

Entrepreneurial Ecosystem in India: Role in policies

Saurav Sonkar and Ashoke Kumar Sarkar*

Central University of Jharkhand Ranchi, Ranchi

Abstract

Entrepreneurial ecosystem is a much admired concept for explaining the growth and performance of enterprises present in a particular region. However, when we look for any fixed and reliable definition or for any set theory of entrepreneurial ecosystem it's difficult to find, which makes it difficult to understand its architecture and its influence on entrepreneurial process. The present paper depicts that entrepreneurial ecosystem is composed of different societal factors including demographical factors along with materialistic factors. These factors provide benefits and resources to the enterprises and the combination of all factors constitutes a entrepreneurial ecosystem in which new and old both the enterprises operates and grows. This paper illustrates the policies adopted by 6 major revenue generating states in India and the role and influence of State government policies in the development of the entrepreneurial ecosystem.

Keywords: Entrepreneurship • Entrepreneur • Entrepreneurial Ecosystem • Entrepreneurial Policies

Objective

- To formulate a model based on previous models for Indian entrepreneurial ecosystem
- To examine the main trends observed in Indian innovative and dynamic entrepreneurship policies over last decade
- To study the role entrepreneurial ecosystem in states policies.

Introduction

Entrepreneur is a person who identifies the opportunity in a market place and uses its resources in order to earn profit while taking risk evolved with it. In economic terms entrepreneurship is defined as a factor of production, at par with land, labor, natural resources, and capital [1] and the surrounding in which entrepreneur operates is termed as Entrepreneurial ecosystem which is basically composed of three types of attributes namely Cultural, Social and Material attributes [2]. These components are further classified under six major domains namely Culture, Policies and Leadership, Availability of Finance, Quality Human Resources, Markets for the Products, Range of Institutional and Infrastructural supports [3]. Entrepreneurial ecosystem can be defined by various authors and scholars as: The combination of interdependent actors and factors integrated in such a way that results into productive entrepreneurship in particular territory [4].

Term "ecosystem" in social science was introduced after path breaking work by Moore (1993). He described entrepreneurial ecosystem as firm external environment. Entrepreneurial ecosystem is defined as a interconnected groups of actors in a particular local geographical community committed to sustainable development through the support and facilitation of new sustainable venture [5].

In the last decade, the importance of entrepreneurial ecosystem along with entrepreneurial policies has gained much importance in India. Entrepreneurial policies play a key role in establishing the entrepreneurial ecosystem as it is one of the major domain of entrepreneurial ecosystem [3]. Looking at the international scenario and position of India in international economy, the role of government policy becomes important in forming the sustainable entrepreneurial ecosystem for the new and existing enterprises [6]. Concept of entrepreneurial ecosystem has gained more important in the

case of innovative entrepreneurs in comparison to the old and traditional entrepreneurs [7]. As a result various states governments in India have started to formulate the policies for existing as well as the new and innovative entrepreneurs. Entrepreneurial ecosystem is the interaction between value creation and location dynamically [8]. A business ecosystem can be defined as interdependent niches that are parts of organization [9].

Research on role of policies on the development of entrepreneurial ecosystem is still in primary stage in India and is usually conducted on the best practice reports and policies. This paper tries to fill this gap by comparing the number of states policies in six different cities in India (Mumbai, Chennai, Bangalore, Kolkata, Delhi/NCR and Hyderabad).

Research Methodology

Role of policies in building entrepreneurial ecosystem for new, established and innovative [10] enterprise in particular area is relatively a new area of research and not much of literature review is present in the Indian context. So a descriptive study has been used here to demonstrate the role of government policies in building the suitable entrepreneurial ecosystem in India. For this purpose six major states of India are selected according to their GSDP [11]. These states are Maharashtra, Delhi, West Bengal, Karnataka, Tamil Nadu and Andhra Pradesh. For this propose secondary data has been collected from RBI, NABARD, Ministry of MSME and from the IBEF reports (Table 1).

Table 1. IBEF reports.

Major Cities	GSDP 2017-2018 (Cr INR at 2011-2012 Prices)
Maharashtra	1,959,920
Delhi	554,908
West Bengal	718,054
Karnataka	987,832
Tamil Nadu	1,090,802
Andhra Pradesh	612,794

Literature Review

The Entrepreneurial ecosystem and its structures: The concept of entrepreneurial ecosystem has gained huge attention over the last decade [12]. The social construction, evaluation and modification of entrepreneurial

*Address for Correspondence: Ashoke Kumar Sarkar, Associate Professor Central University of Jharkhand Ranchi; Tel: +918777832248, Email: ashokecuj@gmail.com

Copyright: © 2021 Sarkar AK, et al. This is an open-access article distributed under the terms of the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original author and source are credited.

Received 08 September 2020; **Accepted** 16 April 2021; **Published** 23 April 2021

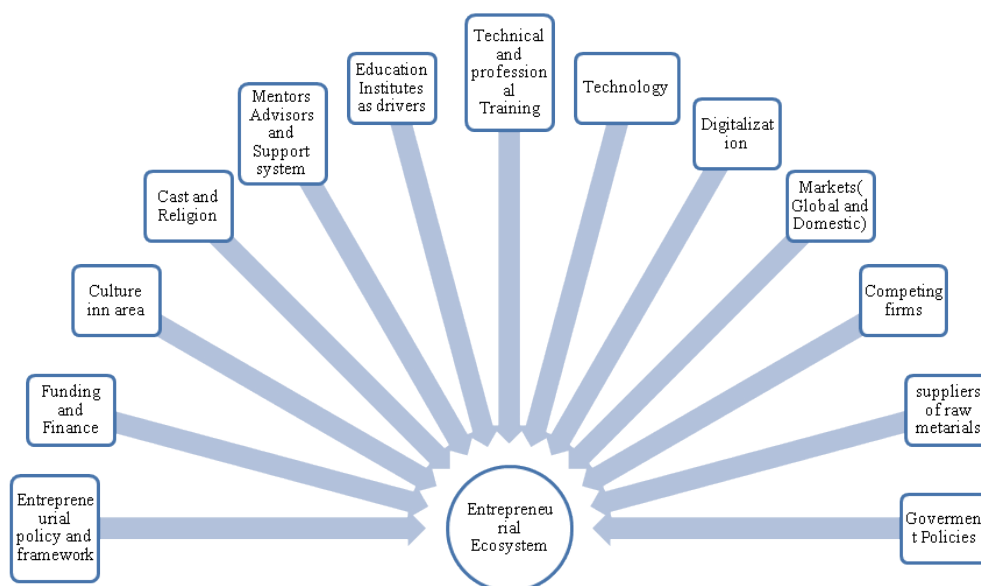


Figure 1. Entrepreneurship ecosystem model.

Table 2. Analysis of different Entrepreneurial ecosystem models.

Analysis Criteria	Moore Models(1993 &1996)	Bloom and Dees (2008)	Isenberg Model (2011)	Kantis & Fedrico (2012)	Koltai's entrepreneurship ecosystem Model	Khattab (2017)	Colombelli, Paolucci, & Ughetto, 2019)
Government Policies	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Suppliers	Yes	No	No	No	No	No	No
Competitors	Yes	Yes	No	No	No	No	No
Markets global & Domestic	No	No	Yes	Yes	No	No	No
Digitalization	No	No	No	No	No	No	No
Technology	No	No	No	No	No	Yes	No
Technical & Professional Training	No	Yes	No	No	Yes	Yes	No
Education Institution as Drivers(R&D)	No	No	No	Yes	Yes	Yes	Yes
Mentors, Advisors & Support system	No	No	Yes	No	No	Yes	No
Culture	No	Yes	Yes	Yes	No	No	No
Caste and Religion	No	Yes	Yes	Yes	No	No	No
Funding & Finance	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Entrepreneurial policies and framework	No	No	No	No	No	No	No
Entrepreneurial Education	No	No	No	No	No	No	Yes
Human Resource	No	Yes	Yes	Yes	No	No	No
Entrepreneur	Yes	Yes	Yes	Yes	Yes	Yes	Yes

ecosystem have not been done in Indian context yet.

Many structures are proposed by different scholars all over the world which are given as follows

Conceptual model of entrepreneurial ecosystem based on pilot study [13]. Domain based entrepreneurial model was proposed which demonstrate the policy, finance, culture, support, Human capital and market [14]. There are two self help ecosystem maps or models given by Paul N. Bloom & J. Gregory Dees first one of which discusses about before the changes and second one is about the after changes [15]. Seed accelerator model was proposed in which large number of start-ups take part in cohort based “boots camps” in which training and mentorship is provided to them, exposing them to a wide variety of mentors and experts in respective fields [16]. The reactive model in which all the factor interact with each other in order to form an ecosystem [17]. Life cycle of entrepreneurial ecosystem describing the

kind of governance design needed for the evaluation and development of entrepreneurial ecosystem [18].

Proposed Entrepreneurship ecosystem model

The proposed model differs from the other models as it is designed mainly for the Indian economy. The model is a combination of different factors arranged together in a relevant environment. All these factors interact with each other in order to support the growth and birth of new enterprises in the particular area mainly innovative enterprises. The model proposed consists of following major factors (Table 2).

Recognizing the main factors which plays key roles in the development of entrepreneurship ecosystem will be explained in this section of the document (Figure 2). They are broadly classified in two segments namely Internal Ecosystem factors and External ecosystem factors (Table 3).

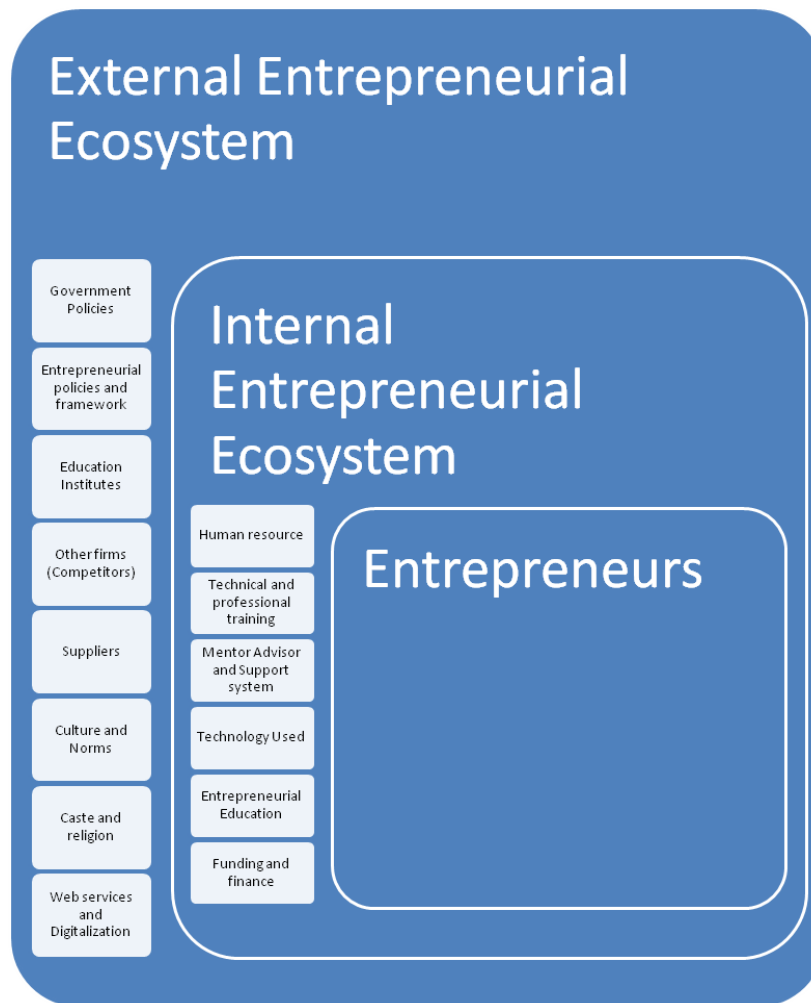


Figure 2. External Entrepreneurial Ecosystem.

Table 3. The Role of Internal factors in the development of Entrepreneurial Ecosystem and there support in developing entrepreneurship.

Internal Factors	Role played in Ecosystem	Interaction with other factors of ecosystem
Human resource	Human resources are most valuable factor as it constitutes the skilled labor and professionals needed for running successful enterprises [14].	Human resources are the man power who performs all other function in any organization from decision making to procurement of funds along with risk taking. Human capital promotes entrepreneurship development through knowledge creation [19]
Technical and professional training	Not only educated but technical and professionals [20] are needed to run any organization but also their expertise in respective field play a vital role in the successful operation of the organization.	Technically and professionally efficient people are more capable of coordinating [21] the activities of any organization
Technology Used	Technology based entrepreneurs are important for economic growth of the area [22].	Technology used by firm is important because it determines the amount of human resources and other resources required by the organization. New technology based entrepreneurs creates more jobs [23] than the traditional industrial sectors.
Mentor Advisor and Support system	Mentoring enhance the skills and capabilities which cannot be acquired by classical education system [24]	In small and medium sized enterprises, limited human resources which when provided with mentors, they can develop their skills which in turn help them as well as the organization in accomplishing its goals in turn helps in developing the entrepreneurial ecosystem [25].
Entrepreneurial Education	Entrepreneurship education increases the student entrepreneurial skills and their interest in becoming entrepreneurs instead of working for someone, this in turn helps in economic growth of any country [26]	Entrepreneurship education helps in transfer of technology from universities to private sector. So it also contributes in the growth and development of small and medium enterprises. Entrepreneurial education [27] helps the individual to interact with other factors of production in better manner.
Funding and finance	This includes friends and family, Private equity, Angel investors and venture capitals [28] all of them provide seed capital to new enterprise or working capital to existing enterprise.	Finance is important to any enterprise as it provides the working capital to it and coordinates the activities by providing funds to all other departments in an organization. So the government should provide funds at every stage of entrepreneurship development [29]

Proposed model

Differences between the proposed model and other models

The proposed model not only covers all the factors described in the above mentioned model but also includes the factors like entrepreneurial education (Table 4) [39]. Role played by technology used by enterprises is vital today as such many enterprises not only acquires technology but they also use to commercialize the technology by licensing it out [40] for technical and professional training [41]. In India the entrepreneurs belong to which caste and religion [37] plays a big role in deciding the type of business they set up and this factor indirectly affects the entire entrepreneurial ecosystem [36]. Another important factor, digitalization and web services provide an easy and low cost network to small entrepreneurs to push their products and services in the market through direct advertisement and sales [42]. Use of Web 2.0 by entrepreneurs in their business activities has significant impact on their businesses. High adopters have more entrepreneur orientation as compared to those who has low adoption of Web 2.0 [43]. Similarly there are also Web 1.0 and Web 3.0 (Figure 3).

As India is a big country with many peculiar local factors present only in India and not to be found in other countries it makes it important to formulate a model which includes all the excluded factors along with the factors already studied in all other proposed models from other countries as well. This model will provide a guide to policy makers, Entrepreneurs, NGOs, the state and the central government as well for making the strategies and the overall

entrepreneurial development of the country.

Entrepreneurial policies in different states of India: Specific cases

This part of paper describes the major entrepreneurial policies adopted by the state governments mainly for the start-ups across the country. In this paper states have been selected on the basis of GDP and foreign direct investment made along with giving importance to the availability of the data. The data for the paper has been collected from government reports and entrepreneurial policies of the states.

Maharashtra: Maharashtra state government focuses on building a conducive entrepreneurial ecosystem mainly for the innovators. They have implemented Maharashtra State Innovative Startup Policy 2018 formulated by their Skill Development & Entrepreneurship Department (SDED). The policy focuses on creating direct and indirect jobs in the state along with economic growth. Mumbai is termed as a financial capital of the country and Pune is the major centre for education and research [44]. Policy will focus on LEAPFROG that is illustrated are as following along with its association with various internal and external factors described in proposed model.

L (Lighten Regulatory Compliance) is an external environmental factor directly related to the entrepreneurial policies and framework.

- **E (E- Connect the Ecosystem)** is an external factor of entrepreneurial ecosystem directly related to the digitalization.
- **A (Augment Infrastructure)** under it the state government will provide

Table 4. The Role of external factors in the development of Entrepreneurial Ecosystem and their support in developing entrepreneurship.

External Factors	Role played in Ecosystem	Interaction with other factors of ecosystem
Government Policies	Government or public policies improve the ecosystem in two ways: firstly it identifies and involves the factors within each group of individuals and secondly it involves all the stakeholders together and forms the national framework condition [30].	Government policies provide the framework for the arrangement of all the factors involved in entrepreneurial ecosystem [31]
Entrepreneurial policies and framework	Entrepreneurial policy framework helps in promoting the emergence of new entrepreneurs in the ecosystem [1].	Entrepreneurial policies help the organization and other factors involved to utilize the resources in the best possible way to accomplish the organizational goals. Entrepreneurial policy and framework help in creating the environment for the development of new enterprises [1].
Education Institutes	Universities and research institutes play a key role in the development of new ideas and entrepreneurs [4] especially in the development of innovative entrepreneurs [32].	Tie-ups with public, private, NGO's and media organization in order to cater the needs and to promote the research [32] that will promote the entrepreneurship among people.
Other firms (Cultural Competitiveness) competitors	Cultural competitiveness is defined as the gap between what is being offered by the firms and what is actually desired in the market [33]. This gap between the existing and the desired increases opportunity for new firms.	This gap motivates the entrepreneurs to improve their products [33] and be able to utilize all the factors to the maximum.
Market Including suppliers of raw materials.	Market constitutes both the domestic as well as global market and also refers to the opportunities available in the market, suppliers, customers and different types of reports from local and national governments as well as reports from trade association [34]. Markets are important as they generate revenues which are life blood for all profit companies.	As markets are composed of loyal customers which generate revenues which in turn support all the factors of entrepreneurial ecosystem. The proximity of customer and supplier reduces the transportation and inventory cost in turn increases the productivity [35] of the firm.
Culture and Norms	Culture and norms are one of the four main factors of entrepreneurial ecosystem framework [30]. It appeals to the entrepreneurs and formulates the perception of safety and trust among the entrepreneurs [31].	It provides safety, trust, reliability within the enterprise as well in entrepreneurial community [31]. This helps in increasing the overall output of the entrepreneurs.
Caste and religion	In India the caste and religion of a person plays a significant role in starting an enterprise [36]	In India usually it is seen that a particular occupation is pursued by people belonging to particular caste of specific religion as there is caste-based discrimination prevalent in the society [37]. Caste and religion also determine the type of enterprise especially at small level.
Web services and Digitalization	Web services provide the platform to entrepreneurs for launching and scaling up of the product [38]	Digital platforms interact with all the factors and speed up the production of products and services. And help the entrepreneurs to interact with the consumers [38] directly.

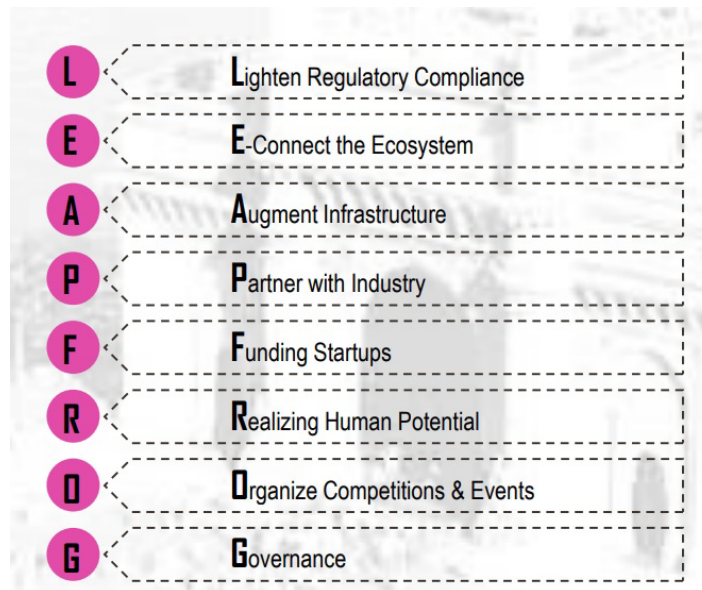


Figure 3. Above diagram is taken from [44] report.

infrastructure for the development of new entrepreneurs. It will provide incubators including both academic and research covered under the external factor education institutes and entrepreneurial education respectively.

- P (Partner with Industry) this pertains to the relationship of a firm with other firms covering the external factor of suppliers and other firms.
- F (Funding Startups) it includes the funding of startups by entrepreneurs which is akin to the internal factor of funding and finance.
- R (Realizing Human Potential) it incorporates the internal factor Human Resource.
- (Organize competition and Events) it describes the competition faced by the entrepreneurs from other firms in the industry and it is a part of external factor of entrepreneurial ecosystem of other firms and competitors.
- G (Governance) it includes the government policies covers the external factor of entrepreneurial ecosystem Government Policies.

Tamil Nadu: Tamil Nadu is one of the major GDP in India. Tamil Nadu startup and innovation mission (TANISM) [45] focuses on setting up the startups by providing required ecosystem to them. Tamil Nadu government will provide healthy entrepreneurial ecosystem especially for the development of startups in the state with the goals set upped under mission 2023. State of Tamil Nadu is rich in science and engineering talent this pool of human capital is driving factor in setup of new innovative entrepreneurial ventures through the following plan of action.

Above all Internal and External factors are included in the startup policy and industrial policy of Tamil Nadu government (Figure 4). Apart from above mention factors entrepreneurial education is also a part of Tamil Nadu government under which it introduced entrepreneurship as a part of curriculum in school and colleges as per AICTE policy [46].

Andhra Pradesh: State is leader in startup ranking 2018 [47] state launched it startup policy in 2014 with a vision to create a technology startup ecosystem which results in development of entrepreneurship and culture of innovation in the state. Under it special startup portal was formed apinnovationsociety.com which helps in many ways like startup registration ,incubator registration, mentor registration and etc along with Andhra Pradesh startup policy it also has Industrial policy 2015-2020 [47]. It gives importance to imparting proper training to youth for starting enterprises and members belonging to SC/ST and backward classes for there up-liftment in society by providing them support for making them successful entrepreneurs .Apart from this state government focus on following:-

- Sector specific and market driven curriculum

- Manpower information system was developed
- Special funding packages to SC/ST, Backward classes and women entrepreneurs

Karnataka: Around 35% of startups in a country are present in this state [48]. State's startup policy focuses and industrial policy on following factors of entrepreneurial ecosystem:-

- Policy focuses on entrepreneurial education through the mode of NAIN (New Age incubation network). Under it factors like training and professional knowledge, Entrepreneurial education, Education and institutes and small funding along with entrepreneurial policy are covered.
- Policy focuses on enhancing the relationship between R&D institutes and industry.
- State government provides early stage funding.
- It promotes human resource development through continuous exposure visits and workshop.
- Startup portal and hotline facilities are provided by the state government to provide various kinds of information like investor/investor organization, service providers like lawyers, real estate agency and etc.

West Bengal: "Silpa Korun Bangala Gorun" is the appeal from the state government to the youth of the state to come forward and start new enterprises with the support provided by the state government [49]. State startup policy is based on following internal and external entrepreneurial ecosystem factors:-

- State will focus on the development of entrepreneurship development centre network (ENDC).
- State will direct these ENDC centers to start the courses of entrepreneurship credit for students those going to workshop and internship.
- State government will focus on setting up new incubators both in governments as well as in private.
- State government will provide access to R&D labs to startups.
- Access to technology for the new startups and it will managed by MSME.
- State government will provide seed capital to the small entrepreneurs along with mentorship in kick starting their businesses.
- Digital platform (WWW.Startupbengal.in) is formed by the government to solve all the problems of new entrepreneurs.



Figure 4. Above all Internal and External factors are included in the startup policy and industrial.

According to the commerce and industry (Department of industrial policy and promotion). Entrepreneurial ecosystem in India along that in New Delhi is composed of following nine factors including both internal and external factors [50]

- Government policy
- Regulatory framework and infrastructure
- Funding and finance
- Culture
- Mentor, Advisor and Support system
- Universities as catalyst
- Education and training
- Human capital and work force
- Local and global market.

Finding

After deeply analyzing the startup policies and industrial policies of selected state we find that none of the state has all thirteen internal and external factors of entrepreneurial ecosystem.

- Maharashtra: In Maharashtra entrepreneurial ecosystem factors like Caste & Religion, Technology used, Culture & norms and Mentor /Advisor support are excluded from the entrepreneurial ecosystem.

- Tamil Nadu: Factors like other competitors, Suppliers, Culture & Norms, Technology used and Entrepreneurial education are not found in startup and industrial policy of the state.

- Andhra Pradesh: Mentor/Advisor, Other firms (Competitors) and suppliers factors were not included in Andhra Pradesh entrepreneurial ecosystem.

- Karnataka: Culture & Norms, Caste & Religion, Other competitor, Suppliers and Mentor/Advisor system these factors are not present in entrepreneurial ecosystem of Karnataka.

- West Bengal: Culture & Norms, Other firms, Suppliers, Caste and religion and mentor/advisor support are not included in entrepreneurial ecosystem of West Bengal.

Conclusion

From above literature review and finding it can be concluded that all the factors present in the proposed models are not included in any one particular state entrepreneurial ecosystem. Group of different internal and external factors are present in different states entrepreneurial ecosystem making them successful respectively. It has been found that most of the entrepreneurial ecosystem includes external factor Digitalization and web services, Entrepreneurial education, Entrepreneurial policy, Funding, Education institutes and Human Resources. And internal factors like entrepreneurial education, mentor & advisor support system and technical & professional training.

Suggestion

On the basis of literature review and on the basis of industrial and innovation policy adopted by the various state government it can be suggested that if states includes all the factors mentioned in the proposed model the result may improve to some extent .As it is found during the study of state innovation and industrial policy the state having more factors included in their policy are more successful as compared with those with lesser number of factors included in their policy.

References

- Fiorina MF. "Entrepreneurship Policy Framework and Implementation Guidance." New York and Geneva (2012).
- Spigel B. "The Relational Organization of Entrepreneurial Ecosystems." *Entrep Theory Pract* 41 (2017): 49-72.
- Isenberg D. "Introducing the Entrepreneurship Ecosystem : Four Defining Characteristics." *Forbes* 14 (2011): 1-8.
- Stam E, Spigel B. "Entrepreneurial Ecosystems." *Sage* 24 (2016).
- Cohen B. "Sustainable Valley Entrepreneurial Ecosystem." *Bus Strat Env* 15 (2005): 1-14.
- Bhat SA, Khan RA. "Government Policy Ecosystem for Entrepreneurship Development in MSEs Sector." *MPRA Munich Pers* (2015).
- Autio E, Kenney M, Mustar P, Siegel D, Wright M. "Entrepreneurial innovation: The importance of context." *Res Policy* 43 (2014): 1097-1108.
- Shi X, Rong K, Shi Y. "Conceptualising Entrepreneurial Ecosystems: Definition, Configurations and Health." *IEEE Technol Eng Manag Soc* (2018): 1-11.
- Moore JF. "Business Ecosystems and the View from the Firm." *Antitrust Bull* 51 (2006): 31-75.
- Kantis HD, Federico JS. "Entrepreneurial Ecosystems in Latin America: The role of policies." *Int Res Policy* (2012): 1-19.
- Statistics Times.com. "Indian states GDP 2015 - StatisticsTimes.com." (2019).
- Roundy PT. "Start-up Community Narratives: The Discursive Construction of Entrepreneurial Ecosystems." *J Entrep* 25 (2016): 232-248.
- Chand R, Srivastava SK, Singh J. "Changing Structure of Rural Economy of India- Implications for Employment and Growth." *Natl Inst Transform* (2017).
- Isenberg DJ. "The Entrepreneurship Ecosystem Strategy as a New Paradigm for Economic Policy." *Inst Int Eur Aff* 1 (2011): 1-13.
- Bloom P, Dees J. "Cultivate Your Ecosystem." *Stanford Soc Innov Rev* (2008).
- Hochberg YV. "Accelerating Entrepreneurs and Ecosystems: The Seed Accelerator Model." *Innov Policy Econ* 16 (2016): 25-51.
- Khattab I. "Towards an Integrated Model of Entrepreneurship Ecosystem." *J Bus Econ Policy* 4 (2017): 80-92.
- Colombelli A, Paolucci E, Ughetto E. "Hierarchical and relational governance and the life cycle of entrepreneurial ecosystems." *Small Bus Econ* 52 (2019): 505-521.
- Mitra J, Abubakar YA, Sagagi M. "Knowledge creation and human capital for development: The role of graduate entrepreneurship." *Educ Train* 53 (2011): 462-479.
- Dana LP. "The education and training of entrepreneurs in Asia." *Edu Train* 43 (2001): 405-416.
- Garavan TN, O'Cinneide B. "Entrepreneurship Education and Training Programmes: A review and Evaluation." *J Eur Indus Train* 18 (1994): 3-12.
- Fiore E. "Article information :Entrepreneurship Education in a Multidisciplinary Environment: Evidence from an Entrepreneurship Programme Held in Turin." *Eur Bus Rev* 19 (2007): 17.
- Martin JP. "Reassessing the OECD Jobs Strategy." (2009).
- Nicoleta G, Chioncel CP. "The Role of Mentoring in Entrepreneurship Training PREMIO Case Study." *CNAE* 3 (2014): 309-314.
- Haines T. "Developing a Startup and Innovation Ecosystem in Regional Australia." *Technol Innov Manag Rev* 6 (2016): 1-9.
- Fiore E, Sansone G, Paolucci E. "Entrepreneurship Education in a Multidisciplinary Environment: Evidence from an Entrepreneurship Programme Held in Turin." *Adm Sci* 9 (2019): 28.
- Pittz TG. "A Model for Experiential Entrepreneurship Education." *J Bus Entrep* 26 (2014): 179-192.
- Stam E. "Entrepreneurial Ecosystems and Regional Policy: A Sympathetic Critique." *Eur Plan Stud* 23 (2015): 1759-1769.
- Fuerlinger G, Fandl U, Funke T. "The role of the state in the entrepreneurship ecosystem: insights from Germany." *Triple Helix* 2 (2015).
- Stam PDE. "The Dutch Entrepreneurial Ecosystem." *SSRN Electron J* (2014).
- Audretsch DB, Belitski M. "Entrepreneurial ecosystems in cities: establishing the framework conditions." *J Technol Transf* 42 (2017): 1030-1051.
- Birrer FAJ. "Science-Trained Professionals for the Innovation Ecosystem." *Ind High Educ* 20 (2010): 273-277.
- Hult GTM, Snow CC, Kandemir D. "The role of entrepreneurship in building cultural competitiveness in different organizational types." *J Manag* 29 (2003): 401-426.
- Suresh J, Ramraj R. "Entrepreneurial Ecosystem : Case Study on the Influence of Environmental Factors on Entrepreneurial Success." *Eur J Bus Manag* 4 (2012): 95-102.
- Glaeser EL, Kerr WR. "Local industrial conditions and entrepreneurship: How much of the spatial distribution can we explain?." *J Econ Manag Strateg* 18 (2009): 623-663.
- Nikolova E, Simroth D. "Religious diversity and entrepreneurship in transition: lessons for policymakers." *IZA J Eur Labor Stud* 4 (2015).
- Deshpande A, Sharma S. "Disadvantage and discrimination in self-employment: caste gaps in earnings in Indian small businesses." *Small Bus Econ* 46 (2016): 325-346.
- Srinivasan A, Venkatraman N. "Entrepreneurship in digital platforms: A network-centric view." *Strateg Entrep J* 12 (2018): 54-71.
- Liñán F, Rodríguez-Cohard JC, Rueda-Cantuche JM. "Factors affecting entrepreneurial intention levels: A role for education." *Int Entrep Manag J* 7 (2011): 195-218.
- Lichtenthaler U, Ernst H. "Opening up the innovation process: The role of technology aggressiveness." *R D Manag* 39 (2009): 38-54.
- Militaru G, Pollifroni M, Niculescu C. "The Role of Technology Entrepreneurship Education in Encouraging to Launch New Ventures." *Balk Reg Conf Eng Bus Edu* 1 (2016): 274-281.
- Manyika J, Roxburgh C. "The great transformer: The impact of the Internet on economic growth and prosperity." *McKinsey Glob Inst* (2011): 1-10.
- Lim S, Trimi S, Lee HH. "Web 2.0 service adoption and entrepreneurial orientation." *Serv Bus* 4 (2010): 197-207.
- Development. "Maharashtra State Innovative Startup Policy 2018." (2018).

45. Nadd T. "Tamil Nadu Industrial Policy." Chennai (2018).
46. Nadu T. "Tamil Nadu Startup & Innovation Policy 2018-2023." 2018.
47. Andhra Pradesh. "Andhra Pradesh industrial development policy." (2015).
48. Bangalore. "Karnataka Startup Policy 2015-2020." (2020).
49. West Bengal. "Start-up-Policy-2016-2021." (2016).
50. Startups. "States' Startup Ranking 2018." (2018).

How to cite this article: Saurav Sonkar and Ashoke Kumar Sarkar. "Entrepreneurial Ecosystem in India: Role in policies." *J Entrepren Organiz Manag* 10 (2021): 302.