

# ENTREPRENEURIAL DEVELOPMENT WITH EMERGING TECHNOLOGIES IN INDIA

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## KEYWORDS

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## ABSTRACT

**T**echnology has driven the business environment more creative, effective, productive and efficient. It uses to deal with the methodologies to accumulate, store, share and manipulate the available information. These emerging technologies are being used in the upcoming 5 to 10 years for creating new products or services. Entrepreneurial development is based on these technologies for advancements and expanding opportunities in order to raise more chances for profitable businesses. As per the GEM India Report (2021-22) country's total entrepreneurial activity rate rising to 14.4% in 2021 from 5.3% in 2020. The aim of this study is to present the conceptual framework for emerging technologies along with its impact on entrepreneurial development. The companies adopting technologies in certain domains are being discussed with its benefits for the economies of businesses. Database will be secondary that will include various Government organization reports like EDP (Entrepreneurship

Development Program, Ministry of Skill Development and Entrepreneurship) and many schemes like Start Up India Seed Fund, Start Up India Initiative etc. have been considered for this study. Several technologies are being chalked out in this working paper like Artificial Intelligence, Robotics, Online Payment bots etc. Furthermore, empirical analysis can be performed after creating the strong base of theoretical aspects. Also research can be performed on the various factors affecting the entrepreneurship development and technological advancement.

## **1. INTRODUCTION**

There has been an immense development in the start ups and entrepreneurship since early 2000s and got a pace after digitalization took place in India. The venture capital availability, incubators initiation and skilled youth contributed in the entrepreneurial development at a fast rate. Technological entrepreneurship has a lot of opportunities as an innovative strategy for market integration (Giones & Miralles, 2014; Giones & Zhou, 2019). The driving force behind the entrepreneurial development has stimulated economic growth by creating employment opportunities for the youth of India. But it is obvious to mention about the risk and challenges present in phenomenal exploration of emerging technologies and markets rising to create efficient pathways for entrepreneurial large sized firms (Thukral et al., 2008). There has been a gap between the expected and actual adaptability and sustainability in the development of new opportunities for entrepreneurial activities. Generations attitudes are being changed due to the effect of new trends, new technologies, digital element presence and its usage as a whole. This usually impacts the business management framework (Ciobanu, 2017). The technology- based entrepreneurial development has been introduced in order to resolve the issues while any kind of

promotional activities related to effectively execute the business activities (Giones & Zhou, 2019). Analytical case studies have been done in order to understand the emerging technology driven innovations and initiation of nanotechnology has been discussed to deeply study the market penetration expertise. (Abd et al., 2015).

## **2. OBJECTIVES OF STUDY**

- To study about the emerging technologies that affects entrepreneurial development.
- To understand the significance of innovative technologies in India for entrepreneurial development.
- To study the data reports related to emerging technologies to impact entrepreneurial development.

## **3. LITERATURE REVIEW**

(Giones & Miralles, 2014) studied about the complex dynamic pattern of venture resources from technological market so as to get rid of the uncertainties of the business activities, especially the new technology-based firms. The multiple case studies are being studied to explore signaling theory for venture emergence and future focusing on market integration. (Thukral et al., 2008) focused on the emerging technologies for enhancing commercialization strategies to provide business solutions at global level. Discussion held to evaluate small as well as large firms based on competency strategies. The two way processes are being explained regarding IBM India and Zyvex process. (Ciobanu, 2017) discussed about the sustainability and adaptability to get benchmark success in business at global level and focused on Romanian entrepreneurial arena to throw some light on the innovative trends. With the help of qualitative analysis through focus group study having two generations attitudinal changes towards various aspects of entrepreneurial activities. (Giones & Zhou, 2019) observed the issues related to promotional policies to market entrepreneurial ventures. The researcher used constructivist views in order to understand the technology-based opportunities converting fantasies into reality. Data analyzed on the basis of ventures and the techniques used to perform entrepreneurial work. (Woolley, 2014) studied about the

configuration and creation of the infrastructure required for technopreneurship with the help of nanotechnology. As per the database of this study, interactive and interdependence of private and public organizations are being showcased in the paper. (Cordes & Marinova, 2023) performed systematic literature review to understand the concept of SMEs collaboration and innovation for developing products and designing market strategies. Role of E-commerce did play a big role to establish such strong collaborations. (Avlonitis & Salavou, 2007) based their study on 149 manufacturing companies through cluster analysis to understand active and passive entrepreneurial orientation along with SMEs profiles for getting the nerves of performance potentials available due to innovations. (Abd et al., 2015) explored entrepreneurial commercialization with the help of executing nanotechnology. Case studies analysis to identify entrepreneurial success and risks that comes while adapting technological innovations are present in this paper.

#### **4. METHODOLOGY**

The secondary data has been collected and inculcated in this study from blogs, Government reports, and various websites. Different types of technologies are being discussed that is helping in the establishment and effective running of business. The reports like GEM (Global Entrepreneurship Report), ESDP (Entrepreneurship Skill Development Programme), SBEDP (Small Business & Entrepreneurship Development Project) etc. are being taken into consideration for creating conceptual base strongly for further research studies to be conducted to analyzing the entrepreneurial development through different researches, blogs and reports available online. There are so many studies conducted at global level on this trending topic but in India, there are few studies undertaken about entrepreneurial arena development.

#### **5. FACTUAL DATA FROM REPORTS**

- As per the report from GEM that work for providing data related to entrepreneurial landscapes, projected that the entrepreneurial activities has been increased in the year 2021 from 5.3% (2020) to 14.4%. Also the established business ownership rate has been increased from 5.9% (2020) to 8.5% (2021).

- NITI Aayog's Kurukshetra (Journal on Rural Development) has mentioned regarding the promotional activities for entrepreneurship in order to create more jobs which is important for significant role in sustainable growth.
- As per Fidelity Investments research, in the 2017 it has been found that 88% millionaires are self-made and rest 12% are rich due to their ancestral money.
- As per a report by Guidant Financial, 26% of respondents wants to be owner, 23% wants to follow their passion and 19% wants to present themselves in front of others due to self-motivation. Only 6% who lost their job wants to start their business due to this reason.
- FreshBooks 2019 annual report found that 45% of millennials would like to work after retirements with 47% of Gen Z and 61% of Baby boomers.

## 6. SIGNIFICANCE OF EMERGING TECHNOLOGIES IN ENTREPRENEURIAL DEVELOPMENT



**FIG 1 SIGNIFICANCE OF EMERGING TECHNOLOGIES IN ENTREPRENEURIAL DEVELOPMENT**

- **Potentiality of Employment Creation-** The latest technology adoption is helpful in the creation of ultimate jobs after providing proper training to the fresh joiners. Entrepreneurs are keen to inculcate new machineries, software, etc. For adaptation various available assets are being exploited since the beginning of entrepreneurial development.
- **Boost Competitiveness-** The initiation of various new and innovative technologies in the entrepreneurial activities helps in boosting competitiveness amongst the market available competitors.
- **Accelerating Economic Growth-** There is a significance of innovative technologies and its implementation in the entrepreneurial activities which helps in accelerating economic growth of the country.
- **Global Expansion & Foreign Investment Opportunities -** Due to diversified technology, contribution in economic growth get accomplished which leads to goodwill creating entrepreneurial start-ups to get expansion at base level.
- **Accessibility enhancement in problem solutions-** The availability of the technologies provide fast and steady works and projects done that helps in increasing the accessibility of entrepreneurial support to the customers for quick and effective problem solutions.

## 7. TYPES OF EMERGING TECHNOLOGIES



FIGURE 2 TYPES OF EMERGING TECHNOLOGIES

- **Artificial Intelligence-** AI initiates human intelligence simulation through machines in order to replace computer systems. Decision Making becomes quick and smooth with the help of AI in the entrepreneurial activities.
- **Internet of things-** IoT promotes fast decision making with the support of devices that accumulate database, record, analyze and produce outcome for companies and entrepreneurs.
- **Quantum Computing-** QC is a type of mechanical phenomena that provides a way to perform operations in an effective manner without delay that is next to impossible for our computer systems.
- **Blockchain-** This digital ledger technology applies transparency and security for any type of official business related fund transferring or transactions that are made online.
- **Virtual and Augmented Reality-** VR/AR allows to recreate comfortable scenic views with the help of tech savvy devices in the business operations.
- **Machine Learning-** It helps in improving the speed of decision making, generating customer recommendations, effective financial management.

## 8. LIMITATIONS

Due to limited time, there are so many dimensions left unturned and can be covered in the future studies. Also the data can be collected from several entrepreneurs through focus group study or interviews and empirical analysis could be performed. Only few studies are performed on the secondary database due to which conceptual framework is lagging behind and more focus is required for it.

## 9. PRACTICAL IMPLICATION OF THE STUDY

This study will provide conceptual as well as factual data from reports, blogs, newspaper, journals, etc. which will help practitioners, academicians, Government officers in order to understand the basic requirement of technologies updations in

entrepreneurial sector. This will also create awareness amongst laymen that is related to the upcoming advancements in the field of entrepreneurship.

## 10. CONCLUSION & FUTURE SCOPE

There are various ways and techniques with the help of which the entrepreneurial shell can be raised. The economic development is totally based on the adaptations of emerging technologies that can be inculcated in the entrepreneurial aspects. Whether it is the emergence of Artificial Intelligence (AI) to implement business activities, Blockchain for enhancing security measures of entrepreneurial processes, Virtual Reality (VR) for eye delight scenario creation, Internet of Things (IOT) for increasing productivity of mechanisms usage for start-up firms manufacturing or day-to-day operations or Quantum Computing (QC) for smooth functioning of business operations, all these technologies save time and cost that is important for business growth. Future study can be undertaken on the empirical data that affects entrepreneurial growth implicating statistical tools for analysis. Also socio-cultural, demographical, preferential aspects may be studied with the help of mass survey to collect good amount of developmental data.

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