

# Business Incubator Zenica; breeding ground for successful entrepreneurship?

A STUDY TO THE EFFECTIVENESS OF A BUSINESS INCUBATOR



Master Thesis  
Innovative Entrepreneurship & Business Development

By:  
Jan Jaap Altink

Supervised by:  
Ineke Jenniskens (NIKOS)  
Tiago Ratinho (NIKOS)  
Marieke Pluk (SPARK)

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# Preface

This report is the final product of my Master thesis study and I can safely say that conducting a research in a foreign country with a different business culture and a language I do not speak is not the easiest way to complete my studies. However, I am convinced that choosing this research is a worthy finalization of my years as a student. I could have chosen easier ways to do so but I am convinced those would have been less challenging and undoubtedly less fun. The road to presenting you this study has been long and at some points difficult and frustrating but the experience I have gained made all the effort worthwhile.

Many have researched business incubation but few have done so at the site of an actual business incubator and even less at a site in Bosnia & Herzegovina. I sincerely hope the results of this study will trigger others to continue developing business incubation in Bosnia & Herzegovina and at other sites in the Balkan region. Although business incubation is by far not as developed as in The Netherlands, the case I studied definitely has the potential of becoming a well functioning business incubator in the future.

I would like to thank several people. First of all, Ineke Jenniskens and Tiago Ratinho for giving me the opportunity to do this research, for supervising me during the whole process, for having the patience to read all documents sent to you and for supporting me in delivering this product. Without your help completing my studies at the University of Twente would have been much more difficult. Secondly, SPARK Amsterdam. Especially, Tobias Borkert, Erik Plaisier and Marieke Pluk for putting confidence in me and assisting me in the practical aspects of my internship at BSC Zenica. Finally my dear colleagues at the Business Start-up Centre Zenica. Thank you Nino Serdarević, Adela Beriša, Damir Selak, Muhamed Granić, Maša Sušić and Kimeta Mulamekić for allowing me to work with you for four months, for assisting me whenever needed, for making me part of the team and for giving me one of the best experiences of my life!



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# Abstract

Business incubators are generally considered as effective economic accelerators and have been subject of research for many decades. However, many researchers have focused on the concept of business incubation. This research attempts to investigate the practical meaning of the notion and studied to what extent business incubators are covering tenants' needs in terms of their development. A literature study provided an overview of business incubation planning and characteristics of its subjects; the tenants. This showed the complete picture of all aspects involved. In order to be able to form valuable conclusions and recommendations, it was decided to focus this study at a specific aspect of business incubation planning; a value-adding intervention system. An aspect of business incubation planning that aims at what the business incubator directly offers its tenants. The research context is a transition economy in south-west Europe; Bosnia & Herzegovina. A sample of tenants was surveyed and the incubator in combination with its environment was analyzed. Results show that while the business incubator claims to provide tenants with an extensive set of services, tenants' needs are not covered by the business incubator. The business incubator not only does not provide tenants with everything they promise to but also tenants do not prioritize turning to the incubator when help is needed. This study concludes that the business incubator is not visible enough as a first party to contact in case of needs and that tenants are not encouraged enough to make use of the set of services that is offered. Further, it is concluded that the incubator has not implemented the complete set of services it promises to offer and that the incubator should consider expanding their range of services. Finally, recommendations are provided on first concrete steps to take in the development of the business incubation process and suggestions on further research are presented.



# Chapter 1 Introduction

## 1.1 Introduction to this study

According to the European Commission (2002), most current business incubators are found either in North-Western Europe, the USA, Asia or Australia. Around 900 business incubators exist in the European Union. They make a significant contribution to job creation and wealth; approximately 40,000 jobs are created each year. Recently a business incubator was set up in Zenica, Bosnia & Herzegovina (BiH). The mission of this incubator is to contribute to the overall development of Zenica. Therefore, it should become an important economic accelerator.

Peters et al. (2004) argues that business incubation is a way of developing entrepreneurship; it helps entrepreneurs assemble necessary resources and ultimately harvest the rewards of their ideas that otherwise might not have been exploited. Currently, Zenica is facing two problems on the field of entrepreneurship; the city deals with an underdeveloped and unstructured government policy on the field of SME development and the needed 'entrepreneurial mentality' among the relatively young population was never stimulated due to a past of communism and the Balkan war. Business incubation could play a key role in this process; helping entrepreneurs to develop a good business idea into a thriving business is important in a society where platforms that encourage entrepreneurship do not exist. Offering new entrepreneurs office spaces and facilities is important to enable them to make their first steps into the business world but advice, training and coaching are crucial in order to survive as a business.

## 1.2 Research objective

A business incubator with two separate buildings was researched. The first exists since 2006, is managed by Zenica Economic Development Agency (ZEDA) and housed 17 companies at the time of this study according to ZEDA (2008). The second was opened in 2008, is managed by the Business Startup Centre Zenica (BSC) and housed one company at the time of this study according to BSC-Zenica (2008). The incubator is in need of external advice in order for it to become a full blown business incubator in the near future. A research that focuses on the important aspects of business incubation according to literature is compared to the local situation. Business incubation in Zenica is underdeveloped. This research shows that there is a gap between an ideal business incubation planning and reality; what should a typical tenant be offered by the business incubator and what is actually offered at the time of this research. The objective of this research is to deliver a list of recommendations to the business incubation management on how to develop their business incubator in order for their tenants to be better equipped to seize and exploit opportunities.

### 1.3 Research question

This research will study the potential gap between what business incubators offer and whether that meets the needs of companies that are part of the business incubation process. Figure 1 presents the research question and the road to answering it.

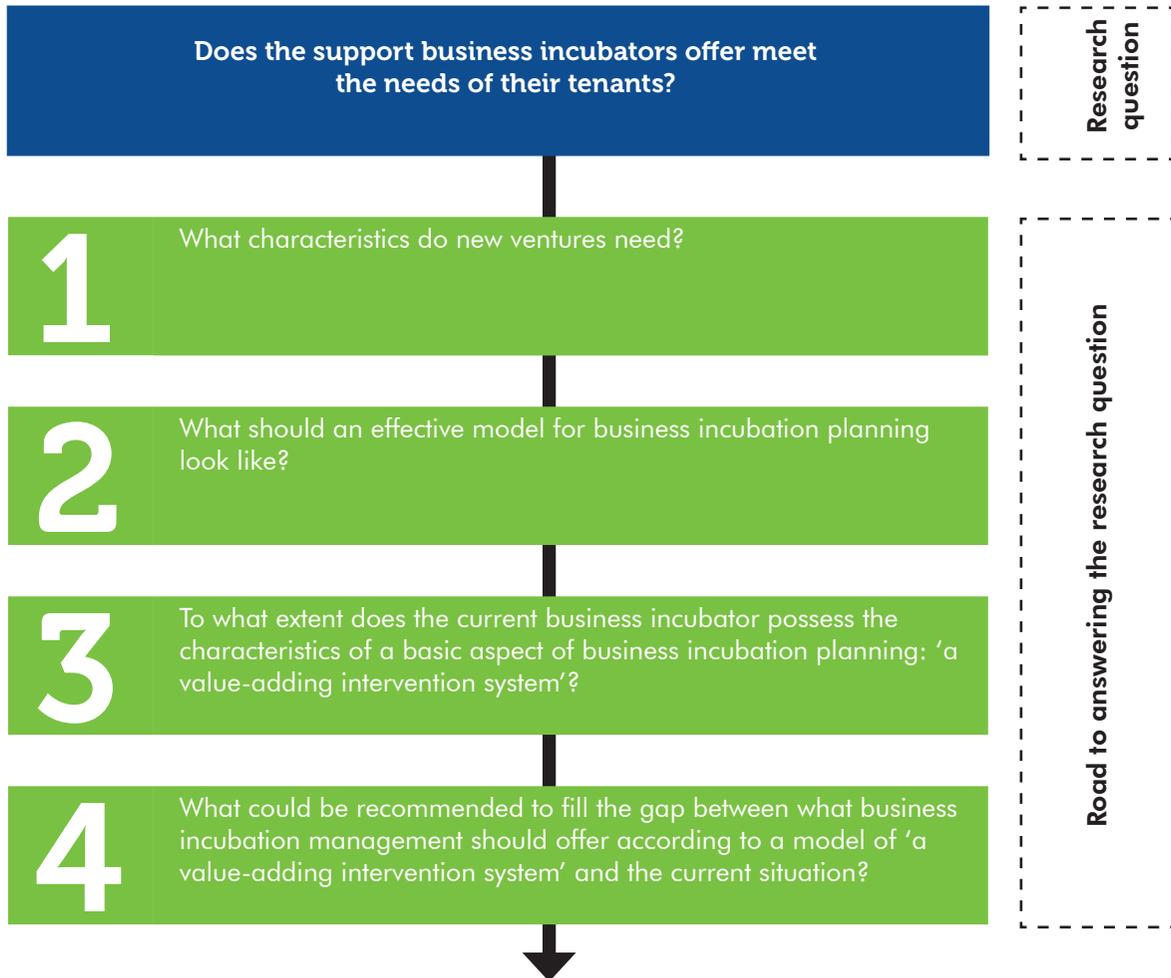


Figure 1 Research question

Answering these questions will be structured as follows: the first two sub questions are of a theoretical nature and ask for a literature study. Researching what successful business incubation planning is, what successful new venture creation is and how business incubation planning could contribute to successful new venture creation according to literature will show the potential of the business incubator according to literature. The third question will cover the empirical study of this research and will form the basis of a comparison between an ideal situation according to literature and the current situation according to the empirical study. The last question will be an advice on how to close the gap between the ideal and the current situation. The result will be a set of recommendations with which the incubation management team can start developing the incubator.

#### 1.4 Division of the report

The remaining of this report consists of the following; the next chapter contains a literature study on two fields, the notions of entrepreneurship and business incubation. Firstly, this literature study will show what entrepreneurship is and what an entrepreneurial firm needs in order to become a successful new venture. Secondly, it will outline what business incubation is and what the aspects are of the business incubation process. Chapter 3 will show what methods were used to conduct this study and will precede chapter 4, background information on the empirical case. This information will help the reader understand the context of this study. Chapter 5 will present the empirical part of this study. 16 entrepreneurs were interviewed and the results show the current state of business incubation in Zenica. In chapter 6 the research questions is answered and a discussion on the results of the empirical study and its fit to the conclusions of the literature study is presented. This will lay grounds for chapter 7 in which recommendations are presented that contain a set of steps to take in order to develop business incubation in this context. Following is a set of suggestions for further research for the involved organizations to consider. Finally, limitations to this study are mentioned.



# Chapter 2 Literature study

When researching opportunities to develop business incubation and consequently entrepreneurship, one must first establish what those two notions imply and which aspects of both are important for this research. In this chapter, a literature study will outline the notions of entrepreneurship and business incubation. After that, relevant definitions for this research are posed. Ultimately these definitions result in a set of theoretical aspects that will contribute to drawing conclusions on the empirical case.

## 2.1 Entrepreneurship

Entrepreneurship is a notion that is widely used. This implies that the definition one chooses reflects a particular perspective or emphasis of the research at hand. Typically definitions vary between economic and management perspectives. Regarding the economic perspective Audretsch (2002) argues that one focuses on the supply of financial capital, innovation and allocation of resources. The entrepreneur is a person who initiates all of these factors of entrepreneurship. From the management perspective Audretsch (2002) sees entrepreneurship as a way of managing; aiming at the search of opportunities without taking the resources currently available into account. Entrepreneurs first identify opportunities and then collect the necessary resources. This research will focus on the management perspective for the following reason: business incubation could help entrepreneurs by enabling them to search, identify and seize opportunities. A focus on the supply of financial capital, innovation and allocation of resources, the economic perspective, would of course provide entrepreneurs with useful tools for the development of their business but business incubation is about more than just supplying. Business incubation also focuses on showing entrepreneurs how to provide for their own supplies; by seizing opportunities and then starting to acquire the needed resources.

The notion of entrepreneurship will be regarded as a research domain instead of a phenomenon, following Davidsson (2004). He argued that one needs to be able to study entrepreneurship as it happens, before the outcome is known; one should not only study what has been done but also what could be done. The notion of entrepreneurship will be approached by developing normative theory and to do so the definition of entrepreneurship presented by Shane et al. (2000) will be used. Shane et al. (2000) defined the field of entrepreneurship as a conceptual domain that helps researchers to recognize the relationship between necessary but not sufficient factors:

### The research domain of entrepreneurship

The scholarly examination of how, by whom, and with what effects opportunities to create future goods and services are discovered, evaluated, and exploited. Consequently the field involves the study of sources of opportunities; the processes of discovery, evaluation, and exploitation of opportunities; and the set of individuals who discover, evaluate, and exploit them.

*Shane et al. (2000) p. 218*

*Figure 2 The research domain of entrepreneurship*

This definition fits this research best because it allows to differentiate in qualities and quantities of not only people who discover, evaluate and exploit opportunities but also of opportunities and modes of action. To formulate this normative theory it is important to review how opportunities should be discovered and exploited when they arise. In order to do so it is crucial to review characteristics of the emergence of new ventures by combining four major perspectives in entrepreneurship literature. Gartner (1985) presents a framework for venture creation which will be the basis of the analysis presented in figure 3. The reason to focus on 'venture creation' is that focusing on 'the entrepreneur' as such only shows a part of the whole picture. The framework for describing the creation of a new venture uses four dimensions that interact and are interdependent. (1) individual(s); the person(s) involved in starting a new organization, (2) new venture process; the actions undertaken by the individual(s) starting a new firm. (3) environment; the situation surrounding and influencing the new organization and (4) organization; the kind of firm that is started. Figure 3 will be used as a basis and will be expanded by the factors mentioned below, resulting in figure 4.

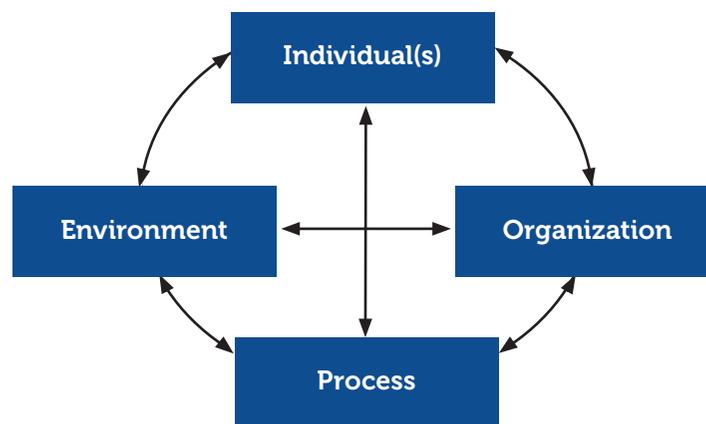


Figure 3 A Framework for describing new venture creation (Gartner 1985)

(1) The individual. According to Gartner, the entrepreneurial individual is different in important ways from the non-entrepreneurial individual. These individuals are key elements of the firm they manage. In the case studied in this research, the distinction between the individual and the firm is somewhat vague because firms tend to be rather small and management is completely controlled by one individual. Therefore, in this research, the analysis of characteristics of entrepreneurial firms by Lumpkin et al. (1996) is in line with Gartner's dimension of 'the individual' and not 'the organization' which tends to describe characteristics of an entire firm. Lumpkin et al. (1996) describe characteristics of entrepreneurial individuals that distinct them from non-entrepreneurial individuals with five dimensions. They make a distinction between what entrepreneurship consists of: new entry (the act of launching a new venture, either by a startup firm, through an existing firm or via internal corporate venturing) and how new entry takes place: entrepreneurial orientation; how does one recognize, discover and exploit opportunities. Five context specific dimensions that can be but are not necessarily interdependent, determine the entrepreneurial orientation of a company: (a) autonomy, the ability and will to be self-directed in the pursuit of opportunities. (b) innovativeness, a firm's tendency to engage in and support new ideas, novelty, experimentation and creative processes that may result in new products, services or technological processes. (c) risk taking, the degree to which managers are willing to make large and risky resource commitments (d) proactiveness, acting in anticipation of future problems, needs or changes and (e) competitive aggressiveness, a firm's propensity to directly and intensely challenge its competitors to achieve entry or improve position.

The fact that these dimensions are context specific and may vary independently can be explained by the fact that entrepreneurs differ among each other and this difference may be even larger than between entrepreneurs and non-entrepreneurs.

(2) The process; entrepreneurship is a process in which individuals locate business opportunities, accumulate resources, market products, produce products, build an organization and respond to government and society. The factors in this process influence each other; the way one produces and markets depends on the needs of society and the society determines which opportunities can be located. According to Shane et al. (2000), entrepreneurial opportunities differ from other opportunities because they require the discovery of new means-ends relationships instead of enhancing the efficiency of existing goods. Crucial is the discovery of opportunities. Shane et al. (2000) mentions two categories of factors that determine what kind of people discover opportunities; (1) the possession of the prior information necessary to identify an opportunity and (2) the cognitive properties necessary to value it. When opportunities are discovered one has to make a decision on whether or not to exploit them. Two factors are important; (1) the nature of the opportunity: what is the importance of and what will the implications be of the opportunity and (2) individual differences: people need to make a trade-off of what the costs of exploitation will be combined with the potential choice of alternatives .

(3) The environment. According to Audretsch et al. (2008), regional innovation efforts affect regional economic performance directly through knowledge spillovers from entrepreneurs to new companies. However, regional innovation efforts also affect regional economic performance indirectly through regional entrepreneurship capital; the capacity of a region, city or state, to not just encourage entrepreneurs but actively support them in order to navigate through the process of starting up their firm. This shows that the environment has a double effect on the development of entrepreneurship and regional economic performance; both through knowledge spillovers and regional entrepreneurship capital.

(4) The organization; it is important to identify different types of organization in terms of sector and size but also the presence of partners which determine what kind of firm can be started. These factors influence competition among firms and focus of firms. Gartner (1985) argues that these factors influence each other and are interdependent with the other characteristics.

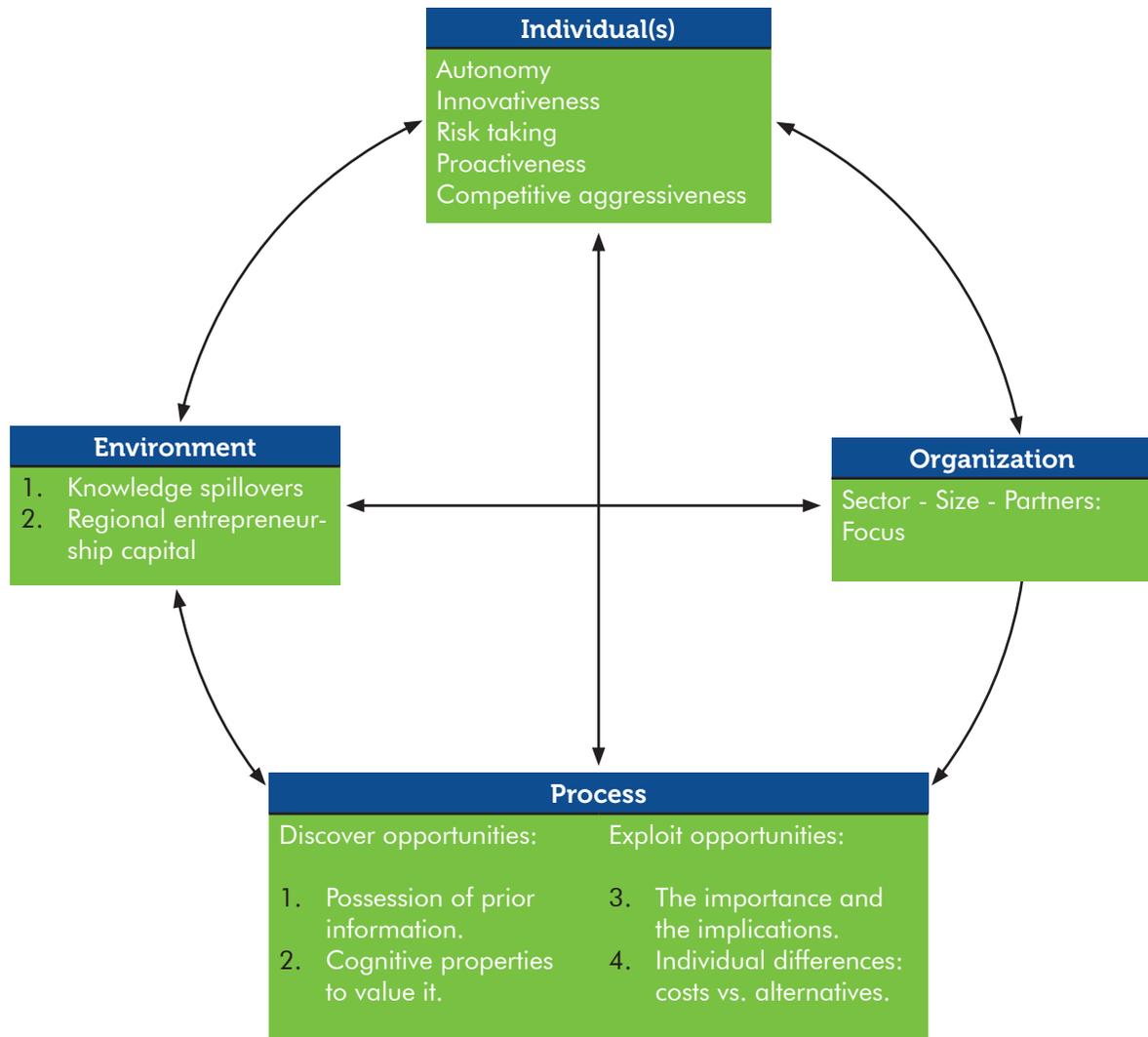


Figure 4 A framework for describing new venture creation combined with factors needed for successful entrepreneurship

To conclude; the management perspective asks the question 'what could be done' in terms of becoming a successful entrepreneur and attempts to formulate a normative theory. This research will focus attention on the management perspective and attempt to write normative theory on how to discover and exploit opportunities. It is beyond the scope of this study to analyze the development of new ventures. Therefore, researching the discovery and exploitation of opportunities will be conducted in the context of business incubation rather than using the elements of new venture creation as presented in figure 4. However, the framework for new venture creation is presented because it can serve as a start for developing a tool for monitoring and encouraging the development of entrepreneurs. According to Gartner (1985), analyzing what makes up successful new firms, enables one to group firms according to similarities. The framework shows that firms can have similarities on fields of (1) internal characteristics; individual, (2) they way the entrepreneur develops himself; process, (3) their focus; organization, and their potential to influence their peers in combination with the potential of a region to influence the development of them; environment. If these firms are selected to join the business incubator, this would benefit the incubation process; a relatively homogeneous group of firms in the incubator can benefit for instance in terms of economies of scale. This tool is not ready for implementation but serves as a first attempt to help structuring the various characteristics of entrepreneurs.

## 2.2 Business Incubation

According to Aernoudt (2004), in order for entrepreneurial culture in general and the number of entrepreneurs in specific to start developing in a certain area, business incubation is important because both notions influence each other. He argues that a lack of entrepreneurship is at the same time an obstacle for a real incubator, and a determinant for change. On the one hand, a lack of entrepreneurship negatively influences the number of potential tenants. On the other hand, the potential tenants that do exist are encouraged by the business incubator to discover and exploit opportunities, therefore are eager to become successful and this may trigger an overall development of entrepreneurship.

The literature provides many definitions on business incubation; over the years the focus has shifted somewhat from facilities and administrative services to actual business support. Hackett et al. (2004) presents an overview of incubation literature development and shows that the focus has shifted from incubator development studies in the early eighties, to incubator configuration and incubatee development studies in the late eighties. The development of the research domain continued with incubator - incubation impact studies and studies theorizing about incubator - incubation in the nineties.

Hackett et al. (2004) reviewed literature on business incubators and business incubation and formed a definition of business incubation. This definition is supplemented by Lalkaka et al. (1996) who describes the main characteristics of a business incubator. Following is a list of business incubation objectives by OECD (1997). This combined with Aernoudt's (2004) view of why a business incubator exists and what its main goals are and a list of what is needed according to the European Commission (2002) to set up and operate a business incubator, the overview presented in figure 5 results. This overview serves as the basis of understanding the concept of business incubation in this study. The findings of the European Commission (2002) are considered valuable, because the European Commission (2002) developed a framework of characteristics and consequently tested this at business incubators in twelve countries. This resulted in conclusions drawn from data of 77 incubators and 71 firms. Therefore these findings are used to further analyze the characteristics of business incubators.

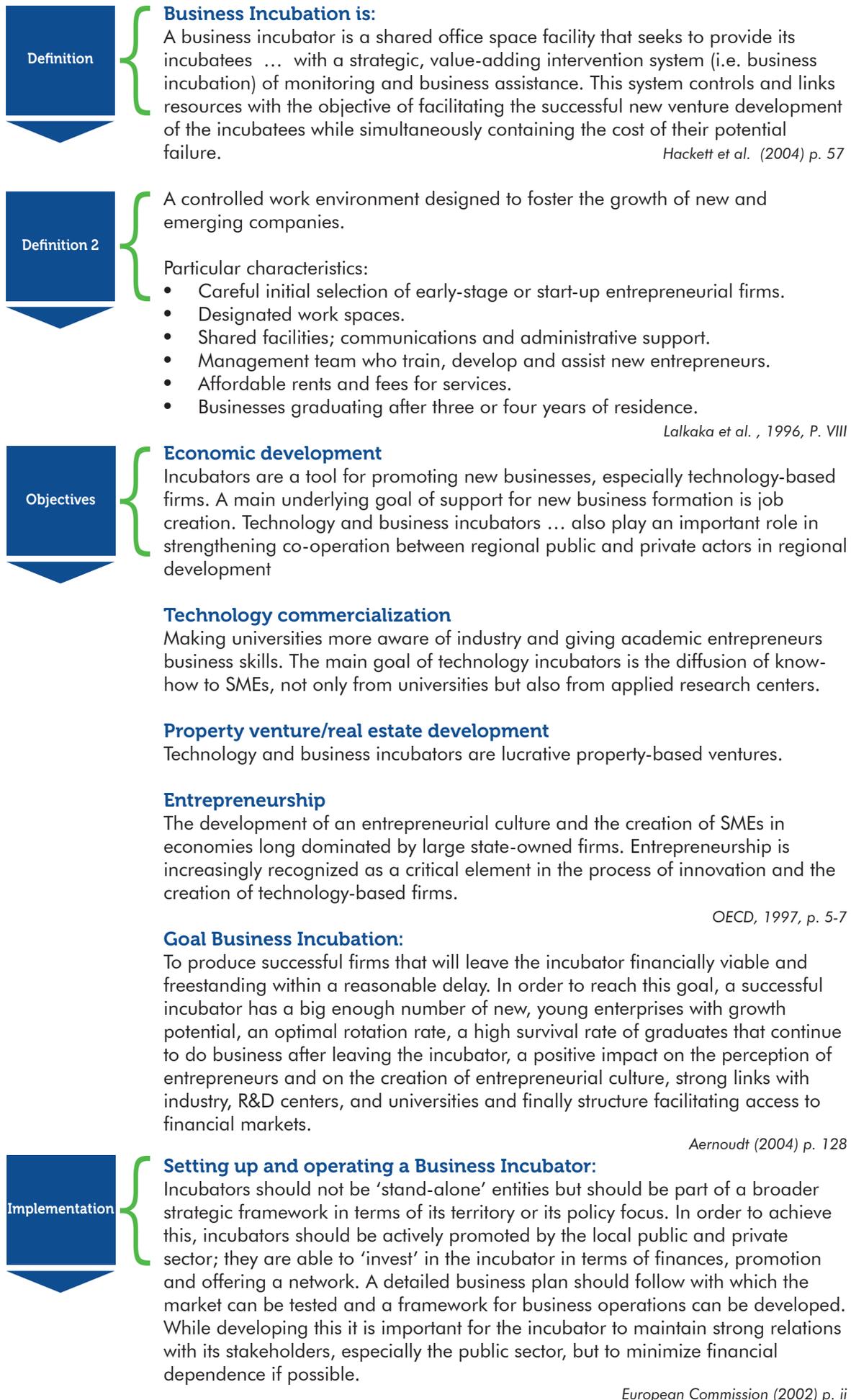


Figure 5 The concept of business incubation

Hackett's definition contains the basic elements of business incubation. Firstly, the existence of a shared office space facility; business incubators are situated in buildings in which numerous enterprises can be placed. The advantage of this construction over a regular office is the fact that the facility is shared; economies of scale and shared knowledge and facilities result; for instance the incubator management decides to provide the tenants with a shared internet contract that results in lower monthly costs for each tenant compared to purchasing an internet contract individually. Secondly, providing incubatees with a strategic system of business assistance with which tenants are enabled to develop themselves on various aspects of having a business. Thirdly, the business incubator system ensures the proper use of resources in order for enterprises to be able to develop themselves on the one side and to reduce their risk of failure on the other side; in short, tenants are not on their own in the difficult initial phase of their startup. Hackett et al. (2004) sees the concept of a business incubator as a network of individuals and organizations that are interdependent. In order to be able to comprehend the emergence of such a network, one has to know the characteristics and functions of a business incubator. The second definition of a business incubator shows several of those characteristics. In addition, the objectives and goals of a business incubator show what could be accomplished with a business incubator while 'implementation' shows how its characteristics should be developed and used.

### Critical Success Factors

Several characteristics of a business incubator are important according to the European Commission (2002) and Aerts et al. (2007). These can be used as a benchmark when assessing the incubator of this research. Once a business incubator is set up, tenants need to be attracted and selected. In order to minimize failures once a firm joins the incubator, the probability of success needs to be maximized. Helpful for evaluating potential tenants before they enter the incubator and during their time in the incubator are the 'critical success factors' by Aerts et al. (2007) presented in figure 6. Three groups of screening factors are important indicators of success that follow Chung (1987); they define critical success factors as 'those few things that must go well to ensure success for a manager or an organization.... they represent those managerial or enterprise areas that must be given special and continual attention to bring about high performance'. These critical success factors are not presented as a tool ready to be used to benchmark companies' characteristics against an ideal set of characteristics but merely as a reminder for incubation management of the importance of several characteristics.

#### When selecting potential tenants, the following Critical Success Factors are important

<p><i>Personal Characteristics of Management Team</i></p> <ul style="list-style-type: none"> <li>• Age</li> <li>• Sex</li> <li>• Technical Skills</li> <li>• Management Skills</li> <li>• Financial Skills</li> <li>• Marketing Skills</li> <li>• Aggressiveness/Persistence</li> <li>• Creativity</li> <li>• Personal Investment</li> <li>• References from Others</li> </ul>	<p><i>Financial Ratios</i></p> <ul style="list-style-type: none"> <li>• Liquidity</li> <li>• Profitability</li> <li>• Asset Utilization</li> <li>• Price Earnings</li> <li>• Debt Utilization</li> </ul> <p><i>Market Factors</i></p> <ul style="list-style-type: none"> <li>• Current Size</li> <li>• Growth Rate</li> <li>• Uniqueness of Product/Service</li> <li>• Marketability of Product/Service</li> <li>• Written Business Plan</li> </ul>
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Aerts (2007)

Figure 6 Critical Success Factors

### Value-adding intervention system

Once tenants are selected, it is important to offer them a range of services and to create awareness of the importance of it among them. It is necessary for incubation management to market this set of services to their tenants as being important because tenants do not per definition value its importance; as OECD (1997) researched, in their case, what firms valued most were not the services but the credibility from being associated with the business incubator.

According to the European Commission (2002), the following should be included regarding the functions of a typical business incubator. First, a business incubator space, the size of which is important when concerning potential economies of scale. Second, a range of business support services. Four key areas are important. All these functions are based on an in-house principle. However, this does not have to mean that facilities and services have to be provided in-house. Using staff to provide services or through encouraging networking among tenants and by attracting external providers, the range of facilities and services could be expanded. In figure 7 the value-adding intervention system, a term by Hackett et al. (2004), is presented.

#### Value-adding intervention system consists of:

1. Entrepreneurial training; writing a business plan, training and advice on how to form a company and run a business.
2. Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.
3. Financial support; changing attitudes of venture capitalists towards start-ups through investing in tenants by providing small-scale seed capital funds.
4. Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.

*European Commission (2002) p. 50-52*

#### In addition:

Expanding the range of facilities and services by using staff to provide services or through encouraging networking among tenants and by attracting external providers

*European Commission (2002) p. 53*

*Figure 7 Value-adding intervention system*

### Sustainability

In order the concept of business incubation to be implemented, to set up and operate the business incubator, to be able to select tenants and ultimately to offer a value-adding intervention system, the sustainability of the business incubator needs to be taken into account. In figure 8 various aspects that increase sustainability are mentioned.

### Sustainability Business Incubator:

To ensure that the incubator stays a healthy organization it is important for the business incubator to charge its tenants. The amount should be high enough to cover costs but not too high in order to prevent private sector providers from attracting their tenants.

Creating an efficient flow of tenants in and out of the incubator by applying a clear exit strategy.

High occupancy rates are important to generate income but rates should not become too high in order to stay flexible regarding changing needs of tenants.

Quality of the management team of the incubator. A key efficiency indicator is the ratio between management team and companies. Typically this ratio is; 1:3.2; ideally there should be one manager for every 3.2 tenants.

When tenants leave the incubator it is important to keep them in the local area to benefit from their knowledge and experience. After care and networking is crucial.

*European Commission (2002) p. v*

*Figure 8 Sustainability business incubator*

### Incubator management and networks

The success of business incubators is greatly dependent on effective communication within the incubator and between the incubator and external partners and stakeholders. Key to optimal communication according to the literature is the incubator manager. The incubator manager should be the first person to address problems to, ask questions and in general to just have a chat with on how things are going. Rice (2002) recognizes the fact that successful incubation is a process of 'co-production' and is dependent on both the incubator manager and the entrepreneur. He sees the former as either a counselor or an intermediary. A manager as a counselor provides direct assistance while a manager as an intermediary provides assistance through networking; connecting the entrepreneur to other producers of business assistance. Rice sees the entrepreneur as a consumer producer of the outcome and stresses the importance of being properly prepared to utilize the advice provided by the incubator manager. In the short run this co-production could lead to increasing the capacity of firms to deal with crises and problems while in the long run firms could become autonomous from the co-production partner. However, Rice also mentions a gap in knowledge between the incubator manager and the tenants that tends to exist in many business incubators. Therefore he suggests to enable the flow of knowledge from the manager to the tenant. The success of this flow is dependent on the 'awareness' among tenants of their gaps in knowledge, competencies and resources, recognition of the potential of the incubator manager to help fill those gaps and willingness to engage in co-production.

An important aspect of a successful business incubator is the use of its network. Hughes et al. (2007) stresses that extensive powerful business connections enable tenants to create value; incubation is seen as a process. Furthermore, because incubating firms are new, have weak legitimacy and have not many developed bargaining structures, companies are more likely to use the opportunities the network of the incubator offers. Following this, companies that join business incubators just for the advantage of cost reduction prevent a vibrant network from emerging and in addition a chance to overcome the difficulties of their own newness.

Pena (2004) argues that human capital; talent, experience and motivation are critical resources in new firm growth and that these factors influence the value of the support entrepreneurs receive from a business incubator. Pena (2004) found that there appeared to be a positive relationship between managerial experience, formal education, motivation in terms of commitment and business success. Also, organizational factors such as firm age, size, resources and strategies are positively related to business success. Regarding the influence of business incubator services, Pena (2004) found that they positively influenced firm mortality risk reduction but a positive influence on firm growth was not identified. In conclusion Pena's case study showed that human capital and organizational factors both have a proven positive effect on business success in terms of firm growth. Business incubation mostly influences business success for instance through a reduced mortality risk. The consequence of this situation may be that relatively inefficient firms may occupy a place in the market because they enjoy the benefits of a business incubator, while potentially more efficient firms that are not part of the business incubator are pushed out of the market. Pena (2004) argues that a solution would be for the incubator manager to conduct a more proactive role and monitor incubator firms more intensively. This way business incubation programs would become a real asset to business success next to human capital.

A way of focusing on the needs of the tenants is by developing the 'social capital' of tenants in terms of networks. Totterman et al. (2005) tries to answer the question; 'how can business incubators support entrepreneurs, in their efforts to build up business networks for the benefit of their own company, by focusing more on social capital?' Social capital can be developed through networks, both internal and external. Internal networks can be 'resource pooling' and other ways of internal networking between tenants. External networks link tenants to service providers and other local businesses for partnership purposes. Totterman describes social capital along three dimensions: (1) structural; network ties and configuration and appropriable organization. (2) cognitive; shared language, codes and narratives. (3) relational; trust, norms, obligations and expectations and identification. Totterman researched how space and company mix influenced social capital and business networks. The case study proved that tenants who had received substantial support for the creation of business networks are more satisfied with the services provided by the business incubator. Another finding is that business incubators should focus more on providing business networks than other factors such as space and facilities. Lastly, incubator space and provided forms of assistance should be designed in a way that networking among tenants and between tenants and outside stakeholders is developed. In summary, incubator managers should more actively support the development of networking structures.

Hansen et al. (2000) speaks of 'networked incubators' as incubators that have mechanisms to foster partnerships, thus facilitating the flow of knowledge and talent across companies and the forging of marketing and technology relationships between them. Networked incubators have two characteristics. First, networking is institutionalized; the incubator has mechanisms in place that foster networking, thereby creating economies of scale. Second, networking leads to preferential access not to preferential treatment; companies are able to choose to get advice or call a meeting instead of companies being assured a certain result. In short, companies' initiative is important in the process of business incubation. Successful networked incubators create a portfolio of companies and advisors that incubatees can leverage. Important here is to create a network that is anchored more to the incubator than to the individual incubatee in order to create the mentioned economies of scale and to offer incubatees a coherent network.

Peters et al. (2004) developed a model which suggests that the level of influence on the entrepreneurial process an incubator can have, depends not only on infrastructure, coaching and networking but also on the question whether these three are in line with governance structures and incubator goals. The model suggests that if the incubator's focus lies too much on one of those three dimensions the number of successful tenants is negatively influenced. To create a perfect mix of the three dimensions, Peters et al. (2004) suggests further research as to how the incubator affects the entrepreneurial process; either through reduction of transaction costs, the increase in learning made available by the incubators or both. Regarding the development of the model, he proposes to take the importance of the incubator's goals to match their tenants' goals into account.

Robson et al. (2001) researched the relationship between business advice and external collaboration with SME growth and came to the following results. Robson finds that the private sector provides the chief relationship between use of external advice and SME growth. Apparently primarily competitive conditions stimulate growths, not the government policies he reviewed. As for the relationship between external collaboration and SME growth, Robson finds that only supply chain collaboration constitutes a significant relationship between collaboration and SME performance. Collaboration with customers or horizontal relations have no positive effect on SME performance. In summary Robson concluded that the government policies he reviewed and horizontal collaboration have no significant effect on SME growth while market conditions and vertical collaboration do. New policy initiatives should take this into account. Figure 9 presents the most important aspects of networking in the business incubation process.

#### Management facilitates the creation of networks:

Business Incubation Management that functions as either a counselor or an intermediary and actively supports the development of network structures by aiming at developing social capital through internal and external networks.

- A manager is either a counselor or an intermediary
  1. Counselor: a manager that provides direct assistance
  2. Intermediary: a manager that provides assistance through networking

*Rice (2002)*
- Social capital is
  1. Structural; network ties and configuration and appropriable organization.
  2. Cognitive; shared language, codes and narratives.
  3. Relational; trust, norms, obligations and expectations and identification.

*Totterman et al. (2005)*
- Networks can be
  1. Internal; resource pooling
  2. External; links tenants to external parties

*Totterman et al. (2005)*
- Networks have two characteristics
  1. They are institutionalized (economies of scale)
  2. Networking leads to preferential access thereby ensuring tenants' own initiative.

*Hansen et al. (2000)*
- Result is a network that is anchored more to the incubator than to the individual incubatee to create economies of scale and to offer incubatees a coherent network.
 

*Hansen et al. (2000)*

Figure 9 Networking

A study to the effectiveness of a business incubator

## Conclusion

Aernoudt (2004) argued that business incubators produce successful firms that will leave the incubator financially viable and freestanding within a reasonable delay. The definition by Hackett et al. (2004) showed that a business incubator is more than a shared office space. Business incubation is also about selecting the right tenants, Aerts et al. (2007) provided a useful tool of critical success factors focusing on three groups: (1) Financial Ratios, (2) Personal Characteristics of Management Team and (3) Market Factors. When tenants are selected, it is important to offer a value-adding intervention system of monitoring and business assistance; the European Commission (2002) mentioned four key areas that are important in terms of business assistance; (1) entrepreneurial training, (2) business advice, (3) financial support and (4) technological support. In addition, the European Commission (2002) outlined aspects that enhance the sustainability of a business incubator. Further, Hackett et al. (2004) mentioned the importance of opportunities to network. Crucial for the success of these factors is effective incubation management. The incubation management should also ensure the needed occupancy rates and a clear exit strategy. Rice (2002) mentioned the importance of a business incubation manager and its function as either a counselor or an intermediary combined with the need of the tenants to be aware of the potential of this manager. Pena (2004) added to this that 'human capital'; talent, experience and motivation together with organizational factors are critical for business success in terms of firm growth. Business incubator services mostly affect business success in terms of a reduced mortality risk. Therefore he mentioned the importance of an effective incubator manager that is able to monitor firms and increase results of business incubation programs. Totterman et al. (2005) stressed the importance of assistance in the creation of business networks plus the development of 'social capital' through internal and external networks. Incubator space and provided forms of assistance influence these two factors in terms of developed networks. Incubator managers should actively support the development of these network structures. Hansen et al. (2000) agreed and stated that successful incubators have networks that carry two characteristics; networking is institutionalized and networking leads to preferential access, not to preferential treatment. Tenants' own initiative is crucial; one needs to be aware of the potential and act accordingly. The network should be more anchored to the incubator than to the individual tenant for reasons of coherency and economies of scale. Again the incubator management should initiate and monitor this process. In order for incubators to become successful, the above mentioned factors are important but not sufficient. Peters et al. (2004) stressed the need for infrastructure, coaching and networking to be in line with governance structures and incubator goals. Further research is needed that focuses on how the incubator affects the entrepreneurial process; reduction of transaction costs, the increase in learning made available by the incubators or both. Regarding the development of the model, he proposed to take the importance of the incubator's goals to match their tenants' goals and the resource selection process by the incubator directors into account. Lastly, Robson et al. (2001) concluded that the government policies reviewed in his study and horizontal collaboration have no significant effect on SME growth while market conditions and vertical collaboration do. New policy initiatives should take this into account. The conclusions on the notion of business incubation can be summarized in figure 10.

Figure 10 shows the structure a business incubation management team should follow when running a business incubator. The management team can ensure the creation of financially viable and freestanding new ventures through following a timeline consisting of selection of tenants and consequently offering a set of services depicted in the two white boxes. Because of the importance of the creation and the maintenance of networks and the sustainability of the incubator, this concept is outlined in the green box that comprises the two notions in the white boxes. Networking and ensuring sustainability is a process that evolves throughout the whole process of business incubation from the start of selecting tenants until after these tenants have exited the incubator and preferably continue their business in the physical environment of the business incubator. Figure 10 is presented to serve as a tool for business incubation management to use when developing the incubation process.

Business Incubation aims at creating successful firms that are financial viable and freestanding.

Aernoudt (2004)

In order to reach this goal business incubation management offers a thorough selection process, effective business assistance and creates networks which help entrepreneurs exploit their opportunities.

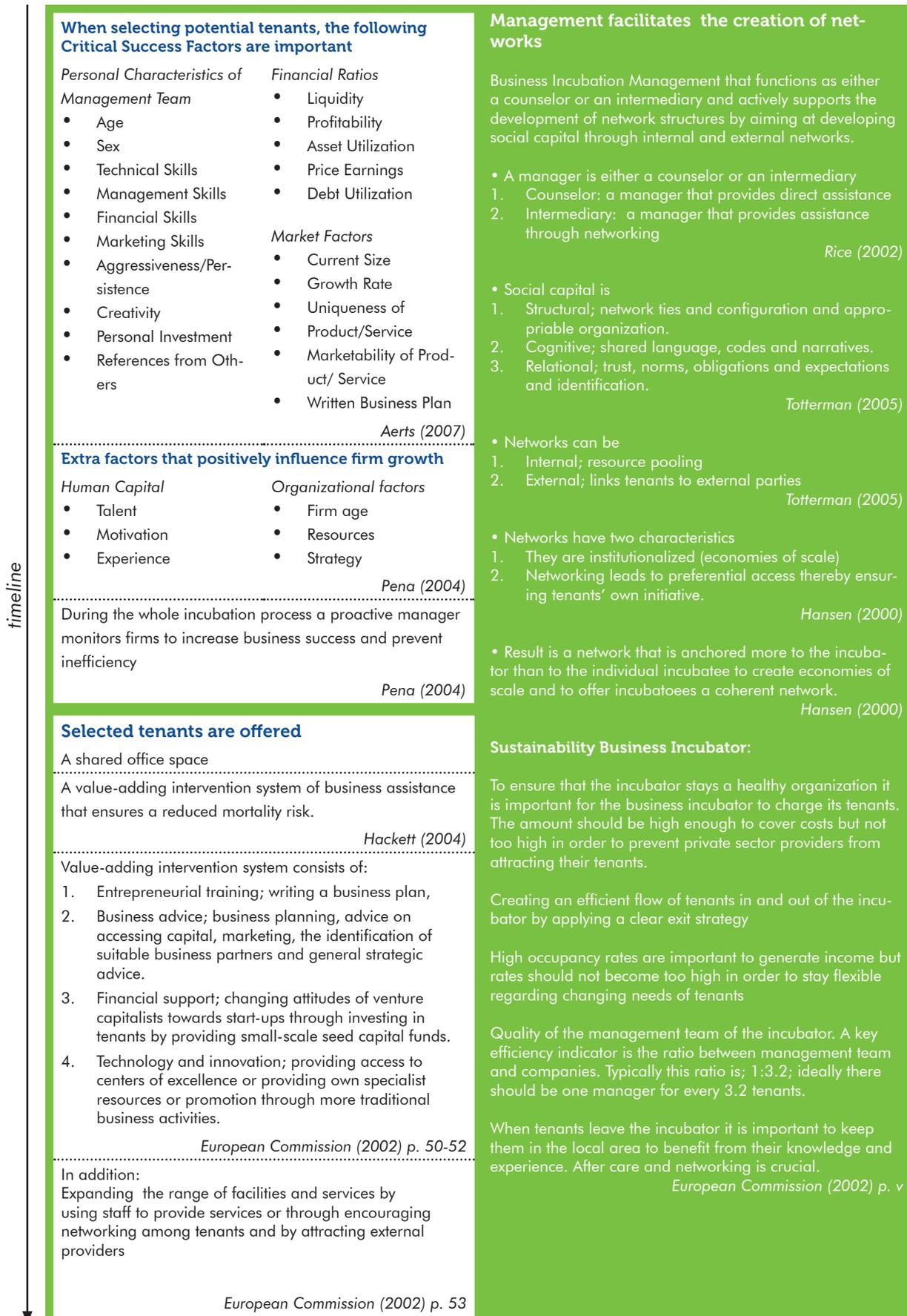


Figure 10 Business Incubation Planning Framework

# Chapter 3 Methods

## 3.1 Research Design

Several methods were used to conduct this study. The components of the research design are summarized in figure 11.

### Research question

Research question will be answered by conducting a literature study and an empirical study. The literature study forms the basis of the structure of the empirical study and consists of a study to the match between what business incubation support should be according to literature, what business incubation currently offers and whether that covers tenants' needs.

### Research method

#### Case study

The method that was used to conduct a needs assessment is a case study. According to Babbie (2001), a case study focuses attention on one or a few instances of some social phenomenon, the case being studied might be a period of time or for instance a group of people. The purpose of a case study can be descriptive; explaining a particular situation in order to understand the case, but case studies can also form the basis for the development of new, general, theories. Miles et al. (1994) agree and analyze a case study as; 'looking at a situation, wanting to know what is going on and how things are proceeding and ultimately wanting to know why things occur as they do'.

According to Yin (2003), this case is a single case study, more specifically a critical case; the single case studied here represents the critical case in testing the theory of business incubation. Also this case study is holistic; one unit of analysis forms the basis of the study. The two most important questions are: (1) what is happening and (2) why are things happening. When these questions are answered, one can make predictions about the probable evolution of case events or outcomes over the following month or years. In practice this means that in order to answer these questions a research design is needed. Yin (2003) defined this as the logical sequence that connects the empirical data to a study's initial research questions and ultimately to its conclusions.

### Conceptualization

In order to study the match between what business incubation support should be according to literature, what business incubation currently offers and whether that covers tenants' needs, the notions of entrepreneurship and business incubation were conceptualized resulting in figures 4 and 10 in chapter 2. Figure 4 is presented to show the need for business incubation management to be informed about the characteristics of successful new venture creation in terms of how entrepreneurs could discover and exploit opportunities. Knowledge about what composes successful new ventures can be helpful in developing the effectiveness of the business incubator. The incubator management team would be enabled to offer relatively homogeneous groups of tenants, economies of scale and services specifically tailored to the needs of the group. Figure 10 depicts a framework for business incubation. This framework contains characteristics needed for setting up and operating a business

incubator. From this framework, a specific part is derived that focuses on the business support the business incubation management team offers on the one hand and the needs and experience with business incubation of the tenants on the other hand. This 'value-adding intervention system' is the basis of the conducted needs assessment.

## Operationalization

### Units of analysis and units of observation

The unit of analysis of this study is a business incubator in Zenica. The units of observation are eight entrepreneurs that relocated their business into incubator building and eight startups of which four are entrepreneurs that recently started a business after winning the BSC's business plan competition.

### Data collection

The empirical study of this research was conducted through a study of relevant documentation regarding the economic state of the local area, the organizations managing business incubation in Zenica and a study on the local culture compared to The Netherlands. Both studies provide useful information to put the research into perspective.

The method directly applicable to the research question is an empirical study of entrepreneurs conducted through interviews. There are two reasons for choosing this method. Firstly, entrepreneurs were never asked about their experiences with, and expectations of business incubation nor their experiences with having a business. Interviewing them presented a picture of the state of entrepreneurship and the role business incubation is playing in its development. This was never documented before. Secondly, interviewing entrepreneurs meant having an extensive conversation with them. This enabled the interviewer, being a foreigner in BiH, to gain trust of the interviewee and collect the necessary information.

The value-adding intervention system presented as part of the framework in figure 10 was used as the basis for the operationalization of the concept of business incubation. The value-adding intervention system was operationalized into several groups of questions that measure the overall implementation of business support services that are required to be present in a business incubator according to the European Commission (2002).

Regarding the structure of the interviews. Two sources were used that served as a basis for the questionnaires. Regarding the questions, Bearse (1993) provided information for a concept version of the interview questionnaires. The question that asked interviewees to prioritize services that could be offered in the incubator was drawn from Aerts et al. (2007). After two trial interviews, the questionnaires were adapted by the author in cooperation with Mr. Serdarević, coordinator of the BSC. The questions were revised in such a way that they are in line with Fowler et al. (1995). He proposed that good questions have three characteristics; (1) all the people answering it should understand it in a consistent way and in a way that is consistent with what the researcher expected it to mean. (2) it must be able to be administered in a consistent way. (3) it consistently communicates to all respondents the kind of answers that are wanted and are acceptable.

Ultimately the questionnaires were structured as follows. A short series of general questions were asked in the beginning of the interview. Because interviewees tended to be somewhat skeptical before the interviews, this was done to gain trust and to show that the interviews were conducted to help them. Following questions focused on the four characteristics of the value-adding intervention system. The first characteristic, entrepreneurial training, was operationalized by focusing on the amount of managers that received entrepreneurial training in the past and by measuring the amount of employees that was trained. This second questions served as a benchmark of the amount of managers that used their entrepreneurial skills to develop their company in terms of employee development. Because the second characteristic is composed of aspects that are not necessarily directly connected to each other, the interview questions focused on an aspect that deserves extra attention; marketing. According to Carson (1995), marketing is about being customer-focused, opportunity-focused and forward-looking and strongly affects companies' growth and survival. However, Carson (1995) continues, the use of marketing is often considered peripheral to many of the small firms' business activities since managers consider it to have no immediate impact on company performance. Carson (1995) argues that managers tend to use the four P's of marketing (product, price, promotion and place) rather haphazardly and whether that leads to direct income generation may be arguable. Therefore, Carson (1995) continues, it is important to trigger managers to start thinking about the development of their firm in terms of marketing tool use. Focusing on marketing may lead to the development the company as a whole and by that other aspects of the second characteristic of the value-adding intervention system. The third characteristic, financial support, was operationalized by making an inventory of tenant's current financial situation in terms of cost and profit development and the role the BSC and ZEDA are playing in managing their financial situation. The last characteristic, technology and innovation, was operationalized by measuring the amount of tenants that experienced technical/technological problems in the past and the role the BSC/ZEDA are playing in managing their situation. In addition the focus of tenants regarding technology and innovation was measured by making an inventory of their priorities in terms of business development and their wishes regarding business incubation services.

### Observation

The interviews were conducted on site by the author and two BSC staff members. Both co interviewers were asked to assist in the needs assessment because they were to become part of the incubation management team at the time of the interviews. Two interviews were conducted in English; the author asked questions and both interviewers made notes. 14 interviews were conducted in Bosnian; the co-interviewer asked questions, made notes and translated into English. After each interview a discussion between interviewer and co interviewer took place and as much information as possible was documented. Interviews lasted approximately 60 minutes.

### Data processing

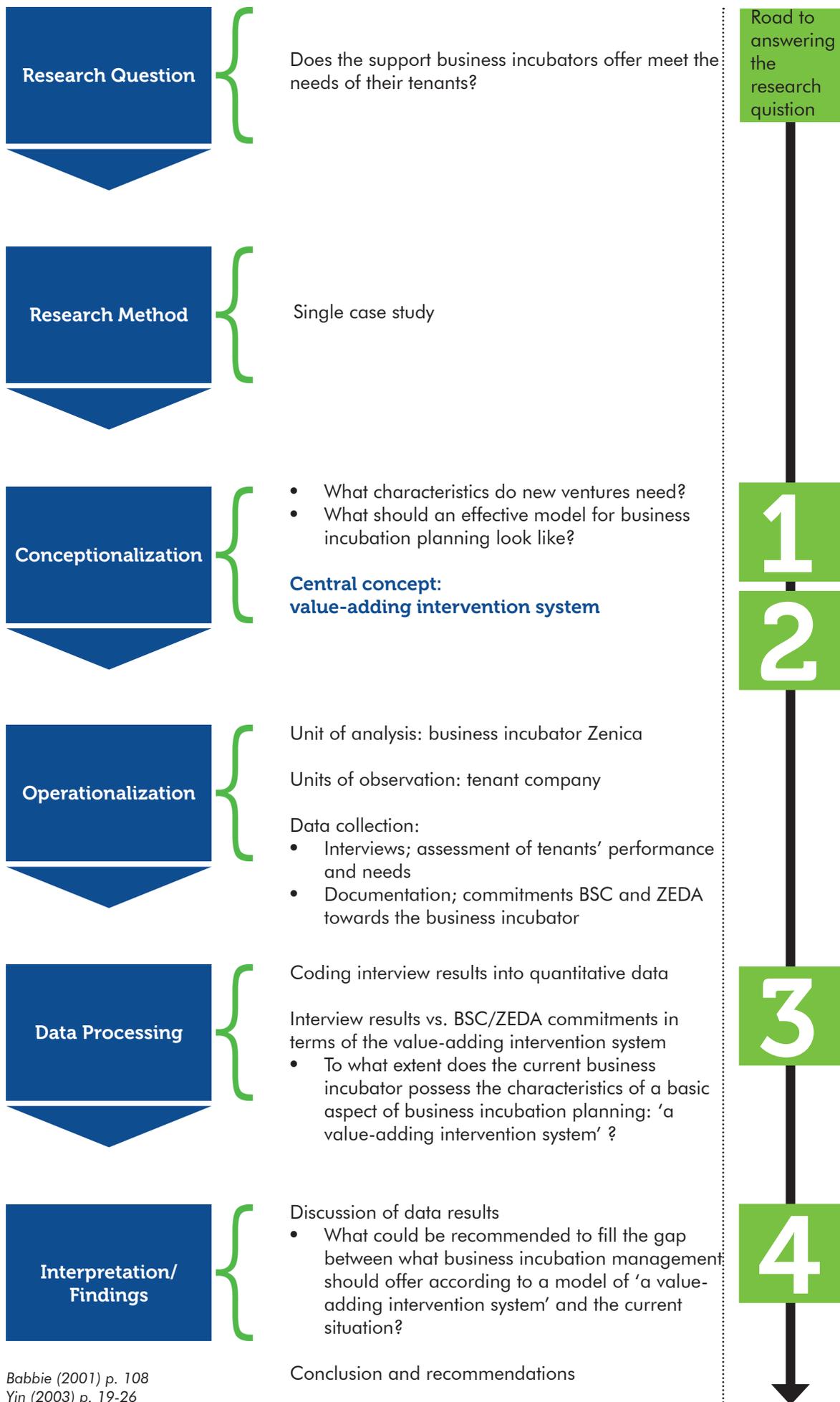
The value-adding intervention system was benchmarked against two sets of results from practices. On the one hand lists of what both ZEDA and the BSC offer their tenants and on the other hand the results of the interviews.

To be able to conclude on the interviews the results of the interview questions were combined. Regarding the interview questions, the percentage of companies per category were calculated and compared. Regarding the results on the service list, the service prioritized by most interviewees of

a particular group is mentioned. The combined results show what part of the interviewed group gave which answer to a certain question. The lists of business support the BSC and ZEDA offer, were derived from their official brochures, websites and documentation and were benchmarked against the value-adding intervention system. The results of both sets of results show to what extent the business incubator possesses the characteristics of a value-adding intervention system.

### **Interpretation and findings**

The processed data is used to draw conclusions on the current state of business incubation and ultimately leads to answering the research question. The answer to the research question is the basis of a set of recommendations for the business incubation management.



Babbie (2001) p. 108  
 Yin (2003) p. 19-26

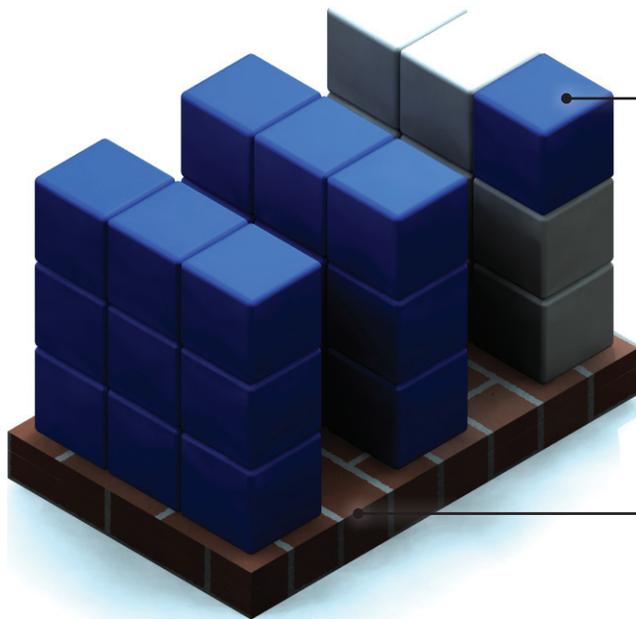
Figure 11 Research design

A study to the effectiveness of a business incubator

### 3.2 Research environment

#### Existing Business Incubator

Founded: 2006  
 Location: Business zone near city center Zenica  
 Ownership: Municipality Zenica  
 Management: ZEDA  
 Target group: Entrepreneurs



Business Spaces: 27  
 • 25 manufacturing spaces 25 – 300 m<sup>2</sup>  
 • 2 office spaces)

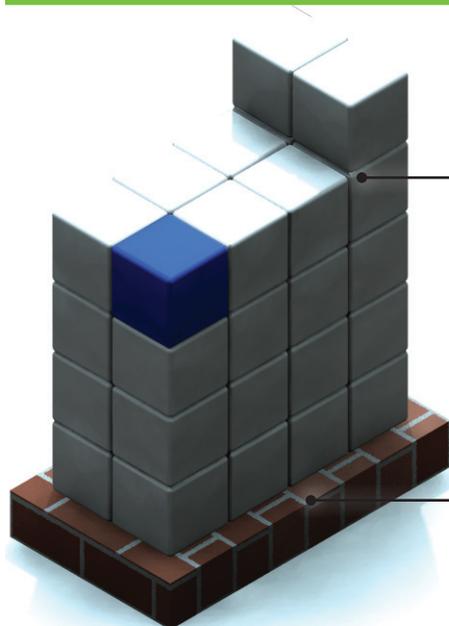
Occupancy rate: 17 (October 2008)

Size: 3200 m<sup>2</sup>

Facilities:  
 Basic infrastructure  
 • electricity  
 • water  
 • heating

#### New Business incubator

Founded: 2008  
 Location: Business zone near city center Zenica  
 Ownership: Municipality Zenica  
 Management: BSC Zenica  
 Target group: Entrepreneurs 18-35 years old



Business Spaces: 34  
 • average size: 27 m<sup>2</sup>

Occupancy rate – 1 (October 2008)

Size: 915 m<sup>2</sup>

Facilities:  
 Basic infrastructure  
 • electricity  
 • water  
 • heating  
 Meeting rooms  
 Management office

Figure 12 Research environment



Existing incubator building: production areas



Existing incubator building: entrance office areas



New incubator building



New incubator building: incubation management meeting room

Figure 13 Business incubator site

A study to the effectiveness of a business incubator



# Chapter 4 Business incubation in Bosnia & Herzegovina

In order to gain insight in the implications of setting up and operating a business incubator in the context of this research, information on four fields is provided. Firstly the SME sector in BiH. The state and development of this sector gives an impression of the overall state of entrepreneurship. Secondly, information on the specific area where this study was conducted adds to the findings on the state of the SME sector. Thirdly, the development of business incubation in the context of this research. Developing business incubation in one area has different implications than in another. Lastly, an impression of the local culture compared to The Netherlands is helpful for the reader to understand the context of this study.

## 4.1 SME sector support

Regarding government policy towards the development of entrepreneurship in BiH, several factors make development complex. Policy creation and implementation are decentralized. The enterprise sector has to deal with at least three different locally based governmental layers. BiH has a state level government with minimal policy authorizations. Further, there are two entities functioning below state level. These entities operate rather independently from each other with own laws and regulations on many fields; the Republic of Sprska and the Federation of which Zenica is part. In addition, several cantons and various municipalities exist, each with different levels of policy involvement; OECD (2005). Result of this is that the SME sector contributes to up to 60% of BiH's GDP but a state level strategy or single institution lacks. According to the European Commission (2007), a national SME strategy was drafted in 2005 but is yet to be implemented. Further, there are growing disparities between the two entities. Harmonization laws are not in place and there is a need for information exchange between the different levels to create synergies between local initiatives and governmental policies. According to the European Commission (2006) progress in structural reforms continues to be overall slow and the political will is in many cases weak.

To illustrate this an example on the local level is helpful. The municipality of Zenica published an SME strategy report, SEED (2003), in which the vision of the city is presented. In short, the city aims at developing Zenica into a center of the regional development for Central BiH with a dynamic and diversified economy by 2015. This would be achieved by developing a modern, entrepreneur oriented and cooperative local administration and by setting up partnerships with the private sector and by promoting cooperation among enterprises. However, in 2008, the last year of the strategy time span, changes in the mentioned areas are still to be developed. The SEED (2003) report illustrates one of the major obstacles preventing progress; authorities deliver reports that meet the requirements of external parties that provide funds and investments but fail to implement the intended changes. Several reasons could have caused this. To provide insight in one possible reason, the level of corruption in BiH is presented. Transparency International (2008) measures levels of corruption in countries around the world. In table 1 the level of corruption in BiH is compared to five European Union member states. Firstly, a state that recently joined the European Union and

is struggling with economic and political difficulties (Romania), Secondly, a state that experienced economic difficulties and political unrest in the past (Portugal) and lastly, three highly industrialized countries producing business incubation best practices (The Netherlands, Germany, United Kingdom). The table shows that the level of corruption in BiH is high. This does not explain the countries' situation fully but is merely an indicator of the context of this study.

Table 1 Corruption scale

Country	Score on a scale of 1 to 10 1 is the most corrupt 10 is the least corrupt	Country rank (of 180 countries)
Bosnia & Herzegovina	3,2	92
Romania	3,8	70
Portugal	6,1	32
United Kingdom	7,7	16
Germany	7,9	14
The Netherlands	8,9	7

Transparency International (2008)

#### 4.2 Zenica

Zenica is a mid-sized city in central BiH, approximately 70 kilometers north of Sarajevo and is the capital and administrative seat of Zenica-Doboï Canton. Until the 1980s, the city was one of the economic centers of the country with its developed steel industry. During the 1990s, competition from other European steel manufacturers increased and economic decline resulted. Nowadays, outdated production techniques plus the still widespread socialist mindset, results in a high unemployment rate of 51.4 % in the Zenica-Doboï Canton. According to SEED (2003), In the municipality of Zenica with a population of 128.000, only 26.000 of citizens had regular jobs in 2006. REZ (2008) calculated that the rate of unemployment in the period between years 2003 and 2006, increased by 17.23 %. An important fact is that among the unemployed population a significant number is actually skilled as is presented in figure 14.



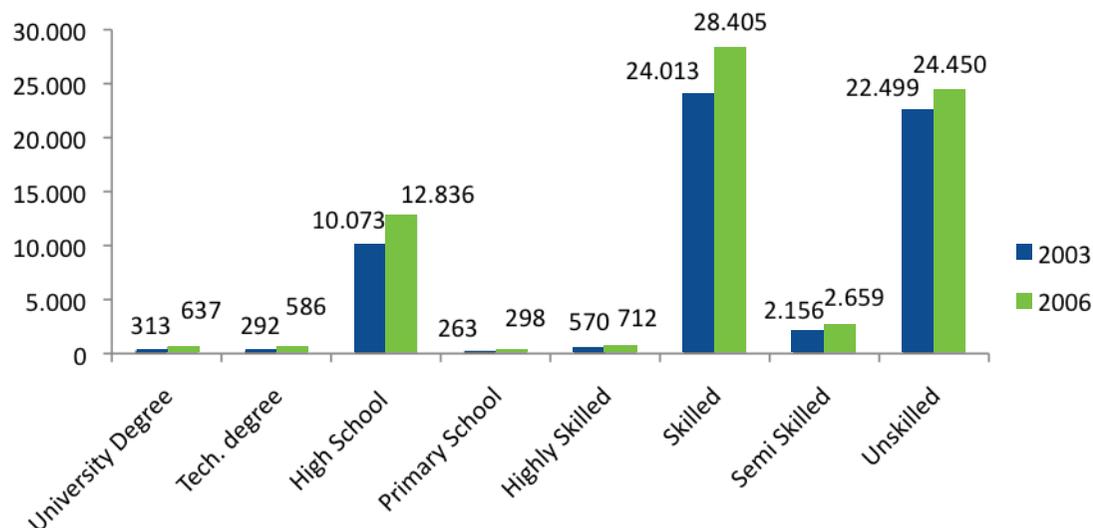


Figure 14 Education level of unemployed workforce in Zenica-Doboij Canton (2003-2006) REZ (2008)

Fact is that the unemployment rate in the municipality of Zenica is high and has increased significantly between 2003 and 2006 while the educational system does produce significant numbers of graduates with secondary or university degrees. These graduates, however, are mostly technically skilled due to the available study programs. Other programs are not offered and in general students are have very little opportunity to acquire entrepreneurial knowledge. Ultimately, many graduates either end up unemployed or accept job offers well below their skill potential. In short, the current entrepreneurial climate is far from optimal. To elaborate on this, it is interesting to look at the current state of entrepreneurial activities in Zenica.

Due to the communist regime and the Balkan war following it, entrepreneurship is a relatively new concept in BiH. According to the European Commission (2007), the workforce mobility is low and fragmented due to the existence of local economies in which employers focus primarily on local labor markets; small local markets offer little opportunity for expansion. Also, as REZ (2008) concludes; 88,5 % of legitimate enterprises have to compete with the grey economy; even enterprises that make considerable profits are still not able to compete with illegitimate enterprises due to tax obligations (sic). This prevents the emergence of structures in society that enable the development of entrepreneurship .

#### 4.3 Business Incubation in a transition economy

Setting up a business incubator in BiH has several implications because BiH can be considered a transition economy. Lavigne (1999) researched the development of transition economies. According to Lavigne (1999) a communist era made BiH, then part of Yugoslavia, a socialist economy. During the 1980s, Yugoslavia became a developing market economy even though the country was still under communist rule. The Balkan war that followed in the 1990s disrupted this situation and resulted in major economic decline. Yugoslavia broke up into several independent states of which BiH is one. Since the war BiH is moving towards becoming a developed market economy. Lavigne (1999) defines a transition economy as follows; transition is a journey from one point to another. In this case from a socialist, centrally planned economy towards a free market economy or from an underdeveloped economy to a developed economy. According to United Nations (1995) setting up a

business incubator in a transition economy has several specific implications that specify the aspects mentioned by the European Commission (2002) in chapter 2.2. United Nations (1995) argue that for a business incubator to become successful in a transition economy, the marketing of the business incubator concept in terms of advertising the concept and the networking opportunities that result are crucial. Key to success in marketing is to contribute to the change of a negative attitude toward personal initiative, innovation and risk taking (sic). United Nations (1995) continue by stating that when setting up an incubator in a transition economy, several aspects of the concept deserve extra attention. Firstly, entrepreneurial training. Trainings should not solely focusing on 'skills' but also on 'generating of new ideas' because of the risk of creating well trained 'employees' instead of innovators. The need for skill development should not be underestimated. Training on business planning and in specific disciplines like bookkeeping, personnel management should be included. Secondly, marketing advice. Not only training in market research is important but also in sales and advertising techniques. Thirdly, finance. In a transition economy like BiH it is rather unlikely for the incubator to provide financial means. Budgets of cooperating organizations are limited and cooperation from different parties cannot be presupposed. This is in itself not unique, limited budgets are to be found in every country. However, sponsoring and investing are underdeveloped concepts due to the local culture and economic circumstances and this results in relatively little financial means. In any case the incubator should focus on persuading banks to provide financial means on favorable terms. Fourthly, general means. Tenants in transition economies like their peers in the West are not able to make substantial investments. Therefore, tenants should be offered business space with flexible rental terms and access to equipment which are too great an investment for a tenant to make. Lastly, networking both internal and external. Internal networking is important for reasons of business opportunities, providing common services by a single tenant and mutual advice. External networking is especially important in transition economies because chances of incubators being able to provide all facilities and services in-house is unlikely (sic). To be able to maintain and expand an incubator's network it is important to offer services to entrepreneurs in the local area and not only focus exclusively on tenants. Not only can the whole area benefit from the incubator but the incubator gets a chance to generate extra income. This way, a business incubator would, as Lalkaka et al. (1996) argues, create non-quantifiable benefits such as stimulating a culture of entrepreneurship and influencing national policies toward supporting small, private enterprises.

#### 4.4 Culture

In order to understand the context of this research, it is interesting to analyze the local culture of BiH and compare this to The Netherlands. These two countries are compared to each other because SPARK, the organization that set up the BSC, is a Netherlands based organization and influences the business incubation process. In addition, insight in the local culture enables the reader from outside of BiH to put the research in perspective. Bosnia & Herzegovina is a country with a history, a current state of affairs and business culture that differs significantly from countries in North-Western Europe. BiH suffered heavily from the Balkan war during the nineties. Since then it is dealing with a transition process from a socialist economy to a market economy. To get a view of how BiH could be compared to Western-Europe, the country can be analyzed along key dimensions. Hofstede (2001) describes cultures along dimensions that show cultural characteristics that give people values that direct them to certain behavior in a particular situation. Cultures are characterized by scores on a range of 0 to 100 on each dimension. Comparing Yugoslavia (Hofstede uses a 1980 sample

of Yugoslavia) to The Netherlands shows the large cultural differences between the two areas and serves as useful information when understanding the context of this study. The dimensions with which the two countries are compared are:

- Power distance: are power relations consultative and democratic (0) or autocratic and paternalistic (100).
- Collectivism (0) versus individualism (100); strong cohesive groups versus loose ties between individuals.
- Uncertainty avoidance; uncertainty avoiding countries (100); are characterized by strict laws and rules, safety and security measures and on a philosophical and religious level a belief in absolute truth. Uncertainty accepting countries (0) are more tolerant of opinions different from what they are used to and tend to show less emotions.
- Masculinity (100) versus low levels of discrimination and differentiation between genders (0). The distribution of roles between genders; women tend to value 'social' goals such as relationships and the psychical environment while men tend to value 'ego' goals such as career and money.

Table 2 Culture

Dimension:	The Netherlands	Yugoslavia
Power distance	38	76
Collectivism versus Individualism	80	27
Uncertainty Avoidance	53	88
Masculinity	14	21

Hofstede (2001)

Hofstede's study shows that Yugoslavia used to be a country with relatively high levels of autocratic and paternalistic power relations, strong cohesive groups in society, strict laws, rules and safety and security measures but a relatively low score on levels of masculinity comparable to The Netherlands. These findings lead to the following conclusions; large power distances lead to a situation where people that are in power have the ability to maintain the status quo in order for them to stay in power. Change, in this case by developing a business incubator, could harm their position and it is likely that these people will try to do everything in their power to prevent that change. Also strong cohesive groups in society lead to people maintaining the status quo. People protecting each other combined with unquestioning loyalty makes change a complex process. Uncertainty avoidance leads to rigidity and by that makes change difficult. According to Pierson (2000), once people or organizations have chosen a certain track, costs of reversal are very high. Other choices are possible but institutional arrangements prevent an easy reversal of the initial choice. Also, the probability of further steps along the same path increase with each move down that path; the relative benefits of the current activity compared to other choices increase over time. The local culture puts people in participating organizations on a certain path; being raised and educated in a communist system and dealing with an ex-communist set of values makes individual choices to act differently very difficult. Lastly, levels of masculinity are rather low. According to Hofstede (2001) the masculinity index is the only one of the four dimensions that is entirely unrelated to national wealth. This could imply that BiH's past of a communist regime and a recent war, two factors that influence national wealth, did affect the first three dimensions but not the masculinity index. This results an emphasis on 'feminine' and 'social' goals in Yugoslavia comparable to The Netherlands.



# Chapter 5 Results

## 5.1 The Business Start-Up Centre Zenica and the Zenica Economic Development Agency

The Business Start-Up Centre (BSC) Zenica is a project by the Dutch non-profit organization SPARK. SPARK (2008) is a Netherlands based independent non-profit organization founded in 1994 that develops several projects throughout South-Eastern Europe. SPARK aims at building local economic and educational institutions on-site and actively mobilizes support for this within the Dutch society. The BSC supports young entrepreneurs to start up their own SMEs. On a regular basis, the BSC Zenica offers individual consultancy, free registration, micro credit, business space and services to newly established companies that were established after winning the BSC's business plan competitions. These winning entrepreneurs are offered a chance to house their company in a new business incubator building that opened in 2008. Figure 15 shows a list of what BSC-Zenica (2008) offers entrepreneurs grouped along the characteristics of a value-adding intervention system. These offers are operationalized in a fixed program for BPC winners. In addition, the BSC offers its services to other startups that run their business from the existing incubator building in a semi-fixed program; tenants are approached and asked whether they would like to use (parts) of the BSC's program.

BSC Zenica consists of a team of six members. On a local level, the BSC cooperates with seven stakeholders; the municipality of Zenica, the Regional Development Agency, the Zenica Economic Development Agency (ZEDA) and the Business Service Center, the Chamber of Commerce, the Ministry of Economy of Zenica-Doboï Canton and the University of Zenica. SPARK will support the BSC Zenica until 2011 after which local stakeholders will run the project autonomously.

Regarding the business incubator, the BSC cooperates with ZEDA. The existing incubator is officially managed by ZEDA, a municipality owned organization founded in 2004. ZEDA unofficially collaborates with the same set of stakeholders as the BSC. According to REZ (2008), ZEDA's main objective is to implement Zenica Municipality's Economic Development Strategy and to provide the support infrastructure for SMEs. ZEDA is running the existing business incubator since its startup in 2006 and is involved in various local projects aimed at SME development. According to their website ZEDA (2008), ZEDA's mission is to create conditions for the development of a dynamic, modern economy in the Municipality of Zenica, through supporting entrepreneurship, the development of SMEs, and through consolidating and supporting material, personal and financial resources. Regarding the current business incubator its goals are to support entrepreneurship by offering business spaces, managerial support, administrative support and general consultancy. Figure 16 shows a list of what ZEDA (2008) offers according to their official brochure grouped along the characteristics of a value-adding intervention system. These offers are operationalized in a list of services that can be requested and used on demand by tenants.

Literature	Practice
<p><b>Value-adding intervention system consists of:</b></p> <p><i>European Commission (2002) p. 50-52</i></p>	<p><b>(BSC 2008) offers the following facilities and services in their business incubator;</b></p>
1. Entrepreneurial training; writing a business plan, training and advice on how to form a company and run a business.	<ul style="list-style-type: none"> <li>• Assistance in writing a business plan</li> <li>• Entrepreneurial training</li> <li>• Assistance registration business</li> </ul>
2. Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.	<ul style="list-style-type: none"> <li>• BPC winners receive awards (2500 Euro) to spend on consultancy</li> <li>• Management coaching</li> <li>• Help in making effective planning</li> <li>• Business networking</li> <li>• Advice on sources of financing</li> </ul>
3. Financial support; changing attitudes of venture capitalists towards startups through investing in tenants by providing small-scale seed capital funds.	<ul style="list-style-type: none"> <li>• BPC winners are awarded seed capital</li> <li>• BPC winners are offered micro credit possibilities against favorable interest rates</li> </ul>
4. Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.	<ul style="list-style-type: none"> <li>• Office support</li> <li>• Meeting rooms</li> <li>• Administrative services</li> <li>• Technical support</li> <li>• Advice on intellectual property</li> </ul>

Figure 15 Value-adding intervention system versus business support BSC

Literature	Practice
<p><b>Value-adding intervention system consists of:</b></p> <p><i>European Commission (2002) p. 50-52</i></p>	<p><b>(ZEDA 2008) offers the following facilities and services in their business incubator;</b></p>
1. Entrepreneurial training; writing a business plan, training and advice on how to form a company and run a business.	<ul style="list-style-type: none"> <li>• Consultancy on writing a business plan and developing business ideas.</li> </ul>
2. Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.	<ul style="list-style-type: none"> <li>• General entrepreneurial support through business consultancy.</li> </ul>
3. Financial support; changing attitudes of venture capitalists towards startups through investing in tenants by providing small-scale seed capital funds.	<ul style="list-style-type: none"> <li>• Networking possibilities with financial institutions.</li> </ul>
4. Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.	<ul style="list-style-type: none"> <li>• Office equipment such as printers and fax-machines.</li> <li>• General office support such as cleaning services and insurance.</li> <li>• Seminar rooms.</li> <li>• Audio visual equipment</li> <li>• Help with translation of documents in English.</li> <li>• Marketing of both the tenants and the business incubator as a whole.</li> <li>• Marketing of tenants through ZEDA's official website.</li> </ul>

Figure 16 Value-adding intervention system versus business support ZEDA

## 5.2 Results of the needs assessment

The interviewed companies are divided into two categories. The first consists of eight companies that exist since 2006 or before and hence relocated their business to the business incubator. The second category consists of startup companies that were founded in 2007 or later and started their business from the business incubator or are about to move their business into the incubator building.

- *Startups*; companies that were founded in 2007 or later and started their business in the incubator.
- *Relocated companies*; existing and functioning companies that were established in 2006 or before have recently or are about to move their business to the incubator.

The results can be evaluated by focusing on several key areas. The four aspects of a value-adding intervention system form the basis for grouping the interview results. The presentation of the results starts with an overview of the interviewed companies and their main characteristics. These characteristics are used to study the match between the value-adding intervention system and practice.

Table 3 Characteristics relocated companies

Relocated companies					
	Founded in	Number of employees	Type of Business	Target group of customers	Number of regular customers
Mune szr	1998	(1-5)	Medium-skilled production	SMEs	More than 10
Meligraf szr	1999	(1-5)	Service	Major companies	More than 10
Elektronika d.o.o.	2004	(1-5)	High-skilled production/ Services	Major companies	More than 10
Zepol	2005	(1-5)	Low-skilled production	SMEs	More than 10
ZAK	2006	(1-5)	Low-skilled production	Major companies	(1-10)
Kema d.o.o.	2006	More than 15	Low-skilled production	Major companies	(1-10)
Platforma d.o.o.	2006	More than 15	Medium-skilled production	Major companies/ Individual players	More than 10
Pulmont d.o.o.	2006	More than 15	Medium-skilled production	Major companies	More than 10

Table 4 Characteristics startups

Startup					
	Founded in	Number of employees	Type of Business	Target group of customers	Number of regular customers
Nana d.o.o.	2007	(1-5)	Medium-skilled production	SMEs	More than 10
Leptir d.o.o.	2007	(1-5)	Services	Major companies/ SMEs/ Individual players	More than 10
Femetall d.o.o.	2007	(6-15)	Medium-skilled production	Major companies/ SMEs/ Individual players	(1-10)
Elvitex d.o.o.	2007	More than 15	Low-skilled production	Major companies	(1-10)
HD d.o.o. (BPC)	2008	0	Medium-skilled production	Major companies/ Individual players	0
Dandino (BPC)	2008	0	Medium-skilled production	SMEs	0
Fromah (BPC)	2008	0	Medium-skilled production	SMEs	0
Feddy Fashion (BPC)	2008	(1-5)	Medium-skilled production	SMEs/ Individual players	0

**Entrepreneurial training; writing a business plan, training and advice on how to form a company and run a business.**

Interview question	Answer category	
What did you do to gain the necessary entrepreneurial skills for running your business?	Education	BSC/ ZEDA
	Trainings	BSC/ ZEDA
	Coaching	BSC/ ZEDA
	Self experience	
	Nothing	
How many employees do you have?	None next to companies' manager	
	1-5; next to companies' manager	
	6-10	
	11-15	
	> 15	
How many of them (your employees JJA) received training on working effectively and efficiently in this branch in the last year (relocated JJA) or since you were founded (start-ups JJA)?	None	
	1 - 5	
	More	

Figure 17 Entrepreneurial training

These questions are in line with the value-adding intervention system because they give insight in the level of entrepreneurial knowledge of managers. The first question asks directly what skills managers have gained formally from education/training/coaching provided by BSC/ZEDA or informally through self experience. The results present the number of managers that gained the necessary skills to run their company in terms of entrepreneurial knowledge divided in knowledge received from the BSC or ZEDA and through self-experience. The second question measures the level of entrepreneurial knowledge of managers indirectly. Asking how many employees gained skills in how to work effectively shows the level of entrepreneurial knowledge of managers in terms of knowing how to run a company effectively; keeping their employees' knowledge levels up-to-date.

To study the number of people in companies that gained entrepreneurial skills recently, an overview of the number of employees per company is presented. Relocated companies either have 1-5 employees or more than 15 while most startup companies either have 0 or 1-5 employees. Half of all companies has 1-5 employees.

Table 5 Number of employees

Number of employees	None next to companies' manager	1-5 next to companies' manager	6-15	More than 15	Total (N=16)
Relocated (8)	0,00 %	62,50 %	0,00 %	37,50 %	100,00%
Startups (8)	37,50 %	37,50 %	12,50 %	12,50 %	100,00%
All (16)	18,75 %	50,00 %	6,25%	25,00 %	100,00%

The table below shows that a larger amount of startups with employees trained part of their employee base than other companies. Half the relocated and a majority of startups have trained none of their employees in the last year while the remaining companies trained part of their employee base. Of all companies with 1-5 employees, a larger amount trained a bigger share of their employees than companies with more employees. Regarding skills of the managers, a larger amount of startups have managers that received training of the field of entrepreneurship than managers of relocated companies.

Table 6 Number of employees and managers trained

How many of them received training	None	1-5	More	Total (N=16)
Relocated (N=8)	50,00 %	37,50 %	12,50 %	100,00 %
Startups (N=8)	62,50 %	37,50 %	0,00 %	100,00 %
Startups minus no emp. (N=4)	40,00 %	60,00 %	0,00 %	100,00 %

Number of employees vs. part trained	None next to companies' manager	1-5 next to companies' manager	6-15	More than 15
None	100,00 %	50,00 %	50,00 %	0,00 %
1-5	0,00 %	50,00 %	25,00 %	100,00 %
More	0,00 %	0,00 %	25,00 %	0,00 %
Total (N=16)	100,00 %	100,00 %	100,00 %	100,00 %

Skills Manager	BSC/ ZEDA	Self experience	Total (N=16)
Relocated (N=8)	62,50 %	37,50 %	100,00 %
Startups (N=8)	87,50 %	12,50 %	100,00 %

Skills Manager	BSC/ ZEDA	Self experience	Total (N=16)
BPC Winners (N=4)	100,00 %	0,00 %	100,00 %
Other (N=12)	67,67 %	33,33 %	100,00 %

**Summarizing about the amount of people that gained skills recently: a larger part of startups than relocated companies trained none of their employees, however, three out of eight startups have no employees to train. When taking this into accounts, it shows that more relocated companies trained none of their employees. Smaller companies (1-5 employees) trained a larger part of their employee base than larger companies and lastly, a larger part of managers of startups than relocated companies have gained skills through using BSC/ZEDA services.**

In addition, to get an impression of companies' preferences regarding coaching, mentoring and training they would like to be offered, interviewees were asked to indicate the five (out of 10) trainings or services they would like to receive. In both categories, three trainings and services were mentioned by a majority of companies. Both relocated companies and startups wish to receive Consultation on the development of new products and services. In addition, relocated companies would like to receive financial advice (e.g. bank loans, seed capital) and legal advice. Startups would like to receive marketing advice focus on products and managerial training. Regarding preferences that fit into the characteristic of entrepreneurial training, the table shows that a majority of five startups and four relocated companies prefer to be offered managerial training.

*Table 7 Coaching/mentoring/training*

Coaching/Mentoring/ Training	Number of relocated companies ticking answer	Number of startups ticking answer
Marketing advice focus on products	4	6
Financial advice, (e.g. bank loans, seed capital)	6	3
Managerial training	4	5
Advice on recruitment of staff and personnel	2	1
Business planning and forming a company	5	4
Consultation on the development of new products and services	7	6
Consultation on intellectual property rights	2	2
Legal advice	6	4
Bookkeeping	4	4
ICT utilization	1	1

**Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.**

Interview question	Answer category	
How many employees do you have?	None next to companies' manager	
	1-5; next to companies' manager	
	6-10	
	11-15	
	> 15	
How many regular customers do you have?	1 - 10	
	> 10	
What is your target group of customers?	Major companies	
	Other SMEs	
	Individual players	
	All of the above	
	Other, namely:	
What marketing tools are you using?	Flyers/Brochure	Active
	Commercials on Radio/TV	Active
	Advertisements in newspapers	Active
	Mouth-to-Mouth	Passive
	Nothing	-

Figure 18 Business advice

Regarding the second characteristic of the value-adding intervention system, companies were asked about their use of marketing. Since the use of marketing tools will be benchmarked against several company characteristics, an overview of both categories of companies and their combination of characteristics that lead to a certain use of marketing tools is presented in figure 19.

Relocated companies				
Number of employees	Number of regular customers	Type of business	Target group of customers	Marketing tools
1-5 employees 	1-10 regular customers 	Low-skilled production	Major companies	Non
	> 10 regular customers 	Low-skilled production	SMEs	Active
	> 10 regular customers 	Services	Major companies	Active
		High-skilled production	Major companies	Passive
		Medium-skilled production	SMEs	Passive
> 15 employees 	1-10 regular customers 	Low-skilled production	Major companies	Passive
	> 10 regular customers 	Medium-skilled production	Major companies/ Individual players	Active
	> 10 regular customers 	Medium-skilled production	Major companies	None
Startups				
Number of employees	Number of regular customers	Type of business	Target group of customers	Marketing tools
1-5 employees 	> 10 regular customers	Medium-skilled production	SMEs	Passive
6-10 employees 	1-10 regular customers	Services	Major companies/ SMEs/ Individual players	Active
		Medium-skilled production	Major companies/ SMEs/ Individual players	Active
> 15 employees 	1-10 regular customers	Low-skilled production	Major companies	Active
BPC Winners 	0	Medium-skilled production	SMEs	Active
		Medium-skilled production	SMEs	None
		Medium-skilled production	SMEs/ Individual players	None
		Medium-skilled production	Major companies/ Individual players	Active

Figure 19 Choice of marketing tools compared to four company characteristics

In the table below an overview of marketing tool use in each category. The majority both startup and relocated companies say to use marketing tools. However, a smaller share of relocated companies use active marketing tools than startups. Active marketing tools are; various means like flyers/brochures, commercials on radio/tv and advertisements in newspapers. A larger amount of relocated companies than startups relies on passive marketing tools like mouth-to-mouth.

Table 8 Marketing tools yes/no active/passive

Marketing tools Yes/ No	Yes	No	Total (N=16)
Relocated (N=8)	75,00 %	25,00 %	100,00 %
Startups (N=8)	75,00 %	25,00 %	100,00 %
Marketing tools Active/Passive	Active	Passive	Total (N=16)
Relocated (N=8)	37,50 %	62,50 %	100,00 %
Startups (N=8)	62,50 %	37,50 %	100,00 %

#### Comparison of various characteristics related to the use of marketing tools

The table below shows that companies focusing on low-skilled production tend to focus mostly on major companies and have 1-10 regular customers. Companies focusing on high-skilled production/services focus on major companies and have more than 10 regular customers. However, chi square tests show that type of business is not significantly related to target group of customers or to number of regular customers and that target group of customers is not significantly related to number of customers.

Table 9 Type of business vs. target group and number of customers

Type business vs. target group	SMEs	Major Companies	Various	Total (N=16)
Low	25,00 %	75,00 %	0,00 %	100,00 %
Medium	44,44 %	11,11 %	44,44 %	100,00 %
High/Services	0,00 %	66,67 %	33,33 %	100,00 %
Type business vs. number of customers	1-10 regular customers	More than 10 regular customers	Total (N=16)	
Low	75,00 %	25,00 %	100,00 %	
Medium	55,56 %	44,44 %	100,00 %	
High/Services	0,00 %	100,00 %	100,00 %	
Target group of customers vs. number of customers	1-10 regular customers	More than 10 regular customers	Total (N=16)	
SMEs	40,00 %	60,00 %	100,00 %	
Major players	50,00 %	50,00 %	100,00 %	
Various	60,00 %	40,00 %	100,00 %	

## Marketing tools vs. type of business

The majority of startup companies focuses on medium-skilled production while the percentages of relocated companies that focus on either low, medium or high-skilled production and services are comparable. The majority of all companies focuses on medium-skilled production.

Table 10 Type of business

Type of Business	Low-skilled production	Medium-skilled production	High-skilled production/ Services	Total (N=16)
Relocated (N=8)	37,50 %	37,50 %	25,00 %	100,00 %
Startups (N=8)	12,50 %	75,00 %	12,50 %	100,00 %

All companies focusing on high-skilled production and services use marketing tools while the majority of low-skilled production and medium skilled production do. When dividing the use of marketing tools in active/passive; a majority of low-skilled production companies use marketing tools but half uses active tools. Further a majority of medium-skilled production companies use marketing tools but less than half use active tools. Lastly, all high-skilled production and service companies use marketing tools but two thirds use active tools.

**Summarizing, a larger share of high-skilled production companies uses both marketing tools and active marketing tools than low-skilled production companies. Low-skilled production companies, in turn, show a larger share of marketing tool and active marketing tool use than medium-skilled production companies.**

Table 11 Type of business vs. marketing tools

Type business vs. marketing tools	Yes	No	Total (N=16)
Low	75,00 %	25,00 %	100,00 %
Medium	66,67 %	33,33 %	100,00 %
High/Services	100,00 %	0,00 %	100,00 %
Type business vs. marketing tools	Active	Passive	Total (N=16)
Low	50,00 %	50,00 %	100,00 %
Medium	44,44 %	55,56 %	100,00 %
High/Services	66,67 %	33,33 %	100,00 %

## Marketing tools vs. number of regular customers

A minority of relocated companies have 1-10 regular customers while a majority of startups do.

Table 12 Number of regular customers

Number of regular customers	1-10	> 10	Total (N=16)
Relocated (N=8)	25,00 %	75,00 %	100,00 %
Startups (N=8)	75,00 %	25,00 %	100,00 %

A larger share of companies with more than 10 regular customers use marketing tools than companies with 1-10 regular customers while half of all companies use active marketing tools.

**Summarizing; more companies with a larger share of regular customers use marketing tools but there is no difference when making a division between active and passive marketing tools.**

Table 13 Number of regular customers vs. marketing tools

Number of customers vs. marketing tools yes/no	Yes	No	Total (N=16)
1-10 regular customers	62,50 %	37,50 %	100,00 %
More than 10 regular customers	87,50 %	12,50 %	100,00 %
Number of customers vs. marketing tools active/passive	Active	Passive	Total (N=16)
1-10 regular customers	50,00 %	50,00 %	100,00 %
More than 10 regular customers	50,00 %	50,00 %	100,00 %

## Marketing tools vs. target group of customers

The majority of relocated companies focuses on major players while the majority of startups focuses on various types of companies.

Table 14 Target group of customers

Target group of customers	SMEs	Major players	Various	Total (N=16)
Relocated (N=8)	25,00 %	62,50 %	12,50%	100,00 %
Startups (N=8)	37,50 %	12,50%	50,00 %	100,00 %

The majority of all companies regardless of their target group use marketing tools. However, when dividing the use of marketing tools in active/passive, the percentages of companies using active marketing tools that target at SMEs and major players is 50% lower compared to a division in yes/no. The percentage of companies targeting at various types of business does not change when dividing the use of marketing tools in yes/no or active/passive.

Summarizing: a majority of all companies uses marketing tools but the percentage using active tools is lower in the categories of companies targeting at SMEs and major players than companies targeting at various types of business.

Table 15 Target group customers vs. marketing tools

Target group of customers vs. marketing tools	Yes	No	Total (N=16)
SMEs	80,00 %	20,00 %	100,00 %
Major players	66,67 %	33,33 %	100,00 %
Various	80,00 %	20,00 %	100,00 %

Target group of customers vs. marketing tools	Active	Passive	Total (N=16)
SMEs	40,00 %	60,00 %	100,00 %
Major players	33,33 %	66,67 %	100,00 %
Various	80,00 %	20,00 %	100,00 %

### Marketing tools vs. number of employees

Table 16 Number of employees

Number of employees	None next to companies' manager	1-5 next to companies' manager	6-15	More than 15	Total (N=16)
Relocated (N=8)	0,00 %	62,50 %	0,00 %	37,50 %	100,00 %
Startups (N=8)	37,50 %	37,50 %	12,50 %	12,50 %	100,00 %

The majority of companies with any number of employees use marketing tools. However when dividing the use of marketing tools in active/passive the amount using active tools is lower in the category 1-5.

**Summarizing: while the majority of all companies indicates to use marketing tools, more companies with a larger employee base use active marketing tools than smaller companies. Further, two-thirds of companies without employees actively use marketing tools.**

Table 17 Number of employees vs. marketing tools

Number of employees vs. marketing tools yes/no	None next to companies' manager	1-5 next to companies' manager	6-15	More than 15
Yes	67,67%	75,00 %	100,00 %	75,00 %
No	33,33%	25,00 %	0,00 %	25,00 %
<b>Total (N=16)</b>	100,00 %	100,00 %	100,00 %	100,00 %

Number of employees vs. marketing tools active/passive	None next to companies' manager	1-5 next to companies' manager	6-15	More than 15
Active	67,67 %	37,50 %	100,00 %	50,00 %
Passive	33,33 %	62,50 %	0,00 %	50,00 %
<b>Total (N=16)</b>	100,00 %	100,00 %	100,00 %	100,00 %

## Marketing tools vs. various characteristics

**Overall summary:** when studying the use of marketing tools compared to several characteristics it shows that except the category 'target group: various types of business', all categories report a higher percentage when asked if tools are used than when asked what kind of tools are used.

**Characteristics that result in high levels of marketing tool use are:** high-skilled production/services, more than 10 regular customers, target group: SMEs or various types of business.

**Characteristics that result in high levels of active marketing tool use are:** startups, high-skilled-production/services, target group: various types of business and companies with employee bases between 6 and 15 employees.

Table 18 Marketing tools vs. various characteristics

Marketing tools	Yes	Active
<b>Age of company</b>		
Relocated	75,00 %	37,50 %
Startups	75,00 %	62,50 %
<b>Type of Business</b>		
Low-skilled production	75,00 %	50,00 %
Medium-skilled production	66,67 %	44,44 %
High-skilled production/Services	100,00 %	66,67 %
<b>Number of regular customers</b>		
1-10 regular customers	62,50 %	50,00 %
More than 10 regular customers	87,50 %	50,00 %
<b>Target group of customers</b>		
SMEs	80,00 %	40,00 %
Major players	66,67 %	33,33 %
Various	80,00 %	80,00 %
<b>Number of employees</b>		
None next to companies' manager	66,67 %	66,67 %
1-5 employees	75,00 %	37,50 %
6-15 employees	100,00 %	100,00 %
More than 15 employees	75,00 %	50,00 %

In addition, table 7 showed a list of what interviewees would like to be offered on the field of coaching, mentoring and training. Preferences that fit into the characteristic of business advice are; legal advice, indicated by a majority of relocated companies that could be considered 'strategic advice' and marketing advice focus on products indicated by startups.

**Financial support; changing attitudes of venture capitalists towards startups through investing in tenants by providing small-scale seed capital funds.**

Interview question	Answer category
What are the main problems that you have encountered in your start-up days?	Financial needs
	Technical problems
	Finding a proper business space
	Lack of a network
	Other, namely:
Difference in costs of producing over 2006 and 2007 or since start-up/one year in business?	
Difference in costs of employees over 2006 and 2007 or since start-up/one year in business?	
Difference in costs of raw material over 2006 and 2007 or since start-up/one year in business?	
What is the difference in net profit over 2006 and 2007 or since start-up/one year in business?	
Where would you turn first if you encountered financial problems now?	BSC
	ZEDA
	Friends/ family
	Other, namely;
<i>Information supply:</i> Did any of these three categories provide you with financial opportunities?	Colleagues/employees
	Tenants
	Business Incubator
Would prefer to network with:	Incubator manager
	Customers
	Stakeholders
	Potential investors

Figure 20 Financial support

In order to study the way the incubator invests in its tenants, companies were asked a series of finance related questions. Companies were asked to indicate what kind of problems were encountered during startup days. Then a series of questions regarding their current financial situation was asked. The answers to these questions give insight in their current situation and are an indicator of the effectiveness of past received financial support. Further, questions regarding the mindset of companies regarding financial problems in terms of where to seek help and an overview of who actually provides help in case of financial problems, serve as another indicator of the effectiveness of the incubator's financial support.

The majority of all companies deals with rises in costs of producing, employees and raw material while a majority of relocated companies saw their profits increase. Note; relocated companies were asked to level costs over 2006 and 2007 while startups were asked to level costs over preferably one year of being in business.

Table 19 Financial situation

<b>Tenants that encountered financial problems during startup days</b>				
<b>Relocated (N=8)</b>	50,00 %			
<b>Startups (N=8)</b>	62,50 %			
<b>Costs Relocated (development 2006 and 2007)</b>	<b>Increase</b>	<b>Decrease</b>	<b>No data</b>	<b>Total (N=8)</b>
Producing	75,00 %	0,00 %	25,00 %	100,00 %
Employees	62,50 %	0,00 %	37,50 %	100,00 %
Raw material	75,00 %	0,00 %	25,00 %	100,00 %
Profit	62,50 %	25,00 %	12,50 %	100,00 %
<b>Costs Startups (development since startup or one year in business)</b>	<b>Increase</b>	<b>Decrease</b>	<b>No data</b>	<b>Total (N=8)</b>
Producing	37,50 %	0,00 %	62,50 %	100,00 %
Employees	37,50 %	0,00 %	62,50 %	100,00 %
Raw material	12,50 %	12,50 %	75,00 %	100,00 %
Profit	12,50 %	0,00 %	87,50 %	100,00 %

The majority of all companies encountered financial problems during their startup days and a majority would turn first to family/bank when having financial problems now. In both categories, a minority would turn first to ZEDA/BSC when having financial problems now, however, the percentage of startups is higher than relocated companies. Regarding Information on financial opportunities a minority of all companies received opportunities from colleagues/employees and other tenants. None of the relocated companies while half of startups received information on financial opportunities from BSC/ZEDA. When asked whom they would like to network with in the future, half

of all companies prefers customers over potential investors and an incubator manager. In addition, regarding preferences indicated in table 7 that fit into the characteristic of financial advice. A majority of relocated companies would like to receive financial advice (e.g. bank loans, seed capital).

Table 20 Financial opportunities

	Encountered financial problems during startup days?	Would turn first to family/bank when having financial problems now	Would turn first to ZEDA/BSC when having financial problems now		
<b>Relocated (N=8)</b>	50,00%	75,00 %	12,50%		
<b>Startups (N=8)</b>	62,50 %	75,00 %	25,00 %		
	Information on financial opportunities provided by colleagues/employees	provided by other tenants	provided by the Business Incubator		
<b>Relocated (N=8)</b>	25,00 %	12,50 %	0,00 %		
<b>Startups (N=8)</b>	12,50 %	12,50 %	50,00 %		
	Would prefer to network with customers	Would prefer to network with potential investors	Would prefer to network with an incubator manager	Would prefer to network with stakeholders	Total (N=16)
<b>Relocated (N=8)</b>	50,00 %	12,50 %	12,50 %	25,00 %	100,00 %
<b>Startups (N=8)</b>	50,00 %	0,00 %	37,50 %	12,50 %	100,00 %

**Summarizing; a majority of all companies dealt with financial difficulties in the past and most of them would turn to family or a bank when having financial problems now. Only a minority would consult ZEDA/BSC while they provided half the startups but none of the relocated companies with information on financial opportunities. Colleagues/employees and other tenants in the incubator are not a large source of financial opportunities.**

**Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.**

Interview question	Answer category
What are the main problems that you have encountered in your start-up days?	Financial needs
	Technical problems
	Finding a proper business space
	Lack of a network
	Other, namely:
Where would you turn first if you encountered technical/ technological problems now?	BSC
	ZEDA
	Friends/ family
	Other, namely;
What are your priorities for the next five years?	Increase number of employees
	Increase profit/revenue
	Enter new market niche
	Other

Figure 21 Technology and innovation

Regarding the support on the field of technology and innovation interviewees have been offered by the incubator, several characteristics are presented. Firstly, do interviewees see the incubator as a source of help in times of need. Secondly, what are interviewees priorities for the next five years; are they open to technology development and innovation or do they prefer to focus more on traditional goals. Lastly, what kind of trainings and services would interviewees like to receive in the future; these preferences show what interviewees prioritize in terms of their development.

A minority of all companies encountered technical/technological problems during their startup days and a majority would turn to BSC/ZEDA when having technical/technological problems now.

Table 21 Problems/opportunities technology and innovation

Encountered technical/technological problems during startup days?			
Relocated (N=8)		12,50 %	
Startups (N=8)		25,00 %	
	Would turn first to ZEDA/ BSC when having technical/ technological problems now	Would turn first to friends/ family when having technical/technological problems now	Total (N=16)
Relocated (N=8)	100,00 %	0,00 %	100,00 %
Startups (N=8)	87,50 %	12,50 %	100,00 %

A majority of startup companies would like to enter a new market niche in the next five years while the majority of relocated companies focuses on increasing the number of employees, sustainability and overall growth.

Table 22 Priorities

What are your priorities for the next five years?	Increase number of employees	Increase profit/revenue	Enter new market niche	Sustainability and overall growth	Total (N=16)
Relocated (N=8)	37,50 %	25,00 %	0,00 %	37,50 %	100,00 %
Startups (N=8)	12,50 %	12,50 %	62,50 %	12,50 %	100,00 %

In addition, regarding the preferences indicated by interviewees in table 7 that fit into the characteristic of technology and innovation. Both relocated companies and startups wish to receive Consultation on the development of new products and services.



# Chapter 6 Answer to the research question and discussion

## 6.1 Answer to the research question

With the results of the empirical case the research question can be answered. The results show what the BSC and ZEDA actually offer and whether tenants make use of that. When the research question is answered, the outcomes can be discussed.

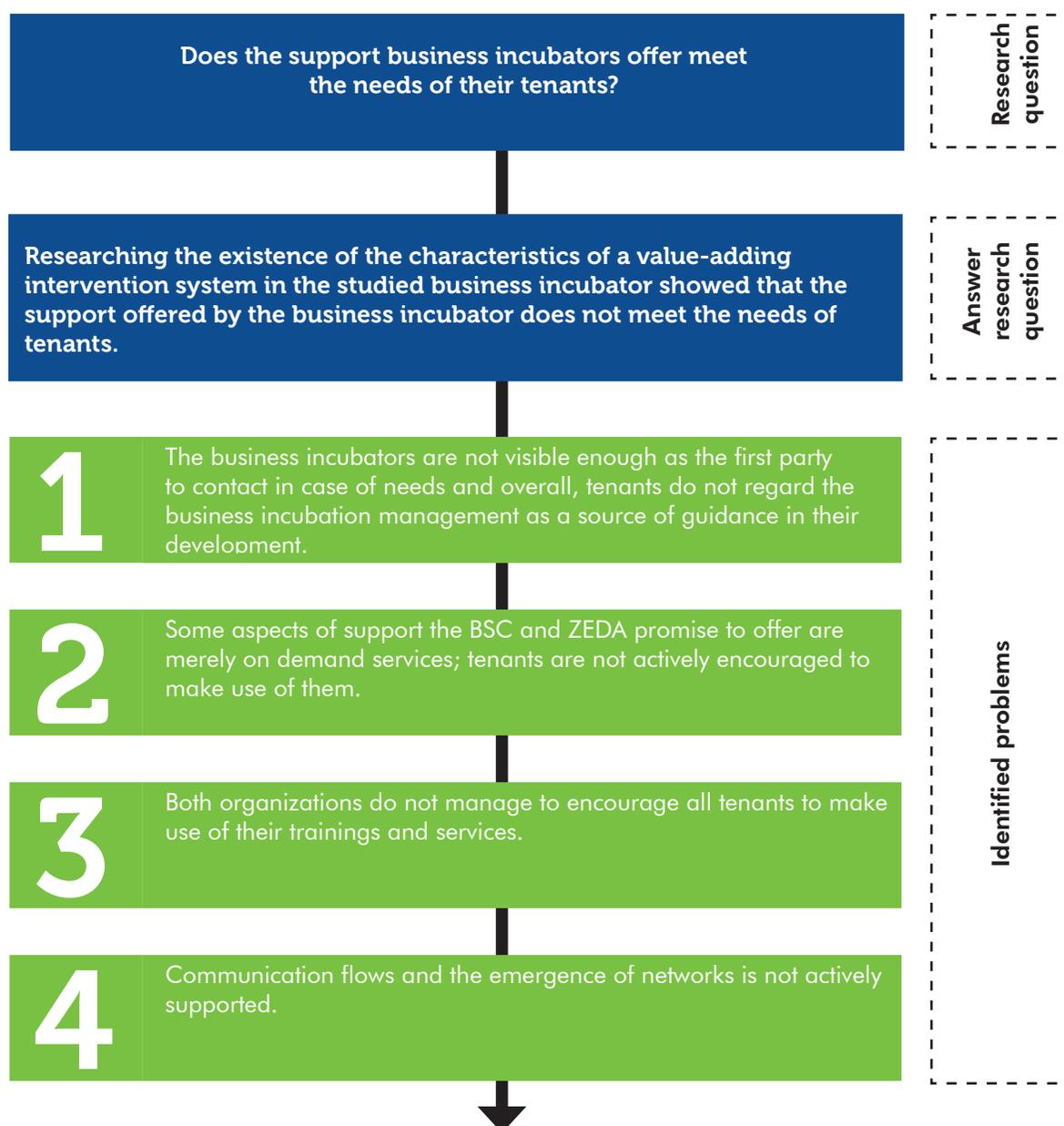


Figure 22 Answer to the research question

In order to make clear how the answer to the research questions was found, a discussion of the results per characteristic of the value-adding intervention system is useful.

A study to the effectiveness of a business incubator

## 6.2 Discussion

### **Entrepreneurial training; writing a business plan, training and advice on how to form a company and how to run a business.**

The aspects of the first characteristic of the value-adding intervention system, entrepreneurial training, are not met by neither the BSC nor ZEDA. A considerable share of companies has not used any of the offered services. BPC winners are the exception since they are enrolled into a fixed program. The BSC is not encouraging other companies actively to join their program while ZEDA does not encourage any of the companies at all. Their on demand set of services exists but companies are not necessarily aware of the need to make use of them. The fact that one third of these companies did not gain skills by using BSC/ZEDA services, shows that the BSC and ZEDA have not managed to encourage a considerable share of companies to join their program. When companies are not enrolled into a fixed program, part of them fails to find and consequently use the programs offered by the BSC and ZEDA.

Regarding the results on the number of employees that was trained, it shows that even though a large share of managers have gained entrepreneurial skills, half of them has not decided to develop their employee base. The data shows that relatively more startups and companies with small employee bases trained their employees but overall companies only train part or none of their employees. Generally, a larger share of companies that have been offered and gained entrepreneurial skills actively by the BSC and/or ZEDA, develop the skills level of their employee base.

Concerning the relation between type of company and number of employees trained, the data showed that small startups train the largest share of their employees. This is logical since relocated companies tend to have more employees and can suffice with a smaller amount of them trained whereas startups are both smaller and younger and need a larger share trained to consolidate the state of their business. However, the fact that half of all companies did not train any of their employees in the last year, given the fact that they have been part of the business incubation community since 2006 in case of relocated companies or since they founded their business in case of startups, suggests that the BSC and ZEDA are not encouraging employee training actively. The majority of managers have gained entrepreneurial skills but most of them did not invest into employee development since they joined the business incubation process. This does not show that active skill development by managers is directly related to employee development. Low levels of employee development may also be explained by the fact that running in a business is rather a novelty in BiH given its history. In any case, it does show that that ZEDA and to a lesser extent, the BSC, are not encouraging employee development actively or successfully.

In summary, the BSC does actually offer what it promises to offer concerning BPC winners because they are actively encouraged to join their program. Other startups and relocated companies are free to join parts of the BSC's program and/or use ZEDA's services but one third does not do so; most tenants need active encouragement to join. Further, the on demand services offered by ZEDA and the possibility for companies to use parts of the BSC's program does not result in large numbers of employee trained. Therefore, the on demand services by ZEDA are not 'visible'; companies are not

actively encouraged to make use of them. The fixed program by the BSC results in the target group of companies using it but many others fail to recognize and join the program. An explanation for some, mainly relocated and hence older, companies to fail to recognize the program as important is provided by McAdam et al. (2008); 'as firms mature and become more aware of their competitive environment, so does a reluctance to share ideas, problems or solutions'. So failing to join the program does not only seem to be caused by a lack of visibility, but also by unawareness of the importance among tenants.

**Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.**

The second characteristic, business advice, specified in marketing, is not met by both ZEDA and the BSC. Neither ZEDA nor the BSC manage to encourage all of their tenants to use active marketing tools. But the much larger share of startups using active marketing tools suggests that the BSC is doing a better job in encouraging marketing tool use than ZEDA. The majority of all companies said to use marketing tools but when specifying this into active and passive tools the percentage of relocated companies using active tools drops from 75,00 % to 37,50 % and the percentage of startups using active tools drops from 75,00 % to 62,50 %. This shows two aspects of current marketing use among companies. Firstly, twice as many startups use active marketing tools than relocated companies. Secondly, even though the majority of all companies indicates to use marketing tools, a large share does not value the difference between active and passive tools.

Regardless of how the use of marketing tools is benchmarked, almost all categories show lower percentages of companies using active marketing tools compared to using marketing tools. The largest difference between categories next to age of company is number of regular customers. The majority of startups has 1-10 regular customers while the majority of relocated companies has more than 10 regular customers. The difference between categorizing tools in yes/no or active/passive is much larger with companies with a larger number of regular customers and with relocated companies. This would indicate that more companies with larger customer numbers (the majority of which are relocated companies) do not understand the concept of marketing in terms of valuing the difference between active and passive tools until a division is presented. A first conclusion that can be drawn is that interviewees tend to have an inaccurate conception of marketing. Especially relocated companies do not value the difference between active and passive tools. Active tools require much more effort in terms of time, money and knowledge than mouth-to-mouth which is potentially effective but largely outside of the control span of the entrepreneur. However, while only 37,50 % of relocated companies indicates to use active marketing tools, they are performing well; 62,50 % claimed to have seen an increase in profit over 2006 and 2007 and a majority has more than 10 regular customers. When compared to startups their higher profits and larger numbers of regular customers are logical; relocated companies are older, therefore have had more time to build customer relations and make up for initial investments. Despite this logical difference, fact remains that if one is to realize higher profits while costs have increased, one would have to increase sales more than costs. Passive marketing tools might be among the causes of success. The fact that they are performing rather well does not imply that there is no need to consider using active marketing tools because even though, as Carson (1995) claimed, managers may consider marketing not to have an immediate impact on company performance, implementing active marketing tools could

improve company performance indirectly through managers being triggered to think about the development of their firm. A second conclusion is that the company characteristics that ensure high levels of active marketing tools are: startups, high-skilled-production/services, target group: various types of business and companies with employee bases between 6 and 15 employees. These characteristics are present in various combinations among the interviewed companies but the number of companies carrying at least one of these characteristics is a minority. This could be explained by the fact that companies were not selected to become part of the business incubation community based on their characteristics but rather on factors such as ability to pay the monthly rent. Companies that joined are examples of rather traditional companies, in the sense of providing traditional products for a mature market, that focus on low and medium-skilled production for major companies or SMEs and are due to their type of production and/or business success either small in terms of employee base or grew to more than 15 employees.

In summary, regarding tenants' knowledge and use of marketing tools. Interviewees have insufficient knowledge of the concept of marketing in terms of valuing marketing tools. More relocated companies value active and passive marketing tools as being equally important and the percentage of relocated companies using active marketing tools is much lower than startups. However, relocated companies perform better using passive marketing tools in terms of number of regular customers and profit than startups. This conclusion shows (1) that ZEDA is not encouraging active marketing tool use sufficiently among relocated companies and (2) that the majority of companies participating in the BSC's program uses active marketing tools. The difference of marketing tool use between startups and relocated companies may also be explained by the fact that the incubation environment differs between startups and relocated companies. Not only do both operate in a different physical environment created by either the BSC or ZEDA, but also, managers of startups tend to be younger, broader educated and usually those people are better equipped to act in an environment where new ways of doing business are presented. Older, less educated managers would tend to act in an environment known to them but out of date in terms of new ways of doing business. In any case, fact is that neither ZEDA nor the BSC manage to encourage all of their tenants to use active marketing tools.

### **Financial support; changing attitudes of venture capitalists towards startups through investing in tenants by providing small-scale seed capital funds**

Relocated companies deal with rises in costs of production, raw materials, and employment but their profits are positive. Startups are not yet able to provide meaningful information on their yearly balances. A majority of all companies indicated to have had financial problems in the past and the vast majority would turn to a bank or family/friends when encountering financial problems now.

Only 25,00 % of startups and 12,50 % of relocated companies would turn to the BSC/ZEDA if encountering financial problems now. This indicates that even though companies are part of the incubation community since they were founded or since a few years, they have dealt with financial problems in the past and deal with rises in costs now and would prefer to take their problems to a bank and friends/family instead of to the business incubation management; half the startups but none of the relocated companies would consider asking the business incubation management for help. The BSC and ZEDA are not presenting themselves as institutions where tenants should go in

case of financial needs. Further, interviewees do not find great sources of information in case of financial need in colleagues/employees, other tenants or the business incubator. This indicates that the business incubator, in this case the BSC/ZEDA, does not manage information flows sufficiently in three respects. (1) BSC/ZEDA are not a sufficient source of information themselves, (2) BSC/ZEDA do not provide platforms for their tenants to improve communication and information flows and (3) BSC/ZEDA do not encourage tenants to work on information management internally. Also the fact that financial difficulties tend to be solved by short term solutions such as applying for a (new) loan shows the need for the incubation management to increase its visibility as a party to go to in case of needs. Usually companies take loans to solve ad hoc problems instead of using those means to invest in long term solutions. Networking and training with the aim of increasing knowledge and means could result in preventing future financial holes because tenants learn how to manage their situation and improve their financial prospects.

Further evidence of the lack visibility of the BSC and ZEDA is presented by asking tenants with whom they would like to network. Only a minority would like to network with potential investors to prevent future financial problems or with an incubator manager. Potential investors may or may not be a solution to financial problems but the low percentage of tenants seeing the need to network with investors shows the need to develop their awareness of the importance. Further, a rather large share of tenants indicates to prefer networking with customers or stakeholders. This shows that part of the tenants value contacts that produce direct income generation, like customers, as important, whereas another part values strategic contacts with incubation stakeholders as important. What can be concluded in both cases from this data is that the BSC and ZEDA are not seen as a first party to contact when certain networking opportunities are sought. This conclusion also results from the percentage preferring to network with a business incubation manager. This incubator manager could be a central source of information and coordinate other information flows. The fact that tenants do not see the potential value of such a manager, both categories show that less than half of companies values this networking opportunity, shows the need for the BSC and ZEDA to increase their visibility.

In summary, tenants do not see the BSC and ZEDA as a first party to contact in case of financial needs or when seeking networking opportunities. Further, the BSC/ZEDA, does not manage information flows sufficiently in three respects. (1) BSC/ZEDA are not a sufficient source of information themselves, (2) BSC/ZEDA do not provide platforms for their tenants to improve communication and information flows and (3) BSC/ZEDA do not encourage tenants to work on information management internally.

## **Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.**

A minority of companies encountered technical and/or technological problems during their startup days. The low amount of companies that report these problems in the past shows that companies were able to set up their business relatively independently in terms of using the available resources. A vast majority sees ZEDA/BSC as the first party to contact when encountering problems now. This shows that the visibility of the BSC and ZEDA in terms of a source of help with technical/ technological problems is high. Regarding technology and innovation, a majority of startups prefers to enter a new market niche in the next five years while the majority of relocated companies prefers to focus on more traditional business activities and sustainability. Both the BSC and ZEDA offer facilities and advice/consultancy on the field of technology and innovation but neither the BSC nor ZEDA offers a set of services specifically aimed at technology and innovation.

Startups should be supported in realizing their ambition of exploring new market niches but equally important, they should be encouraged to focus on more traditional business activities and sustainability. Startups are young companies, mostly managed by young entrepreneurs and these companies are extra vulnerable to changes in their environment because they have not had a chance to develop large sets of resources. Barney (1991) argues that the resources a firm possesses enables the firm to exploit opportunities or neutralize threats. If these resources are only possessed by a small number of competing firms and they are costly to copy or inelastic in supply, then they are firm strengths and sources of competitive advantage. Since startups will have difficulties in competing without these resources, they need to consolidate and develop their business before focusing on new market niches. Relocated companies on the other hand should be encouraged to consider innovative developments and new market niches to prevent them from becoming too rigid in terms of being able to act upon changes in their environment. The BSC and ZEDA could play a key role in the development of both categories and the fact that the majority of companies sees them as an important source of help now is important.

All companies indicated that they are willing to develop themselves as is shown by the priority list of trainings and services they would like to receive in the future. Overall, the list of services and trainings startups request is in line with the state of business of startups. Marketing advice could help increase the number of regular customers and chances of positive profit, managerial training is important for young inexperienced entrepreneurs and the development of new products and services is in line with their ambition for the next five years. Relocated companies request financial advice which is in line with their current financial situation and focus on more traditional business activities. In addition, a majority of relocated companies would like to get legal advice and consultation on the development of new products and services. These results show that companies do realize what could benefit their development while also focusing on their future in terms of product development.

In summary, the visibility of the BSC and ZEDA in terms of a source of help with technical/ technological problems is high. Further, Both the BSC and ZEDA offer facilities and advice/ consultancy on the field of technology but neither the BSC nor ZEDA offers a set of services specifically aimed at technology and innovation.

# Chapter 7 Recommendations, further research and limitations

## 7.1 Recommendations

Business incubation management can develop their knowledge on the entire process of business incubation and on the characteristics of their tenants by using the results presented in this study. The results of this study can be a first step in identifying what tenants need and what the incubator should offer. The two frameworks presented in figures 4 and 10 provide insight in both. The frameworks are presented to urge business incubation management to think about who their potential tenants are and consequently what they need in order to become successful. This could be used as the basis of further development of the business incubation process. The two frameworks are not presented as sequential processes; an analysis of what makes up successful firms may coincide with the beginning of the incubation process. What both frameworks do show is that business incubation is not a product that can be delivered at a client; successful business incubation includes investing in the process as well as in the tenant. Both frameworks are presented as first steps in the development of the business incubation process and an important part was tested in the empirical case. Recommendations can be made for the implementation of that part. Concrete steps can be provided on developing a value-adding intervention system.

**The identified problems**



**Recommendations per characteristic of the value-adding intervention system**

**Entrepreneurial training**

Problems specifically adressed: 1, 2, 3, 4

**Recommendations:**

- BSC- active encouragement of participation of all companies, not just BPC participants
- ZEDA - developing a set of services consisting of trainings and active forms of assistance.
- In addition: Both should approach local best-case practices to give trainings and provide help. External expertise could be sought in the networks of the business incubator’s stakeholders.

### Business advice specified in marketing

Problems specifically addressed: 1, 2

#### Recommendations:

BSC - including marketing trainings as an extra service

ZEDA - offering a set of services that actively encourages tenants including marketing trainings.

Marketing training should be 'practical' and 'personal'. Result: direct advantages such as effective marketing tools and indirect advantages such as knowledge on customer care  
Further: economies of scale; contracting local newspapers and organizing fairs .

In addition: Virtual incubation provided that necessary knowledge, resources and awareness exists.

### Financial support

Problems specifically addressed: 1, 4

#### Recommendations:

BSC and ZEDA - visibility as a first party to contact in case of need. For instance by creating a micro-financial advice center.

BSC and ZEDA - attracting business angels and venture capitalists; external investors are a source of finance and networking.

Key for the incubation management team is to create awareness among their tenants of the need to network with potential investors.

### Technology and innovation

Problems specifically addressed: 2, 4

#### Recommendations:

BSC and ZEDA should enable tenants to consolidate their businesses and consequently focus on technology and innovation by offering tenants networks of external expertise; local best-case practices, meetings with customers. In addition, assistance in market research. This would be a source of business ideas, potential partnerships and ultimately innovation.

Tenants are encouraged to think beyond merely running a business and towards developing their business. This would be a source of business ideas and potential partnerships.

### Overall

#### Recommendations:

The BSC and ZEDA should develop an effective business incubation management team and encourage networking by:

- Continuously presenting the business incubation management team as an active source of help, information and assistance.
- The incubation management team should 'secure the political, and initial financial support of Government without relinquishing control'.
- Create networking structures that carry the characteristics of figure 9.

Figure 23 Recommendations

## **Entrepreneurial training; writing a business plan, training and advice on how to form a company and how to run a business.**

The BSC offers assistance in writing a business plan and the registration of a business in combination with providing entrepreneurial training. ZEDA provides consultancy on writing a business plan and developing business ideas. This study recommends: (1) the BSC should consider the active encouragement of participation of all companies, not just BPC participants. (2) ZEDA should consider offering more than consultancy. Consultancy that is not marketed actively, does not go beyond the level of the possibility for tenants to approach ZEDA staff members for help. When tenants are not actively encouraged to ask for help and they are not offered trainings and forms of assistance, they are not triggered to think about their situation and use consultancy. Therefore, ZEDA should consider developing a set of services consisting of trainings and active forms of assistance. Since both the BSC and ZEDA for a large part deal with a similar pool of tenants, cooperation in developing this set could be beneficial to both. Practically this would mean that local best-case practices are approached to give trainings and use their practical and recent experience to serve as sources for help. This would be beneficial for the development of tenants because their knowledge and experience is not only recent, they would also be viewed as an informal party to seek help from. Usually relatively young and inexperienced entrepreneurs find it easier to talk to their peers in an informal setting. In addition, external expertise could be sought in the networks of the business incubator's stakeholders. Various stakeholders are funded by or collaborate with European Union institutions, NGO's from the US and national development organizations in other cities in BiH. These networks could provide the incubator with either trainers or provide a source of funding to contract trainers elsewhere.

### **To summarize, this study recommends:**

- 1) The BSC should consider the active encouragement of participation of all companies, not just BPC participants.**
- 2) ZEDA should consider offering more than consultancy. ZEDA should consider developing a set of services consisting of trainings and active forms of assistance.**

**In addition: Both should approach local best-case practices to give trainings and provide help. External expertise could be sought in the networks of the business incubator's stakeholders.**

## **Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.**

The BSC offers several means on the field of business advice while ZEDA provides 'general support'. Again this suggests that the BSC is more actively providing support than ZEDA. The fact that neither one of both organizations has managed to encourage active marketing use among all of their tenants shows the need for further development. This study recommends: (1) both the BSC and ZEDA should focus on including marketing trainings as an extra service. In addition, ZEDA is recommended to consider offering a set of services that actively encourages tenants. Marketing trainings provided by external experts, ZEDA is part of the municipality of Zenica and has a potential network of expertise, combined with the use of local best-case practices would increase the use of

marketing. The BSC offers a broader set of services and even though more of the entrepreneurs working with them actively use marketing tools, the BSC should also consider including marketing trainings as an extra service. When organizing these services, incubation management should consider a few aspects of entrepreneurs and marketing in their context. According to Carson (1995), small enterprises lack structure, systems and formal organization and in practice it seems that such enterprises are particularly weak when it comes to implementing marketing. Further, Carson (1995) claims that one might expect that the more developed the firm the more likely it is to organize marketing along traditional, formal lines. The reality, though, is that the state of marketing in the SME will depend quite often on the background of the manager. Carson (1995) continues by arguing that in practice, most entrepreneurs tend to be either older or self-made and therefore low on academic foundation but strong on experience. Therefore most entrepreneurs would not accept formal marketing techniques because they could easily be deemed too academic. If any effective learning is to take place, the topic must take account of the characteristics of the entrepreneurs' experience and circumstances. Therefore, this study recommends: (2) marketing training should be 'practical' and 'personal'. Carson (1995) argues that it is important to teach entrepreneurs to create a basis of their marketing use by building personal networks. These networks stem from the background of the entrepreneur and the characteristics of the company and can lead to direct advantages such as effective marketing tools but also indirect advantages such as knowledge on customer care. In addition to offering trainings focusing on these aspects, both ZEDA and the BSC should consider using economies of scale. For instance contracting local newspapers to allow tenants to place ads at a reduced price while encouraging tenants to make use of this opportunity would be an impulse to overall marketing tool use. Also, organizing fairs where entrepreneurs can market their products would not only provide them with the opportunity to meet potential customers, it could also serve as a setting to meet their peers and network.

Business advice could also be provided in other ways than the ones mentioned. Virtual incubation could be a way to offer tenants a wide range of services while using the benefits external expertise which would be relatively cheap to offer online. Nowak et al. (2000) argues that today businesses compete in two worlds; a physical world of resources that managers can see and a virtual world made of information. According to Nowak et al. (2000), offering services online would mean 'pooling technical and business talent across all frontiers, providing a clear focus on wealth creation and a strategy to meet the business opportunity at hand'. At the time of the study, the BSC had started to research its opportunities to develop virtual incubation. In its annual report 2007-2008, BSC-Zenica (2008) describes virtual incubation as 'an approach in supporting micro, small and medium enterprises to develop their business activities through counseling and promotion via the internet'. OECD (1997) argues that 'virtual incubation is valuable as 'a cost-effective way of servicing small firms in areas with insufficient critical mass'. An online system that serves the needs of tenants in terms of the characteristics of the value-adding intervention system could also function as a platform for the overall development of tenants and the business incubator as such. This platform could enable tenants to network among themselves online through forums, it could serve as the capital source of information flows from the management team to the tenants and last but not least it could serve as the single point of entrance for outsiders in the incubator; potential buyers, future tenants, venture capitalists, other funders and other parties interested in the development of the business incubator would have a easily accessible 'door' to the incubator. However, caution is necessary, for there are certain prerequisites that incubation management needs to take into

account. Business incubation management would have to manage, monitor and maintain the system; tasks that require time and knowledge that might not be at hand. Further, virtual incubation presupposes that its users have access to it and the needed knowledge to make use of it; not all tenants in the studied case had access to computers at the time of this study and the existence of the needed knowledge to make use of virtual incubation was, although not specifically studied, questionable. Also, as OECD (1997) argue, tenants need to be aware of the importance of usage. In the case they studied, tenants tended to value the credibility of being associated with the incubator more than its actual services. In short, for virtual incubation to work, the management team would have to have the needed time and knowledge to set up and maintain the system, its users should have access to it, they should have the necessary knowledge to use it and they should be aware of the importance to actually use it. Because of these prerequisites, economies of scale might improve chances of success. For instance, SPARK could set up a virtual incubation system for all of its incubators that have larger pools of resources. Concluding about virtual incubation; this study did not research the potential of virtual incubation in this case, it merely recommends (3) continuation of research as the BSC had started at the time of this study.

**To summarize, this study recommends:**

- 1) Both the BSC and ZEDA should focus on including marketing trainings as an extra service. In addition, ZEDA is recommended to consider offering a set of services that actively encourages tenants.**
- 2) Marketing training should be 'practical' and 'personal'. Result: direct advantages such as effective marketing tools and indirect advantages such as knowledge on customer care. Further: economies of scale; contracting local newspapers and organizing fairs .**

**In addition: Virtual incubation provided that necessary knowledge, resources and awareness exists.**

**Financial support; changing attitudes of venture capitalists towards startups through investing in tenants by providing small-scale seed capital funds**

The BSC provides BPC winners with several sources of finance while ZEDA claims to facilitate networking opportunities with financial institutions. The results showed that both organizations do not manage information flows sufficiently as a source of information themselves, they do not provide platforms for their tenants to improve communication and they do not encourage tenants to use their own sources. This study recommends: (1) both organizations should work on their visibility as a first party to contact in case of need. In order to develop their visibility, they should consider offering tenants ways of increasing their financial knowledge by providing networking meetings, opportunities to have specific confidential meetings with financial experts and above all, the management team should market itself as the first party to contact. For instance by creating a micro-financial advice center within the incubator building. This would serve as a platform to find information, organize meetings and to go first whenever encountering problems. In addition, it is recommended (2) that they should consider attracting sources of finance like local business angels and venture capitalists. According to Leach et al. (2006), business angels are wealthy individuals operating as informal or private investors who provide venture financing for small businesses.

He argues that because of extensive experience as entrepreneurs, business angels tend to have substantial business and financial experience. Leach et al. (2006) describes venture capitalists as individuals who join in formal, organized firms to raise and distribute venture capital to new and fast-growing ventures. They typically invest the capital they raise in several different ventures in order to reduce risk. The advantage of being financed by business angels is the personal character of the collaboration. Because business angels are individuals investing their private capital, they are more likely to invest in the development of the business other than through financial means and use their experience to assist and consult entrepreneurs. Venture capitalists may also deliver financial and technical expertise but the main advantage of contracting them is that they are likely to ask for less strict conditions than business angels because venture capitalists tend to spread their investments over more than one company. Business angels and venture capitalists are important in the startup stage of companies. According to Leach et al. (2006) following stages where company survival and consequently company growth are central, should be financed by customers and commercial and investment banks. Overall, attracting these external investors would not only provide a source of finance but also a great source for networking. Tenants would be encouraged to look for investors instead of sources of loans and this would benefit them on the long term. Key for the incubation management team is to create awareness among their tenants of the need to network with potential investors, something not valued greatly at the time of this study as the results showed.

**To summarize, this study recommends:**

- 1) BSC and ZEDA - visibility as a first party to contact in case of need. For instance by creating a micro-financial advice center.**
- 2) BSC and ZEDA - attracting business angels and venture capitalists; external investors are a source of finance and networking.**

**Key for the incubation management team is to create awareness among their tenants of the need to network with potential investors.**

**Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.**

Active encouragement on the field of technology and innovation managed by the incubation management team could provide tenants with the potential network they need to develop themselves in a way that benefits their development best. This encouragement should not interfere with tenants' priorities but it should facilitate the realization of these priorities. That would mean assisting tenants in setting realistic expectations (ensuring sustainability and consolidation) for the future and advising in the management of companies' development (technology and innovation). Therefore, this study recommends: (1) that the BSC and ZEDA prioritize enabling tenants to consolidate the state of their business before thinking about technology and innovation. The BSC and ZEDA should therefore expand the level of assistance they conduct in the current situation and actively manage companies' development. This would benefit the fourth characteristic of the value-adding intervention system but also the second; business advice. Through thorough business advice, for instance strategic advice like financial advice or legal advice, companies will be able to consolidate and expand their business and consequently build a solid foundation for future technology and innovation.

When considering technology and innovation, both the BSC and ZEDA provide several means and facilities that are necessary on the practical field of running a business but neither one of them actively encourages technology and innovation. This study does not suggest that the companies researched are great potential innovators, it merely suggests for the business incubator to facilitate ways for these companies to learn to think about the concept of innovation and what it could mean to them. According to Katz et al. (2004) several factors affect the power of a company to innovate. Two could apply to the context of this study. Firstly, innovation tends to emerge from out of the existing structure of a company. This does not mean companies should stop planning or abandon existing structures, it means that entrepreneurs need to learn to look beyond the basics of running a business and into developing their business. Secondly, entrepreneurs need to listen to customers. Most product ideas originate from users. Offering tenants networks of external expertise such as local best-case practices, being companies that succeeded in launching new products and new ways of selling existing products, and meetings with customers would encourage them to think beyond merely running a business and towards developing their business. Facilitating network meetings where all these parties are present would be a first step in triggering tenants to think about their development. These meetings could be a source of business ideas and potential partnerships. In addition, the business incubator could assign staff members to conduct market research for tenants. This could provide tenants with business opportunities and ultimately be a source of innovation.

**To summarize, this study recommends:**

- 1) BSC and ZEDA should enable tenants to consolidate their businesses and consequently focus on technology and innovation by offering tenants networks of external expertise; local best-case practices, meetings with customers. Result: tenants are encouraged to think beyond merely running a business and towards developing their business. In addition, assistance in market research. This would be a source of business ideas, potential partnerships and ultimately innovation.**

Regarding the development of all four characteristics, the BSC and ZEDA should develop two aspects of business incubation; an effective business incubation management team and networking. The results showed that the visibility of both organizations needs improvement. This study recommends: (1) to continuously present the business incubation management team as an active source of help, information and assistance. This would make the entire business incubation process more transparent. When tenants immediately know where to turn in case of needs, they are more easily triggered to do so and if the business incubation management team manages to implement the recommendations on all four characteristics, tenants will view them as an effective source of help and this will increase their status as an effective management team. Also, (2) if the incubator is to stay a healthy organization and consequently is to grow, Lalkaka et al. (1996), states that it is important for the incubation management team to bear in mind that the incubation management team needs to start by 'securing the political, and initial financial support of Government without relinquishing control'. However, it is important not to rely fully on governmental support. Lalkaka et al. (1996) argues, what must be kept in mind is that the management team should market the incubator as a source of benefits for the private sector when involved. Private parties should be attracted to invest rather than sponsor the incubator and the management team should be sure that the project is not perceived as a 'government project' to prevent a lack of interest from private parties. In addition (3) creating networking structures that carry

the characteristics of figure 9 will ease the development and implementation of the recommendations. Figure 23 shows a summary of the recommendations and the related problems.

## 7.2 Further research

This study focused on the proposition that the set of services the business incubator offers, meets tenants' needs. It was concluded that tenants are not provided with services that satisfy their needs, in numerous cases tenants are not actively encouraged to use the services offered and the business incubator generally is not viewed as the first party to contact in case of need. In order for a set of services to be developed that satisfies the needs of tenants adequately, the business incubator should be sure it is able to implement all the changes necessary. In order to enable this development, further research could focus on three aspects of the reasons behind the flaws of the current situation: (1) offering services, (2) using services and (3) developing the business incubation process. Specifically, further research could focus on: (1) business incubation management's opportunities to offer services; their dependence on stakeholders, (2) monitoring service usage; this would show the effectiveness of services and whether tenants are encouraged to make use of offered services and (3) further specified research to other characteristics of the value-adding intervention system and the overall frameworks for new venture creation and business incubation planning; this could make an inventory of the current state of the business incubation process in terms of potential areas of development.

Since both ZEDA and the BSC are dealing with various stakeholders, further research should firstly focus on the collaboration with these partners because institutional alignment between all stakeholder can enhance efficacy of business incubation and hence the implementation of a value-adding intervention system. Both organizations are dependent on their stakeholders as sources of finance and expertise. However, stakeholders' objectives are not necessarily aligned. Different objectives may result in various practical and strategic obstacles in the development of the business incubation process. Further, the current set of stakeholders is not fixed, for instance, SPARK will terminate its active collaboration in the project in 2011. Regarding the collaboration with stakeholders, OECD (1997) suggests stakeholders to clarify objectives from the outset in order to avoid friction between different actors and equally important, to facilitate the evaluation of such initiatives. The establishment of advisory boards of incubators involving a mix of public and private stakeholders would provide a mechanism for continuous monitoring and guidance of the process. Lalkaka et al. (1996) agrees and argues that 'the agreement of major stakeholders upon specific, clean objectives for the incubator is the basis for developing overall strategy, operational tactics, and measures of performance. Poorly developed measures provide neither a standard for operation nor the basis for the evaluation of effectiveness'. Practically this would imply for the business incubation management to develop an implementable set of objectives and an action plan for the near future regarding the implementation of the value-adding intervention system. When the incubator has defined its objectives it could assess the relationship with stakeholders. If objectives of stakeholders are different from the incubator, the continuation of the collaboration should be reconsidered. For instance in case of collaboration with a local university, as OECD (1997) argues; while one party agrees to collaborate because of potential image building for the university, the other party focuses on the actual commercialization of university knowledge. When the objectives of all stakeholders are aligned and if necessary new collaborations are established, the incubation management team could exploit the network that emerges and optimize an effective implementation of the value-adding intervention system.

Secondly, the effectiveness of the services that are offered could be monitored among tenants by studying the actual company development resulting from using services and by studying satisfaction levels among tenants. Studying satisfaction levels would show whether business incubator management team and tenants are cooperating effectively. Repeatedly measuring satisfaction levels on the incubation process among tenants would serve as an indicator of the effectiveness of offered services and also as a token of interest from the management team in the tenants' development. High levels of satisfaction would improve cooperation between tenant and management team but it could also lead to a lack of interest from both sides in the development of the incubation process and the company; people may regard satisfaction as a reason not to develop further. To tackle this, a study to the effectiveness of services after a certain amount of time in terms of qualitative and quantitative development of tenants' companies would contribute to improving satisfaction on both sides.

Thirdly, when empirically testing the existence of a value-adding intervention system, this study focused on one aspect of the second characteristic; marketing. Other aspects were indirectly studied when outlining the other three characteristics but a study specified to business planning and what strategic advice should entail could shed light on the gap between the business incubator's offers and tenants' needs. Also further research to the existence and further implementation of other parts of the frameworks for new venture creation and business incubation presented in figures 4 and 10 is advised.

### 7.3 Limitations

This study is not without limitations.

Firstly, literature focusing on business incubation in a context similar to this study tends to be underdeveloped or nonexistent. In addition, local data on the fields of entrepreneurship and business incubation are difficult to get hold of or do not exist. Therefore, the two frameworks presented in figures 4 and 10 were based on literature focusing on cases in Western-Europe and the United States. Because of this limitation, the conclusions from the literature study and the context of this study may not fully correspond.

Secondly, regarding the generalization of this study. This study was conducted in a country with a troubled past but with characteristics comparable to other countries. Because of these similarities, the results of this study may be applicable to other business incubators set up by SPARK in neighboring countries but caution is advised. This study was conducted at a recently established business incubator that did not have any graduated tenants at the time of this study. This meant that none of the tenants had gone through the whole business incubation process and many aspects of the business incubation process as such were not institutionalized. Further, the sample tested was rather small, 16 entrepreneurs were interviewed. Using statistical software on the results therefore did not lead to information that contributed to the conclusions of this study. In short, one needs to be aware of these limitations when considering the generalization and application of the results of this study to other business incubators.

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# Appendix Interview Tenants Business Incubator Zenica

Name Company .....  
Date .....

## General

- 1) How long does your enterprise exist? (legal registration date)
- 2) Can you give a short impression of how is business going currently?
- 3) What is your opinion regarding the circumstances you are working in?
- 4) What is your understanding of the purpose of a business incubator and how it should work?
- 5) Why did you choose to locate your business in this incubator?
  - Financial benefits
  - Contact with other tenants
  - Networking possibilities
  - No alternatives
  - Other, namely:
- 6) What other options did you consider?
  - Renting business space privately
  - Buying property
  - Home
  - Other, namely:
- 7) What other benefits do you expect from being in the incubator besides the ones available now?

**Entrepreneurial training; writing a business plan, training and advice on how to form a company and run a business.**

Interview question	Answer category	
What did you do to gain the necessary entrepreneurial skills for running your business?	Education	BSC/ ZEDA
	Trainings	BSC/ ZEDA
	Coaching	BSC/ ZEDA
	Self experience	
	Nothing	
How many employees do you have?	None next to companies' manager	
	1-5; next to companies' manager	
	6-10	
	11-15	
	> 15	
How many of them (your employees JJA) received training on working effectively and efficiently in this branch in the last year (relocated JJA) or since you were founded (start-ups JJA)?	None	
	1 - 5	
	More	

**Business advice; business planning, advice on accessing capital, marketing, the identification of suitable business partners and general strategic advice.**

Interview question	Answer category	
How many employees do you have?	None next to companies' manager	
	1-5; next to companies' manager	
	6-10	
	11-15	
	> 15	
How many regular customers do you have?	1 - 10	
	> 10	
What is your target group of customers?	Major companies	
	Other SMEs	
	Individual players	
	All of the above	
	Other, namely:	
What marketing tools are you using?	Flyers/Brochure	Active
	Commercials on Radio/TV	Active
	Advertisements in newspapers	Active
	Mouth-to-Mouth	Passive
	Nothing	-

**Financial support; changing attitudes of venture capitalists towards startups through investing in tenants by providing small-scale seed capital funds.**

Interview question	Answer category
What are the main problems that you have encountered in your start-up days?	Financial needs
	Technical problems
	Finding a proper business space
	Lack of a network
	Other, namely:

Difference in costs of producing over 2006 and 2007 or since start-up/one year in business?

Difference in costs of employees over 2006 and 2007 or since start-up/one year in business?

Difference in costs of raw material over 2006 and 2007 or since start-up/one year in business?

What is the difference in net profit over 2006 and 2007 or since start-up/one year in business?

Where would you turn first if you encountered financial problems now?	BSC
	ZEDA
	Friends/ family
	Other, namely;

<i>Information supply:</i> Did any of these three categories provide you with financial opportunities?	Colleagues/employees
	Tenants
	Business Incubator

Would prefer to network with:	Incubator manager
	Customers
	Stakeholders
	Potential investors

**Technology and innovation; providing access to centers of excellence or providing own specialist resources or promotion through more traditional business activities.**

Interview question	Answer category
What are the main problems that you have encountered in your start-up days?	Financial needs
	Technical problems
	Finding a proper business space
	Lack of a network
	Other, namely:
Where would you turn first if you encountered technical/ technological problems now?	BSC
	ZEDA
	Friends/ family
	Other, namely;
What are your priorities for the next five years?	Increase number of employees
	Increase profit/revenue
	Enter new market niche
	Other

### Inventory of services (Aerts 2007)

(presented in Bosnian and English to give tenants the opportunity to read the boxes)

Facilities	Rangirajte od 1 do 4	N/A
A- Uredske prostrije		
B- Uredska oprema; namještaj/telefon		
C- IT infrastruktura		
D- Prostorije za sastanke		

Facilities	Rank Score 1 to 4	N/A
A- Access to physical resources such as office space		
B- general office equipment; furniture/telephone		
C- IT infrastructure		
D- meeting rooms		

Facility support	Rangirajte od 1 do 5	N/A
A- Sistem uredske podrške, npr kuriri...		
B- Kantina		
C- Obezbjedenje		
D- IT podrška		
E- Oprema za sastanke: projektor/table za pisanje		

Facility support	Rank Score 1 to 5	N/A
A- Office support services such as secretarial and mail services		
B- Catering facilities		
C- Security systems		
D- IT troubleshooting		
E- Availability of meeting accessories; beamers/ white boards		

Networking services	Rangirajte	N/A
<b>Najbolje mjesto za komunikaciju su:</b>	<b>Od 1 do 3</b>	
A- Kantine		
B- Kopirnice		
C- Društveni događaji		
<b>Želio bih se informativno sastati sa:</b>	<b>Od 1 do 4</b>	
A- Menadžerom inkubatora		
B- Kupcima		
C- Partnerima		
D- Potencijalnim investitorima		
Networking services	Rangirajte	N/A
<b>Internal; the best place to network is:</b>	<b>1 to 3</b>	
A- Coffeerooms		
B- Copyrooms		
C- Fridayafternoon drink		
<b>External; I would like to meet informally with:</b>	<b>1 to 4</b>	
A- Incubator manager		
B- Customers		
C- Stakeholders		
D- Potential investors		

Coaching/Mentoring/Training	Odredite 5 najbitnijih	N/A
1 Marketinško savjetovanje proizvoda		
2 Finansijsko savjetovanje (npr.bankarski zajmovi, početni kapital)		
3 Treninzi za menadžere		
4 Savjetovanje pri zapošljavanju		
5 Poslovno planiranje i formiranje kompanije		
6 Konsultacije o razvijanju proizvoda i usluga		
7 Konsultacije o pravima na intelektualnom vlasništvu		
8 Pravno savjetovanje		
9 Računovodstvo		
10 Kako koristiti IT		
Coaching/Mentoring/Training	Indicate the 5 most important	N/A
1 Marketing advice focus on products		
2 Financial advice, (e.g. bank loans, seed capital)		
3 Managerial training		
4 Advice on recruitment of staff and personnel		
5 Business planning and forming a company		
6 Consultation on the development of new products and services		
7 Consultation on intellectual property rights		
8 Legal advice		
9 Bookkeeping		
10 ICT utilization		