STARTUPS AND CLIENTS PERSPECTIVE ON TECHNOLOGY BUSINESS INCUBATORS PERFORMANCE

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ABSTRACT

Technology and entrepreneurship often push national economies towards their developmental destinations. Technology business incubators have become popular because of economic development strategies like promoting technology/knowledge-based businesses, culture of techno-preneurship, creation of value added new jobs, Technology commercialization, interfacing and networking of academic – R&D – industries and financial institutions, value added services to its tenants as well as to the existing technology dominated Small and Medium Enterprises (SME) and also technology upgradation activities. Though TBI’s are generally considered to be a major facilitator of Technology Business Enterprises (TBI’s), the experience of their effectiveness has been mixed, especially in the emerging economies’ context. Even though few of the factors have been identified there is no evidence of it being considered by the practicing incubators. Also, most of the researches done so far are incubators centric but has not given due importance to Startups and Clients who actually graduate out of it. It is against the background of such diversity of experiences that comprehensive investigation has been undertaken to assess the roles played by the Startups and Clients and identify key drivers and inhibitors.

Key words: TBI, Startups, Clients, Drivers, Inhibitors.

1. INTRODUCTION

The importance of new technology-based firms to the economy is now widely recognized not only by the western industrialized world, but also by many countries at large, from Asia to Africa. New technology-based firms make significant economic growth in the creation of new jobs.

Another important contribution of new technology-based firms is their catalyzing role to technology and knowledge accumulation process of innovation system. However in reality, among the success stories of the emerging of new technology-based firms, many have failed and collapsed in the early years of their establishment. The firms found a difficulty to develop their innovation capacity. The dilemma that always appears is the choice between to keep innovating (exploring a new market) and exploiting the existing market.

Technology based enterprises are especially attractive to policy-makers because of their higher potential for job creation and wealth generation through business growth as well as their lower disappearance rates compared to non-technology based firms. As new technologies are often developed in R&D institutions, it was such institutions in the Western nations that first took the initiative of providing incubation facilities to transfer these new technologies to the market. The model was later used by public and private agencies for facilitating technology development for new ventures. Such initiatives are now known by the common name of Technology Business Incubators (TBI), some of which are focused on technology transfer and others on Technology development for new ventures.
In spite of the fact that development of SME are key to economic growth and achievement, many believe that new firms and to some extent even the established firms fail due to poor managerial skills, capital deficiency and difficulty in understanding and capturing the market. In order to overcome these deficiencies, entrepreneurs have started looking towards incubators for value added services. Though TBI’s are generally considered to be a major facilitator of Technology Business Enterprises, the experience of their effectiveness has been mixed, especially in the emerging economies’ context. It is against the background of such diversity of experiences that this study undertaken.

2. LITERATURE REVIEW

Best practice may be defined as a process that is better at delivering a particular result than any other process. According to Mosselman et al. [1], better means effectiveness of performance which says doing right things rather aimed at attainment of an activity or scheme.

Storey [2] and Vedung [3] argue that attainment of goal is not enough to measure the outcome of an activity but related to expected outcomes. How the incubators are organized and managed, form the incubator best practices.


The larger numbers of papers identifying lists of outcome criteria are by Chan and Lau [6], Colombo and Delmastro [7], OECD [8]. Perhaps, Mian [9], [10], provided the most comprehensive list by adding management policies and their effectiveness as well as value added services as outcome indicators in relation to goals.

Alireza [11] in his research has identified influential factors that improve the effectiveness of incubators between developed and developing countries. According to his research, organizational procedures and entrepreneurial behaviors were the meaningful mediators. Organizational procedures were stronger mediator for the improvement of Technology Business Incubator’s effectiveness in comparison to entrepreneurial behavior.

Barse [12] and Sherman [13] states that incubators are usually examined as if they have the same outcome objectives, regardless of the fact that no two incubators are alike.

According to Allen and McCluskey [4] and Mian [9], incubators articulate objectives differently depending upon their sponsor’s interests. While, Bollingtoft and Ulhoi [14] say that different priorities exists within the same basic goals.

Bollingtoft and Ulhoi [14], Lyons and Li [15] and Peters et al. [16] accentuates that it is not difficult to distinguish between incubators with different goals whether incubators are run for profit or not. Enhancing economic development and reducing unemployment and stimulating firms with emerging technologies are the main goals of any incubator.

William and Thompson [17] have highlighted that key underlying dimensions of facilitators in a business are innovative needs, competitive position, environment, economies of scale and top management guidance while the inhibitors are the lack of economies of scale and the lack of innovative needs.

In fact, most of the literature available focuses on business incubators, but very few literatures available on Technology Business Incubators. Based on the current knowledge and research of incubators there is a strong need to identify the various factors that contribute to the survival, growth and success of incubators that too in technology driven business incubators. Even though few of the factors have been identified there is no evidence of it being considered by the practising incubators. Also, most of the researches done so far are incubators centric but has not given due importance to Startups and Clients who actually graduate out of it.

3. OBJECTIVES OF THE STUDY

From the literature it is clearly evident that systematic and objective feasibility study of business incubators has been performed to identify the best practices being followed to ensure the survival of graduate firms at a significantly higher rate than the general population of new ventures. Graduated firms in the local area of host incubator are expected to benefit the incubators too and help in restoring public confidence and support.

It becomes very essential especially in a developing country like India to identify the various factors that contribute to the survival, growth and success of incubators that too in technology driven business incubators. Even though few of the factors have been identified there is no evidence of it being considered by the practising incubators. Also, most of the researches done so far are incubators centric but has not given due importance to Startups and Clients who actually graduate out of it. Hence, the objectives of this study are to investigate and assess the roles played by the Startups and Clients and to identify key drivers and inhibitors that contribute further for economic growth, innovation, regional development, job creation and create a good entrepreneurial climate.
4. METHODOLOGY

Research instruments were developed, tested and administered to managers of Technology Business incubators. Their responses were analyzed through factor analysis, one sample t-test and correlation analysis using statistical packages.

The research results for Technology Business Incubators obtained through the statistical tool have identified 11 dimensions. Analysis includes factor analysis for data reduction, one sample t-test to know the significance of factors under each dimension, followed by correlation to understand the relationship between the dimensions.

5. RESULTS AND DISCUSSIONS

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<tr>
<th>Table 1: Significance value for various dimensions</th>
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<tr>
<td>Dimensions</td>
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<tr>
<td>Program Management</td>
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<tr>
<td>Financial Support</td>
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<td>Incubator Goals</td>
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<td>Entrepreneurial Support</td>
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<td>Support Services</td>
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<td>Contribution &amp; Development</td>
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<td>Graduation Policy</td>
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<td>Client Selection &amp; Review</td>
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<td>Incubator Staff Evaluation</td>
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<td>Post graduation Support</td>
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<td>Incubator Resource</td>
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* Significant at 0.05 level

TABLE 1 specifies the significance of each factor at 95% confidence level under each dimension, which signifies the hypothesis stated for the purpose. Further, Correlation analysis is used to describe the strength and direction of the linear relationship between the two dimensions. The relationship was investigated using Pearson correlation coefficient.

6. CONCLUSIONS AND SUGGESTIONS

Based on the results of statistical analyses and the findings of the study following conclusions have been drawn as detailed below:

- **Program management** are regarded as the key drivers in rolling out successful entrepreneurs.
- **Financial supports** have an adverse impact with other relevant dimensions of the study. These are key inhibitors and sincere efforts must be made to overcome them.
- **Incubator Goals** have a positive impact on the performance of incubators and are the key drivers.
Entrepreneurial support factors, being key drivers have positive impact on program management, incubator goals and incubator resources leading to successful entrepreneurship.

Factors of support services are the key drivers in contributing positively towards incubator goals, contribution and development and graduation policy.

Contribution & Development as the key drivers to ensure success of startups and clients.

Factors of Graduation Policy are the key drivers in ensuring successful entrepreneurs.

Client Selection & Review, being a significant dimension contributes positively towards other relevant dimensions of the study and is the key drivers in effective incubation.

Factors of Incubator Staff Evaluation have an impact on the incubation program and hence regarded as the key driver.

The significant factors of Post graduation Support have a positive impact on the incubator performance and are one of the key drivers.

Incubator Resource have adverse impact on all the dimensions considered in the present investigation, thus its factors are the key inhibitors.

7. REFERENCES