Study of Support and Services Provided by Business Incubators in Entrepreneurship Development

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Abstract

Entrepreneurship is regarded as a critical element of economic system and it contributes significantly to economic development, employment generation, poverty alleviation, and wealth creation. The Indian government is aggressively promoting innovative startups and entrepreneurship while allocating large sums of money to foster entrepreneurship development. This research paper attempted to quantify the services made available by incubators in the development of entrepreneurship, specifically physical infrastructure, networking, financial support, business assistance, and enabling environment services. The information was gathered from business incubators. Descriptive analysis and frequencies were used in the analysis. According to empirical findings, all services have a favorable impact on entrepreneurship. The findings of this study will be useful for researchers, policymakers, and others.

Keywords : Business assistance, enabling environment services, entrepreneurship development, incubators, networking, support and services

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Entrepreneurship is an age-old phenomenon that contributes to the growth and development of a country (Dhochak et al., 2019), but with changes in time, it has become a significant component of economic growth (Aernoudt, 2004; Rijnsoever, 2020). Today, there is a need for entrepreneurs who follow a path of sustainable economic development through innovative startups (Dhochak et al., 2019). Startups during the initial stage face hurdles in running the business due to lack of resources and support (Alpenidze et al., 2019; Lai & Lin, 2015).

Although startups can have assistance from various institutions, incubators play a significant role in providing support and a conducive environment to startups (Bergek & Norrman, 2008; Hackett & Dilts, 2004; Rice, 2002; Smilor, 1987; Soetanto & Jack, 2013). A business incubator is an organization that assists and supports startups in their early stages and bridges this gap (Bøllingtoft & Ulhøi, 2005; Smilor, 1987; Weele et al., 2016). Business incubators provide various support services such as physical infrastructure, networking, finance, training, etc. (Adegbite, 2001; Bruneel et al., 2012; Colombo & Delmastro, 2002; Lalkaka & Shaffer, 1999; Smilor, 1987) so that startups can develop into self-sustaining businesses (Vanderstraeten & Matthyssens, 2012). There are different types of business incubators like livelihood business incubators, university business incubators, virtual business incubators, technology business incubators etc. (Aldammagh, Abdalmenem, Shobaki, 2020; Al-Mubaraki, Al-Karaghouli, & Busler, 2017; Grimaldi & Grandi, 2005). However, the basic objective of all the incubators is to reduce the initial cost of operation (Grimaldi & Grandi, 2005) and increase chances of survival of firms so that they can develop into successful businesses through support and assistance (Rijnsoever, 2020; Smilor, 1987; Vanderstraeten & Matthyssens, 2012).

Understanding the significance of incubators in terms of economic growth and job creation (Adegbite, 2001), the

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government of India was an early adopter of incubators as a tool for encouraging entrepreneurship. In 1984, the government began the incubation process by establishing Science and Technology Entrepreneurship Parks (STEPs). Currently, there are Technology Business Incubators (TBIs), University Business Incubators (UBIs), Science and Technology Entrepreneurship Parks (STEPs), co-working spaces etc. (Grimaldi & Grandi, 2005; Pena, 2004), and various government initiatives to promote entrepreneurship in the country (Dhochak et al., 2019). Approximately 80% of these are funded by various ministries such as the Ministry of MSME, DST, DBT, DIETY, the Ministry of Agriculture, and state governments. The remaining 20% are private sector initiatives such as corporate accelerators, regular accelerators, and co-working spaces. The government has set up the Atal Innovation Mission for the promotion of Entrepreneurship in India. The government has also launched Startup India portal to help startups and connect startups to incubators, accelerators, mentors, investors etc.

According to Savings Bank Foundation (Funcas), there are around 4,000 business incubators currently in the world (Lian, 2020). In India, there are 844 incubators registered under Startup India Scheme as reported in August, 2021. Table 1 shows state-wise list of incubators in India.

While business incubators provide a supportive environment to startups, it is critical to investigate the support and services provided by incubators in India. The present study attempted to examine the performance of incubators in terms of support and services provided. Thus, the objective of the research is to study the present status of support and services provided by business incubators in India and suggest measures to improve and strengthen the functioning of business incubators. Accordingly, the paper consists of various sections.

Literature Review

(1) Background

The "Business Incubator" concept has been gaining popularity since the 1980s and the importance of incubators has been discussed by many scholars (Aernoudt, 2004; Aerts, Matthyssens, & Vandenbempt, 2007; Ahmed, Li, Qalati, Khan, & Siddiqui, 2020; Al-Mubaraki & Busler, 2017; Bergek & Norrman, 2008; Hackett & Dilts, 2004; Jamil,

Table 1. Number of incubators in India – Statewise list of incubators

Andaman and Nicobar	8
Andhra Pradesh	26
Arunachal Pradesh	2
Assam	9
Bihar	17
Chandigarh	7
Chhattisgarh	13
Delhi	77
Goa	10
Gujarat	54
Haryana	26
Himachal Pradesh	2
Jammu & Kashmir	4
Jharkhand	5
Karnataka	99
Kerala	42
Madhya Pradesh	33
Maharashtra	90
Manipur	1
Meghalaya	1
Mizoram	5
Nagaland	1
Odisha	33
Puducherry	2
Punjab	18
Rajasthan	42
Sikkim	4
Tamil Nadu	101
Telangana	62
Tripura	2
Uttar Pradesh	64
Uttarakhand	8
West Bengal	16

Source : StartupIndia (n.d.)

Ismail, Siddique, Khan, Kazi, & Qureshi, 2016; Lumpkin & Ireland, 1988; Mcnamara, 1994; Merrifield, 1987; Mian, 1996; Pena, 2004; Rice, 2002; Soetanto & Jack, 2013; Soetanto & Jack, 2016). Mcadam & Mcadam (2008) specified that the most significant element in the early stages of incubation is physical infrastructure. In another study, McAdam and Marlow (2007), Mian (1997), and Spuy (2019) indicated that along with services such as shared offices, incubators provided nurturing support and environment. Bergek and Norrman (2008), Bruneel et al. (2012), Busler and Al-Mubaraki (2014); Dhochak et al. (2019); Rice (2002); Rijnsoever (2020); and Smilor (1987) stated that most incubators assisted entrepreneurs and startups by offering a variety of services such as low rent, shared services, business assistance, mentoring, networking, and support. Incubators provide various support and services through their incubator staff and consultants. The services offered by incubators have evolved over time. In general, incubators are thought to provide a safe environment such as office space, mentoring, and guidance. Colombo and Delmastro (2002), Grimaldi and Grandi (2005), Hackett and Dilts (2004), and Phan, Siegel and Wright (2005) expressed other attributes of support and services such as social network, legal, and intellectual protection rights advice, recruitment, access to capital resources, and access to technical facilities. According to these studies, the prospect of business incubators is expanding. The attention of incubators is shifting from traditional and tangible to more specialized and intangible services (Patton et al., 2009; Schillaci et al., 2011). Earlier studies focus on physical facilities such as subsidized rent (Bruneel et al., 2012; Mrkajic, 2017) and administrative services such as shared office services (Mian, 1997; Rice, 2002; Smilor, 1987), with recent focus more towards business support and networking and virtual incubation (Hackett & Dilts, 2004; Mrkajic, 2017; Sá & Lee, 2012; Soetanto & Jack, 2011). According to Rice (2002), support services are provided depending upon the objectives of the incubator. Dee, Ford, and Garnsey (2008) and Mcadam and Mcadam (2008) asserted that choice of service that incubator offer depends upon need and characteristics of startups as need for service depends upon industry focus and stage of incubation.

Several studies have found that incubators help startups and new ventures for a variety of reasons (Ahmed et al., 2020; Busler & Al-Mubaraki, 2014; Dee, Gill, Lacher, Livesey, & Minshall, 2012; Mian, 1997). Policymakers see incubators as a tool for delivering value-added services (Barbero et al., 2013) and to promote innovation for the development of firms (Aaboen, 2009). As the services offered by business incubators and the needs of the local economy are crucial for the growth of incubators and startups, government must take appropriate actions and policies to ensure the smooth operation of business incubators (Hackett & Dilts, 2004; Xiao & North, 2017).

(2) Theoretical Review

Various researchers have proposed various theories. However, resource-based theory serves as the foundation for this research. According to resource-based perspective, a business incubator is defined as an organization that owns resources that can be shared and used at subsidized rates by incubates (Colombo & Delmastro, 2002; Mcadam & Mcadam, 2008; Mrkajic, 2017; Rice, 2002). A business incubator acts as an intermediary between the business environment and incubate. This assists entrepreneurs in obtaining the resources they require for their businesses. (Aaboen, 2009; Hackett & Dilts, 2004). According to the theory, incubators' unique and valuable resources provide firms with competitive advantages (Vanderstraeten & Matthyssens, 2012). Incubators provide tangible resources such as physical infrastructure, capital, finance etc. to tackle problems of newness (Tötterman & Sten, 2005). Incubators also provide intangible resources such as networking, assistance, knowledge etc. to improve the capabilities of new firms. The need for tangible and intangible resources varies from firm to firm because different firms require different resources (Soetanto & Jack, 2011).

(3) Entrepreneurship Development

Entrepreneurship is an old phenomenon that contributes to the economic growth and development of a country (Aernoudt, 2004; Dhochak et al., 2019). The role of innovation and entrepreneurship in fostering economic development has created a strong stimulus in developing countries (Ahmed et al., 2020). Entrepreneurs are generally known as the key agents of economic development; the individuals who translate ideas into real-life projects.

(4) Business Incubators

Business incubators are recognized as essential instruments for fostering entrepreneurship development in both developed and developing countries (Adegbite, 2001). There is no standard definition of business incubators because the services provided by incubators have evolved over time (Bergek & Norrman, 2008; Breivik-meyer et al., 2019; Bruneel et al., 2012). Business incubators are organizations that were established to assist startups in their development phase (Mian, 1997). However, as per the European Commission (2002), the word "business incubator" is frequently used in its broadest sense to refer to a wide range of organizations that help entrepreneurs develop their ideas from commencement to commercialization and the opening of a new enterprise. The National Business Incubation Association (NBIA) (2014) defines a business incubator as "an organization that supports businesses with business planning, counseling, financial assistance, and facilities concentrating on startups". Business incubators are classified according to their purpose, ownership structure (whether privately or publicly owned), service portfolio, management features, and so on (Aerts et al., 2007; Al-Karaghouli & Busler, 2010; Bøllingtoft & Ulhøi, 2005; Grimaldi & Grandi, 2005).

(5) Support and Services

Incubators' support and services are required to assist tenant firms in gaining access to the necessary resource base that may not be available to incubate. Different services are needed depending upon the stage and type of venture. Here, we are concerned about those types of services that are of utmost importance and definitely impact the firms that leave from incubator. There are five distinct service categories, these are physical infrastructure, networking, financial support, business assistance, and enabling environment services that are connected with the early growth of startups which we are focusing on.

(1) Physical Infrastructure (PI) : Survival and growth of new firms need support. Support can be low cost infrastructures such as offices, facilities, parking, and access to equipment such as machines and tools. Incubators provide subsidized physical infrastructure facilities to entrepreneurs for covering the initial cost of business as resources are important to start a business (Bøllingtoft, 2012; Bruneel et al., 2012; Lalkaka & Shaffer, 1999; Mrkajic, 2017; Patton et al., 2009).

(2) Networking (N) : Linkages are very crucial for new startups. Thus, networking means sustaining the business with vital knowledge about connection with stakeholders such as venture capitalists, business angels, mentors, etc. Different networks that are available in incubators include social networks, supplier networks, customer networks, finance networks, entrepreneur to incubated startup networks. Wide incubator network ensures strong business connections that help in the development of tenant firms (Bøllingtoft & Ulhøi, 2005; Bruneel et al., 2012; Hackett & Dilts, 2004; Rice, 2002; Rijnsoever, 2020; Salem, 2014; Tötterman & Sten, 2005).

(3) Financial Support (FS) : One of the most difficult challenges that new startups face is obtaining financial resources. Incubators assist startups in obtaining funding by providing access to public grants, seed capital, and bridging capital from internal and external sources (Dee et al., 2012; Grimaldi & Grandi, 2005; Hackett & Dilts, 2004; Shehada, Talla, Shobaki, & Abu-naser, 2020; Xiao & North, 2017).

(4) Business Assistance (BA) : It includes training, legal assistance, business development support, general management expertise, secretarial support, marketing assistance etc. Through various assistances, incubators assist tenant firms in gaining the necessary business knowledge and experience to start up (Baraldi & Havenvid, 2015; Bergek & Norrman, 2008; Bøllingtoft & Ulhøi, 2005; Mcadam & Mcadam, 2008; Mrkajic, 2017; Rothaermel & Thursby, 2005).

(5) Enabling Environment Services (EES) : Incubators assist startups in lowering their initial costs by providing

assistance, receiving regular feedback, handling grievances, connecting incubates with necessary resources, and so on. Care is being taken to know the requirements of incubates and provide assistance to them. Graduated incubates that are successful also help and motivate new firms (Busler & Al-Mubaraki, 2014; Cooper, 1985; Kiran & Bose, 2020; Ven, 1993; Venkataraman, 2004).

Research Methodology

Previous studies relied on qualitative methods and primarily focused on exploratory research. Quantitative techniques were employed only in a few studies. In this study, quantitative methodologies were utilized to investigate and evaluate the support and services provided by incubators in the development of entrepreneurship. The period of research was March, 2021 to April, 2022. Data for this study was gathered at various levels from both primary and secondary sources. The study's respondents included incubator managers. Based on extensive literature and analysis, a questionnaire was developed that took into account different service spectrums. Primary data were gathered from incubators via an online survey (questionnaire). Secondary data were gathered from various websites and studies to generate a subjective viewpoint and a better understanding of the study topic. This study gathered data using a 5-point Likert Scale to evaluate various services. Basic information as well as the extent to which incubators provide services was requested. Data were gathered from incubators in Delhi from January 2021 to August 2021. Data from 10 incubators were collected using Convenience Sampling strategy. The quantitative data collected from the questionnaire were examined using SPSS 22. Descriptive statistics and frequencies were used for statistical analysis of data.

Results

Descriptive analysis was conducted on sample data to know the extent of services offered by incubators. Most of the incubators established after 2008 were included in the study. Sample incubators have successful incubated firms. According to the data, all of the incubators in the study offer both pre and post-incubation services. 80% of the sample incubators provide mentoring depending on the need of the incubates. From the data, it is found that tenants can get benefit of personalized services from specialized incubators. In all, the statement Mean is more than four which is significant indicating that all the services, that is, physical infrastructure, networking, financial support, business assistance, enabling environment services are considered very important and must be provided by incubators for entrepreneurship growth.

Table 2 shows that the Mean of all the category of service is more than four, so it can be concluded that these services are vital and should be provided by incubators. Specifically, Mean of Physical Infrastructure (PI) is equal to 4.3 which means that physical infrastructure is a core service as most of the incubators are interested in providing a suitable location, necessary equipment, training and consultancy, and logistics to entrepreneurs.

Table 2. Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
PI	10	3.25	5.00	4.3000	0.57494
N	10	3.50	5.00	4.2833	0.43069
FS	10	3.67	5.00	4.2833	0.39323
BA	10	3.33	5.00	4.3500	0.54120
EES	10	4.00	5.00	4.4667	0.32203
Valid *N* (listwise)	10				

Note: 5 = Strongly Agree, 4 = Agree, 3 = Neutral, 2 = Disagree, 1 = Disagree

Mean of Networking (N) is equal to 4.28 which means that Networking is a key service as most of the incubators are interested in providing tenants specific meetings occasionally and tailor-made education events, holding meetings of tenants and companies, intra-entrepreneur networks (co-venturing), internal incubator network, and incubator industry network to incubates.

The mean of Financial Support (FS) is equal to 4.28 which means that financial support is an essential component as most of the incubators are interested in providing funding for the incubated projects, linking the start-up projects with fund providers, determining the financing needs of the start-ups, train entrepreneurs to do a financial feasibility study, train entrepreneurs to use crowdfunding platforms and coordination between the private sector and start-ups for funding.

The mean of Business Assistance (BA) is 4.35 which means business assistance is a vital factor as most of the incubators are interested in providing secretarial services, legal services, technical assistance, human resource management services, marketing assistance, and assistance in product development activities. The mean of Enabling Environment Service (EES) is 4.47 which means that Enabling Environment Service is necessary and important as most of the incubators are interested in reducing the time required to develop marketable products/services, reducing early-stage operational costs, providing assistance in accelerated development of new firms, helping companies in establishing credibility, taking periodic feedback about support and services provided, and having the formal procedure for handling grievances.

Implications

This study adds to the body of knowledge in areas of critical importance such as business incubator services and entrepreneurship development. It increases awareness of importance of business incubator services in entrepreneurship growth. Scholars and professionals can use the findings of this study as a starting point for additional research into entrepreneurial policies and practices. If the study's findings are put into reality, they will go a long way towards fostering entrepreneurship development and, as a result, economic growth in both developed and developing countries.

Conclusion

The significance of a business incubators is undeniable. Business incubators have an impact on a wide range of economic operations such as increasing financial community confidence, assisting start-ups, creating a culture shift, fostering an entrepreneurial culture, assist businesses outside of incubators, and serve as catalysts for the establishment of larger business support networks.

Through its Make in India program, India now places a greater emphasis on incubation centers and incubators. In this context, the study of support and services provided by incubators in entrepreneurship development is so vital. According to the findings of this study, business incubators play an essential role in entrepreneurship development by offering needed services such as physical infrastructure, networking, business assistance, financial support, and an enabling environment.

The business incubation process should be very qualitative in all aspects to assist start-ups in efficiently acquiring capacities. A strong relationship was found among physical infrastructure, networking, business assistance, financial support, and an enabling environment service for entrepreneurship development but their extent needs to be increased for meaningful development of startups. Funding is provided depending upon the project and sometimes a deal is structure containing a mixture of grant, debt, and equity. Services should also be customized according to their needs. As a result, these services should be expanded, and the quality of other services should be improved, assistance should be provided to entrepreneurs in surviving and growing their businesses. Formal networks with business and industry bodies could give a variety of benefits including managerial, financial, and technological services, and legal guidance, all of which could help enterprises significantly improve their performance. Government should try to support

incubators so that they can provide needed services to incubates. Incubation contains more than simply infrastructure, finance, and services; it also includes accelerator programs, introduction to essential players and potential consumers, technical and business mentors, and much more.

Limitation and Recommendations

The research was limited to a few Delhi based incubators. Data from other state incubators can be reviewed to determine the level of assistance and services available. Only a few factors were used in this study. Other variables such as government support, supplier access, client networks, database access, legal aid etc. can be used in future studies. The lack of a solid database and the requirement to make personal contact with incubators participating in the study are the other limitations. In a similar vein, many websites of incubators are out-of-date. It is suggested that state institutions, the government, academic and private sector organizations across India start with business incubators and accelerators to promote rapid growth in the small and medium scale sector. The government should allocate a higher budget for incubators to enhance economic conditions and support entrepreneurship growth.

Scope for Further Research

This study pertains to incubators in Delhi only, more studies can be conducted in different states of India. Comparative study can also be done on incubators across states or countries. Overall development of incubators can also be studied year wise.

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Authors' Contribution

Daniya Siddiqui carried out data acquisition, data analysis, and data interpretation apart from major research work. Naseeb Ahmad developed the concept, helped in designing and revising the manuscript.

Conflict of Interest

The authors certify that they have no affiliations with or involvement in any organization or entity with any financial interest or non-financial interest in the subject matter or material discussed in the manuscript.

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