CHAPTER 1

NATURE AND SCOPE OF THE STUDY

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CHAPTER 1

NATURE AND SCOPE OF THE STUDY

1.1 INTRODUCTION

Business Incubation is gaining importance worldwide as an effective tool for augmenting the process of innovation and entrepreneurship. Entrepreneurship based on innovation has a tremendous potential to generate large scale employment and provide solutions to problems of the masses\(^1\). However, such entrepreneurship poses a unique challenge because it requires a rich innovation eco system which supports during the most vulnerable startup phase. The challenge is to provide the young innovative startups with adequate resources and the knowhow, which is necessary to build up the scalable and sustainable business model. The major reason behind failure and slow growth of startups has been found to be the lack of quality mentorship, especially in terms of industry knowledge/support\(^2\). Therefore, the worldwide policy initiatives lay emphasis on supporting and nurturing such innovators through business incubation support.

Business Incubation Centers are established to provide workspaces, lab spaces, research and technology assistance, management assistance marketing support, access to funds, mentoring, networking opportunities and overall support in start-up process under one roof. It has been realized that business incubation plays a significant role in supporting the startups at every stage of startup phase and helping them survive and grow at early stage. The establishment and strengthening of Business Incubation Centers is becoming the prime focus of the startup related policies. The survival rate

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\(^1\) Benchmarking of Business Incubators, European Commission Final Report 2002

\(^2\) Eco System for Knowledge to Wealth Creation’, Department of Science and Technology, NSTEDB
of firms in an incubator environment is found significantly higher (80-90%) than the business success rate amongst the wider SME community. (European Commission Report, 2002)

In India, the Government is taking proactive steps to build an eco-system for nurturing innovation led startups. National Science & Technology Entrepreneurship Development Board (NSTEDB) was established in the year 1982, by Government of India under the Department of Science & Technology. It is the institutional mechanism created for promotion of knowledge-driven and technology-intensive enterprises. NSTEDB has been undertaking various kinds of initiatives for promoting technology driven and innovation focused entrepreneurship. The objective is to promote and develop high-end entrepreneurship by utilizing Science & Technology infrastructure and methods. For achieving these objectives, NSTEDB launched two major interventions:

1. The scheme for Science & Technology Entrepreneurs Parks (STEPs), launched in the early 1980’s and
2. The Technology Business Incubators (TBIs) programme, launched in early 2000.

The decade of 2010 -2020 has been declared as the 'Indian Decade of Innovation'. The need of the policy to synergize Science, Technology and Innovation was felt and hence National Innovation Council was established. In the year 2013, a new Science, Technology and Innovation Policy was published, which focuses on Science, Technology and Innovation for social good and creation of wealth for the people. This also emphasizes the need to develop the structured mechanisms and the models to address the pressing challenges of energy, environment, food and nutrition, water and sanitation, habitat, affordable health care, skill building and unemployment. The policy contains the plans for establishment of technology incubation centers and science led entrepreneurship institutions. As a proactive step in this direction, Prime Minister Narendra Modi focused on Entrepreneurship and launched a Ministry of Skill Development and Entrepreneurship.
New policy initiatives which include, Make in India, Startup India, have created significant opportunities to develop new products. This is attracting the youngsters to start up at an early age. However, the business incubation in India is at a nascent stage. As mentioned earlier, National Science and Technology Entrepreneurship Development Board of Department of Science and Technology (Government of India) set up in 1982, has launched Science and Technology Entrepreneurs Park (STEP) and Technology Business Incubator (TBI) programme. Business Incubation Scheme was launched under the Ministry of Micro, Small and Medium Enterprises (MoMSME). ‘Technology Incubation and Development of Entrepreneurship Scheme’ was launched under Ministry of Information Technology and ‘Biotech Park and Incubators Scheme’ was launched under the scheme of Bio Technology. However, so far 120 Business Incubation Centers have been established. These technology based Business Incubation Centers are called as Technology Business Incubators (TBIs).

Under the above mentioned schemes, in Maharashtra also, the Business Incubation Centers have been established. The Business Incubation Centers are concentrated in western Maharashtra only. Maharashtra Government is planning to launch the startup policy in order to create the culture of innovation and entrepreneurship in the state. Considering the significance of technology business incubation, the researcher has made a modest attempt to study the performance of Technology based Business Incubation Centers. This study is based on the evaluation of policies, practices and the need gap from the perspective of the Incubatees of the centers. This would help in promoting the business incubation programme suitable to the needs of the Incubatees in future.

1.2 STATEMENT OF PROBLEM

Technology innovation and entrepreneurship needs a rich and diverse ecosystem that supports in nurturing the ideas and helps in development and commercialization of a product. Technology-based firms have to operate in a more dynamic, uncertain and complex environments. They need the support at every stage from ideation to commercialisation of the
product. In India, technology based Business Incubation Centers have been established to support such startups. Most of the Indian incubation centers are associated with academic and research organisations and are trying to leverage the host institutions ecosystem. However, the nature of business incubation varies in terms of thrust areas, the expertise available and the Incubatee specific needs of the specific region. Considering the significance of business incubation in successful development of Incubatees, it is necessary to evaluate the performance of Incubation Centers in light of the needs of Incubatees in specific region. Hence, this study focuses on performance of Business Incubation Centers in the state of Maharashtra.

1.3 NEED OF THE STUDY

In Maharashtra, though Government and Non-Government organisations are taking efforts for supporting new ventures through Business Incubation Centers, there is a lack of research on the effectiveness of business incubation programs in successful development of new ventures. It is necessary to study the performance of the existing Business Incubation Centers by evaluating the policies, practices and the impact of the incubation programme from the viewpoint of Incubatees. This would help to identify the need gaps and help the upcoming incubation centers to devise the policies and practices suitable to specific needs of Incubatees.

1.4 JUSTIFICATION FOR CHOICE OF THE TOPIC

National Knowledge Commission recommended that synergies between Education (Skill development), Innovation (converting ideas into wealth and employment) and Entrepreneurship should be encouraged. For the conversion of innovative ideas into a product, business incubation support at the source of knowledge is essential. The policies of the Government are emphasizing on the supportive environment for startups. This includes the establishment of technology based Business Incubation Centers. Hence, this is the right time to study the performance of the

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3 NKC, National Knowledge Commission, Report, 2008
Business Incubation Centers and their utility value from the viewpoint of Incubatees. Since the researcher has been taking efforts to develop the business incubation programme on college campus for last four years, she was keenly interested in understanding the policies, practices, critical success factors, impact of business incubation and its contribution in survival and growth of Incubatees, in commercialization of technology and employment generation. The researcher therefore selected the topic, ‘A Study of Performance – Evaluation of Business Incubation Centers’. The researcher intends to study the performance of such centers in the state of Maharashtra.

1.5 **PERIOD OF RESEARCH STUDY**

The period of research addresses the period from inception of the Business Incubation Centers under study to 31\textsuperscript{st} March 2015. The data relates to the period up to 31\textsuperscript{st} March 2015.

1.6 **OBJECTIVES OF THE STUDY**

1. To study the business incubation policies and practices followed by the incubation centers
2. To find out the factors that contribute to the success of Business Incubation Centers
3. To study the challenges faced during start-up phase by client firms
4. To analyse the impact of business incubation services on the performance of Incubatees
5. To study the challenges faced by the Business Incubation Centers
6. To suggest the measures to improve the performance of Business Incubation Centers
1.7 HYPOTHESES OF THE STUDY

**Hypothesis 1**: Business Incubation Centers enhance the ability of client firms to survive and grow

**Hypothesis 2**: Technology Business Incubation Centers foster the growth of technology firms through support for commercialization of technology

**Hypothesis 3**: Business Incubation Centers contribute to employment generation through successful development of Incubatees

1.8 SCOPE OF THE STUDY

Business Incubation in India is highly dominated by the Government sector. The standard mechanism for promotion of Technology based Business Incubation Centers has been developed by Department of Science and Technology (DST), Government of India. These Centers are called as Technology Business Incubators (TBIs). The present study confines itself to the Technology Business Incubators promoted by DST only. The present research covers all five Technology Business Incubators promoted by DST in Maharashtra, which include TBI under Science and Technology Park (Scitech Park) Programme and under Technology Business Incubators (TBIs) Programme of National Science & Technology Entrepreneurship Development Board (NSTEDB).

1.9 LIMITATIONS OF THE STUDY

1. The incubation centers are unique by the nature of host institution, thrust areas, location and Incubatee specific needs. It is hard to compare one with the other.

2. The business incubation is at a nascent stage. Hence, it becomes difficult to measure the performance of the center as well as to measure the impact of services on performance of Incubatees.
3. Confidentiality and non-availability of data, limits the analysis of financial performance of the incubation centers as well as that of Incubatees.

4. Entrepreneur centric factors such as traits, age, experience, motivation etc. are not considered in the present study.

1.10 **CHAPTER SCHEME**

**Chapter I  Nature and scope of the study:** This chapter includes, Introduction, Statement of Problem, Need of the Study, Justification for Selection of the Topic, Objectives of the Study, Hypotheses, Scope of the Study, Limitations of the Study and the Chapter Scheme

**Chapter II  Review of Literature:** This chapter includes the Literature Review relating to Concept of Innovation and Entrepreneurship, Concept of Business Incubation, Technology Commercialization, Challenges faced by Technology Startups, Critical Success Factors, Performance Evaluation, Challenges faced by the Centers, the Research Gap identified and Conclusion

**Chapter III  An overview of Business Incubation Policies & Practices:**
This chapter includes, Introduction Conceptual framework, History of Business incubation, Business Incubation Abroad-Few Models, Business Incubation in India and in Maharashtra. Brief Description of Sampled Business Incubation Centers in Maharashtra, Conclusion

**Chapter IV  Research Methodology:** Introduction, Working Definitions, Universe of the study, Sample Size, Justification for selection of the sample, Objectives of the study, Hypotheses of the study, Methods of data collection, Methodology used to analyse the data, Tools and Techniques used to analyse the data.
Chapter V  Data Analysis and Interpretation: This chapter includes, Introduction, Analysis of survey data relating to Business Incubation Centers, Analysis of survey data relating to Incubatee respondents, Conclusions based on Testing of Hypotheses, Findings relating to Objectives of the Research Study, Conclusion

Chapter VI  Conclusions and Suggestions: This chapter deals with the Conclusions based on analysis of data relating to the centers under study and the Incubatee respondents, Suggestions given by the Researcher to Business Incubation Centers, Academic Institutions and the Government