

REVIEW PAPER ON BUSINESS INCUBATION – A WAY FOR SUSTAINABLE ENTREPRENEURSHIP DEVELOPMENT

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ABSTRACT

Technological progress and entrepreneurship will change the economic conditions of the country. There is a huge gap between the research findings and commercialization of idea. The gap between the business idea and the real time market can be bridged by the Business Incubator. BI are newer and popular organizational forms that are created, often with the help of economic development agencies, to support and accelerate the development. The paucity of research on business incubation forms the interdisciplinary or multidisciplinary perspectives that consider the different theories of management, organization, strategy, economics and business. The complex nature of BI means they are studied from broader analytical frameworks. Therefore, the aim of this study is to analyze the content and evolution of BI research, identifying the subjects, research methodologies and levels of analysis, as well as the most outstanding authors and articles of greatest impact. The type of incubator, roles, stakeholders in BI, Agri Business Incubator was also reviewed.

KEYWORDS: Agri Business Incubator, Business Incubator, Content Analysis, Entrepreneurship

INTRODUCTION

In the present context, technological progress and entrepreneurship will change the economic conditions of the country. There is a huge gap between the research findings and commercialization of idea. The gap between the business idea and the real time market can be bridged by the Business Incubator. The primary role of Business Incubator is to facilitate the aspiring entrepreneurs by providing them with technical knowhow, easy availability of capital, infrastructure and expertise. The ability and creativity of the Incubatee can be utilized by the incubator to promote new enterprise, which in turn benefit both parties. They are now recognised in both developed and developing countries as a new way to promote entrepreneurship development and technological innovation at the small and medium enterprise level. As a 'one stop' basis service provider, business incubators enable them to reduce their costs by sharing the facilities. Technology oriented business incubators have grown rapidly to over 4,500 world-wide. Rustam Lalkaka (2006), typically, those in the developing countries face unique problems due to the relatively weak infrastructure, lack of support from government, subdued entrepreneurial attitudes and other factors related to their history, geography, culture and other conditions. This scenario is existing worldwide. However, the non maintenance, lack of proper management and poor sustainability in some situations have become serious issues with the governments and sponsors who support them.

Among the approaches being used to promote small enterprises (which are almost always in the private sector), the business incubation modality is now expanding rapidly and giving good results (Rustam Lalkaka, 2006). Business incubator programs help develop new entrepreneurs and enterprises as well as provide support start-ups business' to survive and be in the business on a sustainable basis (Baljeet Singh, 2014). BI are newer and popular organizational forms

that are created, often with the help of economic development agencies, to support and accelerate the development and success of affiliated ventures to achieve economic development goals (Marlow & McAdam, 2011; Peña, 2004). During the past three decades, the BI notion has suffered changes. In the eighties and nineties, it was conceived as an organizational environment, but since 2000 it has been perceived as an institutional environment that are not only crucial for the economic growth and prosperity of a business or sector in a certain country, but also, directly or indirectly contribute to the economic national development and determine other components of a National System of Innovation.

The paucity of research on business incubation forms the interdisciplinary or multidisciplinary perspectives that consider the different theories of management, organization, strategy, economics and business. The complex nature of BI means they are studied from broader analytical frameworks. Therefore, the aim of this study is to analyze the content and evolution of BI research, identifying the subjects, research methodologies and levels of analysis, as well as the most outstanding authors and articles of greatest impact. To this end, we conducted a search of articles on business incubation role, performance, linkages and trends, business incubator types, Indian Scenario in management journals included in the Journal Citations Report (JCR), based on three criteria.

First, publication in one of thirteen major academic journals and conference papers in the field of entrepreneurship –Journal of Information, Knowledge and Research in Business Management and Administration (JIKRBM) , International NGO Journal (INJ), International Journal of Management and International Business Studies (IJMIBS), African Journal of Business Management (ABM), Entrepreneurship Theory and Practice (ETP), Journal of Business Venturing (JBV), International Small Business Journal (ISBJ), Small Business Economics (SBE), Entrepreneurship & Regional Development (ERD), Small Business Management (SBM), Strategic Entrepreneurship Journal (SEJ) – or five important academic journals in the field of technology and innovation management: Technovation (T), Research Policy (RP), Technological Forecasting and Social Change (TFSC), Journal of Product Innovations Management (JPIM) and Technology Transfer (TT), UNESCO Publishing- Science and Technology for Development, International Conference on Business Centers: Actors for Economic & Social Development (ICBC),National Workshop on Technology Parks and Business Incubators

Second, the use of one or more keywords related to BI in the article title or abstract, i.e., business incubator (incubator network, incubator center), business incubation (incubatee, incubation) or incubation model (incubation process, incubation type). Third, publication between 1985 and 2015 inclusive All editor notes, book reviews and review articles in the business incubator domain and replies to published articles were omitted so that the data contained only articles and research notes that were non-invited and peer-reviewed.

We found 15 studies, 10 of which were articles in technology and innovation management journals of high impact included in the JCR; the remainder was published in high impact journals of entrepreneurship. 15 articles met the selection criteria. Articles were categorized by journal, subject and theory framework, qualitative/quantitative analysis and level and subject of analysis. In addition, the reference section of each article was used to count the number of citations from the Institute for Scientific Information (ISI) database.

The structure of this article after this brief introduction is as follows. Details on the literature review of BI, which include the qualitative analysis and some contributions to the literature on levels and subjects of analysis of BI, BI types, stakeholders and followed by Agribusiness Incubation. Finally, the conclusions are recorded including past trends and future directions of research in this subfield of entrepreneurship and agribusiness incubation.

Studies on Business Incubator (BI)

In organizing this article, we have adopted the perspective that BIs are distinct organizations within the entrepreneurial value chain. This value chain comprises the set of organizations whose activities are linked by the successive transformation of resource and knowledge inputs to marketable outputs in the period leading to and shortly after the creation of a new firm. BIs are the intermediate organizations that provide the social environment, technological and organizational resources and managerial expertise for the transformation of a technology- based business idea into an efficient economic organization (Phan, Siegel & Wright, 2005). Therefore, to advance BI research, we first need to carry out a content analysis on types, stakeholders I BI and then contribute to the literature on the levels and subjects of the analysis of BI.

Types, Stakeholders in Business Incubation Model Prevailing World Wide

The traditional business incubator is a micro-environment with a small management team that provides physical work-space, shared office facilities, counseling, information, training and access to finance and professional services in one affordable package. Incubators vary widely in their sponsors (state, economic development group, university, business, venture capital), objectives (from empowerment to technology commercialization), location (urban, suburban, rural, and international), sectoral focus (technology and mixed, now including kitchen and arts incubators) and business model (not-for-profit or for-profit). While these can serve a variety of businesses, in the developing countries the main focus has been on technology incubators for commercializing innovations.

Table 1: Types & Stakeholder Involved

Particulars	World Wide	Studies	Indian Context	Studies
Stakeholders	State/local/provincial government 24 % No sponsor (independent) 18 % Economic development group 18 % Educational institution 20 % Venture capital 8 % Other 12%	Rustam Lalkaka (2006)	Central Government – 50% State Government – 10% Private – 20% Venture capital – 5% Others 15%	ICRISAT ABI (2011)
BI Types	<ul style="list-style-type: none"> • TBIs with Research/University Linkages • Single-sector TBIs • State or regional development incubators • New Economy incubators • Public/private partnerships • Corporate for-profit incubators • Hub incubator with satellites • Internal incubators • International Business Incubator 	Rustam Lalkaka (2006)	<ul style="list-style-type: none"> • Business incubators • Technology Incubators • Technology Innovation Centres • Technology Business Incubators (TBI) • Agri Based Business Incubation 	Santosh & Vinay (2011)
Services Offered	Facilities that add value to selected firms at affordable costs, in order to help them survive and grow.	Rustam Lalkaka (2006)	Physical environment	Koshy (2011)

First Context: Stakeholders

In terms of location, the bulk are urban (45%), then rural (36%) and suburban (15%). The main focus areas are: 43% Mixed use, 34% Technology and Targeted, 10% manufacturing, 6% Services and 7% Empowerment and others. Literature sources are limited in these areas. India had an early start on building small business support, entrepreneurship

and scientific research capabilities. For instance, the Entrepreneurship Development Institute - India, Ahmedabad is world-class and the network of laboratories of the Council for Scientific and Industrial Research with 10,000 researchers, is among the world's largest. With economic liberalization since 1991, India is pursuing the IT industry as a major thrust area, for export and domestic markets. Multiple sponsors bring a variety of concerns and strengths (and conflicting goals). All hope to benefit by the image of a successful program, and in turn bring credibility to the incubator clients. Being a start-up business to serve start-ups, the incubator itself must mimic the dynamism of entrepreneurial ventures, with the prospect of becoming self-reliant within say 5 years of operations. However, the majority of incubators in both developed and developing countries operate on a nonprofit basis and with economic development goals, deriving their incomes mainly from rentals and some from services, supplemented by subsidies (referred to euphemistically as 'infrastructure investment' or 'venture socialism').

Proposition 6: *The major type of BIs are In worldwide majority of the BI are promoted by State Government increasingly in India it relies on Central Government or Foreign sources to promote BI*

Second Context: Types of Incubator

The type of BIs varies from country to country, and there are limited studies done in these areas. Rustam Lalkaka (2006) explains the various types of incubator prevailing world wide. one-third of incubators have a technology focus, in many developing countries the university-linked technology-business incubator is predominant, as noted above. In China, Mexico, the Czech Republic, Indonesia, and Turkey, incubators have university affiliations and technology commercialization objectives. Whereas in Indian situation government sponsored incubators along with a research institute is prevalent (Koshy 2011)

Proposition 7: *In worldwide majority of the BI are Research/University Linkages Single-sector TBIs, in India it relies on Central Government or Foreign sources to promote BI*

Third Context: Services

Initially, some incubators provided an inexpensive physical environment in what had been old or vacant buildings. Later incubators concentrated on the companies themselves, helping them to grow. Incubators offer access to suitable rental space and flexible leases and shared basic business services and equipments, technology support services and assistance in obtaining the financing necessary for company growth. An incubator provides management guidance, technical assistance and consulting tailored to young growing companies (Tsai, 2009; Thierstein, 2008; Tötterman, 2005). Today, most incubators, especially private business incubators, have a company-centered approach, which is charging market rates for rent and offering services as value-added benefits for locating within their incubator. Today's incubators provide access to working capital as well through the provision of debt financing and equity partnerships, government grant/loan assistance, and by facilitating networking and links with business angels, bankers, and venture capitalists. The rationale of incubation is to provide services and facilities that add value to selected firms at affordable costs, in order to help them survive and grow. The services generally offered, depending on local needs, include:

- affordable space on flexible leases, and broad-band connectivity
- shared facilities, such as a receptionist, conference room, office equipment
- desk space and internet facility to help initiate a business plan

- business planning, accounting and legal advisory services
- trade and technology information services
- facilitation to help overcome regulatory and other obstacles
- mentoring by board members and other specialists, on a one-on-one basis
- accessing seed venture capital and angel networks, possibly in-house
- training for skills development in business management and marketing
- assistance in recruitment of staff
- outreach counseling / training for affiliate-businesses outside the incubator
- access to university faculty, facilities, students
- legal advice on the protection of intellectual property
- business promotion and public relations opportunities
- Linkages to international and national support groups.

Some of the above services are included in the rent paid for space. Electricity, communications and these of university facilities may be charged for on a cost-recovery basis, while counseling, training and special services may require payment of fees.

Agri Business Incubation in Indian Context

Baljeet singh (2014) said that India is an agro based economy. The Agri-Business Incubator (ABI) is a place where the process of starting Agri-business venture is catalyzed by supporting the entrepreneurs with Agricultural Technology, Business Consultancy, Networking with Management Experts, Venture Capital Funding, Infrastructure and other facilities. They also provide new opportunities for local customization of products, new employment, new technology, creating entrepreneurial talent and leadership that are required for emerging economies. NSTEDB is responsible for establishment of Technology Business Incubators (TBIs) in India. A similar effort was made by the Indian Council of Agricultural Research (ICAR) through its World Bank funded National Agricultural Innovation Project (NAIP) with the establishment of 10 Agri Business Incubators (ABIs) in the name of Business Planning and Development (BPD) Units across the length and breadth of the country in 2008-09. Table-1 gives the list of these 10 ABIs.

Table 1: ABIS Started by ICAR in 2008-09

S. No	Name of the Agribusiness Incubators/Bpd Unit	Location	Month and Year of Establishment
1	Anand Agricultural University (AAU)	Anand	October 2009
2	Birsa Agricultural University (BAU)	Ranchi	October 2009
3	Haryana Agricultural University (HAU)	Hisar	October 2009
4	Jawahar Lal Nehru Krishi Vishwavidyalaya (JNKVV)	Jabalpur	October 2009
5	Tamil Nadu Agricultural University (TNAU)	Coimbatore	January 2010
6	Indian Agricultural Research Institute (IARI)	New Delhi	December 2008
7	Indian Veterinary Research Institute,	Izatnagar	May 2009
8	National Institute for Research on Jute and Allied Fiber Technology (NIRJAFT)	Kolkata	May 2009

9	Central Institute for Research on Cotton Technology (CIRCOT)	Mumbai	November 2008
10	Central Institute of Fisheries Technology (CIFT)	Cochin	August 2009

Bergek and Norman (2008), unless technology is blended with agri entrepreneurship, the productivity would continue to remain low as in the traditional methods of farming and agribusiness. Opening up of 22 Agribusiness Incubators by Indian Council of Agricultural Research (ICAR) through its World Bank funded National Agricultural Innovation Project (NAIP) in 2008-09 (10 Agribusiness Incubators) and 2013-14 (12 Agribusiness Incubators) has given a boost to technology based entrepreneurship in Agriculture. More so, because these Agribusiness Incubators were housed either in Agriculture Research Institutes or State Agricultural Universities which are generators of Agricultural technologies Prior to this, most of the technologies, even though viable, remained inside the laboratories because scientists neither had skill nor time to commercialize their technologies. It called for managerial and commercial inputs and expertise to commercialize these technologies. This was achieved through establishment of Agribusiness Incubators and manning them with MBA business managers with intensive experience of agri corporate. Within a short span of five years, more than 100 technologies have been commercialized and revenue worth Rs. 10 crores generated, apart from developing a large number of entrepreneurs and providing employment to many others. In real sense, the later 12 Agribusiness Incubators were started looking at the grand success of earlier 10 Agribusiness Incubators.

Proposition 8: *Agri Based Incubators are recent concept to Indian Scenario, the research in this field is very few, that too limited to BIs only.*

FUTURE OF ABI

In the next few years, research on agri-preneurial contributions of ABI can focus on additional services to be provided by the agribusiness incubators, total quality management and standardizing the systems for mentoring to other new incubators and achieving financial self sustainability. Future researchers might examine which entrepreneurial system works best for incubators and how the different actors should interact to optimize the system's performance as a whole. Since an Agribusiness Incubator In-charge has a peculiar dilemma in his mind, that how much of social development and how much of profit making, this could be a very fascinating area of research for future workers. Another issue in measuring the entrepreneurial impact of ABIs is their location in different geographies of the country; the clientele set are also different and have different requirements. Hence the service offerings of different ABIs, if examined in depth also vary widely which makes a blanket comparison difficult.

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