLO, Ltd. (CASTI); and The University of Tokyo Edge Capital Co., Ltd. (UTEC) to structuralize support for venture businesses.
- > The next stage consisted of procuring a facility, the University of Tokyo Entrepreneur Plaza that is equipped to support venture businesses in the field of bioscience.
- Finally they arrived at the stage for implementing activities designed to accelerate creative innovations. Even without making references to case studies in Europe and the United States, it is clear that universities and venture businesses originating in academic institutions have been the precipitators of societal changes and have instigated the birth of new industries, and it is the mission of the University of Tokyo to become a leader in this.

2.2.19. McGill University Canada -

Le Centre d'Entreprise et d'Innovation de Montréal a non-profit business incubator, which accepts new businesses for up to 3 years, aids in training and financing is supported by The John Dobson Foundation. Angela Burlton coaches the entrepreneurs in understanding financial statements and is part of a committee which evaluates business plans to obtain financing as part of the Foundation Canadians des Jeunes Entrepreneurs.

- > The resident faculty consults with numerous start-up companies, many of which had their genesis in team projects within the context of various courses being offered. They offer consulting services to members of the community who are at various stages of their small business: pre start-up, start-up, growth, and turnaround.
- > The Dobson Centre acts as Academic Advisor to the McGill Business Consulting Group (MBCG). The MBCG offers high quality business consulting at affordable rates. For 23 years, the group has successfully provided a wide range of services to businesses of all sizes.

2.3. Indian Institutions Prompting Entrepreneurship

In India the Ministry of Small Scale industries is the administrative ministry for all matters related to small scale and village industries. It design and implements policies and programmes through its field organisations and attached offices for promotion and growth of small industries. The policy measures include the setting up of a network of institutions to render assistance and to provide a comprehensive range of services and common facilities for budding entrepreneurs. These entrepreneurship promoting institutions can be broadly classified as central level institutions/agencies, state level institutions/agencies, non government organisations, industry associations and research and development laboratories. Researcher attempted to study the various promotional measures undertaken by these institutions as detailed below.

2.3.1. Associated Chamber of Commerce and Industry of India (ASSOCHAM)

ASSOCHAM initiated its endeavour of value creation for Indian industry in 1920. Having in its fold more than 300 Chambers and Trade Associations, and serving more than 2 lakh members from all over India. It has witnessed upswings as well as upheavals of Indian Economy, and contributed significantly by playing a catalytic role in shaping up the Trade, Commerce and Industrial environment of the country.

Today, ASSOCHAM has emerged as the fountainhead of Knowledge for Indian industry, which is all set to redefine the dynamics of growth and development in the technology driven cyber age of 'Knowledge Based Economy'.

ASSOCHAM derives its strength from its Promoter Chambers and other Industry/Regional Chambers/Associations spread all over the country.

Vision - Empower Indian enterprise by inculcating knowledge that will be the catalyst of growth in the barrier less technology driven global market and help them upscale, align and emerge as formidable player in respective business segments.

Mission - As a representative organ of Corporate India, ASSOCHAM articulates the genuine, legitimate needs and interests of its members. Its mission is to impact the policy and legislative environment so as to foster balanced economic, industrial and social development. We believe education, IT, BT, Health, Corporate Social responsibility and environment to be the critical success factors.

Members - ASSOCHAM represents the interests of more than 3, 00,000 direct and indirect members. Through its heterogeneous membership, ASSOCHAM combines the entrepreneurial spirit and business acumen of owners with management skills and expertise of professionals to set itself apart as a Chamber with a difference. Currently, ASSOCHAM has 60 Expert Committees covering the entire gamut of economic activity in India. It has been especially acknowledged as a significant voice of Indian industry in the field of Information Technology, Biotechnology, Telecom, Banking & Finance, Company Law, Corporate Finance, Economic and International Affairs, Tourism, Civil Aviation, Corporate Governance, Infrastructure, Energy & Power, Education, Legal Reforms, Real Estate & Rural Development etc.

2.3.2. Confederation of Indian Industry (CII)

The Confederation of Indian Industry (CII) works to create and sustain an environment conducive to the growth of industry in India, partnering industry and government alike through advisory and consultative processes.

CII is a non-government, not-for-profit, industry led and industry managed organisation, playing a proactive role in India's development process. Founded over 114 years ago, it is India's premier business association, with a direct membership of over 7500 organisations from the private as well as public sectors, including SMEs

and MNCs, and an indirect membership of over 83,000 companies from around 380 national and regional sectoral associations.

CII catalyses change by working closely with government on policy issues, enhancing efficiency, competitiveness and expanding business opportunities for industry through a range of specialised services and global linkages. It also provides a platform for sectoral consensus building and networking. Major emphasis is laid on projecting a positive image of business, assisting industry to identify and execute corporate citizenship programmes. Partnerships with over 120 NGOs across the country carry forward our initiatives in integrated and inclusive development, which include health, education, livelihood, diversity management, skill development and water, to name a few.

With 64 offices in India, 9 overseas in Australia, Austria, China, France, Germany, Japan, Singapore, UK, USA and institutional partnerships with 211 counterpart organisations in 87 countries, CII serves as a reference point for Indian industry and the international business community.

Role: Primary goal is to develop Indian industry and to ensure that government and society as a whole, understand both the needs of industry and its contribution to the nation's well being. For this, we work

- To identify and strengthen industry's role in the economic development of the country
- To act as a catalyst in bringing about the growth and development of Indian Industry
- To reinforce industry's commitment to society
- To provide up-to-date information and data to industry and government
- To create awareness and support industry's efforts on quality, environment, energy management, and consumer protection
- To identify and address the special needs of the small sector to make it more competitive
- To promote cooperation with counterpart organisations
- To work towards the globalisation of Indian industry and integration into the world economy

This is done by adopting a proactive and partnership approach with the government on various national and international issues concerning the Indian economy. It closely interacts on policy issues at both the central and state levels. Extensive dialogue and interaction with members and all sections of the community to build consensus are held.

2.3.3. The Council of Scientific & Industrial Research (CSIR)

It is the premier industrial R&D organization in India was constituted in 1942 by a resolution of the then Central Legislative Assembly. It is an autonomous body registered under the Registration of Societies Act of 1860.CSIR aims to provide industrial competitiveness, social welfare, strong S&T base for strategic sectors and advancement of fundamental knowledge.

The Strategic Road Map designed for CSIR as it stepped into the new Millennium envisaged:

- Re-engineering the organisational structure
- Linking research to marketplace
- Mobilising and Optimising the resource base
- Creating an enabling infrastructure
- Investing in high quality science that will be the harbinger of future technologies.

Today CSIR is recognised as one of the world's largest publicly funded R&D organisations having linkages to academia, R&D organisations and industry. CSIR's 38 laboratories not only knit India into a giant network that impacts and add quality to the life of each and every Indian but CSIR is also party to the prestigious Global Research Alliance with the objective of applying global knowledge pool for global good through global funding. CSIR's R&D portfolio embraces areas as diverse as Aerospace, Biotechnology, and Chemicals...indeed, almost the ABC-Z of Indian Science!

The unique mix of multi-disciplinary expertise, sound technical knowledge and talent for innovation that characterizes CSIR has enabled it to emerge as a global player. CSIR's footprint covers sectors as diverse as Aerospace, Biotechnology, Chemicals, Drugs & Pharmaceuticals, Energy, Food & Food Processing, Information Dissemination, Leather and Metal, Minerals & Manufacturing to name a few.

Partnering the Best: From S&T concept to the marketplace - CSIR is a client-oriented, performance-driven and accountable organization actively involved in generation of knowledge and technologies, development of product or process and also its transition to the marketplace. With its extensive resource base, core competence that cuts across the entire spectrum of science, innovative and skilled manpower, cost-effective solutions, and adherence to strict time frames, CSIR has always exceeded the demands made on it. No wonder that its client list reads like a global Who's Who. From the halls of academia to the corridors of industry and even at the individual level, CSIR brand equity remains unsurpassed. The sustained and meaningful interaction between CSIR and its actual and potential users leading to diffusion of S&T innovation is a prime force behind the economic progress of the nation.

2.3.4. Entrepreneurship Development Institute of India (EDII)

An Acknowledged National Resource Institute Engaged In Entrepreneurship Education, Research & Training.

The Entrepreneurship Development Institute of India (EDI), an autonomous body and not-for-profit institution, set up in 1983, is sponsored by apex financial institutions, namely the IDBI Bank Ltd, IFCI Ltd. ICICI Ltd and State Bank of India (SBI). The Institute is registered under the Societies Registration Act 1860 and the Public Trust Act 1950. The Government of Gujarat pledged twenty-three acres of land on which stands the majestic and sprawling EDI campus.

2.3.5. Export Promotion Councils (EPC):

There are at present eleven Export Promotion Councils under the administrative control of the Department of Commerce and nine export promotion councils related to textile sector under the administrative control of Ministry of Textiles. These Councils are registered as non -profit organisations under the Companies Act/Societies Registration Act. The Export Promotion Councils perform both advisory and executive functions. These Councils are also the registering authorities under the

Export Import Policy, 1997-2002. These Councils have been assigned the role and functions under the said Policy.

The Committee constituted to look into the aspects of rationalization of election procedure of the Export Promotion Councils (EPCs) and the criteria to be adopted for their restructuring so that they retain their relevance to the national export effort in the context of globlisation and economic liberalization, has made recommendations to streamline and strengthening the functioning of the EPCs. The Government has since accepted the recommendations of the Committee and issued Model Bye-Laws and guidelines to all EPCs for adoption.

2.3.6. Federation of Indian Chambers of Commerce and Industry (FICCI)

FICCI is the rallying point for free enterprises in India. It has empowered Indian businesses, in the changing times, to shore up their competitiveness and enhance their global reach.

With a nationwide membership of over 1500 corporates and over 500 chambers of commerce and business associations, FICCI espouses the shared vision of Indian businesses and speaks directly and indirectly for over 2,50,000 business units. It has an expanding direct membership of enterprises drawn from large, medium, small and tiny segments of manufacturing, distributive trade and services. FICCI maintains the lead as the proactive business solution provider through research, interactions at the highest political level and global networking.

In the knowledge-driven globalized economy, FICCI stands for quality, competitiveness, transparency, accountability and business-government-civil society partnership to spread ethics-based business practices and to enhance the quality of life of the common people

Core Competence

- A reservoir of experience and expertise in diverse fields
- Quality service provider
- Forum for continuous government-industry interface for evolving a shared vision on economic matters

- Information superhighway for corporates in India and abroad
- Rallying point for track-two business diplomacy for promoting global trade and investment
- Professional Committees on all segments of the economy
- Highly trained, experienced and accomplished multidisciplinary intellectual capital as its Secretariat
- Internationally acclaimed state-of-the-art office infrastructure for conferences, board meetings and business consultations
- Specialized organizations and think-tanks to address the present and futuristic issues and challenges
- Strong database with connectivity to every conceivable networks to access and provide data online to industry, government and business organizations
- Professional approach for evolving quick solutions to economic and industrial issues
- Perspective groups to visualize the future challenges and requirements of the industry
- International Business Forum to help and guide overseas business partners
- Institutionalized advisory groups to provide customized consultancies in quality assurance, energy auditing and sustainable and environmental issues
- A state-of-the-art food testing laboratory which has been the referral point for the emerging multi-billion food industry in the country
- Well-conceived social outreach programmes targeted at the civil society
- Strong global connectivities

2.3.7. Federation of Indian Exports Organisation (FIEO)

FIEO-India's Premier Institution for International Trade. The Federation of Indian Export Organisations represents the Indian entrepreneur's spirit of enterprise in the global market. set up in October, 1965, the Federation, known popularly as "FIEO", has kept pace with the country's evolving economic and trade policies, and provided the content, direction and thrust to India's expanding international trade. As the apex body of all Indian export promotion organisations, FIEO works as a partner of the Government of the India to promote Indian exports.

Today, FIEO expresses all the dynamism and resurgence that are the hallmark of

India's open, liberal and progressively market-friendly economic and trade regime, representing the Indian export promotion effort in its entirely. Its membership, largely comprising professional exporting films or long experience called Government recognized Export Houses, Trading Houses, Star Trading Houses and Super Star Trading Houses and Consultancy exporting firms, contributes 72 % of the total exports of India.

In essence, FIEO represents directly or indirectly, over 100,000 exporters across India. Exports by FIEO members comprise a wide spectrum of products including Gems & Jewellery, Textiles, Garments, Engineering Goods, Leather and Leather Products, Handicrafts, Chemicals and allied products, Cosmetics, Drugs and Pharmaceuticals, etc. as well as a wide range of Consultancy Services covering Infrastructure, Engineering, Industries, Cement, Leather, Paper & Rubber Industries. Agro-based Industries, Small Scale Industries etc.

The activities of members also include manufacturing, international trading, investment and joint ventures etc. To any foreign investor, user or seller, FIEO is the one-stop organisation which will put him in touch with a trade partner or high repute, backed by its own credentials as an organisation of excellence in India.

2.3.8. Housing and Urban Development Corporation (HUDCO)

The Housing and Urban Development Corporation Ltd. (HUDCO) was incorporated on April 25, 1970 under the Companies Act 1956, as a fully owned enterprise of the Government of India. HUDCO focus on the social aspect of housing and utility infrastructure provision. Preferential allocation of resources to the socially disadvantaged. The effective span of HUDCO's omnipresent techno-financial umbrella could be gauged by the fact that, on an average, one in every 16 houses in the country has invariably availed HUDCO's financial assistance. In spite of being commercial in its orientation, it continues to focus on sectors which are more socially relevant rather than only on commercially viable and profitable sectors. HUDCO's techno-economic focus, its high caliber human resources, and its financial and project re-engineering capabilities has enabled it to continue as an Institution par excellence in the field of housing and urban development.

OBJECTIVES:

- To provide long term finance for construction of houses for residential purposes or finance or undertake housing and urban development programmes in the country.
- To finance or undertake, wholly or partly, the setting up of new or satellite town.
- To subscribe to the debentures and bonds to be issued by the State Housing (and or Urban Development) Boards, Improvement Trusts, Development Authorities etc., specifically for the purpose of financing housing and urban development programmes.
- To finance or undertake the setting up of industrial enterprises of building material.
- To administer the moneys received, from time to time, from the Government of India and other sources as grants or otherwise for the purposes of financing or undertaking housing and urban development programmes in the country.

To promote, establish, assist, collaborate and provide consultancy services for the projects of designing and planning of works relating to Housing and Urban Development programmes in India and abroad.

2.3.9. Indian Institute of Entrepreneurship (IIE)

With an aim to undertake training, research and consultancy activities in the small industry sector focusing on entrepreneurship development, the Indian Institute of Entrepreneurship (IIE) was established in the year 1993 at Guwahati by the erstwhile Ministry of Industry (now Ministry of Small Scale Industry), Government of India as an autonomous national institute. The institute started its operations from April 1994 with North East Council (NEC), Govts of Assam, Arunachal Pradesh and Nagaland and SIDBI as other stakeholders. The policy direction and guidance is provided to the Institute by its Board of Management whose Chairman is the Secretary to the Government of India, Ministry of Small Scale Industries. The governing council of the institute is headed by Chairman, NEC and the Executive Committee is headed by the Secretary SSI & ARI, Govt. of India.

The Institute is located at Lalmati, Basistha Charili, 37 NH bypass. It is 5 km from Dispur Capital complex ,10 km from Railway Station and 30 km from LGBI Airport.

Objectives:

- To organize and conduct training for entrepreneurship development.
- To evolve strategies & methodologies for different target groups & locations & conduct field tests.
- To identify training needs and offer training programmers to Government and non-Government organizations engaged in promoting and supporting entrepreneurship.
- To document and disseminate information needed for policy formulation and implementation related to self-employment.
- To identify, design and conduct training programmers for existing entrepreneurs.
- To prepare and publish literature related to entrepreneurship and industrial development.
- To organize seminars, workshops and confer conferences for providing a forum for interaction and exchange of views by various agencies and entrepreneurs.
- To conduct research for generating knowledge to accelerate the process of entrepreneurship development.
- To act as a catalyst for development of elf-employment/entrepreneurship, industry/business.
- To evolve, design and help in the utilization of various media for creating entrepreneurship.

Schemes and Activities: The activities of the Institute include identification of training needs, designing and organizing programmers both for development functionaries and entrepreneurs; evolving effective training strategies and methodologies for different target groups and locations; organize seminars, workshops and conferences for providing foray for interaction and exchange of views by various agencies and entrepreneurs; undertaking research on entrepreneurship development, documenting and disseminating information needed for policy formulation and implementation on self-employment and entrepreneurship.

The Institute acts as a catalyst for entrepreneurship development by creating an environment for entrepreneurship in the support system, developing new entrepreneurship, helping in the growth of existing entrepreneurs and propagation of entrepreneurial education.

Consultancy

- > Enterprise Planning
- Enterprise Management
- Enterprise expansion, diversification & growth
- Management Consultancy
- Marketing Consultancy with specialization on export and border trade
- > Technology Sourcing
- > Technology Propagation
- Project Reports

2.3.10. National Productivity Council (NPC)

NPC aims at propagating productivity as an evolving concept, which includes attention to special issues, and concerns relating to quality, environment, energy, integrated rural and community development, women workers etc. Productivity shall increasingly be viewed in this context and not in the conventional sense of mere production increases with constant resources.

Mission: Development, Dissemination and Application of knowledge and experience in productivity, for promoting consciousness and improvement in productivity, with the objective of strengthening the performance and competitiveness of the national economy as well as of improving the working conditions and quality of working life.

Objectives: NPC is aiming to promote the cause of productivity in industry, agriculture, service, infrastructure and other sectors of the economy. It aims to help in achieving sustained all round development in India, leading to enhancement of quality of life of people in general. The concept of productivity as perceived by NPC encompasses not only a more efficient use of resources, but also of quality, environmental protection and integrated economic and social development. NPC aims at promoting these as a part of its objectives and activities.

Services: Consultancy and Training Services to Small Scale & Informal Sector (SIS) for improving productivity at sectoral level, as well as at micro level towards upliftment of artisans and providing employment opportunity.

Specific need based action oriented services to the central/state Governments and their undertakings and non-governmental organisations engaged in the development of Small Scale Industries and Informal Sector consisting of the following components:

Current status of various crafts:

- Identification of bottlenecks and of existing gaps in technology, marketing, credit and other requirements
- Technology upgradation/modernisation and marketing support
- Dissemination of technology at grass root level
- Marketing support and credit requirement assessment
- Horizontal and vertical linkages
- Implementation and follow up

Major Beneficiaries: Major Beneficiaries include the small scale industries, handloom weavers, artisans, craftsmen, cottage and village industry workers, cooperative societies and rural women.

2.3.11. Khadi and Village Industries Commission (KVIC)

Objectives: The broad objectives that the KVIC has set before it are...

- The social objective of providing employment
- The economic objective of producing saleable articles
- The wider objective of creating self-reliance amongst the poor and building up of a strong rural community spirit.

Functions: Some of the major functions of KVIC are...

1. The KVIC is charged with the planning, promotion, organisation and implementation of programs for the development of Khadi and other village

- industries in the rural areas in coordination with other agencies engaged in rural development wherever necessary.
- 2. Its functions also comprise building up of a reserve of raw materials and implements for supply to producers, creation of common service facilities for processing of raw materials as semi-finished goods and provisions of facilities for marketing of KVI products apart from organisation of training of artisans engaged in these industries and encouragement of co-operative efforts amongst them. To promote the sale and marketing of khadi and/or products of village industries or handicrafts, the KVIC may forge linkages with established marketing agencies wherever feasible and necessary.
- 3. The KVIC is also charged with the responsibility of encouraging and promoting research in the production techniques and equipment employed in the Khadi and Village Industries sector and providing facilities for the study of the problems relating to it, including the use of non-conventional energy and electric power with a view to increasing productivity, eliminating drudgery and otherwise enhancing their competitive capacity and arranging for dissemination of salient results obtained from such research..
- 4. Further, the KVIC is entrusted with the task of providing financial assistance to institutions and individuals for development and operation of Khadi and village industries and guiding them through supply of designs, prototypes and other technical information.
- 5. In implementing KVI activities, the KVIC may take such steps as to ensure genuineness of the products and to set standards of quality and ensure that the products of Khadi and village industries do conform to the standards.
- 6. The KVIC may also undertake directly or through other agencies studies concerning the problems of Khadi and/or village industries besides research or establishing pilot projects for the development of Khadi and village industries.
- 7. The KVIC is authorized to establish and maintain separate organisations for the purpose of carrying out any or all of the above matters besides carrying out any other matters incidental to its activities.

2.3.12. National Bank for Agricultural and Rural Development (NABARD)

NABARD is set up as an apex Development Bank with a mandate for facilitating credit flow for promotion and development of agriculture, small-scale industries,

cottage and village industries, handicrafts and other rural crafts. It also has the mandate to support all other allied economic activities in rural areas, promote integrated and sustainable rural development and secure prosperity of rural areas. In discharging its role as a facilitator for rural prosperity NABARD is entrusted with

Objectives: NABARD was established in terms of the Preamble to the Act, "for providing credit for the promotion of agriculture, small scale industries, cottage and village industries, handicrafts and other rural crafts and other allied economic activities in rural areas with a view to promoting IRDP and securing prosperity of rural areas and for matters connected therewith in incidental thereto".

The main objectives of the NABARD as stated in the statement of objectives while placing the bill before the Lok Sabha were categorized as under:

- The National Bank will be an apex organisation in respect of all matters relating to policy, planning operational aspects in the field of credit for promotion of Agriculture, Small Scale Industries, Cottage and Village Industries, Handicrafts and other rural crafts and other allied economic activities in rural areas.
- 2. The Bank will serve as a refinancing institution for institutional credit such as long-term, short-term for the promotion of activities in the rural areas.
- 3. The Bank will also provide direct lending to any institution as may approved by the Central Government.

Major Activities

- 1. Preparing of Potential Linked Credit Plans for identification of exploitable potentials under agriculture and other activities available for development through bank credit.
- 2. Refinancing banks for extending loans for investment and production purpose in rural areas.
- 3. Providing loans to State Government/Non Government Organizations (NGOs)/Panchayati Raj Institutions (PRIs) for developing rural infrastructure.
- 4. Supporting credit innovations of Non Government Organizations (NGOs) and other non-formal agencies.

- 5. Extending formal banking services to the unreached rural poor by evolving a supplementary credit delivery strategy in a cost effective manner by promoting Self Help Groups (SHGs)
- 6. Promoting participatory watershed development for enhancing productivity and profitability of rainfed agriculture in a sustainable manner.
- 7. On-site inspection of cooperative banks and Regional Rural Banks (RRBs) and off-site surveillance over health of cooperatives and RRBs.

2.3.13. National Entrepreneurship Network (NEN)

NEN's ultimate goal is to help create a vibrant economy and drive job-creation in India. NEN works towards this goal by inspiring and supporting India's next generation of entrepreneurs, so that more young people start companies and capitalize on the many opportunities in today's India. NEN's target is to launch 10,000's of entrepreneurs, who create 100,000's of valuable new jobs for India. NEN is a Charitable Trust in India. NEN is an initiative of the Wadhwani Foundation: NEN was confounded by the team from the Wadhwani Foundation, along with IIT-Bombay, IIM-Ahmadabad, BITS Pilani, SP Jain Mumbai and IBAB, Bangalore.

NEN Today: Today, NEN is India's leader in entrepreneurship education. NEN works with over 425 top tier academic institute members; has developed a pool of more than 950 entrepreneurship faculty members, growing the number from an initial group of about 50 across the country; has launched more than 350 student e-cells; and reaches over 400,000 young people across 30 cities in India. NEN member graduates are going on to start companies, join existing startups, and launch entrepreneurial careers. In addition, NEN provides critical support and community to India's growing pool of young and future entrepreneurs. NEN has more than 65,000 individual members, representing the largest group of new and future entrepreneurs in India.

NEN's Programs: NEN's employs a two-pronged strategy to achieve its goals. First, in order to lay the groundwork for the entrepreneurial revolution, NEN works with academic institutes, helping them build robust, comprehensive and high-impact entrepreneurship programs on their campuses. Second, NEN provides support directly to new and young entrepreneurs. The support includes information, recruiting and hiring help, access to coaching, and access to funding and incubation.

2.3.14. National Institute for Entrepreneurship and small Business Development (NIESBUD)

The National Institute for Entrepreneurship and small Business Development (NIESBUD) was established in 1983 by the Ministry of Industry (now Ministry of Small Scale Industries), Govt. of India, as an apex body for coordinating and overseeing the activities of various institutions/ agencies engaged in Entrepreneurship Development Particularly in the area of small industry and small business. The Institute which is registered as a society under Govt. of India Societies Act (XXI of 1860) started functioning from 6th July, 1983.

The policy, direction and guidance to the Institute is provided by its Governing Council whose Chairman is the Minister of SSI.

The Executive Committee consisting of Secretary (Small Scale Industry & ARI) as its Chairman and Executive Director of the Institute as its Member Secretary executes the policies and Decisions of the Governing Council through its whole-time Executive Director.

- To evolve standardised materials and processes for selection, training, support and sustenance of entrepreneurs, potential and existing.
- To help/support and affiliate institutions/organisations in carrying out training and other entrepreneurship development related activities.
- To serve as an apex national level resource institute for accelerating the process of entrepreneurship development ensuring its impact across the country and among all strata of the society.
- To provide vital information and support to trainers, promoters and entrepreneurs by organising research and documentation relevant to entrepreneurship development
- To train trainers, promoters and consultants in various areas of entrepreneurship development.
- To provide national/international forums for interaction and exchange of experiences helpful for policy formulation and modification at various levels.
- To offer consultancy nationally/internationally for promotion of entrepreneurship and small business development.

- To share internationally experience and expertise in entrepreneurship development.
- To share experience and expertise in entrepreneurship development across
 National frontiers.

Schemes and Activities: Evolving effective training strategies and methodology

- Standardising model syllabi for training various target groups
- Formulating scientific selection procedure
- Developing training aids, manuals and tools
- Facilitating and supporting Central / State/ Other agencies in organising entrepreneurship development programmes
- Conducting training programmes for promoters, trainers and enterpreneurs
- Undertaking research and exchange experiences globally in development and growth of entrepreneurship. The Institute is actively involved in creating a climate conducive to emergence of entrepreneurship.

2.3.15. National Institute of Small Industry Extension Training (NISIET)

NISIET, as it is known today, came into being in 1960 as Central Institute of Small Industry Extension Training (CISIET) at New Delhi. It was decided to keep it free from the tardy and impeding administrative controls and procedures, so that the Institute can play a pivotal role in the promotion of small enterprise. Therefore the Institute was shifted to Hyderabad in 1962, and was registered as an autonomous society under the Public Societies Registration Act, and was renamed as the Small Industry Extension Training (SIET) Institute.

SIET, as it was fondly known for over two decades later, is managed by a Governing Council, appointed by the Government of India. The Founder-Chairman of SIET is Dr P.C. Alexander, the then Development Commissioner (Small Scale Industries).

Activities of NISIET:

Centre for Consultancy and Counselling (C-CC)

Centre for Environment Concerns (C-ECO)

Centre for Entrepreneurship and Industrial Extension (C-EIE)

Centre for Industrial Credit and Financial Services (C-ICFS)

Centre for Industrial Planning and Development (C-IPD)

Centre for Information Technology (C-IT)

Centre for Logistics and Integrated Materials Systems (C-LAIMS)

Centre for Promotion and Advanced Management Practices (C-PAMP)

Centre for Policy Research (C-PR)

Small Enterprises National Documentation Centre (SENDOC)

2.3.16. National Small Industries Corporation Ltd. (NSIC):

National Small Industries Corporation Ltd. (NSIC), an ISO 9001 certified company, since its establishment in 1955, has been working to fulfill its mission of promoting, aiding and fostering the growth of small scale industries and industry related small scale services/business enterprises in the country. Over a period of five decades of transition, growth and development, NSIC has proved its strength within the country and abroad by promoting modernization, upgradation of technology, quality consciousness, strengthening linkages with large medium enterprises and enhancing exports - projects and products from small industries. NSIC operates through 9 Zonal Offices, 33 Branch Offices, 14 Sub Offices, 10 NSIC Business Development Extension Offices, 5 Technical services Centres, 3 Extension Centres and 2 Software Technology Parks supported by a team of over 500 professionals spread across the country. To manage operations in African countries, NSIC operates from its office in Johannesburg. NSIC carries forward its mission to assist small enterprises with a set of specially tailored schemes designed to put them in a competitive and advantageous position. The schemes comprise of facilitating marketing support, credit support, technology support and other support services. NSIC carries forward its mission to assist small enterprises with a set of specially tailored schemes designed to put them in a competitive and advantageous position. The schemes comprise of facilitating marketing support, credit support, technology support and other support services.

- Exhibitions and Technology Fairs
- Buyer-Seller meets
- Export of Products and Projects
- Credit Support:

- Financing for Marketing Activities (Short term) Finance through syndication with Banks Performance and Credit Rating Scheme for small
- Technology Support
 - 1. Advising on application of new techniques
 - 2. Material testing facilities through accredited laboratories
 - 3. Product design including CAD
 - 4. Common facility support in machining, EDM, CNC, etc.
 - 5. Energy and environment services at selected centres
 - 6. Classroom and practical training for skill upgadation

2.3.17. National Science and Technology Entrepreneurship Development Board (NSTEDB)

The National Science & Technology Entrepreneurship Development Board (NSTEDB), established in 1982 by the Government of India under the aegis of Department of Science & Technology, is an institutional mechanism to help promote knowledge driven and technology intensive enterprises. The Board, having representations from socio-economic and scientific Ministries/Departments, aims to convert "job-seekers" into "job-generators" through Science & Technology (S&T) interventions.

Objectives

To promote and develop high-end entrepreneurship for S&T manpower as well as self-employment by utilizing S&T infrastructure and by using S&T methods.

- To facilitate and conduct various informational services relating to promotion of entrepreneurship.
- To network agencies of the support system, academic institutions and Research & Development (R&D) organizations to foster entrepreneurship and self-employing using S&T with special focus on backward areas as well.
- To act as a policy advisory body with regard to entrepreneurship.

Activities

Science & Technology Entrepreneurship Development (STED) Project Science & Technology Entrepreneurship Park (STEP) Technology Business Incubators (TBI) Innovation and Entrepreneurship Development Centre (IEDC)

Entrepreneurship Awareness Camp (EAC)

Entrepreneurship Development Programme (EDP) .

Open Learning Programme in Entrepreneurship (OLPE)

Skill Development Training through Science & Technology (STST)

2.3.18. PHD Chamber of Commerce and Industry (PHDCCI)

PHD Chamber of Commerce and Industry, established in 1905, is a proactive and dynamic multi-State apex organisation working at the grass-root level and with strong national and international linkages. The Chamber acts as a catalyst in the promotion of industry, trade and entrepreneurship. PHD Chamber, through its research-based policy advocacy role, positively impacts the economic growth and development of the nation.

Geographic Spread: PHD Chamber's geographical span covers the 10 States of Chhattisgarh, Delhi, Haryana, Himachal Pradesh, Jammu & Kashmir, Madhya Pradesh, Punjab, Rajasthan, Uttar Pradesh, Uttarakhand and the Union Territory of Chandigarh.

Apart from its headquarters in New Delhi, the Chamber has regional offices in Jammu, Shimla, Chandigarh, Lucknow, Jaipur and Bhopal.

Diversified and Large Membership Base: PHD Chamber has a direct membership of over 1,600 corporate entities and serves more than 45,000 indirect members through 150 Association Members and 8 Secretarial Affiliates. The membership covers trade and industry.

Activities

- Seminars, Conferences, Workshops
- Networking Opportunities
- Stay Ahead of Competition
- Advisory Services to Business
- Taking Indian Industry Global

2.3.19. Small Industries Development Bank of India (SIDBI)

SIDBI was established on April 2, 1990. The Charter establishing it, The Small Industries Development Bank of India Act, 1989 envisaged SIDBI to be "the principal financial institution for the promotion, financing and development of industry in the small scale sector and to co-ordinate the functions of the institutions engaged in the promotion and financing or developing industry in the small scale sector.

The business domain of SIDBI consists of small scale industrial units, which contribute significantly to the national economy in terms of production, employment and exports. SIDBI's assistance flows to the transport, health care and tourism sectors and also to the professional and self-employed persons setting up small-sized professional ventures.

Following are some of schemes of SIDBI

- Direct Finance Schemes
- Bills Finance Scheme
- Refinance scheme
- International Finance schemes
- Micro Credit
- Promotional and Developmental

2.3.20. Small Industries Development Organisation (SIDO)

Small Industries Development Organisation (SIDO) an apex body at Central level for formulating policy for the development of Small Scale Industries in the country, is headed by the Additional Secretary & Development Commissioner (Small Scale Industries) under Ministry of Small Scale Industries Govt. of India.

SIDO is playing a very constructive role for strengthening this vital sector which has proved to be one of the strong pillars of the economy of the country. It functions through a network of the field offices namely 30 SISIs, 28 Br. SISIs, 4 RTCs, 7 FTSs, various training and production centers and specialized institutes spread over different parts of the country. It is rendering the services in the following areas:-

Advising the Govt. in policy matters concerning small scale sector.

- Providing techno-economic and managerial consultancy, common facilities and extension services.
- Providing facilities for technology up-gradation, modernization quality improvement & infrastructure.
- Human resources development through training and skill up-gradation.
- Maintaining close liaison and vital linkage with the Central Ministries, Planning Commission, Financial Institutions, State Govts. & similar other developmental organizations/agencies related to the promotion and development of SSI Sector.
- Evolving and coordinating policies for development of ancillaries.
- Monitoring of PMRY Scheme

2.3.21. Small Scale Industries (SSI)

The responsibility of promotion and development of small scale industries (SSI) lies primarily with the State/Union Territory (UT) Governments. However, in recognition of the role of this sector in both creation of wealth and widespread employment and of the need for country-wide framework of policies and measures to facilitate its promotion and development, the Government of India has always supplemented the efforts of the States and UTs in several ways. Over the years, the Central Government has thus formulated policy packages and implemented a number of schemes and programmes, to mainly provide infrastructural, technological, credit, marketing and entrepreneurial development support to the SSI sector.

Office of Development Commissioner operates a number of schemes for the MSME sector, these are:-

- Micro & Small Enterprises Cluster Development Programme (MSE-CDP)
 Scheme for Capacity Building
- Credit Linked Capital Subsidy Scheme for Technology Upgradation
- Credit Guarantee Scheme
- ISO 9000/ISO 14001 Certification Reimbursement Scheme
- Participation in the International Exhibitions/ Fairs
- Financial Assistance for using Global Standards (GS1) in Barcoding
- Purchase and Price Preference Policy
- Integrated Infrastructure Development (IID Scheme)
- Mini Tool Rooms

Assistance to Entrepreneurship Development Institutes

Programmes & Schemes of the Ministry of MSME

- Scheme for International Cooperation
- o Scheme of Surveys, Studies and Policy Research
- o Entrepreneurship Development Institution Scheme
- o Prime Minister's Rozgar yojna (PMRY)
- o Scheme of fund for Regeneration of Traditional Industries (SFURTI)
- o Rural Employment Generation Programme (REGP)
- Product Development, Design Intervention and Packaging (PRODIP)
- Khadi Kairgar Janashree Bima Yojana for Khadi Artisans
- Interest Subsidy Eligibility Certification (ISEC)

2.3.22. Technical Consultancy Organisations (TCO)

It provide a complete package of consultancy services at reasonable rates to small and medium enterprises, individual entrepreneurs, Government Departments and agencies, various state level institutions, commercial banks and other institutions in their task relating to industrial development and financing. The performance of TCOs is somewhat mixed. While some TCOs are performing well and are self-sustaining; there are others which are facing operational and financial problems.

All India Financial Institutions in collaboration with state level financial/development institutions and commercial banks established a network of Technical Consultancy Organisations (TCOs) during the seventies and eighties to cater to the consultancy needs of the small and medium industries and new entrepreneurs. At present, there are 17 TCOs operating in various states; some of them covering more than one state. Besides, Karnataka has a state sponsored TCO viz. Technical Consultancy Services Organisation of Karnataka (TECSOK). TCOs provide a complete package of consultancy services at reasonable rates to small and medium enterprises, individual entrepreneurs, Government Departments and agencies, various state level institutions, commercial banks and other institutions in their task relating to industrial development and financing. Though initially TCOs focused on pre-investment studies, over the years they have diversified their services to include

- 1. Preparation of project profiles and feasibility studies
- 2. Undertaking industrial potential surveys
- Identification of potential entrepreneurs and providing them technical and management assistance
- 4. Undertaking market research and surveys for specific products,
- 5. Undertaking energy audit and energy conservation assignments,
- 6. Project supervision and where necessary rendering technical and administrative assistance,
- 7. Taking up assignments on turn-key basis,
- 8. Undertaking export consultancy for export-oriented projects based on modern technology
- Offering management consultancy services, especially diagnostic study of sick units or for improvement in the existing units and their rehabilitation programmes,
- 10. Conducting entrepreneurship development programmes and skill upgradation programmes.
- 11. Offering merchant banking services.

2.3.23. World Association for Small and Medium Enterprises (WASME)

World Association for Small and Medium Enterprises WASME, an international NGO which has its international headquarters in India which has been spearheading the cause of SMEs around the world since last 27 years. WASME conducts several training programs for SME entrepreneurs and their supporting institutions throughout the world for their capacity building in the new competitive environment, with particular emphasis on women development. Its bi-monthly News magazine, World SMEs News, which is circulated to its members and associates around the world, contains the latest information on SME related matters, and directly and indirectly targets some two million SMEs through affiliated associations/chambers and cooperating organisations worldwide.

The Rural Small Business Development Centre (RSBDC), set up by WASME with the sponsorship of National Bank for Agriculture and Rural Development (NABARD), works for the benefit of socially and economically disadvantaged individuals and groups in rural areas. Assistance is being provided to both current and potential small business owners.

2.3.24. SIDC: Small Industrial Development Centre

Small Industries (S.I.) is the pivot social development as well as the infrastructure of modern medium and large scale industries. The appropriate technology is necessary to satisfy the basic needs, but not sufficient to modernize the Industry. Modernizing Industry will never be possible unless the S.I.s are brought to the level acquired by medium and large scale industries to boost their ambitious target to integrate with industrial communities. S.I.s are far behind the quality acceptable by the local industries. The reasons resulting in such situation lies simply in the fact that S.I.s are performing without mature industrial methodologies or techniques. Illiteracy plays a main roll in the present situation. In view of the complexity implied by the new technologies, it is a must that awareness should be exposed with emphasis on:

- Basic environmental needs.
- New materials
- Concepts of eco designs and recycling of scraps and residues.
- Quality, which will be achieved if production is according to standards and codes of practice.
- Encouraging innovative and creative thoughts.
- On-the-job training in a way to implement the importance of graded training developing skills and capacities of the labor force.

Targets and goals

- 1. Technical support which is achievable through advisors and experts.
- Integrating capacities and capabilities by remoting the specialists to produce products of multidisciplines with higher added values and wider market prospects.
- Upgrading products' quality to serve as feeding industries on items and upgrading allies to produce subassemblies acquired by middle and large scale industries.
- 4. Introducing new products with mature designs according to specs (pumps, agro-machines and tools, wood working machines, etc.).

- 5. Upgrading of employers' capabilities (legal, accounting, contracting, financing ideas, manufacturing processes' control, etc.).
- 6. Upgrading employees' skills and attitude through on-the-job training on professions, quality aspects and awareness with standards' implementation.
- 7. Indulging new technologies to boost quantity, quality and, consequently, profit
- 8. Formation of virtual specialized factories in the form of industrial parks and communities.

2.3.25. State Financial Corporation: SFC, Maharashtra

Established in 1953 as Bombay State Finance Corporation, the Maharashtra State Financial Corporation has been playing a pivotal role in Maharashtra's Industrial growth.

Functions : The main function of MSFC is to provide Term Loan assistance to Small and Medium scale ind

Achievements: Total sanction: Rs.3688 cr. Including Term loans of Rs. 3414 cr.

- Major Share to small scale units.
- Encouragement to first generation entrepreneurs.
- Dispersal of industries/service unit s to the backward and developing areas.
- Generated employment opportunities for about 14 lakh persons.
- Catalysed additional investment of about Rs. 6670 cr.
- Co-founded the well-known Maharashtra centre for Entrepreneurship Development, Aurangabad. ustries.

2.3.26. District Industries Center (D.I.C.)

It is an executive arm of the Industries Department. Its main functions are:

- 1. To work as a facilitator for overall Industrial development of the District.
- 2. To accept & Register Entrepreneur Memorandum.
- 3. Help to establish Micro, Small & Medium Scale Industries
- 4. To Implement various schemes like P.M.E.G.P., Seed Money & D.I.C. loan for unemployed educated people for self employment.
- 5. To encourage SSI sector by rewarding "District Awards" to Small Scale Industries.

- 6. To coordinate the forum of Zilha Udyog Mitra Committee.
- 7. To Organize Entrepreneurship development Programs for unemployed youths for skill up gradation.
- 8. To Implement Package Schemes of Incentives.
- 9. To work as Nodal agency for Central Govt. Programmes.

2.3.27. MSME-DI (formerly-SISI) Mumbai (Maharashtra)

Small Industries Service Institute Mumbai along with its Branch Institute at Aurangabad looks after the promotion and development of small scale industries of 30 districts/areas of Maharashtra State. The backward districts declared by Central Govt. are Ratnagiri and Aurangabad, Dhule, Jalgaon, Parbhani, Nanded, Osmanabad, Raigad and Beed.

The main objective of the Institute to provide technical and consultancy services to small scale industry. Providing promotion and extension services to small scale/ancillary and tiny units. Besides this, training, library, exhibition and economic information, workshop facilities are also provided.

There are 30 MSME-DIs (fromerly SISIs) and 28 Branch MSME-DIs (formerly SISIs) set up in State capitals and other industrial cities all over the country. The main activities of these institutions are as follows:-

- Assistance/Consultancy to Prospective Entrepreneurs
- Assistance/Consultancy rendered to existing units
- Preparation of State Industrial Profiles
- Preparation/Updation of District Industrial Potential Surveys
- Project Profiles
- Entrepreneurship Development Programmes
- Motivational Campaigns
- Production Index
- Management Development Programmes
- Skill Development Programmes
- Energy Conservation
- Pollution Control
- Quality Control & Upgradation

- Export Promotion
- Ancillary Development
- Common Facility Workshop/Lab
- Preparation of Directory of Specific Industry
- Intensive Technical Assistance
- Coordination with DICs
- Linkage with State Govt. Functionaries
- Market Surveys
- Other Action Plan Activities assigned by Headquarters

2.3.28. Centre for Innovation, Incubation, Entrepreneurship

The Centre for Innovation, Incubation and Entrepreneurship (CIIE) was established at the Indian Institute of Management, Ahmedabad (IIMA) through grants from the Government of Gujarat, National Innovation Foundation, and IIMA in 2001.

Objectives of CIIE

Centre for Innovation Incubation and Entrepreneurship aims at fostering innovation and entrepreneurship development through research, incubation, consultancy and training in hi-tech and mass impact technologies to enhance welfare and competitiveness of the Indian economy. CIIE has formed linkages with other Science & Technology institutions in the country and with various research laboratories in the public & private domains. CIIE also plans to gradually build a national & international patent and innovator database for use of researchers and the incubatees.

Activities of CIIE

CIIE will pursue activities in the following areas:

- Research and Teaching
- Incubation
- Workshops & Seminars

2.4 Trends in Entrepreneurship - Research and Education

As we continue our study of entrepreneurship, it is important to note the research and educational developments that have occurred over the past few years. The major themes that characterize recent research about entrepreneurs and new-venture creation

can be summarized as follows:

- 1. The entrepreneurial and managerial domains are not mutually exclusive but overlap to a certain extent. The former is more opportunity-driven, and the latter is more resource- and "conservation" -driven. 10
- 2. Venture financing, including both venture capital and angel capital financing as well as other innovative financing techniques, emerged in the 1990s with unprecedented strength, fueling another decade of entrepreneurship.¹¹
- 3. Intrapreneurship (that is, entrepreneurship within large organizations) and the need for entrepreneurial cultures have gained much attention during the past few years.¹²
- 4. Entrepreneurial entry strategies have been identified that show some important common denominators, issues, and trade-offs.¹³
- 5. The great variety among types of entrepreneurs and the methods they have used to achieve success have motivated research on the psychological aspects that can predict future success¹⁴.

¹⁰ Wayne H. Stewart, Warren E. Watson, Joan C. Carland, and James w. Carland, "A Proclivity for Entrepreneurship: A Comparison of Entrepreneurs, Small Business Owners and Corporate Managers;' *Journal of Business Venturing* 14(2) (March 1999): 189-214

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¹³ R. Duane Ireland and Michael A. Hitt, "Achieving and Maintaining Strategic Competitiveness in the Twenty-First Century: The Role of Strategic Leadership", *Academy of Management Executive* (January 1999): 43-57; and Michael A. Hitt, R. Duane Ireland, S. Michael Camp, and Donald L Sexton, "Strategic Entrepreneurship: Entrepreneurial Strategies for Wealth Creation;' *Strategic Management Journal* (special issue) 22(6) (2001): ,179-492.

¹⁴ Robert A. Baron, "Cognitive Mechanisms in Entrepreneurship: Why and When Entrepreneurs Think Differently Than Other People;" *Journal of Business Venturing* (April 1998): 275-294; and Jill Kickul and Lisa K. Gundry, "Prospecting for Strategic Advantage: The Proactive Entrepreneurial Personality and Small Firm Innovation," *Journal of Small Business Management* 40(2) (2002): 85-97.

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- 6. The risks and trade-offs of an entrepreneurial career-particularly its demanding and stressful nature-have been a subject of keen research interest relevant to would-be and practicing entrepreneurs alike.¹⁵
- 7. Women and minority entrepreneurs have emerged in unprecedented numbers.

 They appear to face obstacles and difficulties different from those that other entrepreneurs face. ¹⁶
- 8. The entrepreneurial spirit is universal, judging by the enormous growth of interest in entrepreneurship around the world in the past few years.¹⁷
- 9. The economic and social contribution\$ of entrepreneurs, new companies, and family businesses have been shown to make immensely disproportionate contributions to job creation, innovation, and economic renewal, compared with the contributions that the 500 or so largest companies make¹⁸.
- 10. Entrepreneurial education has become one of the hottest topics at U.S. business and engineering schools. The number of schools teaching a new-venture or similar course has grown from as few as two dozen 20 years ago to more than 500 at this time¹⁹.

¹⁵ Rita G. McGrath, Ian C. MacMillan, and S. Scheinberg, "Elitists, Risk Takers and Rugged Individualists? An Exploratory Analysis of Cultural Differences Between Entrepreneurs and Non-entrepreneurs:' *Journal of Business Venturing* (1992): 115-136; and Justin Tan, "Innovation and Risk-Taking in a Transitional Economy: A Comparative Study of Chinese Managers and Entrepreneurs," *Journal of Business Venturing* 16(4) (2001): 359-376.

¹⁶ Lisa K. Gundry and Harold P. Welsch, "The Ambitious Entrepreneur: High Growth Strategies of Women-Owned Enterprises;' *Journal of Business Venturing* 16(5) (2001): 453-470; and Radha Chaganit and Patricia G. Greene, "Who Are Ethnic Entrepreneurs? A Study of Entrepreneurs' Ethnic Involvement and Business Characteristics," *Journal of Small Business Management* 40(2) (2002): 126-143.

¹⁷ Shaker A. Zahra, James Hayton, Jeremy Marcel, and Hugh O'Neill, "Fostering Entrepreneurship During International Expansion: Managing Key Challenges; *European Management Journal*19 (4) (2001): 359-369; Mike W. Peng, "How Entrepreneurs Create Wealth in Transition Economies;' *Academy of Management Executive* 15(1) (2001): 95-110; and Paul Westhead, Mike Wright, and Deniz Ucbasaran,' "The Internationalization of New and Small. Firms: A Resource Based View," *Journal of Business Venturing* 16(4) (2001): 333-358.

¹⁸ Paul D. Reynolds, S. Michael Camp, William D. Bygrave, Erkko Autio, and Michael Hay, Global Entrepreneurship Monitor (Kauffinan Center for Entrepreneurial Leadership, 2001); and Nancy Upton, Elisabeth J. Teal, and Joe T. Felan, "Strategic and Business. Planning Practices of Fast-Growing Family Firms," *Journal of Small Business Management* 39(4) (2001): 60-72.

¹⁹ Karl H. Vesper and William B. Gartner, "Measuring Progress in Entrepreneurship Education," *Journal of Business Venturing* (May 1997): 403-421; Karl H. Vesper and William B. Gartner, University Entrepreneurship Programs (Lloyd Greif Center for Entrepreneurial Studies, University of Southern California, 1999); and Alberta Charney and Gary D. Libecap, "Impact of Entrepreneurship Education," *Insights: A Kauffman Research Series* (Kauffman Center for Entrepreneurial Leadership, 2000).