Chapter

Business Incubator and Economic Development

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Abstract

This chapter aims to (i) understand the functioning and importance of incubators in supporting the creation of new business and local economic development, as they help locally engage young entrepreneurs and thus retain expertise, for example, in regions farthest from large urban centers, (ii) realize the importance of incubators and science parks in the development of start-ups, (iii) understand the role of education in promoting entrepreneurship, and (iv) understand the competitive environment as it becomes more complex and dynamic, as there are opportunities to serve customers who are dissatisfied; thus the threats that large companies experience offer small business opportunities.

Keywords: incubators, start-ups, small business, economic development, education

1. Economic importance of incubators

An incubator is a way for the community to help entrepreneurs who have good ideas but do not have the resources to start their activities independently.

Small business incubators are a way of boosting economic development, whose practice began in the United Kingdom since the 1970s as artists' cooperatives, often being located in historic buildings. In the USA, incubators have been used, for example, to (i) assist the recovery of ruined and impoverished neighborhoods, (ii) promote scientific innovation by linking partnerships between universities and business, and (iii) help entrepreneurs who want to expand their specialist knowledge through interaction with other small business owners [1–3].

1.1 The role of small businesses in the local economy

Interest in incubators lies partly in the role that small businesses play in most local economies, for example, in the jobs created and the innovation generated. Furthermore, small businesses can be developed in greater numbers faster than the larger companies often not local.

Incubators are a vehicle of aid to local entrepreneurs as they constitute the local economy and are more likely to maintain their activity locally than multinational enterprises. In addition, supporting the creation of small local businesses can help locally engage young entrepreneurs by avoiding the loss of specialized skills in some geographical regions of the interior. However, there is a risk that 50% of small businesses will fail in the first 4 years of operation. This reality has diverse implications for local economic development, in the following aspects [4–6]:

- Small businesses are important because they can generate employment for residents.

- Small businesses often carry out activities in areas of technological innovation or artistic or creative areas that do not require many resources to operate the business.

- The development of small businesses contributes to the creation of local and regional economic capital (specialized knowledge and brands).

- Significant efforts must be made to ensure that the companies created will not fail.

- Because of the risk of small business failure, incubators should not be seen as the cornerstone of an economic development strategy but rather as a contribution of efforts to promote the development of SMEs in a given community.

A brief note to mention is that start-ups usually fit into the reality of a small business.

1.2 Objectives of incubation programs

Start-up incubators support the creation and growth of business through organizational and technical assistance, which at the same time contributes to the reduction of entrepreneurial failure. The three most common objectives of incubation programs are the following [5, 7]:

1. The creation of employment in the community

2. The creation—or acceleration of growth—of a local industry

3. Diversification of the local economy

The incubation can be physical or virtual. Virtual incubation does not consist of a work space, but it is included in a credible address destined to the market for professional contacts, including the holding of work meetings. We can affirm that an incubator is constituted by a common space of which a space (like office) is made available that is used for the beginning of activity of a new business. The price of rents may be lower than the market price due to public subsidies to promote entrepreneurship.

In addition to lower incomes, location sharing, or coworking among start-ups with similar activities, the incubator includes a set of support services to serve the technical and operational needs of start-ups, often owned by inexperienced entrepreneurs. In turn, coworking constitutes a physical space that fits a transversal work model for entrepreneurs with similar activities at the level of operational resources. It is a functional structure that allows entrepreneurs to have an office as reference location and professional contacts, enjoying a series of services shared with other entrepreneurs.

1.3 Physical installations

The physical facilities provided by the incubators may take different forms depending on the sector of activity of the start-ups to be incubated. For example, the service start-up incubator may consist of individual offices with shared common areas (reusing a residential or commercial space), while incubators for high-tech manufacturing start-ups require larger spaces (industrial buildings).

1.4 Benefits offered by incubators

Business incubators offer tangible and intangible benefits to start-ups [7, 8]. Tangible benefits often include the following operational aspects:

- Shared use of equipment such as photocopying machines, telephones, computers, and Internet access
- Shared conference spaces and meeting rooms and informal interactions with other incubators
- Shared services for start-ups, such as secretarial, accounting, marketing, and legal support
- Technical assistance in marketing plan, business plan, financial system, and accounting
- Joint acquisition to suppliers and links between incubated start-ups relative to operating factors upstream and downstream in the value chain
- Assistance in obtaining funding in the start-up phase

The intangible benefits derive from the ability of entrepreneurs to act as a support system among incubated start-ups. Intangible benefits are more likely to occur among start-ups with similar activities. For example, incubated high-tech start-ups can share the development of ideas and innovation. Biotech start-ups can support each other in the development and commercialization of innovative products.

Even in incubators with start-ups operating in distinct sectors of activity, entrepreneurs can share their experience, ideas, and knowledge on certain subjects such as marketing, product development, recruitment, and accounting.

Following the above, we can briefly state that the main objective of incubators is to support the development of start-ups, which leave the incubator when they increase in size or become sufficiently stable to operate without specific benefits offered by the incubator. This makes room for other start-ups to start their incubator operations.

2. Economic development instruments

There are several economic development tools that can be used in conjunction with the incubation of start-ups, which will be addressed in the following subsections.

2.1 Small business financing

For entrepreneurs, money is a resource but not an end in itself. It is true that an innovative idea needs capital to subsist. It is also true that a large number of businesses fail due to lack of adequate funding. However, other resources are equally vital to entrepreneurial success, such as specialized work teams and sales and distribution capabilities. Having financial capacity is not (always) a guarantee that the appropriate resources are put together in the right way and at the right time.

Initial or seed financing programs can take a variety of forms and are often used in combination with the most effective incubators. Small loans from investment funds (made up of grants from the government and/or local government), with below-market interest rates, are provided to support the creation of new businesses [9]. As the loans are paid, the money of the fund is reinvested in subsequent deals. The incubators can also help start-ups incubated to obtain financing, first linking up with business angels and venture capital investors and on the other hand giving technical support in the preparation of documents and presentations.

Business angels invest in small start-ups or entrepreneurs, can have multiple origins (including family or friends of the entrepreneur), and invest in one go to boost the business or make a continuous injection of money to support the company in the early stages more difficult. Venture capital consists of investor financing for start-ups and small businesses that are believed to have long-term growth potential. For companies that do not have access to the capital market, venture capital is an essential source of money. The risk is typically high for investors, but they have intervention in company decisions, which is a disadvantage for the company funded.

Business angels offer advantages compared to venture capital: business angels invest in the early stage of the business, that is, they help start-ups take their first steps in the market, while venture capital investors bet on the viability of the business and can profit from the business by the investment. In this sense, business angels are the opposite of venture capital investors.

Another way for entrepreneurs to get the resources they need or use is through crowdfunding, which is a process directed at individuals to raise funds to finance a specific cause or project in return for a variety of rewards. Thus, we can say that crowdfunding bases its dynamics on raising funds to finance a business or a project: (i) in exchange for share capital; (ii) in exchange for tangible, non-monetary rewards, such as a product finished; or (iii) in exchange for a financial return at a future date.

2.2 Industrial parks

Although not essential to the effective operation of a small business incubator, there are benefits to locating it within municipal industrial parks. The incubator can provide a space with the necessary infrastructure at the lowest cost and close to similar start-ups. The industrial park also wins with the installation of the incubator, as it enhances the local demonstration effect for the creation of other start-ups. Incubators can also be installed in old abandoned facilities (state, military, and industrial) to stimulate local development [10].

2.3 Professional qualification

Employment and skill development programs enhance local qualifications, increasing individuals' willingness to develop innovative start-ups or collaborate on incubated start-ups. The existence of qualified human resources at the level of high technology facilitates the development of start-ups.

2.4 Entrepreneurial training

Programs aimed at the emergence of local entrepreneurs are directly complementary to the start-up incubators. These programs provide the necessary skills and competencies—for example, marketing, financial planning, hiring and human resource management, information systems and strategy—to successfully build and manage start-ups.

2.5 Investment in education

In addition to entrepreneurship training, investing in local education infrastructure is a boon to the development of start-ups. Educational institutions provide the human resource base crucial to economic development. Thus, higher education institutions can create a series of synergies with the community—for example, service delivery and the development of strategic partnerships—increasing the effectiveness of start-up incubators. Universities are sources of new ideas to create start-ups of high technology and with differentiated value for society. The faculty can, on the one hand, provide students with the necessary skills to encourage the creation of start-ups and, on the other hand, provide services to the community, thereby contributing to economic growth.

3. Education in the development of entrepreneurship

Education plays a vital role in the development of entrepreneurship in society. Being the curricular structure of higher education courses—first and second cycles—is a good indicator of the relationship between the training provided (knowledge transmitted) in educational institutions and the technical skills and competences needs verified in society and in business fabric.

Currently, there is a great difficulty in obtaining a job where the knowledge acquired in a higher education course can be applied, through the conclusion of a stable employment contract, and with a remuneration proportional to the education effort carried out as a personal investment. Therefore, it is imperative to adapt the education system to the challenges in the labor market. Therefore, rather than teaching someone to work for entrepreneurs, it will be necessary to pass on knowledge in order to encourage the emergence of new entrepreneurs in the community.

The university as a reference in entrepreneurship education contributes to the preparation of future economic actors through the execution of programs in entrepreneurship. This allows you to impart knowledge and techniques that facilitate the creation of a business and simultaneously encourage students to create new business. In this way it is possible to increase the entrepreneurial potential of the students, but few start new business during and after the conclusion of the studies [1, 11].

In this sense, the entrepreneurial education constitutes a challenge, on the one hand, to the institutions of higher education in what concerns the design and implantation of incubation in articulated network with diverse economic actors and, on the other hand, to the traditional pedagogical methodology of transmission of knowledge and learning in the classroom.

Therefore, entrepreneurship education aims at increasing students' awareness of the various aspects of business creation, emphasizing a philosophy of learning oriented to practice and action in a turbulent environment.

4. Creating business in a turbulent environment

Entrepreneurs are challenging existing competitive assumptions by creating value for consumers through new forms of business. This created value may lead to consumer willingness to (i) pay for a new benefit, (ii) pay more for something perceived as better, or (iii) receive a previously available benefit at a lower cost. Consequently, value translates the willingness of the consumer to purchase a product or a service, at a certain price, for recognizing attributes that contribute to their satisfaction of needs, fulfillment of wishes, or resolution of a problem [12].

The constant value creation imposed by increased competition is changing management practice by redefining operational activity in the fields of production, sales, and distribution of products and services. This competitive reality stems from an unstoppable, complex change in which advances in technology combine with the development of suppliers and customers. We can identify eight major areas of change in the competitive environment:

1. *Technological environment*: accelerated development of new technologies, rapid product obsolescence, and greater difficulty in protecting intellectual property

2. *Economic environment*: unpredictability of prices, operating costs, exchange rates, interest rates, tax incentives, and shorter business life cycle

3. *Competitive environment*: highly innovative competitors, competition from nontraditional strategies, and threat of new competitors who may also be customers or business partners—which sets up a competition between economic actors

4. *Work environment*: shortage of skilled employees, greater mobility and less employee loyalty, increased employee costs, and contractual obligations in labor relations

5. *Resource environment*: increasing scarcity of resources, increasingly specialized resources, limited alternative sources, and rapid obsolescence of resources

6. *Customer environment*: greater demand through varied channels, more complex customers in markets that are more fragmented or atomized (more competitors), more segmented (greater variety of customers) and focused on creating value for the consumer—which stems from an innovation process that establishes or enhances the consumer's assessment of the consumer benefits (value in use) of a product or service

7. *Legal and regulatory environment*: more aggressive regulation, virtually unlimited product liability, increasing regulatory compliance costs, increased emphasis on free and fair trade, and increased environmental regulation and associated compliance costs

8. *Global environment*: real-time communication and production, distribution to anywhere in the world, suppliers as business partners, customers and competitors more sophisticated and located anywhere in the world, and obtaining a competitive advantage, for example, by means of outsourcing and strategic alliances

This change has important implications for business, as many entrepreneurs struggle more to survive than to achieve sustained growth. Stakeholders are constantly changing (customers, suppliers, distributors, alliance partners, and regulators). As the required resources (physical, organizational, technological, and human) have become increasingly specialized and less predictable in terms of the duration of their competitive relevance, entrepreneurs tend to contract in the short term the use of resources subject to greater competitive obsolescence, instead of opting for their acquisition.

Thus, entrepreneurs have, in general, a lack of control over their competitive environment. And the size of business is not an unequivocal condition of success. However, the exploitation of valuable, rare, and inimitable resources generates a sustainable competitive advantage and, consequently, a superior performance in the market [13].

4.1 How to get a sustainable competitive advantage

Turbulence in the competitive environment has caused and forced a transformation in management operations. Traditional bureaucratic models, hierarchical management systems, and a philosophy of controlling the company's operations are not feasible in the contemporary competitive environment. However, it is not clear what gives us assurances of working well, but management must consider that the organizational structure, leadership style, and ways of rewarding and motivating employees can contribute to increases in competitiveness.

There is also a positive side to the competitive environment as it becomes more complex and dynamic, as there are opportunities to serve customers who are dissatisfied. Traditionally, competitive advantage was achieved through a number of strands, namely:

- Lower costs than competitors
- Offer superior product quality
- Addition of new product features
- Providing better customer services

At present, the continuous improvement of these aspects is a minimum criterion for maintaining market competitiveness.

The pursuit of competitive advantage requires entrepreneurs to continually reinvent business and can come from five key capabilities:

1. *Adaptability*: timely adjustment to new technologies, customer needs, regulatory rules, and other changes in competitive conditions without losing the focus of their core business.

2. *Flexibility*: design strategies, processes, and operational approaches that can simultaneously meet the diverse demands of stakeholders (customers, distributors, suppliers, financiers, and regulators).

3. *Speed*: act quickly on emerging opportunities, develop new products and services more swiftly, and make critical operational decisions without lengthy deliberations.

4. *Aggressiveness*: a focused and proactive market approach in order to differentiate itself from competitors, retaining customers and motivating employees.

5. *Innovation*: continuous priority of development and launch of new products, services, and technologies, aiming at market leadership.

The most adaptable, flexible, fast, aggressive, and innovative entrepreneurs are best positioned not only to adjust to a complex, threatening, and dynamic competitive environment but also to create the change in that environment. Entrepreneurs must affirm themselves as agents of change by leading clients instead of following them, creating new markets and defining new competitive rules [14].

Entrepreneurship is the main source of sustainable competitive advantage through the production and/or marketing of products and services that are more advanced than the competition, i.e., unique in the market compared to the value supplied to consumers.

4.2 Change as an opportunity for small businesses

Although competitive instability is most felt in some sectors, none is immune to its challenges. Increasingly, competitive conditions in markets become unpredictable beyond the short term. This economic landscape has implications for entrepreneurs, which can turn in their favor.

A measure generally adopted in the face of aggressive price pressure from competitors is to reduce costs to the lowest possible levels. The goal of this cost reduction effort is often the workforce (the employees), but the need to produce the product or provide the service remains. Hence, suppliers are used to perform the operational tasks eliminated via downsizing, engaging in outsourcing, which has become a business opportunity for small businesses, which include small and microenterprises.

The threats that large companies experience offer small business opportunities. In addition to receiving outsourcing requests, a small business can also compete in another market based on subcontracting services to other companies.

In reality, a small business can establish partnerships (strategic alliances or joint ventures) with a variety of suppliers covering value chain activities and thus can enter into markets it might not otherwise be able to achieve. In practice, we are talking about a virtual company, that is, a company that does not have the (own) resources needed to compete in a particular market segment but has the possibility of forming partnerships with other companies in order to perform the key management functions to the pursuit of the own business [15, 16].

Another change that is happening in the markets is their continued fragmentation (increase in the number of competitors) or the development of niches. Within the markets there are small groups of consumers who value a set of unique attributes in a product, which is a niche market. Many niches do not interest large corporations because they are small in terms of turnover, providing small businesses with business opportunities. To benefit from these opportunities, entrepreneurs must focus on a clearly identified market niche so that they understand and meet the expectations of these consumers.

4.3 Advantages of small businesses

Small businesses have important advantages that enable them to be successful, namely, their sensitivity to market conditions and trends, which derives from their close relationship with customers, enabling them to understand their needs.

The existence of a personal relationship with customers ensures that the entrepreneur is the first to perceive the changes in consumer preferences that will affect the market as well as gives him the possibility to convey the message that interests the customer. This small business communication process encourages market learning by expressing interest in the business of customers.

Another factor that distinguishes successful small business from typical large enterprises is their ability to innovate. The entrepreneurial company has a quick reaction when changes or opportunities arise in the market. While large corporations recognize the need to change quickly, the burdens of bureaucratic procedures slow them down. The ability of small businesses to innovate encompasses product innovation (new relevant features), process innovation (improvement of the production process), and service innovation (offering something new in the service). It should be noted that innovation is related to organizational flexibility, which comes from personal attitude and organizational practices based on the creation of knowledge as the main competitive resource [17, 18].

In addition, small businesses tend to invest less than large companies in rigid production equipment. This enables greater agility in changing.

Together, responsiveness, organizational flexibility, and innovation practices make small businesses more competitive in a rapidly changing environment.

Small businesses can be developed within the family universe, translating into family businesses, or constitute a situation of self-employment.

5. Family businesses and self-employment

A small business is not necessarily a family business. In the family business, ownership and management are concentrated in the family members, predominantly a family-based intraorganizational relationship. Family nature issues are prioritized against other objectives. For example, the company's property control by the family will not be sacrificed to fund the development and growth of the business. Indeed, family property is not diluted to include non-family investors. Therefore, the available financial resources are those generated by the company and those of the family itself. However, credit may be used with banking institutions to finance the growth of the business.

The uniqueness of the family business lies in the integration of family and business in the same context. The collaboration of the family members in the company may be an indication that the admission criteria are not governed by the higher academic and professional qualifications, which are more suitable for the performance of duties [19]. However, instead of prevailing the replacement of generations in the management of the company, the owners can choose to hire professional managers to create wealth but preserving the intra-family relationship in the company. On the other hand, family firms often find it difficult to attract and retain highly skilled managers, partly because of the limitations of career advancement and the absence of personal reward policies, as well as the lack of goal-oriented professional management and continuous improvement.

5.1 Self-employment: advantages and disadvantages

There are immense advantages and disadvantages of self-employment (being your own boss), and the entrepreneur must be aware of both before starting a business. We start by highlighting the three main advantages:

1. *Autonomy*: the need for independence and freedom to make decisions are the main advantages. The feeling of being your own boss is very satisfying to most entrepreneurs.

2. *Challenge of a new company/sense of accomplishment*: for a large number of entrepreneurs, the challenge of a new company is fun. The opportunity to develop a concept and make it a profitable business provides a meaningful sense of accomplishment where the entrepreneur knows that he or she is solely responsible for the success of the idea.

3. *Independence/financial control*: while frequent mention is made of the financial independence of entrepreneurs, it does not necessarily mean that they want to be wealthy but want more control over their financial situation. They do not want to be subject to unexpected announcement dismissal of employees after years of dedicated work to the company.

If self-employment were easy to achieve, there could be a much larger number of self-employed people. In fact, it is one of the most difficult professional careers anyone can choose. Some of the disadvantages of this life option are described below:

1. *Personal sacrifices*: especially in the early years of the business, the entrepreneur often has to work many hours during the 6 or 7 days of the week. This leads almost to lack of time for fun, family life, or personal reflection. Business takes up a lot of time in the lives of entrepreneurs, resulting in stress in family life and a high level of stress. The entrepreneur must wonder about how much he is willing to sacrifice himself in order to make the business successful.

2. *Overload of responsibility*: the entrepreneur has a burden of responsibility distinct from that of the employees of a company. In companies, employees are usually surrounded by other people—of a similar professional or technical level—with the same interests. It is possible to share information while having lunch or after working hours, assuming a sense of cooperation. In turn, the entrepreneur knows that he is alone in the organizational top. While employees in companies specialize in specific areas such as marketing, financial, or commercial, entrepreneurs have to manage all these operational functions until the business is sufficiently profitable to hire employees with the necessary technical knowledge. The need to master several technical areas is a considerable burden on the entrepreneur.

3. *Small margin for error*: large companies often make decisions that prove to be unprofitable, for example, the launch of products that are not well accepted by the market and the opening of points of sale in disadvantageous places. On the other hand, small businesses operate with a narrow financial cushion because the only financial resources available are those of the entrepreneur. Even after years of successful activity, a wrong decision or a weakness in management can result in the end of the business.

In short, small businesses' ability to innovate stems from their learning of the market, recognition of the need for rapid change, and organizational flexibility [20]. These valences are a support to the decision-making in the self-employment before the obtained feedback of the market.

6. Conclusions

Incubation of new businesses contributes to the creation of new businesses and, consequently, to economic and social development.

The installation of incubators is a way of encouraging the creation of small businesses and recognition of their role in local economic dynamism in terms of job creation, the establishment of qualified young people, and the development of areas of sectorial and technological specialization [6].

In this context, complementary instruments can be used to promote economic development (local, regional, and national), such as:

- Professional training to meet the technical needs of the labor market
- Entrepreneurial training leading to the emergence of new start-ups
- Academic training in line with Government's sectoral and regional bets
- Creation of specialized university citadels, by technical-scientific areas, with the provision of all sociocultural, economic, and financial services inherent in business development
- Creation of sectoral industrial parks
- Launching public funding programs in conjunction with (i) technological parks, (ii) sectoral industrial parks, (iii) incubators, and (iv) universities (units/centers/research centers), in order to place academic research at the service of development and economic growth, in particular through its practical application to business and economic realities

In this respect, the following question may be raised:

What is the current added value for the economics emanating from academic papers published in specialty journals—for example, in terms of setting up start-ups, creating business and new products and services in incumbent companies, and penetrating new international markets or expansion in regional markets, increased efficiency, and business productivity?

Therefore, an integrated national structure (incubators, technological parks, sectoral industrial parks, and specialized university centers) will have to be implemented in order to propagate a climate conducive to the emergence of new, tangible ideas, on the one hand, in improving the competitiveness of established companies and, on the other hand, in creating new businesses.

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