

## **ENTREPRENEURSHIP AND INNOVATION IN INDIAN ECONOMY**

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### **Abstract**

*Enterprises throughout the world are experiencing revolutionary changes: rising energy and material costs, fierce international competition, new technologies, increasing use of automation and computers. All these changes demand positive response from the entrepreneurs if the enterprise is to survive in competitive environment and prosper. Without innovation enterprises become obsolete. Success in any business today demands constant innovation. In a dynamic environment, success comes from looking for the next opportunity and having the ability to find hidden connections and insights into new products or services as desired by customer. Introducing new products is seen as part of the process of innovation, this is itself seen as the engine driving continued growth and development. To grow and prosper, most enterprises need to constantly improve their existing products and services through continuously innovating needed changes. Enterprises that rely exclusively on innovation will prosper until their products and services become obsolete and non-competitive. Thus, entrepreneurs and enterprises are continuously creative and innovative to remain relevant to the customers, which is the purpose of every business. Innovation and entrepreneurship are the two important pillars of economic growth which India needs to develop as it progresses towards becoming a knowledge-driven economy.*

**Keywords:** Entrepreneurs, innovation, products and services.

## **Introduction**

The information revolution and globalization has transformed the world. Fundamental economics, easy and rapid access to information, ease of global travel and opening up of societies are sowing seeds of change. In today's competitive environment, innovation is of utmost important to the long-term success and survival of any business. In the absence of new ideas, enterprises find it difficult to grow and they persistently struggle to sustain in the business. The digital India program of the government is a very good platform for people to display their talent. Participatory governance is a step towards inclusive and equitable growth of all the section of the society. More and more innovations are expected in the sectors like education, agriculture, healthcare and environment in the coming years to solve the challenges face by the rural masses. Make in India campaign of the government would positively foster the innovation ecosystem in India and could help India in achieving the world leadership.

India is and has always been at the center stage of some great innovation- be it the digit of Aryabhata or the contribution towards astrology and technology. India is presently faced with employment challenge: it needs 12 million new jobs a year to absorb growing working population. In the knowledge economy, it is the youth population who are the assets of the country. India should leverage on the demographic dividend. By 2021, India will have about 900 million people consisting the emerging middle and middle class segment which will provide new opportunities. To win in this market, companies will need to deploy a shift in mindset to achieve new value propositions delivered through innovative business models.

**Objective:** The major objective of this article is to explore the studies related to entrepreneurship and innovation in India and also to understand how innovation in entrepreneurship leads to success and growth of an enterprise.

**Methodology:** The study of this paper is based on secondary data. For secondary

data relevant books, journals, magazines, internet, newspaper have been used.

### **Innovation**

Innovation is important because it results in new business creation, which in turn drives economic growth. These new businesses may be new start-ups or new businesses within existing enterprises. Peter Drucker defined innovation as the specific tool of entrepreneurs, the means by which they exploit change as an opportunity for a different business or a different service. Entrepreneurs need to search purposefully for the sources of innovation, the changes and their symptoms that indicate opportunities for successful innovation and they need to know and apply the principles of successful innovation. Innovation helps in increased profits and revenues; the net effect in the aggregate is a growth of national economy. Innovation is known to be one of the best ways of creating economic growth and stagnant growth in R&D investments can hit India hard in the long run.

Technology innovation will disrupt the traditional models which have been accepted and used for ages, rendering them obsolete example railway ticket booking through IRCTC, e-commerce, video on demand etc. Technology is disrupting the long established paradigms in several sectors from automotive, energy, healthcare to media, governance and education. As of March 2017, World Intellectual Property Organization (WIPO) stated that India is emerging as a leader in frugal and demand driven innovation among various countries across the globe.

### **Global Innovation Index**

Switzerland, Sweden, Netherlands, USA and UK are the world's most innovative countries, while a group of nations including India, Kenya and Vietnam are outperforming their development-level peers, according to the global Innovation Index 2017 co-authored by Cornell University(New York), INSEAD graduate business school (France) and the World Intellectual Property Organization (WIPO), an agency of United Nations. GII 2017 lists 127 countries according to various aspects that are responsible for innovation. GII released in June 15, 2017 in which

India stood at the 66<sup>th</sup> rank, emerging as the top-ranked economy in Central and south Asia in its 10<sup>th</sup> edition. GII focuses on innovation and uses a broad variety of information and sources for capturing data to develop the index. It collates information related to seven sub-indexes, which comprises five input indexed and two output indexes.

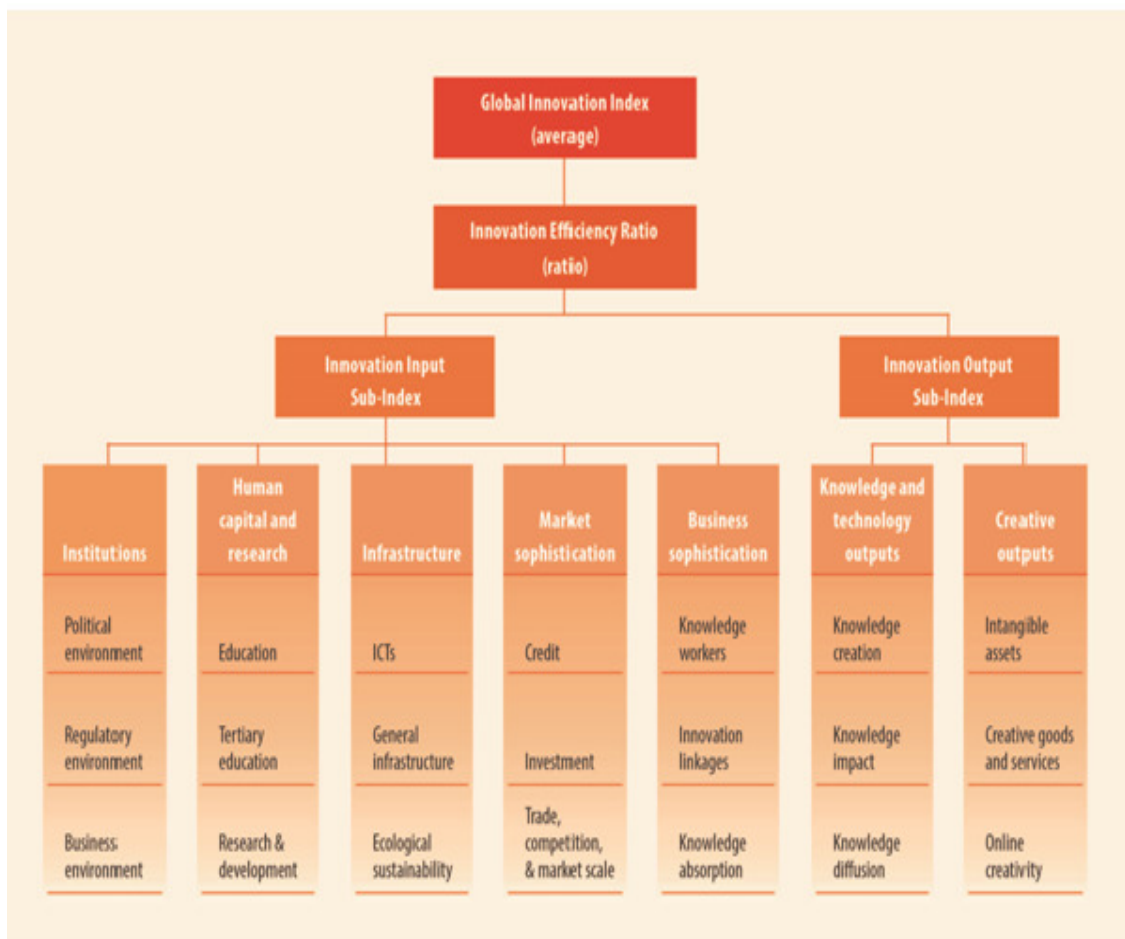
1. **Input indexes-** Institutions, human capital and research, infrastructure, market sophistication and business sophistication.
2. **Output indexes-** knowledge and technology outputs and creative outputs.

### **India Innovation Index**

The National Institution for Transforming India (NITI) Aayog and Confederation of Indian Industry (CII) jointly launched Indian Innovation Index. It has been jointly developed by NITI Aayog, DIPP and CII in consultation with World Economic Forum (WEF), WIPO, Cornell University, UNIDO, ILO, OECD, UNESCO, ITU etc. the index's objective is to rank Indian states on innovation through the portal that will capture data on innovation from all states on innovation and regularly update it in real time. It will provide impetus to state to build their respective innovation ecosystems and spur the innovation spirit among institutions and people to make India an innovation-driven economy. It will be structured based on the best practices followed in GII indicators and additionally by adding India-centric parameters those truly reflect the Indian innovation eco-system. The pillars of index include the capacity of human capital and research, strength of institutions, supporting infrastructure and the level of business sophistication, among others. The portal will coalesce, disseminate and update periodically GII indicators and India-centric data from various states; it will be hosted on the NITI Aayog website. It will be one stop data warehouse and will track progress on each indicator at the national and the state level on real time basis.

Some of the recent developments in the field of science and technology in India are as follows:

- Mahindra and Mahindra Ltd launched its first-ever driverless tractor, developed at the Mahindra research valley hub in Chennai, which can be operated remotely via a tablet. The tractor is expected to be available commercially from early 2018.
- Indian Space Research Organisation (ISRO) has 21 rocket launches in the pipeline, along with testing of its heaviest rocket called the Geosynchronous satellite launch vehicle GSLV MK-III.
- India’s space business to witness tremendous growth in the next five years, on the back of technology advancement in global space business opportunity and a sharp rise in ISRO satellite launch capability.



**Table 1- India's ranking over time**

	GII	Input	output	efficiency
2015	81	100	69	31
2016	66	72	59	63
2017	60	66	58	53.

**India's strengths-**

1. Human capital and research- rank 64
  - Graduates in science and engineering-rank 10
  - Average expenditure of top three global R&D companies-rank 14
  - Average score of top three universities in QS ranking-rank 21
2. Market sophistication-rank 39
  - Trade, competition and scale of market-rank 16
  - Ease of protecting minority investors-rank 13
3. Knowledge and technology outputs-rank 38
  - Citable documents H index-rank 21
  - Growth rate of per capita GDP PPP-rank 5
  - ICT exports as percentage of trade-rank 1
4. creative goods exports-rank 95
  - creative goods exports percentage of total trade-rank 18

**Indian weakness**

1. institutions –rank 64
  - ease of starting business-rank 114
  - ease of resolving insolvency-rank 111
  - ease of paying taxes-rank 118
2. human capital and research-rank 64
  - education –rank 114
  - pupil-teacher ratio, secondary-rank 104

- inbound mobility in universities-rank 102
3. creative outputs-rank 85
- global entertainment and media market-rank 61
  - Video uploads on YouTube-rank 68.

India is aggressively working towards establishing itself as a leader in industrialization and technical development. Nanotechnology is expected to transform the Indian pharmaceutical industry. The agriculture sector is also likely to undergo a major revamp with government investing for the technology-driven Green Revolution. Government of India, through the Science, Technology and Innovation (STI) Policy, 2013, among other things, aspires to position India among the world's top five scientific powers.

### **Entrepreneurship**

Entrepreneurship is the process of creating value, by bringing together a unique combination of resources to exploit an opportunity. It is the act of launching a new venture by either a start-up firm, or through an existing firm, or through internal corporate venturing. Entrepreneurs create new ideas, new businesses and new industries. He organizes, manages and assumes the risk of an enterprise. Value is created by the entrepreneurs through their products or services for the customers and for the enterprises. The development of entrepreneurs and entrepreneurship is necessary to meet the challenges posed by population growth and unemployment.

Entrepreneurship and innovation are complementary. Entrepreneurship is about identifying new innovations in products, services, processes or technologies and adapting these innovations to achieve greater competitiveness and enhanced performance or to create new business opportunities. Innovation is thus core part of entrepreneurship and develops ideas into realistic opportunities. Entrepreneurship entails commercialization of innovation and is driven by personal characteristics of entrepreneurial individuals and by the environment in which they operate. Without

continuous innovation, new technological achievements would not exist and many new enterprises would never have been formed. While continuous and disruptive innovations are important for continued growth for well established companies, innovations helped in new start-ups. Entrepreneurs act as innovators; they search for change and exploit opportunities. They start their own new businesses, create wealth and employment.

### **Role of entrepreneurship in Indian economy:**

1. Assisting the new entrepreneurs in project planning.
2. Creating better entrepreneurial environment for the promotion of tiny, small, ancillary, cottage and village industries in rural and urban India.
3. Widening the horizons of entrepreneurship creation, proliferation and rehabilitation.
4. An effective instrument of promoting industrialization in rural and backward areas.
5. Elimination of socio-economic problems such as unemployment, poverty, sickness, industrial hazards, slums, traffic congestion, rural exodus, regional disparities, etc.
6. Strengthening the process of socio-economic growth and development.
7. Guiding the future destiny of industrialization in the country.

### **Ease of doing business index**

This index is created by Simeon Djankov at the World Bank group. Higher rankings indicate better, usually simpler regulations for businesses and stronger protections of property rights it is meant to measure regulations directly affecting businesses and does not directly measure more general conditions such as nation's proximity to large markets, quality of infrastructure, inflation or crime. A nation's ranking on the index is based on the average of 10 subindices

- ✓ Starting a business-procedures, time, cost and minimum capital to open a new business.



- ✓ Dealing with construction permits-procedures, time and cost to build a warehouse.
- ✓ Getting electricity-procedures, time and cost required for a business to obtain a permanent electricity connection.
- ✓ Registration property-procedures time and cost to register commercial real estate.
- ✓ Getting credit-strength of legal rights index. Depth of credit information index.
- ✓ Protecting investors-extent of director liability and ease of shareholder suits.
- ✓ Paying taxes-total tax payable as share of gross profit.
- ✓ Trading across borders-number of documents cost and time necessary to export and import.
- ✓ Enforcing contracts-procedures time and cost to enforce a debt contract.
- ✓ Resolving insolvency-time, cost and recovery rate under bankruptcy proceeding.

**Table 2- India’s rank in DB2017-2011**

2017	2016	2015	2014	2013	2012	2011
130	130	142	134	132	132	134

As one of the fastest growing economies in the world, India is undoubtedly a rising star. It has advantages of an emerging middle class, cost competitiveness and large pool of human capital. India has continuously improved its ranking its ranking on Global Competitiveness Report. By 2030, India is expected to have the largest labour force in the world with more than 12 million people joining the workforce annually. The National Skill Development Corporation (NSDC) has identified major sectors and projected employment scenarios. The Government has declared 2010-2020 as the Decade of Innovation and has set up the national Innovation council to develop a culture of inclusive innovation.

To break into the top 50 in the World Bank ranking, India needs to setup fast-track commercial courts, dispose of cases quickly with minimum adjournments and

establish e-courts for electronic filing of complaints, summons and payments. Doing Business 2017 is the 14<sup>th</sup> in a series of annual reports investigating the regulations that enhance business activity and those that constrain it. It presents quantitative indicators on business regulation and the protection of property rights that can be compared across 190 economies. The report acknowledges only those reforms which have been implemented in Mumbai and Delhi by June 1 each year. While there has been a substantial progress, India still lags in areas such as starting a business, enforcing contracts and dealing with construction permits.

Table 3: Ease of Doing Business Report 2017

<b>Fast mover</b>		
India's performance in World Bank's 'ease of doing business' report		
<b>Indicator (Ranking)</b>	<b>2017</b>	<b>2018</b>
Starting a business	155	156
Dealing with construction permits	185	181
Getting electricity	26	29
Registering property	138	154
Getting credit	44	29
Protecting minority investors	13	4
Paying taxes	172	119
Trading across borders	143	146
Enforcing contracts	172	164
Resolving insolvency	136	103
<b>Overall ranking</b>	<b>130</b>	<b>100</b>



### **Innovative entrepreneurs in India**

In India, studies have shown that Indian entrepreneurs are moderately innovative and there is a need to develop this trait in a concerted manner. Technology transfer for universities and government research institutions is very important for entrepreneurship. India lags behind in creating adequate number of new enterprises that it should have achieved with its existing resource base. It requires robust entrepreneurial support system backed by the government and the industry. Now, in

addition to the traditional form of entrepreneurship such as Gujarati, Marwari entrepreneurship, the modern version of entrepreneurship has emerged in the fields of technology have shown better performance. Rapid progress in the field of science and technology has expanded the scope of innovations in production, processes and techniques. In recent years, some of the new innovative areas of production and marketing have emerged and there is lot of opportunities prevailing in areas for undertaking economic activities such as food- processing, agro-business, software development, handicrafts, computerization, information technology.

### **Technopreneruship in India**

India has very large number of micro and small enterprises across various sectors. Start-ups have been the flavor of the season over the past few years in the Indian markets. Start-ups are new businesses. The focus on start-ups in India has come to primarily focus on innovative, small companies leveraging technology to solve consumer problems. According to NASSCOM In 2016, India has around 4,750 start-ups and is ranked third in the start-up ecosystem globally. These have generated employment for close to 85,000 people and secured funding of about \$3.8 billion. The ecosystem for both technology and traditional start-ups has been expanding at a rapid pace. The growth of technology-intensive enterprises results in the rise of innovation. Globalization, technical advances and the digital economy have also had a radical; effect on the world of work. The traditional career path of s a stable job with steady hours, a regular pay cheque and solid pension is no longer an option for many people. The changing world environment presents opportunities for innovative and dynamic entrepreneurs.

Tenchnopreneur is the person who destroys the existing economic order by introducing, new products and services, by creating new forms of organizations and by exploiting new raw materials; it is one who undertakes risk that has the chance of profit. Technoprenurs distinguishes themselves through their ability to accumulate and manage knowledge and ability to mobilized resources to achieve a specified

business or social goal.

- Sachin Bansal and Binny Bansal launched an e-commerce website retailing books in October 2007-Flipkart
- Sridhar Vembu, CEO of Zoho Corp(formerly AdventNet Inc.)
- Anisha singh,founder & CEO,Mydala.com
- Ankita Gaba, Co-Founder, SocialSamosa.com
- Chitra Gurnani Daga, C0-founder, Thrillophilia
- Vijay shekhar Sharma, founder of Paytm.
- Naveen tewari, founder and CEO of InMobi. He is also co-founder of iSPIRT. He is involved in fuelling of around 30 start-ups in India nd has personally invested and supported several statt-ups like slideRule, Mettl,Bombay Canteen, Zimmer, NestAway, Moneysights, etc.
- Alok Kejriwal is CEO and co-founder of Games2Win.com (global top 20 online games business that entertains over 20 milion unique users a month).
- Kunal Behl & Rohit Bansal-Snapdeal, 2010
- Bhavish Aggarwal- Ola Cabs, 2010
- Dhiraj Rajram is founder and chairman of Mu Sigma, 2004.
- Shashank ND-PRACTO
- Deepinder goyal co-founded Zomato
- Samar singla is a founder/CEO at Jugno

### **Keys to entrepreneurship and innovation**

To build the foundation for sustained entrepreneurship and innovation, governments need to develop policies that support these areas

1. **ICT-** entrepreneurs and national economies benefit from reliable and affordable access to broadband connectivity, localized software, technology services and IT infrastructure that supports ongoing innovations

2. **Education and training**-through traditional schools, workforce training, vocational schools youths and adults can receive training and support to help them become successful entrepreneurs transforming education to integrate ICT, support entrepreneurship and encourage improvements in science and technology can lead to long term social and economic benefits.
3. **R&D**-the economic crisis provides a competitive advantage for enterprises and governments that continue to invest in R&D that support the transfer and commercialization of R&D output into the private sector.

Innovation is a key driving force in business success. While the job creation process has medium-term impact on businesses, innovation has long-term impact. The degree and frequency of innovation always creates a positive impact on economic development. Since 1991, India has germinated different indigenous first generation entrepreneurs like Infosys, bharti enterprises and Wipro, who started their business at grassroots level in India and later reached an international corporation status. In India nascent entrepreneur's survival rate is alarming. India is far behind other innovation-driven and efficiency-driven economies. Indian start-ups and enterprises in product commercialization indicate a gap in Indian ecosystem and demand strategic grassroots interventions. In innovation-driven economies, the influence of knowledge accumulated by formal education and training is very high, which propagates high technology-driven firms creation. Entrepreneurship education plays an important role in the choice of entrepreneurship as a career option.

### **Suggestions**

There is need to create adequate policy measures by the government on innovation and entrepreneurship at the National, state and Student level which can create the desired environment for students to at entrepreneurship as a lucrative career option. The industry should also come forward to contribute in this movement of making India a truly entrepreneurial nation. The GEM report 2016-17 provides data and analysis that can help academicians, researchers, policymakers and professionals to take appropriate action for enhancing economic growth absolute focus on broad-based entrepreneurship

development. There is a need for more refined, segmented study of Indian entrepreneurs, based on their focus, education, innovation content, economic and social strata, stage of existing businesses and others.

### **Conclusion**

India needs to embrace entrepreneurship as a solution to its growing economic and social challenges. Entrepreneurship generates economic value new jobs in the economy and cultures of start-ups, and by its relation with innovation, entrepreneurship emerges as a factor in promoting economic growth. It is crucial for governments to commit to entrepreneurship and innovation today. Investing in supportive programs in ICT, education and training; R&D will enable country to develop a blueprint for sustainable growth. The latest GEM India report attempts to unveil the entrepreneurial dynamics in the country. It enables us to assess how entrepreneurial activity and profiles change with political, socio-economic development over a period of time. The Entrepreneurship development policy should be well aligned with initiatives like Make in India. Start-up India, Stand up India and others.

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