Educating Bootstrapping:
Financial decision making processes in Create Business Incubator

“I call my invention ‘The Wheel,’ but so far I’ve been unable to attract any venture capital.”

Master Thesis in Business Studies
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Abstract

Recently, small businesses have attracted much attention from scholars and businessmen, since the significance of these businesses estimated essential in rapid changing business environment from the perspective of wealth and job creation. Simultaneously, it is well known that most infant entrepreneurs are constrained by shortage of financial resource for development and growth of their business. Some entrepreneurs carry out the need for resources by applying the particular methods of financial bootstrapping. Therefore, a number of researches have been conducted in order to define characteristics of bootstrapping and to analysis how it effects to financial decision making process of entrepreneurs.

Under specific constrains and difficulties, the majority of the start-ups gain financial capital for business establishment from family funds and other informal sources based on personal contacts. Being directly connected with bootstrapping, financial decision making also must be implemented efficiently in the start-up phase of the company. Practically, the majority of nascent entrepreneurs face the lack knowledge about financing of small business frequently. Thus, the study of bootstrapping methods and the exploration of the factors, that effect decision making process, is important for both researchers and entrepreneurs.

The regarding thesis, in turn, examines bootstrapping behavior and financial decision making processes of four different companies in the Create Business Incubator. First of all, it investigates financing, financial choice, network and learning in order to conceptualize appropriate frame for conducting the thesis work. Then, necessary hands-on information obtained by conducting certain interviews and analyzing the networking and coaching circumstances of the Incubator. Consequently, after analyzing the characteristics of business and entrepreneurs, a priori conclusion and recommendations are proposed which help to increase the financial awareness of nascent entrepreneurs in the Incubator in terms of financing small business.

Key words: Small Business, Bootstrapping, Science Park, Incubator, financing, decision making, coaching, entrepreneurial learning, networking, social capital.
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1. INTRODUCTION

Given paper represents formalized materials collected through the research process. The thesis consists of several chapters which incrementally describe different stages of the research process alongside with its theoretical analysis and conceptualization.

Introductory chapter presents the academic background of a topic, frames problem statement, draws up research aims, defines target audiences, asks research and strategic questions and sets limitations. The disposition of the whole research will be also provided.

1.1. BACKGROUND

In the second half of 20th century something called entrepreneurial revolution started. Technical progress opened new ways of communication and information flow. This shift in technical knowledge caused chain reaction in all other spheres of life, including economic activities. As a result of these processes the business environment became faster and more uncertain. “Change” appeared to be the cornerstone of modern economy. Under such circumstances the concept of “small firm” proved to be the most suitable. Its embedded characteristics like fast adaptability and flexibility are the perfect source of gaining competitive advantages.

Today, small businesses perform unique, very important and generally acknowledged role in the society. Usually being economic entities of relatively small scale they are a powerful engine of wealth and job creation in terms of countries and nations. An open possibility for anyone to set up a firm and realize business idea is an effective development mechanism for both individual and economy.

At the same time entrepreneurs must overcome various needs and constantly face challenges under the circumstances of real world business environment. Financial aspect of the firm’ activity provides us with the best example of overcoming the need and facing challenge at the same time. On the one hand, almost every entrepreneur needs financial assets and thus always decides where to direct them, roughly speaking – which bills pay first? On the other hand, it is usually a challenge to find an appropriate and sufficient source of finance.

However, despite the fact that effective financing is a crucial condition for survival and development of entrepreneurs, small firms’ financing had not always been a popular area of academic studies. The evidence of this disproportion is a plenty of works which put big corporations’ finance in a limelight of analysis compared with relatively limited amount of attention paid to the finances of small companies by the theorists.

Real attention to the small firms in general and their finance in particular appears and increases simultaneously with the entrepreneurial revolution development. Along with various theories and approaches a concept of “bootstrapping” emerges. Basically, bootstrapping is an umbrella term used to identify certain way of financial decision making behavior. This financing method is based on two cornerstones. First condition is the reduction of firms’ reliance on external long-term debt financing techniques and tendency to substitute them by speeding up the inflow of various financial means and using the advantage of internal recourses. Second one is intensive networking, which is a very effective method of realizing the first condition. These two factors function hand in hand and being in the fundament of bootstrapping will be discussed further.
Consequently, importance of studying bootstrapping includes both practical and theoretical motives. From the practical perspective we have shown that in the situation of entrepreneurial bloom financial issues require extra attention. From our point of view bootstrapping is an interesting and wide spread phenomenon, proper implication of which can be extremely fruitful.

From the academic perspective it is possible to state that there are still many inconsistencies and gaps in the theoretical understanding of financial bootstrapping behavior. Due to the insufficiency of empirical materials on the topic many authors report lack of proven correspondence between theories developed and real life experience.

Thus, both entrepreneurs, facing challenges and lacking knowledge of effective obtaining finance, and academics, disputing about nature of financial decision making processes, give a nudge towards further researching in small firms financing.

1.2. PROBLEM STATEMENT

This part of our research provides a brief explanation of the core research problem investigated in the thesis and shapes its scope. Generally, given research investigates the mechanisms of financial bootstrapping behavior among the small firms’ managers within the learning and networking environment of Västerås Science Park. It is called to contribute to the both practical and theoretical understanding of the issue.

Our interest appears when the educational programs of the Science Park coincide with the lack of business knowledge among the start-up managers. In other words, we will investigate the relations between financial demands of entrepreneurs and informational supply of Science Park. These interrelation processes usually take place in the so called “incubator” – specially created environment for the start-up firms.

![Figure 1 Area of interest](image)

The main reason for choosing entrepreneurs from the VSP is the specific environment they inhabit. The basic features of this environment are intensive networking and organizational learning which are both attractive for start-ups and interesting for academics. This unique environment makes this area challenging and promising for the further study.

Given research will not cross the border of the Västerås Science Park both literally and figuratively. Our research will relate only to the companies involved in the Business Incubator learning programs. Among these firms we will investigate only financial side of their activities with a particular focus on the financial decision making behavior.
1.3. PURPOSE

Our research is conducted for both academic and practical purposes. General purpose of the given research consists in comparing the relevant theoretical materials collected and conceptualized with the real business practices. This purpose requires describing and analyzing financial decision making processes among the entrepreneurs involved in the Västerås Science Park’s activities. Alongside with this the core variables and factors influencing the financial decision making behavior should be defined. These aims are formulated and expounded further by means of setting research and strategic questions.

Our theoretical and practical research outcomes are supposed to contribute to the Science Park Västerås performance. The answers on the strategic and research questions should favor and assist to improve the imperfect aspects of the cooperation between managerial staff of Business Incubator and entrepreneurs involved in the learning programs.

1.4. RESEARCH QUESTION

Research question can and should be answered by doing research (Fisher, 2007, p.34). Current research is focusing upon the financial sources and mechanisms used by small firms in the context of Västerås Science Park’s learning environment. Thus the research question can be formulated as follows:

**Does the educational program of Science Park Västerås create financial awareness among start-up entrepreneurs?**

In order to answer the research question we formulate a set of sub-questions, aimed to increase our understanding of the case and put the limelight on different perspectives of the issue. These questions are:

- Which factors influence financial decision making and to what extent?
- What kinds of enterprises are established in the Business Incubator?
- Which sources of financing do they prefer?
- What kind of the environment does the Business Incubator provide them with?
- Do the learning programs influence financial decision making processes effectively?

1.5. STRATEGIC QUESTION

Strategic question cannot be answered by doing research. On the contrary, in order to answer it one usually needs to apply the act of judgment and will (Fisher, 2007, p.34). However, the research results build a fundament for a more effective answer. Strategic question in our case can be formulated as follows:

**How can Create Business Incubator increase the effectiveness of financial decision making processes among the start-up entrepreneurs though the entrepreneurial learning programs?**

Strategic question in our study derives from the research question. Depending on the research result we will develop relevant and appropriate solutions and recommendations for the investigated case.
1.6. TARGET AUDIENCE

The thesis carries both theoretical and practical value and thus finds various target audiences. Research constitutes academic interest for students and researcher working in the closely related fields. Research material can be used for further studies or be referred to as a source of empirical data. Conclusions reached can be considered in further research in the area of small business financing. Practitioners potentially interested in our research results are represented by two parties. The first is Västerås Science Park as an organization creating entrepreneurial environment for new businesses. The second party is a group of small business start-ups participating in the Science Park’s programs. The results of the work can also be used by other small firms’ owners as a source of practical information along with science parks’ managers as a source of empirical and documented feedback from the entrepreneurs and also by those, who are interested in the small business financing and science parks’ activities.

1.7. LIMITATIONS

The major limitation of research is the impossibility to generalize research results in full volume on the small firms generally and on the other firms from the Business Incubator particularly. Another limitation is the specificity of the industries where the firms operate. The research results can also be affected by the small sample size and scantiness of time for the in-depth analysis. Thus the thesis represents short-term insight on the decision making practices.

1.8. DISPOSITION

The disposition part represents brief explanation of each chapter of the regarding thesis. There are seven chapters in the paper:

The first chapter is introduction which presents background, problem statement, purpose, scope, target audience, limitation, research and strategic question of the research. In general, it concerns about the importance of chosen topic and defines particular criteria for the research. The second chapter is methodology and method which explains how research will be carried out and by which methodological approaches will be used during the data collection procedure.

The third chapter is Critical literature review which gives brief review of relevant literatures in financing theory, small business financing, financial choice, bootstrapping, networking and entrepreneurial learning. After the review of relevant literatures, in the fourth chapter, conceptual framework have been generated in order to achieve expected outcomes from the regarding research.

The fifth chapter of the thesis is empirical findings that are collected by interviewing representatives and surfing though official websites of Vasteras Science Park and companies involved in the Create Business Incubator: Penny AB, QP Medtech AB, Xlnt Nail Group AB and Svenska energigruppen AB. In the next chapter, the analysis of findings has been accomplished in the accordance with the literature review. In turns, entrepreneurial learning, networking, characteristics of business and entrepreneurs have been ground for the analysis of obtained data to answer the formulated research and strategic question and come up a priori conclusion.

Finally, the last chapter is Conclusions which demonstrates the outcomes from defining and analyzing the data. Also, it involves the recommendations of researchers, after thorough examination of the companies and Incubator, in order to increase the financial awareness of participants of Create Business Incubator.
In this section the outline of the methodology and methods applied and used in the research will be presented. The general philosophy of research will be drawn and particular methods for the data collection defined. Recommendations for business students writing a thesis provided by Fisher were mostly applied with the adjustments for the particular research objectives.

According to Fisher there is a significant difference between “method” and “methodology” and these two terms should not be used as substitutes. Our research requires both of the techniques and thus we would like to distinguish these two concepts from the beginning of our analysis. Methodology, as any other “logy” word, indicates a relation to an academic field study. It is a study of methods and it raises all sorts of philosophical questions about what is possible for the researchers to know and how valid their claims to knowledge might be (Fisher, 2007, 40). Methods on the contrary are practical techniques applied for data collection.

2.1. METHODOLOGY

Business research field differs significantly from other research subjects. It hardly can accept methodology generally acknowledged in natural sciences. Business and management laws are more dialogical and not as much inevitable as Newton’s law of gravitation for example. At the same time business science does not go hand in hand with humanities studies as well. Due to some fundamental differences social sciences in general and business and management branches in particular have specific theoretical position.

Without going into the sophisticated dispute we will start from Fisher’s summary of possible methodological approaches, which can be applied in business field research. According to the scholar, the main epistemological cornerstone consists in the understanding of the very nature of knowledge. Still there is no complete acknowledged consensus among academics on what actually can be discovered by doing research. Thus, the great puzzle for a researcher is to choose appropriate methodological position from which further research actions, interconnections and conclusions will be seen.

So, the methodological approaches used in business research can vary significantly from project to project depending on the area and aims of the study. However it is possible to identify the extreme points on the axes. On the one side of the spectrum there is an opinion that our knowledge is an exact reflection of the world. This is called orthodox view and it implies that there is an objective truth, it is simple and transparent, and there is conformance. On the other hand, there is an opposite idea, stating that the world is largely unknowable and what we can know is patchy. It is so called Gnostic view, stating that truth is subjective, hidden, and can be gained through personal struggle. Between the two extremes mentioned above there is a number of intermediate positions.

As it was mentioned by Fisher the research methodology has to correspond with the particular aims of the research. According to research motives and aims of the given project, it is planned to study already existing phenomena from different perspectives. The subjects of our analysis are financial practices, managers and decision making processes. We want to understand the motives of individuals and conceptualize the behavioral habits peculiar to them in the scope of a real world business environment. Our work also refers to the learning practices applied by entrepreneurs and their activities in informal networks. Thus, we can identify that our research is aimed on the investigation of a real business phenomenon – financing. In this sense it is an
objectively existing process. However, we seek for various motives and attitudes of the actors of the financial decision making process in order to understand the nature of the phenomenon.

We have conducted a search for the most appropriate methodological position for our further investigations. The major factors for choosing methodology for the research were particular characteristics and directions of our research aims. Through the process of the evaluation of different alternatives we conclude, that interpretive methodological approach is expected to be the most suitable in our case. In its nature interpretivism suggests that reality is socially constructed. According to Fisher (p. 21, 2007), reality is not a simple account of what is, rather it is something that people in societies form from the following:

- their interpretations of the reality, which is influenced by their values and their way of seeing the world
- other people’s interpretations
- the compromises and agreements that arise out of the negotiations between the first two

Fisher classifies interpretivism as one following gnostic way of understanding the essence of knowledge. This methodology emphasizes plurality, relativism and complexity which are inevitable part of the issues investigated in our work. We suppose that such areas as learning, network participation and decision making can be described and understood in complete and in-depth manner from this methodological point of view. In our research the values and characteristics of the entrepreneurs are assumed to influence the decision making processes conducted in reality and thus this approach perfectly matches further planned studies.

Another insight to the methodological stance can be found from the perspective of relation between understanding and action. Management report is about both knowledge and action. It usually needs to contribute to the academic understanding of the topic and at the same time provide practitioners with some applicable solutions. However, the relation between knowledge and action is not straightforward. Depending on the form of these relations there are different methodological positions.

From the perspective of relations between knowledge and action interpretative research usually deals with the situation when understanding of a problem provides a context for thinking about action but does not specify it. According to fisher the link between knowledge and action in the interpretative research can be classified as indirect one because it is mediated through people’s thinking, values and relationships. As consequence of this indirect relation the increase in knowledge does not necessarily leads to the best action. However, the understanding gained usually helps to specify the approximate borders and general direction for further actions.

There are two particular way of interpretative research (Fisher, p. 48, 2007). The first is a concern for meanings and interpretations. It implies that on the contrary to realist, who forms structures out of variables, the interpretivist always forms structures out of interpretations, which are used to explore how people’s sense of the world both influences and is influenced by the other. This condition is fulfilled in the given research and structures and frameworks are based on interpretations, rather than variables. Qualitative character of the data gathered allows us to seek for the motives and attitudes instead of numbers and ratios. The second is processual perspective, which aims to generalize about how meaning is developed through human interactions (Fisher, p. 49, 2007). This condition is also fulfilled in the given research due to the necessity of describing of the decision making processes of the entrepreneurs both in the conditions of networking and from the durational perspective.
So, the interpretative is applied as a dominating point of view on the investigated issues. The dialogical relations between variables will be focused upon and personal interpretations taken into account. The answers on the research question will form a ground for the strategic answer and create a kind of a context, but will not specify the exact action.

2.2. METHOD

Fisher identifies two broad approaches for research material collecting process. These are so called explorers and surveyors. Basically, explorers open new things and surveyors measure already known things. In research planning process the choice between these two categories means the choice between open and structured approach. These approaches are opposite to each other in their very essence and thus influence the whole direction of a further research and thus require solid arguments in order to be accepted.

In our research explorers’ approach for the data collection will be mostly applied. Fisher notifies, that explorer can have perceptions, or conceptual framework, before the start of research process. It will guide him through the data collection more effectively. But the explorer can never know what exactly he is going to discover. In the given work conceptual framework will be developed on the basis of already existing literature materials and will be used as a guide throughout research. At the same time the subject of research is managerial attitude and behavior and thus, it is not possible to predict in advance the exact responds from the investigated group.

Potential methods for data collection can vary dramatically and include a set of various data gathering techniques which differ depending on the nature of information, research aims and methodology. Methods, most frequently used in master thesis level, include interviews, panels, questionnaires, observations, documentaries. Fisher emphasizes that all existing research methods can be used by both explorers and surveyors and at the same time empirical materials collected with these methods can be understood from the perspectives of both positivists and interpretivists. Methods applied in the given research will be adapted for the explorer’s needs and the results will be analyzed from the interpretivist perspective.

Due to the nature of research purposes, basic features of the information needed to answer both strategic and research questions and the intention to conduct an open research (descending from the explorer’s perspective) – the choice between qualitative and quantitative data is made for the benefit of qualitative one. This type of data can describe different perspectives of the issues focused upon in this paper, and thus the research material gathering techniques will be targeted at qualitative side of the issue.

The data used in the research can be also classified as primary and secondary. Although the difference between these two types of data can be indistinct sometimes, it is still possible to set the approximate borderline for the given research. Primary data in this case will contain the “raw” or initial information about particular phenomenon – financial behavior of the start-ups in the Business Incubator. Interview will serve as the major primary data collection method. It will be amplified with the information from the web sites of the 4 companies investigated in the research and the web site of Business Incubator. Secondary data is usually collected from the secondary sources. In the given case the sample companies were not studied before and therefore there are no research results which can be considered. However, there is a set of related research materials about other business incubators and start-up firms. Thus, these studies constitute a kind of a “theoretical field” for the given research and will serve as a source of secondary data.
2.2.1. INTERVIEWS

Interview was chosen as a main tool for data collection because it is the most suitable for the purposes of the work and capable to collect all the necessary data. The personal conversation format corresponds with research aims and is academically valid. According to Fisher there are three ways to conduct an interview: open (respondent leads a discussion), pre-coded (interviewer controls the discussion) and semi structured (between the two extremes).

Due to the specificity of research it would be logically to conduct semi-structured interviews. This format will allow an in-depth investigation of the existing business practices used by entrepreneurs. Most of the questions will be open-ended, and will push the respondent to describe his attitudes towards the issue. However, interview will not be a set of separated question-answer chains. It will rather be a conversation, dialog. At the same time researchers will lead the general direction of a dialog, referring to the areas relevant to research and strategic questions.

The general stream of the interview and particular questions were developed after the research purposes were defined, strategic and research questions asked and critical literature review part completed. After the completion of the set of questions for the interview, the target group of respondents was defined and companies were included in the research sample.

The empirical data collected in research will include five interviews with different respondents. These are representatives of the Västerås Science Park Business Incubator (1 interview) on the one side and CEOs of the companies participating in the learning program (4 interviews) on another side. Two of the interviews were made though the personal contact, while other three were conducted via the telephone. Description of the research sample is found below:

- Penny AB. Erik Lundstrom, CEO. Interview length 37 min.
- Xlint Nail Group AB. Jan Peramaki, CEO. Interview length 20 min.
- QP Medtech AB. Pal Torok, CEO. Interview length 26 min.
- Svenska energigruppen AB. Fredrik Wallin, CEO. Interview length 39 min.
- Västerås Science Park’s coordinator Petra Arlsjo and Marketing and Communication department representative Jocke Hook. Interview length 41 min.

Data gathered and questions asked during the interviews can be found in the Empirical Findings part and in Appendix 3.

2.2.2. THEORETICAL FIELD

It was mentioned above that there is no research materials directly related to the investigated company. Notwithstanding this fact given research is still affected by secondary data to some extent. During the literature search process a set of various case studies and field analyses on the topic of small business financing were found. It is important to clarify, that these materials cannot be included to the critical literature review due to the fact that they are used as a source of closely related examples, but not as theoretical background. However, taken together they create a certain synthesis of related theoretical concepts. These materials were used to formulate general knowledge of the financial bootstrapping issues and create an appropriate context for further research. The most reliable case studies, including either a large sample or in-depth materials, closely dealing with bootstrapping issues preferably in the Swedish context were chosen. These are:

The case study analysis provided in this article is based on the sample of 903 Swedish small businesses. This study focuses on the small business managers’ use of different financial sources. The study aims to describe the small business managers’ attitudes towards financing and actual usage of different financial sources. It also identifies the variables influencing managers’ decisions.


This case is based on the same sample as a previous one. The main aim of the case is to increase the understanding of the financial planning activity in small businesses. The precise focus is made on the variables influencing the relative engagement in formal financial planning.


The sample consists of about 900 enterprises. The main purpose of this study is to describe small business managers’ use of different financial bootstrapping methods and to develop concepts providing a better understanding of small business managers’ financial bootstrapping behavior.


The in-depth case study of one company is based on the qualitative data – i.e. interviews, private emails, informal meetings and presentations. The main aim of the study is to describe the use of different modes of trust for relationship-oriented financial bootstrapping in a new business and to examine how the use of various trusts modes changes during the development of a business.


The research is based on the questioning the respondents of 146 firms after that comprise 62 trial firms and 84 service firms. Average age of the firms is 13.99 with a minimum of 2 years and maximum of 37 years. The primary purpose of investigation is to identify whether the direction of bootstrapping changes over time and if so in what level use of bootstrapping changes.


The case sample consists of 88 firms (44 technology based and 44 non-technology based). The main aim of the study is to investigate the differences in financing methods between technological and non-technological firms and to figure out preferable bootstrapping methods among the two investigated groups.
3. CRITICAL LITERATURE REVIEW

Financial techniques are a complicated sphere of activities not only for businessmen but for academics also. Financial thought has come through a long process of the evolution and this process is still flourishing. Nowadays there are various mechanisms and approaches in the financial management sphere which are sometimes diametrically different in character.

Due to the specificity of research field it is necessary to narrow down the area of theoretical information search. Through the complicated process of critical evaluation of the available literatures and their analysis the most relevant and proper theoretical concepts and approaches for the further understanding of the investigated subject were chosen. According to Fisher, a good way to describe the set of relevant literatures is to prepare a “map” showing the imagined location of all the appropriate theories (p. 28, 2007). The map of the literatures applied in the given research can be depicted as follows:

![Map of literatures](image)

**Figure 2 Map of literatures**

The map above illustrates the collection of basic concepts which are necessary in order to progress in the analysis. There is a “financial decision making” circle in the center of the literature map. Its graphical disposition mirrors the significance of this concept for the research. Being in the limelight of attention it is surrounded with the basic concepts which will be used for describing various sides of the investigated issue. Graphical relations between the circles which surround the central one do not fully represent the logical ties between them. Thus, the map has rather descriptive and summarizing character.

The numerous possible relations between the concepts are complicated and can be understood from different perspectives and in different dimensions. However, in order to describe the logical ties related to the given research it is possible to interpret the simple map of theories and concepts in other form. Therefore, a hierarchy of theories is developed. The hierarchy represents a process of critical literature assessment and can be considered as a guideline through the chapter. The picture below represents the fundamental stages of the theoretical conceptualization. It is seen that there are two major financial perspectives, while only management oriented view is applied. From the management oriented point of view it is possible to investigate two types of financing, but only one – small business financing is considered. In
the small business financing there are two side of the financing process – supply and demand. The picture illustrates that only demand side will be investigated. An integration of life cycle and managerial choice approaches creates further understanding of the demand side of financing. This integration results in the financial choice principle. The next logical stage represents bootstrapping concept as particular case of financial choice in small business and a type of financial decision making behavior.

**Figure 3 Hierarchy of theories**

The picture above does not cover two of the concepts included in the critical literature review: networking (social contracting) and entrepreneurial learning, because it is possible to notice that these two theories do not participate in the logical chain illustrated above. However, these two approaches are necessary for the further research and their role will be explained later on in the critical literature review and illustrated in the conceptual framework. The material placed further will represent critical assessment of the theories named in this sub-chapter. Detailed explanations of the concepts applied will be provided in hand with different argumentations and academic debates conclusions. Extensive elaborations upon each of the concepts are presented and their validity and relativity to the given research purposes are evaluated. The logic of the literature review outline correlates with the hierarchy of theories.
3.1 FINANCE THEORY PERSPECTIVES

3.1.1. FINANCING

Finance is a wide area of practical business experience and academic knowledge. Basically, a term “finance” as a noun is usually understood as a symbol of both monetary assets and other funds. “Financing” as a process presupposes a set of various activities aimed at providing the necessary capital needed in order to acquire resources. Complete explanation of these terms within the different practical contexts and theoretical perspectives can become endless and above all is absolutely unnecessary under the circumstances of a current research.

However, it is possible to figure out two major approaches for understanding both finance and financing. These approaches are based on two opposing points of view from which the finance theory is seen and this difference has an outstanding importance in terms of our research. Ekanem (2005) and Winborg (2000) in their analysis of small firms separate shareholder-oriented view of finance theory from the management-oriented one. In our research we will apply this dualistic perspective because it provides more grounded and detailed insight into the nature of the financial management decisions in small firms.

3.1.2. SHAREHOLDER-ORIENTED VIEW OF FINANCE THEORY

Stock exchanges have passed though a long evolutionary process. Simultaneously with this process shareholders’ activities developed dramatically. Nowadays financial system is to a great degree influenced by the shareholders ownership model. In general terms shareholder is an individual or company that legally owns shares of a joint stock company.

Usual understanding of the financial science in general and the financial management in particular was developed with the focus on shareholders. Being a party responsible for policy making, shareholders appeared to be in the middle of attention. Neo-classical tradition served as a base for further theorizations. This perspective on finance theory has been called the “shareholder-oriented view of finance theory” (Winborg, 2000, p. 45).

Winborg also emphasizes the role of a shareholder as a key factor of the company’s value maximization decisions. According to him, shareholders are directly interested in the growth of share price and dividend payments and it influences decision making process dramatically. Thus, value maximization of shareholders is a core idea of the perspective. Although this approach is wide and has complicated internal discussions, Ekanem (2005) states, that, it is anyway based on several basic assumptions. These assumptions are:

- the market where firms operate is perfectly competitive
- there is a large amount of independent actors in the market
- access to information and capital is equal
- objective of the firm is value maximization of shareholders
- management always act in the owners’ best interest

This theoretical approach used to be generally acknowledged in academic circles for some time. However, according to Winborg (2000) some authors began to re-evaluate the underlying assumptions of the mainstream theory. As a result of a wide academic discussion factors such as information asymmetry and managers’ opportunistic behavior were empirically proved. For
example Van Auken emphasizes that wealth maximization is an oversimplification of the goals of a firm and is only one of many potential factors affecting financing decisions (2005, p.94).

Ekanem (2005) also states that even big companies do not necessarily strictly follow neo-classical standards. Particular behavior is seldom fully based on financial management practices described in theories. Therewith, he constitutes that neo-classical standards in general are not something ideal and fixed.

Moreover, it becomes clear that relatively little attention was paid to the small firms, managed by owners directly. The individual business was considered as a black box while the main focus was given to the shareholders’ decisions (Winborg, 2000, p. 45).

So, we agree with Ekanem (2005) that the financial management practices used in small firms do not tend to be based solely on the standards and practices used by large companies. It gives us ground to reject the theories which relate to big companies as inappropriate to our research. We also state that we will not apply shareholder-oriented view on finance theory in our research as well as perfect market assumptions and indicators like NPV, DCF, etc. According to our research aims we will put in the limelight a small firm and the financial decision processes which are peculiar to it.

3.1.3. MANAGEMENT-ORIENTED VIEW OF FINANCE THEORY

Form the managerial point of view financing can be expressed as mobilization of funds for investing them in the interested area of business. Financial management in its essence consists in planning, directing, monitoring, organizing, and controlling of organizations’ assets. These activities are crucial for the survival and success of firms of all sizes. In this chapter we will go further towards small firms and present another perspective on the finance theory.

Although the fact that the mainstream finance theory was developed with large business in mind, Ekanem (2005) puts in the centre of his paper the idea that small firms are not ‘little big businesses’ or scaled-down version of large firms. On the contrary, there is a set of fundamental differences between large and small firms (see chapter 2.2.1.). Consequently another perspective should be applied. Judging by the inconsistencies in mainstream financial literature alongside with further disfigurement of the role of a small business manager the new concept should finally open the black box of an enterprise and objectively evaluate the financial decision making processes taking place there.

According to Winborg (2000) the black box was opened by Brennan (1995) and owner/manager was introduced to finance theory models. A three-dimensional shift in focuses of attention had place: from shareholder to management; from external to internal; from normative to descriptive (Winborg, p. 47, 2000). This shift served as a fundament for the management-oriented perspective to emerge. Thus, we came to another understanding of the financial decision making processes in the enterprise.

Ekanem (2005) agrees with the suggested outline and emphasizes that the decision-making of small firms is in a great degree influenced by behavioral factors. This implies that in the small firm the role of the owner is crucial and behavioral approach is appropriate in order to understand the decision making process in the sphere of enterprise financing. New perspective on managerial role created broader understanding of the financial decision making processes. New concept includes such characteristics as:
• there is a plenty of motives (both economic and social) besides profit maximization
• decision-making behavior is rarely rational because values, beliefs, and perceptions of the owner/manager do matter a lot
• decisions can be even based on habit, custom or ‘good enough’ approach

The management-oriented view on finance theory was applied by major researchers in the small business finance field (Winborg 2000, Ekanem 2005 and Van Auken 2005). In our research we also apply this point of view on the finance theory. It conceptualizes personal behavioral characteristics of managers and thus is the most appropriate to use in order to conduct a research corresponding to the purpose of our work.

3.2. SMALL BUSINESS FINANCING

3.2.1. DEFINITION AND CHARACTERISTICS OF SMALL FIRMS

Fundamental differences between big companies and small firms are investigated by scholars from various perspectives. Due to the research aims we also draw a borderline between these two types of business entities in our research. Although some of the differences were already explained above, this chapter aims to figure out concrete definition of small firm and the characteristics peculiar to it.

There are plenty of approaches for defining the term “small business” in the academic literature. But, there is no any kind of consensus among scholars on what the small firm really is. However, according to Winborg there are two approaches in defining small business concept: qualitative and quantitative. In this chapter qualitative approach comes first.

According to Ang (as cited in Winborg, 2000, p. 47) the following set of qualitative characteristics distinguish small business from large in financial matters. These differences have outstanding importance in terms of decision making processes and thus are crucial in our research. These are:

- small business manager is usually a majority owner
- most of the small businesses are not listed on a stock market
- relationships between owners (if more than one) are often informal
- most often the owner’s capital (both financial and human) is wholly invested in the one enterprise and thus he/she has not a diversified portfolio
- small business usually has a small share of a total market

Once we have applied management-oriented view of finance theory and figured out manager as a key factor in the financial decisions making process we have to stress his/her direct connection to the enterprise. Unlike big company, where managerial function is usually separated from owners, in small business owner and manager usually is the same person. It is a fundamental difference between two types of firms. Decisions made in the enterprise are affected by the personality of the owner/manager to a considerable extent. It also implies that manager is much more independent “vis-à-vis external parties” compared to large companies (Winborg, p. 48, 2000).

Moreover, interconnections between owner and managerial roles in one person challenge the traditional understanding of debt and equity. Winborg supposes that under the particular conjuncture owner can vary the amount of his salary and dividends. According to Petty and Bygrave (as cited in Winborg, 2000, p. 48) capital structure decisions also depend on the
owner’s attitude to risk taking, rather than on a strict evaluation of relative costs of different financial possibilities.

Small firms’ managers usually do not attract any equity from new owners due to the fact that they are usually not listed on the stock markets. Under such circumstances they also lack market valuation of the shares what makes the assessment procedure more complex.

Quantitative approach usually refers to the amount of employees. According to Bolton (1971), Storey (1994) and Winborg (2000) a small firm is a firm with less than 100 employees. It is said that if a firm employs more - then management teams are created and there is no more place for personalized management anymore. In this case the firm stops to be managed by owner, what is a necessary qualitative requirement.

In current research the argumentation presented above will be applied. We consider the characteristics defined by the scholars as appropriate for exact identifying the concept of a small firm. Further, we will use a working definition of a small firm as one “having less than 100 employees, managed by the owner, not listed on a stock exchange and having minor share of a market”. Applying one and the same definition of a small firm alongside with other researchers we will be able to generalize their research result on our research sample.

### 3.2.2. FINANCIAL GAP

From the general area of knowledge it is clear that each firm needs finances in order to execute its business activities. The empirical data gathered by Ekanem (2005) was conceptualized in a form of a financing decision making cycle. In the figure below the process of financing in the enterprise is illustrated. From the management-oriented view on finance theory it is clear which phases the manager passes though when financing is required. Once the need is identified, the manager responsible for the financial decision making process in the firm start to collect information. Then the evaluation of possible alternative takes place. During the choice of alternatives there is a possibility to start a process from the beginning if none of the alternatives is suitable. However, if the solution was found – the need becomes satisfied.
The model presented above is a simplified theoretical attempt to describe the financing processes plasticized by small firms it has only descriptive value. However, the model does not cover all possible outcomes. In practice manager can run though this cycle several times and the financial need will still remain unsatisfied. This problem received a name of “financial gap” in an academic literature. Storey (1994) and Lambert (1984) identify it as “impossibility for a new small firm to attract small amount of external long-term finance”.

This problem appears due to mismatch between the two parties which participate in the process. One party is looking for finance and another one – providing it. Applying economical perspective we can easily identify that alongside with any other need the need for finance has its’ demand and supply sides. Winborg (2000) identifies supply side as “external financiers and their willingness to provide capital” and demand side as “small business and managers interested in external finance”. Thus, when the supply does not meet a demand some companies face the situation of the so called “financial gap”.

In his dissertation Winborg emphasizes that the supply side of the issue usually lies in the focus of the researchers. Such factors as lack of the venture capital, insufficient amount of different funding organizations and inability of small enterprises to get a long-term bank loans are often assigned the primary importance. But Winborg suggest the opinion that this gap is also a problem of demand side of the issue. He supposes that due to the market imperfections and information asymmetry the demand side can have a weakness in the managers’ restricted information and knowledge about financial possibilities. Managers also can deny the possibilities of long-term external finance due to their fear of loosing the ownership.

Moreover, Winborg emphasizes that supply side constrains of financial gap are already well documented and conceptualized, whereas potential demand side constrains have been less focused upon. It is also assumed that managers have restricted information and knowledge about financial possibilities and thus “do not know what to demand” (Winborg, p.6, 2000).

Thus, financial gap concept is academically valid and acknowledged. Financing of the small firm will be seen in the light of financial gap concept. This perspective has practical value in terms of using it in our research in order to analyze demand side of the issue more detailed. It will provide us with the theoretical background for the close insight into the influence of learning program of Västerås Science Park on the demands of entrepreneurs involved and will help to analyze financial decisions behavior among them. The supply side will not be considered.

### 3.3. FINANCIAL CHOICE IN SMALL BUSINESSES

In the previous chapter small business financing was elaborated upon and two major sides of the process defined. Banks, venture capitalists and other external actors composing supply side of the financing used to be in the limelight of the academic attention for a long time. However, a significant number of studies of the demand side of the financial process with the particular focus on the characteristics of small firms and their managers appeared (Kent 1991; Scherr 1993; Olofsson 1994; Van Auken 2005). In the analysis of a financial decision making processes in the enterprise these studies refer to the characteristics of both small firms (e.g. size, location) and managers (e.g. education, age). But unfortunately most of the authors named above either focus upon few of the characteristics or do not refer to the solid primary empirical data.

Conceptualized theoretical framework based on the wide empirical research can be found in the fundamental work by Winborg (2000). This research was conducted among Swedish firms and thus perfectly matches our research aims. In this framework we find two major approaches for
understanding demand side of the small business finance. These are life cycle approach and managerial choice approach which refer to the characteristics of the firm and characteristics of the manager respectively. Integration of the approaches generates objective summary of the factors influencing financial choices and preferences in small firm.

### 3.3.1. LIFE CYCLE APPROACH

Life cycle concept is widely spread in academic cycles. For example in marketing – product life cycle principle has outstanding importance in organizing sales and exploring new markets. When it comes to the small businesses’ finance this idea appears to be applicable too. Life cycle approach here supposes that a firm in its development passes through different evolutional stages (Hanks 1993, Walker 1989, Winborg 2000). Alongside with the development process different needs appear and at the same time new abilities emerge. In other words, life cycle approach provides an understanding of various sources of funding which become available or necessary in different development stages of the firm. This view on the enterprises’ finance presupposes foremost role of the features and properties of the firm itself in the decision making process being executed.

The literature on this subject lacks consensus. Due to the fact that the concept is built on the assumption that the business development stages are determined the model can sometimes be too static or inflexible. The exact number of development stages is also not agreed upon and varies significantly. Moreover, the concept does not consider the role of a manager, who can get access to different financial sources due to his personal contacts or experience and besides the current stage of development of a firm.

However, in the current research the life cycle concept will be applied. Particularly a set of characteristics developed and empirically tested by Winborg (2000) will be used. His concept is based on the characteristics of the enterprise which are usually expected to influence financial decision making process in firm. In the research these variables will be considered while analyzing decision making among the start-ups. These characteristics are:

- Characteristics of the business
  - Stage of development
  - Size
  - Line of business
  - Growth
  - Geographical location

Characteristics presented above usually influence financial decisions made and each of them is considered while the assessment of the possible financing alternatives. At the same time these characteristics can serve as a “pass” in obtaining finance from various sources and particular influence of these factors on the decision making is summarized in the Appendix 1.

### 3.3.2. MANAGERIAL CHOICE APPROACH

Second approach is called “managerial choice approach” and it is very much similar to the pecking order of financial preferences principle. This principle implies an idea that managers rank financial possibilities due to the personal motives. Usually, financial preferences are ranked as follows:
1. internally generated equity (most preferable)
2. debt financing
3. external equity provided by a new owner (least preferable)

It is assumed that managers while ranking financial possibilities not only consider relative costs of different financial solutions but at the same time take into account personal motives. In other words this perspective underlines the crucial role of manager in the financial decision making process. In this case the decision making process is dependent on his risk taking ability, need for independence and other personal characteristics of a manager. Thus, the main variables are:

- Characteristics of the manager
  - Need for independence
  - Attitude towards risk taking
  - Age
  - Gender
  - Experience from industry

Characteristics presented above provide a unique tool for analyzing small businesses’ finance. Variables included in this concept usually affect financial decision making process in a great degree and thus always need to be considered. The particular influence of these factors on the decision making process is summarized in the Appendix 1. Alongside with life cycle approach these characteristics provide complete framework for understanding financial choices and preferences.

Winborg emphasizes that both life cycle and managerial choice approaches are influential and important when dealing with small firm’ financing and thus applies integrated approach including both perspectives in his research. Integration of two approaches excludes the inconsistencies peculiar to the approaches taken separately. Given research follows the scheme suggested by Winborg. This set of variables provides researchers with a suitable framework for the analysis of the managers’ attitudes concerning different sources of finance. Moreover, it is possible to notice that managerial choice approach perfectly corresponds with management-oriented view of finance theory applied above.

### 3.4. BOOTSTRAPPING

As it was already mentioned above it is usually assumed that the small business needs and attracts large amounts of external finance from institutional investors (like venture funds and banks). In other words the researchers were focused upon the suppliers of capital. But there is also another point of view. According to Olofsson (as cited in Winborg, 2000, p. 65) only few of the small businesses have raised finance from venture capitalists. Thorne (as cited in Winborg, 2000, p. 65) states that many small businesses are financed substantially or sometimes even entirely from the sources different from the institutional financiers – i.e. applying financial bootstrapping methods.

Financial bootstrapping as an alternative to the traditional understanding of fund raising approaches. It uses other methods in order to achieve the same goals. One of the first common definitions of bootstrapping refers to Freear (as cited in Winborg, 2000, p. 65), who had defined it as a “behavior of attracting resources needed without using external long-term finance”.

Bootstrapping was also defined by Thorne (as cited in Winborg, 2000, p. 65) as a way of recourse acquisition when a minimal amount of financial means is needed. Thus, bootstrapping
idea refutes mainstream financial theory assumption that the need for resources always results in a need for finance.

General understanding of financial bootstrapping as a way of resources acquisition behavior includes a significant amount of practical techniques used by managers. Bootstrapping methods include various approaches for and thus provide various opportunities for the entrepreneurs using them. Some of the authors combine financial bootstrapping methods into different groups depending on the common characteristics peculiar to them. One of the universal classifications is found in the work “Entrepreneurs and bootstrap finance” by Dr. Lynn Neeley. He groups bootstrapping techniques as follows:

- Owner’s resources
- Relationship resources
- Cooperation resources
- Customer and client financing
- Cash and asset management
- Lease
- Outsourcing
- Subsidies, Incentives and Grants

The groups named above cover majority of activities usually understood as bootstrapping. From the detailed list of the techniques (Appendix 2) it is clear that among this variety there are some of the methods which are used in almost all firms, even though they are not officially called “financial bootstrapping behavior”. Financial bootstrapping behavior in turn includes both methods for minimizing or eliminating the outflow of financial means and methods for speeding up the inflow of financial means (Winborg, p. 19, 2000). During our small firms’ financing literature search process we have discovered an academic debate on the topic whether the bootstrapping behavior can serve as a dominating approach for the start-ups financing or is just a complementary one.

This polemics was logically summarized by Winborg (2000). He concludes that the differences between environments and characteristics of both firms and managers influence the degree of bootstrapping applicability heavily. So, practical implication of the techniques presented depends a lot on the managers’ and firms’ characteristics defined in chapter 2.3. Depending on the firms conditions a manager evaluates possible alternatives (from the perspective of his own characteristics) and the financial decision appears.

The working definition of financial bootstrapping in this paper will coincide with the definition developed by Winborg (2000). Thus, bootstrapping is “a set of methods used for minimizing and/or eliminating the need of financial means for securing the needed resources”. This implies that resources can be obtained by low or even no cost by exploiting different bootstrapping mechanisms. In concept of ideal bootstrapping firm resources can be obtained without using long-term external finance.

3.5. NETWORK THEORY

Since the financial resources and business knowledge of entrepreneurs have been essential features of the flourishing start-up and regular business of the most enterprises, the affecting factors to the germane procedure and their impact should be mentioned in order to draw a complete picture. One of the initial factors is a network and it can be interpreted as a complex system of closely linked people who have either formal or informal relationship with an
entrepreneur. “A firm’s network has great value as a source of market information and knowledge” (Bruce Mtigwe, 2006, p.15). Therefore, network is a bridging mechanism in favor of rapid establishment and development of entrepreneurship.

By possessing a good set of relations, entrepreneur could establish and run successful business by network chains that have experience and particular shares in the market, rather than spending invaluable time and financial resources as an infant entrepreneur. Even, the existing ties among network partners might assist with setting up first essential customer relationships, by turns, customer of entrepreneur could be from foreign market. Sequentially, as mentioned by Bruce Mtigwe (2006), it becomes an “instant global” by passing the establishment chain evolutionary steps through a revolutionary process. Networks therefore are essential for entrepreneurs to establish and sustain their business appropriately.

Furthermore, utilization of acquired knowledge from different network relationships would give a chance to institute an applicable and efficient financial management system. For instance, nascent entrepreneur could derive the benefits of improving skills, regarding how to manage the financial resources effectively, from the financing technique of experienced network partners. By having a close relationships with customers and suppliers, entrepreneur learns about other’s needs, resources, and strategies in order to apply certain methods of financing (bootstrapping) to meet mutual interests. Thus, business network learning is crucial for understanding how to regulate the financial resources within the network to sustain the development of entrepreneurship.

3.5.1. SOCIAL CONTRACTING

Networking plays an important role in multiple activities of entrepreneurs in general. As it was explained in the chapter above networking has outstanding importance for the start-ups’ success. Social networking concept is a tool for understanding the whole complexity of interconnections among entrepreneurs. Particularly from the financial bootstrapping point of view – social networking can be explained with the help of social contracting principle.

Winborg (2000) suggests that social contracting can be one of the starting points in the research on relationship-oriented financial bootstrapping. He defines two major forms of financial contracting: discrete and relational. Discrete contracting is often used by the so called administrative managers (who seek for the full ownership of the resources needed and pay full price for them), while relational contracting is peculiar to the relationship-oriented managers (who try to secure resources needed at low or no cost using their network relations). These two types of managers represent two extremes of financial decision making behavior. In other words the resource acquisition process in a firm can be understood from two fundamentally different perspectives.

More specifically, discrete contracting is characterized as exchange transactions of different resources, which are absolutely separate from previous, future and present transactions (Huemer, 1998). In the concept of discrete contracting the exchange parties are strangers, with no further cooperation planned. The usual discrete transaction is a simple exchange of goods and money (Winborg 2000). Relational contracting on the contrary presupposes that the majority of transactions proceed in the context of previous and future relations between parties. In this case the identity of the parties involved is important. Present transactions in a great degree are determined by previous cooperation and further transactions must also be taken into account while conducting current operations.
In real business practice it is almost impossible to evaluate the degree of using either discrete or relational social contracting due to the immeasurability of many variables (especially in the relational contracting). Rather it is possible to state that some kind of a combination of the two viewpoints is a common practice among businessmen and the waste majority of the entrepreneurs possess both characteristics of financial and relational contracting, however with strong reliance on relational (or social) contracting, especially in small firms (Winborg, 2000).

Social contracting is based on the social, rather than financial obligations (Winborg, p. 70, 2000). Total amount of social obligations, which others have to a specific person, constitute the social capital of this person. Obligations in this sense do not depend solely on economic or social factors. It is a rather a history of relations (not necessarily economic). Value of social capital can be increased by investing in it (by creating more social obligations). Social capital is realized when the obligations are executed. Thus, we can conclude that social capital is a set of obligations from several people to one person, which will be realized in future.

This system of relations is maintained entirely by its participants. Thus, the significance of trust in this system can not be underestimated. Trust is a key factor of creating and especially holding social obligations. Thus, mutual trust is the basis for relationship-oriented bootstrapping, which applies social contracting for resources (Winborg, p. 71, 2000).

In our research big attention to networking of the entrepreneurs is paid. Financial bootstrapping as a way of resource acquisition with minimal amount of finance needed is mainly biased on social contracting mechanisms. Thus, entrepreneurial attitudes toward the issue and real activities of the investigated companies will also be considered from this relevant perspective.

### 3.6. ENTREPRENEURIAL LEARNING

Together with entrepreneurial revolution and rapid increase in amount of small firms the entrepreneurial learning issues become more topical. Due to the nature of our research purpose a learning perspective also should be highlighted. It is relevant in terms of understand the relations between Business Incubator coaches and entrepreneurs in general and during the learning processes in particular. Thus, in this following chapter entrepreneurial learning issues will be considered more detailed and theoretical base for the further analysis will be formulated.

Academics show an increasing interest to the problem of entrepreneurial learning. It is proven by both significant amount of entrepreneurial literature and variety of learning programs and courses offered. These courses are different in understanding of the entrepreneurship as a phenomenon and the approaches applied for teaching. Moreover, the great common question standing in front of all theories, concepts and methodologies is: whether entrepreneurship can be really taught? Opinions vary fundamentally and some solid empirical evidence is still undetected. This question is not that much relevant to the current research concept and thus this theoretical inconsistency will be ignored further. It will be assumed that in general entrepreneurship can be taught in several aspects and to some extent (Colette, 2005).

However, some authors present conceptual elaborations on the topic. Frances, Claire and Colette (2005) prove that by and large entrepreneurs do need and apply education and training and that the need for learning depends on the stage of development of the enterprise. Bridge (1998) states that there are possible development stages: awareness, pre start-up, start-up, growth. Therefore, entrepreneurs, depending on the stage of their development, could be separated into different groups with similar educational needs and thus is would be possible to provide them with relevant learning and training.
Jamieson (as cited in Colette, 2005) has suggested fundamental tree-category framework for understanding the organization of entrepreneurial education process. In this framework the learning needs are distinguished and thus potentially can be satisfied by appropriate learning program. Particularly, the framework distinguishes education about enterprise, education for enterprise and education in enterprise. The first category, education about enterprise, presents a theoretical perspective upon the entrepreneurial activities. It aims on creating awareness and the beginners’ attitudes and values necessary for opening, managing or working in an enterprise. The second category, education for enterprise, usually promotes self-development and by using practical training prepares for starting and running own business. This education often makes an emphasis on business plan creation. The third category, education in enterprise, usually is realized in the form of management training programs for already established entrepreneurs and aims on their further successful development and prosperity.

Garavan (1994) presents more broad view upon the topic and categorizes entrepreneurial education and entrepreneurial training separately. Entrepreneurial learning provides theoretical understanding of entrepreneurship and emphasizes different theoretical approaches for understanding the phenomenon. It gives an opportunity to study the key characteristics of the firm and favorable conditions of new business creation. The grate emphasis in the concept is given to the entrepreneurial training. The author divided it into three sub-categories, depending on the participants’ level of development. The first category is similar to the education about enterprise (Colette, 2005). It provides the participants with general knowledge about entrepreneurship and encourages them to consider it as a self-employment possibility in future. The second category constitutes a manual for the start-up businessmen. Usually it deals with the fund rising sources, organization of the relations with stakeholders and legal issues. The third category deals with those who continue their already established business activities and provides them with updated information and refreshes their skills.

Categorization of entrepreneurial learning and training presupposes not only distinguishing of the groups on the basis of stage of development but also considers objectives and content of entrepreneurship programs. According to Garavan (as cited in Colette, p.105, 2005) the results of the research of six enterprise programs in five European countries constitute that the most frequent aims of the learning programs providers are: indentifying and stimulating entrepreneurial drive, talent and skills; overcoming the risk-averse; developing empathy and support for all unique aspects of entrepreneurship and devise attitudes towards change.

Studies of the other party of a learning process – entrepreneurs, show that before starting a learning program the participants have different informational or practical definite needs and expectations. They were classified by Hisrich and Peters (p. 20, 1998) as follows:

- Technical skills (organizational, communicational and technical managerial skills)
- Business management skills (business planning, decision-making, marketing and accounting skills)
- Personal entrepreneurial skills (inner control, innovation, risk taking)

Dunsby (1996) identifies financial management as one more crucial area where entrepreneurs often lack solid theoretical knowledge and sufficient practical experience and consequently need educational help.

Thus, by analogy to supply and demand sides of financial need, it is possible to identify supply and demand sides of the entrepreneurial learning need. Similar to the “financial gap” concept Colette states that “there is a significant gap between the perceptions of the training providers and the entrepreneurs training needs” (Colette, p. 107, 2005). So, it is possible to conclude that
despite the increasing amount of entrepreneurship training initiatives the real needs of entrepreneurs are often not addressed and remain unsatisfied.

Significant obstacle for successful entrepreneurial learning appears when searching for the appropriate approaches and methods for teaching. Authors investigate pros and cons of classroom lectures, case studies analyses, role plays and simulations and reach a conclusion that these methods often lack practical focus and are “too academic” (Colette, 2005). These ways of teaching usually promote logical, rather than creative and entrepreneurial way of thinking.

Alternative solution to the classical class-room studies is suggested by Timmons (1987). As cited in Colette (p. 107, 2005), he supposes that “there is a limit to what can be taught in entrepreneurship training programs and the only way to learn is though one’s own personal experience”. This view is supported by the “start-a-business” experiment by Vincett and Farlow (p. 286, 2008), which confirmed that “by allowing students with real business ideas to actually be entrepreneurs, rather than pretending to be, a large part of the entrepreneurial life is experienced directly”.

Thus, in our research the issues of entrepreneurial learning will be practically investigated on the example of Västerås Science Park Business Incubator. We apply the concept of “learning in enterprise” as an appropriate tool for understanding entrepreneurial learning reality of small business managers. The idea to compare needs of knowledge and skills with educational program from financial decision making perspective is directly linked with our research and strategic questions.
This chapter is dedicated to the conceptualization of the theoretical materials collected during previous research stages. Literatures presented in the critical literature review will serve as a fundament for further conceptualizations and will constitute a basis of the conceptual framework itself. The following chapter combines theories, approaches and concepts and thus allows new formulating and theorizing ideas to emerge.

According to Fisher (p. 123, 2007) there are major strategies for developing of the conceptual framework: structured and grounded. Grounded approach presupposes collecting research materials without starting conceptual thoughts and thus letting new frameworks to emerge in the end of research process. Structured approach, in contrast to the grounded one, presupposes structuring research process from the very beginning, basing it on the preliminary theory or concept. In the scope of a given research grounded approach is not applicable due to the general purpose of a thesis to compare theory with practice and thus, structured approach towards conceptual framework organization is applied. The research material collection process will be determined by the set of particular theories selected in the beginning of the research.

General process of the conceptual framework formulation in this research is designed in concordance with Fisher’s guidelines. According to the recommendations provided by the scholar theorizing of a research framework gives a shape and structure to the research. The process of theorizing includes three logically connected phases:

1. Clarifying terms and concepts used to describe the subject of the research
2. Providing a description of the relationships between the concepts used (i.e. formulating conceptual framework)
3. Using conceptual framework to develop theories that explain the patterns and connections found in the research

Conceptual framework in its essence is constructed out concepts, which act as the building blocks and are defined in the critical literature review. In our case the basic concepts first time appear in the “map” of literatures. The ideas mentions there are the building blocks of our research and in-depth elaborations of the major thoughts and related issues are presented in the critical literature review.

In this chapter definitions of only those concepts which are used for developing the conceptual framework will be presented and in this way the first stage of the theorizing will be realized. It is necessary to notice, that different authors argue for various approaches for understanding these concepts and significant part of these debates is highlighted in the literature review part. Thus, definitions listed below emerge from literatures investigation and refer only to the given research. In other words it is working definitions.

Financial decision making – is a process of evaluating alternatives and choosing a particular source of financing. In the given research only demand side of a financial need will be elaborated and thus the definition relates solely to the role of entrepreneur and his firm.

Life cycle approach – is a concept for understanding financial decision making processes. Assumes that the choice of a particular source of financing is determined by the characteristics of a firm where this choice is made.
Characteristics of the business – is a definite set of variables (stage of development, size line of business, growth, and geographical location), peculiar to the firm and influencing financial decision making processes.

Managerial choice approach – is a concept for understanding financial decision making processes. Assumes that the choice of a particular source of financing is determined by the characteristics of a manager who made a financing decision.

Characteristics of the manager – is a definite set of variables (need for independence, attitude towards risk taking, age, gender, and experience), peculiar to the manager and influencing financial decision making processes.

Networking – is a process of establishing and exploiting informal relations by using social contracting mechanisms.

Entrepreneurial learning – is a process of acquiring deficit entrepreneurial skills and knowledge through the participation in learning programs.

The second stage of theorizing presupposes explanation of the logical connections between the basic concepts and combining them in a framework. According to Fisher (p. 125, 2007) students can either apply developed framework from theories or modify or adapt one in order to adjust it to the aims of research. Due to the specificity and needs of the research question of the given research the basis of the framework developed by Winborg will be applied and then modified.

In the critical literature review the issue of financial decision making process was explained in detail. It was argued that in the borders of the given research only the demand side of a financial need will be considered in the process of decision making. Practically it means that instead of focusing on the institutional providers of the financial capital (usually banks or venture capitalists) the research will investigate the role of entrepreneur and his firm in the financial decision making process. The framework developed by Winborg is illustrated in the picture below and will be applied as a core principle for further theorizing.

![Figure 5 Financial choice components](image)

The picture presents the conclusion reached by Winborg in his theoretical model development. It summarizes the academic dispute upon the topic of identifying the major influence on the financial choice. The model argues that a complete understanding of the financial decision making processes can be reached by applying a united combination of life cycle and managerial choice approaches rather than solely one of them. More specifically, this implies that both the identity of the firm and the identity of the manager play key role in the demand side of the
financial processes. This integrated approach is relevant to our research and constitutes the basis of the framework. However, it should be enriched with the missing elements, which are crucial for the complete framework.

According to the Fisher the conceptual framework should correspond with the research question and consequently help to structure a research. Due to the requirements of the research question asked in the given research the influence of the network and learning programs should be considered in order to understand the real motives and realities of the financial decisions processes in the Västerås Science Park Business Incubator environment. Thus, a complete framework, which integrates all the concepts, is presented below.

![Financial decision making process](image)

**Figure 6 Financial decision making process**

Conceptual framework presented above is an attempt to mirror the mechanisms constituting the very nature of financial behavior. The subject of the given research is financial decision making and it requires a dynamic model for understanding, which can represent the process. Therefore gears construction is applied. The gears are included in the circle and consequently should be understood together as financial decision making process itself. At the same time three gears represent three major forces affecting financial decision making of the investigated companies. The driving gear is called financial choice and is explained above as one that integrates characteristics of both manager and enterprise and is based on the life cycle and managerial choice approaches. Other two gears are entrepreneurial learning and networking. These two perspectives influence every financial decision made by the investigated companies and consequently are inevitable part of the conceptual framework. Thus, all the three gears move simultaneously and together create a context for financial decisions to be made.
5. EMPIRICAL FINDINGS

5.1. CREATE BUSINESS INCUBATOR

CREATE Business Incubator in Mälardalen AB is a county-wide incubator which VSP Science Park Västerås and Munktell Science Park in Eskilstuna owns half of each. The cooperation offers professional business development support to business ideas and companies with strong growth in Västmanland and Södermanland areas. With the large quantity of business ideas, entrepreneurs and venture capital the incubator created good conditions for faster growth of business and research-based innovations with international potential.

Science Park Västerås (VSP)

VSP is one of Sweden's largest technology parks and is centrally located in Västerås enriching industrial Kopparlunden, and in the central Melker building and in the expansive Vallby Institute. There are approximately 200 established companies which employ about 1700 people. VSP supports in knowledge and technology based firms with developing their business intensively. Entrepreneurs and companies are offered a creative meeting and working condition with business development assistance and growth activities. VSP has a well-developed programs aimed at both new entrepreneurs and established businesses where they can get support and business coaching to achieve their goals. As a member have access to a large network and can also take advantage of concessional agreements with partners of VSP. Also, most interviewed members of VSP programs agreed that it is the best place to set up a company and the best environment to develop a business idea or innovation.

Vision and Objectives

The vision of CREATE, a county-wide incubator, is to evolve into an incubator of world class in our focus areas.

CREATE's overall objective is to stimulate and strengthen the creation and development of new knowledge intensive companies. Its intention is also to further develop and establish incubator activities both regionally and nationally to create good conditions for business development in innovative environments. The ambition of it is that companies can grow in our properties and we are constantly working to find a satisfactory solution for our incubators and member companies.

The development stages within CREATE

Incubator can be seen as a regional channel, a central meeting and innovation environment, where the guiding principle is creation and growth, for entrepreneurs, idea creators and capital. The purpose of the incubator is to conceive a project or business quicker through the customized development process to reach their full business potential. It consists of a selection process, which is composed of three different steps for the different phases of the infant entrepreneurs’ development and provides an initial support to business development, fundraising and recruitment of key staff in order to commercialize a technology or business opportunity more quickly. The concerning three steps are followings: Business Start, Business Lab and Business Accelerator

Business Start

Business Start is the first step where entrepreneurs come up with ideas and the purpose of the regarding step is to develop a business idea and take the company into the business development
processes. Business Start is oriented to entrepreneurs who come up with an idea or innovation in early stage but not yet started their own businesses. Thereupon they should have endeavour and ambition to develop your idea into a growing company. Also, they are provided with various information and training session in seminar or workshops in financing, sales and marketing. It gives young entrepreneurs the opportunity of testing, developing and refining their ideas, along with 8 hours free experienced coaches in the field of business as well as during this stage they will be decided to pass or not to the Incubator, Business lab.

Business Lab

Business Lab is the second stage of the CREATE process and the first in the incubator and it usually continues for 6 months, but it may vary depending on the ambition and goals of the estimated work. The aim of the Lab is to further develop the business idea into a growing company. The main objective of the stage is to give all the projects as good opportunities for growth as possible. There are overall goals for all projects in Business Lab stage, these are briefly summarized below:

- Building a company
- Identifying markets
- Evaluating business model

Business Accelerator

Business Accelerator is aimed at stimulating growth, supporting technology-oriented and knowledge-intensive companies that have the potential to become a successful business. Business Accelerator gives entrepreneurs the knowledge and support that they needed to take the idea to market and receive financial support for it. The Business Accelerator, through a county-wide cooperation with other incubators, has a greater extent to find coaches with specific expertise in a given area in order to be able to support companies in the commercialization process. Throughout this stage, entrepreneurs get support to build networks with organizations and individuals that are directly tailored to the opportunities and needs of the company. In the Accelerator stage the company will be 6 to 36 months.

The Incubator programs runs continuously during the year. In order to join to the programs, perspective members should submit an application in which you briefly present their business idea, including the description of the customer, customer value, market, product sold, production and finance, budget and capital needs.

How it works

Having submitted its application, Innovator will stay in contact with CREATE coordinator. All information exchange between idea creator and CREATE occurs in secret. If the idea meets CREATE criteria, and then the appointment between coach and innovator is booked so that the coach is able to evaluate and gain a clearer picture of the idea.

Business Coaches

Incubator main tool and resource is the business coaches who work with incubator companies. Coaches support entrepreneurs and their companies to indentify the specific circumstances in the certain stages of the incubator. Consideration is given also to the challenges that entrepreneurs and infant company may come up against. Initially, the Business Start-up (first phase) and Business Lab (the second phase), the coaches will be a crucial assistant to design the business plan. At a later stage it is possible to pick up business coaches with the subject in specific sectors.
as much as possible, relying on each firm’s needs. CREATE is the careful recruitment of coaches, the profile is highly qualified and basic requirements are that she or he:

- must have started and run businesses
- had staff
- been entrepreneurial CEO, like working with international relations
- have experience of external owners and venture capital

The business coaches, who are entrepreneurs, the best evaluators and business adviser working outside of their own activities, are actively chosen by CREATE. Currently, eleven people involved through the so-called contract have been signed, which in turn provide the basis for operation, confidentiality, right to the results of operation, etc. Every business coach is responsible for one or more companies whose business he or she will support through a coaching-oriented approach. Business Coaches main tasks will be to contribute to:

- financial advice and capital raising,
- financial controls and monitoring,
- marketing and sales,
- business development and the development of a strong business plan,
- sounding board for technical development and prototyping,
- development of board,
- team development,
- Networks of Excellence, etc.

The incubator’s goal of developing the entrepreneurs business will evolve with the help of business coaches. Therefore, the ambition of the incubator is to have different business coaches to support entrepreneurs in their business development process so that they can get a breadth of knowledge to run your business from inception successfully. The incubator interacts with other incubators in the region of Eastern Central Sweden. Within cooperation, a group of business coaches and subject specialists has been established in order to match the right coach with the right companies. Thus, create greater value for incubator companies.

5.2. PENNY AB

Penny is an innovative company that is main task is developing and manufacturing Penny Interactive Glasses. The company challenges traditional ways of interacting and communicating by offering high technology based mobile computer communication. The company’s product is aimed at helping its customer to overcome constraining tasks that can be solved by high-technology. The control of the company is carried out by one of the minority of owners who is a shareholder of the Penny. The ownership belongs to the one family and relatives, whose relationships are informal. The decision making is realized by the company’s board, which is composed of owners. Along with having a small share in the IT based industry market, the company does not attend in stock market.

Penny & Incubator

Penny’s office is situated in Västerås Science Park, where they believe their company has a great opportunity to grow. The company is in Create Business Incubator of VSP, where they are provided with initial support to work efficiently and to reach their goal. The primary purpose of the company is to convince the ten companies to attend in test validation program of 0-serie of Penny Interactive Glasses BM10 that they are already manufacturing and selling. The achieved
results from testing program will be used for final possible changes of Penny Interactive Glasses before the start of serial manufacturing during 2009.

Business idea & vision of Penny

The business idea of Penny AB is to help people to communicate with computers and systems by interactive “hands free” solutions with the company own developed platform C-More Interactive Glasses. The vision of company is to become a world leading company in high-technology hardware and software with its interactive hands free solutions for mobile computers.

Penny's mission is that "Everybody, as long as they have a retained sight, independent of their physical capacity, work task, workplace or computerized environment shall be able to use the Penny Interactive Glasses". As a winner of Red Herring 100 Europe, Penny is estimated to be one of the most promising technology companies in Europe. The main function of Penny Interactive Glasses is to decrease the lost of the efficiency and concentration throughout the main task being done by user. They believe that placing both the screen and interactive units in front of the users’ eyes will increase the efficiency and also the usability. The users of C-More shall feel that the mobile computer is helping them during their main work task and not stopping them.

Products of Penny

Nowadays, the company has three main products series:

- Penny Interactive Glasses,
- Penny Sub Systems,
- Software.

Penny Interactive Glasses

Penny’s innovative solution puts everything on its head, a new ways of using a mobile computer, PDA or mobile phone. It is accomplished by creating a virtual transparent display in front of user and enabling navigation through head movements, so selections are done by measuring facial muscles. Penny Interactive Glasses is a highly advanced system that makes life easier for all users who are on a mobile at work with often complex tasks.

Penny Sub Systems

The Sub Systems are part of Penny Interactive Glasses, but as separate systems they also can be the right solution for users. There three sub systems are used, and they are Project Display Solution (PDS), Motion Tracking System (MTS) and Command Button Sensor (CBS).

PDS enables complete new possibilities of augmented reality and transparent interactive graphics by enlarging transparent graphical environment in front of the user.

MTS gives total control at least in three different directions without the use of hands.

CBS is a brand new tool, which gives an ability to click with temple of muscle by just biting the teeth.

Software

In order for collaboration of hardware made by Penny, certain software also created by company so called Penny C-Lect Suite. It gives a user freedom of designing their own grammatical language based symbols that can be used instead of traditional language in order to communicate
beyond the language barriers. C-Lect Suite consists of three group of software: One for designing, the second for dynamics and the third runs time module for customer’s Pocket-PC.

Penny’s products oriented for four groups of customers who are definitely needed and required to work in a mobilized environment, in the same time they have their hands free. These are Defence Industry and Secret Service, Rescue Service, Service Engineers and Entertainments. Rescue Service is a classic example of a user group that makes important work with their hands and who often need critical information about their surroundings and direct data on a patient health condition. The Entertainment industry is also interesting target market that has a large group of users.

5.3. QP MEDTECH AB

QP Medtech AB develops IT support that enhances the effectiveness of drugs briefings in healthcare of elder people. The company was established in 2006 in Vasteras Science Park by two experienced professionals in the medicine. The board of the company consists of main three shareholders, whose relationships are informal. Along with the independence in control, the characteristic of quite well experienced manager can be defined with open attitude towards risk taking. Geographically office of the company located in Vasteras at present. Being a developing company, its share is not big in the IT based medicine market. The most financial resources invested by owners not to lose the control of the company, so that the company is not listed in the stock market presently. However, nowadays they are attracting financial outsources like bank loans and state grants for further partial development of their innovation. The expected condition for new shareholders is that they will be equal in financial issues, but the main owners of the company will possess the regulative power in decision making process. The innovative solution of the company is aimed at increasing the quality of care, patient safety, time and cost savings in patient’s recovery. Along being in a close cooperation with users and medical carers, all systems are developed by experts in the pharmaceutical field.

QP Medtech AB & Incubator

The establishment of the company started in the incubator of VSP where founders found appropriate for further development of the business. As one of owners has mentioned by participating in Create Business Incubator or VSP, they are achieving a significant growth of the business by special business coaching and networking advantages of the environment, especially they are happy to have network of business angel in terms of financing. Also, the CEO of the company noted that the informative knowledge and networks of the incubator coach were and are very useful in making decision, even if the coach is not able to participate in the process. The main purpose of the company under promising conditions of Incubator is to provide and develop high qualified service for elder people with miniQ, Referral and Reports that are used to carry out medical reviews.

Business Idea & Vision of QP Medtech AB

The Business idea of the company is to help to elder people with appropriate use of pharmaceutical drugs with a special program and application. Also, company has internet service for doctors and people working the healthcare sector to avoid mixing drugs that might cause more damage than release to the patient. The vision is QP Medtech AB is to become a prominent company in the medical service area with special services and products.
The products of QP Medtech AB

The business line of the company is identified with software products in netware based services. The application is significantly facilitated by using medical diagnosis from miniQ and LMG Referral. Medical diagnosis is documented in easily by miniQ and that will be delivered automatically to a LMG Report. An innovation was clear and remarkable with focus on solving serious and costly problem. This year's innovators have developed a battery of products with common basic concepts that are very likely to lead to substantial cost savings for society and above all improvement in the life quality of many elder people.

The simplest possible process and the minimum of hassle in medicine require a doctor just to understand what is needed, under dictation template. The medical diagnosis answers for consultant would be accomplished within 5 days and used as decision support to take action and reduce potential drug-related problem. Instead of that, or to complement, the MiniQ can be used to in diagnosing by entering some basic information. MiniQ is a quickly and easily way of identifying the quality of an elderly patient's medication use. In difficult cases, or in the first application, it is recommended to ensure the quality of decisions by getting expert help at a distance via a LMG Referral.

LMG Report is a comprehensive report brought out by MiniQ to determine the certain quality of the pharmaceutical drugs that should be received. For example, it presents the number of drug-related problems and determines the drug usage according to the pharmaceutical types of it. Also, it shows the changes in the cost of taken drugs. At all, LMG Report helps doctors and other user to make a reasonable decision in consumption of the pharmaceutical drugs with a clear and concise report.

Education

The nursing is a large initial potential to provide elderly with better and more efficient care. A prerequisite for this potential is the addition of knowledge about common diseases which is combined with an understanding of elder people health care. It is also important to understand what happens in the aging body, the consequences of aging and the care it requires. That’s why QP Medtech offers special courses for healthcare professionals, who are responsible to take care of aged people, to feel a greater security in their professional capacity and to improve the quality of professional performance. The development program is result-oriented and tailored to improve potentials of healthcare professionals. After the training, the participants should have:

- More knowledge about what are the most common conditions in older people and how they affect the elder people health and behavior.
- More knowledge about the most common drugs for aged people, how they affect the older body and how certain drug side effects can affect the behavior, quality of life and health of older people.
- Established communication channels with the responsible doctor to be able to contribute with information that is essential to the care of aged people.

The training is organized as a "Problem Based Learning", where the objective is to exchange experience and to continue learning even after the training program.
5.4. XLNT NAIL GROUP AB

Mynails is a cosmetic industry based share holding company, which was established in May 2008 in Västerås. The company’s is now in the Create Business Incubator of Västerås Science Park. At the present time, company is consists of three workers that are owners of the company with informal relationship, and one of them is a CEO that who created the idea to launch a business. The manager of the company is open to risk taking by attracting outsources in order to achieve the growth of business rather than independence. The market size of the company is expending, and the share in the market also increasing. For further development of the company, the owners are trying to attract more financial capital and enter to the stock market.

Mynails & Incubator

The CEO of the company mentioned that the role of the incubator is very useful in rapid development of his idea and further growth of the company. The manager also gave emphasize on the coaching and networking environment of the VSP in terms of increasing the knowledge in the concerning business field.

The Business Idea and Vision

The idea of the manager is to extend the sales of Mynails products and provide a time consuming high quality service. The vision of the company is to become a world leading company in cosmetic industry with special nailing products and specialists. Mainly, the company manufactures special nailing products and offers training programs in nailing speciality.

Despite being a small and young company, Mynails already has its subsidiaries not only in other major cities of Sweden but also in New York, London and Dubai. Their subsidiaries are basically engaged in introducing and selling the products made by Mynails.

Their core products are followings:

- My XL'nt One - Lim product
- My XL'nt Plus - Pensellim that have helped to shape your nail
- My XL'nt Active - an activator that persists glue
- XL'nt Filler - a glue thinner than water
- My XL'nt Cleanser - Cleaning without residues

The trainings offered by Mynails gives a solid knowledge of the particular anatomy, nail diseases, manicuring and nail extension. The program also includes ethics, work ethic, health, economics and marketing that give training participant a sound financial plan for their business and a solid foundation to stand on in their future profession as a nail specialist. All the products are tailored to create harmony and meet high quality standards. The products manufactured by company have special safety features in components in terms of health effects or side effects of its usage. One of the main purposes of the trainings is to extend company product distribution widely. As nail specialists, who are passed through trainings, are expected to be a professional specialist in nailing.

5.5. SVENSKA ENERGISGRUPPEN AB

Svenska energigruppen AB is an information and communication technology company. The company was founded by two PhD students who are active in energy research in 2008 and the relationship between owners is informal. The company geographically situated in VSP, Vasteras
and they are in the incubator for further development of established company now. At same time, the company is in the early stage of development with steady plans for further growth. The business line of the company is software based service for energy consumers. They have worked with consumption and forecasting in both electricity and district heating market, and also how energy will be presented in an easily understandable and intuitive way. The most financial and human resources are invested by owner of the company and they prefer to be independent in control of Svenska energigruppen AB. This company also possesses minor share in the belonging market and does not participate in stock market.

Svenska energigruppen AB & Incubator

The manager of the company mentioned that their presence in the Incubator happen by following certain growing pattern. First, the owners of the company generated an idea, and then it has been improved with help of Idealab. In the next improvement step, the idea started to take form of the company in the incubator of VSP. The owner of the company noted that the coaching helped significantly to further development of the idea and to become a company. The manager believes that Svenska energigruppen will become one of the leading companies in the energy industry with prominent coaching and the network of VSP.

Energyinfo TM

The vision of the company is to be one of the leading players among the developing service companies for automatic energy. Service Energyinfo TM and its value-added services will be the market leader and the obvious choice for analysis and communication of energy consumption will be through the Web. Energy info TM provides customers (users) with an opportunity to see their energy consumption in easily understandable graphs. Energy info TM is a service for organizations that collect data and want to analyze and present these via a cost-effective web system, where the operation, support and development are included. Current focus of the company is on the energy market where it feels it is a great need for good and clear information to the consumer, both business and private individuals.

R & D projects

Every shareholders of Svenska energigruppen AB is or has been active in the Swedish energy. Most of the projects have the working title "Automated energy analysis" and aim to maximize the use of energy companies' results. Another interesting project is environmental campaigners. It is a concept that Svenska energigruppen AB is developing and where the goal is to increase interest in energy and its environmental impact. The fundamental component is simple and relevant consumption information to ordinary consumers. Consumption information is combined with a competition element where the purpose is to save energy.

Services of Svenska energigruppen AB

One of the main services of the company providing is new regulation of energy that specify the number of details for customer to make easy to understand from consumption. Another special feature of their service concerns with level of alarming, which can be carried out by sending SMS or e-mailing, about the issues in use of energy and malfunction in the system. Further development of the Svenska energigruppen AB services are being extended with automated analysis and energy advisors.
6. ANALYSIS OF FINDINGS

The following chapter is conclusive and is designed in order to represent elaborations of the collected empirical material. On this stage of the research we will refer back to the critical literature review and conceptual framework and apply developed theoretical understanding for investigation of a practical phenomenon.

In previous chapter basic information about the Business Incubator organized in Västerås Science Park and firms established there was presented. In contrast with previous chapter, which was descriptive in its essence, current chapter will aim for conducting evaluations. Different sides of the central issue – financial bootstrapping decision making processes – will be discussed. The chapter also provides conclusions upon the research results achieved.

General structure of the chapter mirrors the basic idea developed in the conceptual framework part. Particular characteristics of the firms and managers gathered in two groups (which represent “financial choice” gear) will constitute sub-chapters 6.1 and 6.2 respectively. Both of the sub-chapters will evaluate empirical results gathered during the interviews and compare characteristics of 4 firms between each other. Then, generalities and particulars peculiar to the sample will be identified and formulated in table. Generalities, in turn, will be compared with conclusions developed by Winborg and summarized in Appendix 1.

Moreover, learning and networking perspectives also will be highlighted as a part of research result analysis. Attitudes and motives of the entrepreneurs will be summarized and evaluated in terms of their relation to the core research issue. Answer on the research question will constitute the basis for the strategic answer and in the end recommendations will be presented.

6.1. CHARACTERISTICS OF THE BUSINESS

In the critical literature review we explained the meaning of a life cycle approach for understanding financial decision making processes. Basically, it assumes that the characteristics peculiar to the particular firm to some extent influence the final decision approved and executed. We start our analysis from the detailed insight into the characteristics of the firms. Particularly, we will evaluate four firms:

- Penny AB
- XInt Nail Group AB
- QP Medtech
- Svenska energigruppen

The emphasis will be made upon the set of characteristics common for firms. Factors, which constitute life cycle approach, will be used in order to explain particulars and summarize generalities. Moreover, the link between discovered generalities and financial bootstrapping behavior will be proved or disproved. An attempt to relate developed understanding with Winborg theory of financial behavior will be made.
6.1.1. STAGE OF DEVELOPMENT

Particular stage of development of the enterprise constitutes the fundament of life cycle approach. It is assumed that different financial sources become available and/or needed for the firm on different stages of its development. Generally it is acknowledged that due to the lack of track records younger businesses attract lesser amount of external capital (especially from banks) and substitute it by other financial sources (often internally generated).

Practically, we found different stories of entrepreneurs. For example, Penny AB, being officially established in 2004 reports stable development trend. Nowadays company explores the advantages of external capital attraction more easily. Shareholders structure of organization allows it to attract significant amounts of funds. However, even now management is facing great troubles in obtaining venture capital (VC). There is still lack of trust and confidence in the success of Penny among VC providers, despite the fact that the company is innovative and was awarded a place in the list of Red Herring 100. If we refer back to the times when the company was not legally established – a personal investment of SEK 4mln own savings is found. Investment was made by the business idea creator and was directed on the improvement of the know-how. Thus, the company used internal funds on the initial stage of development and with the flow of time explores external sources of funding.

The situation in QP Medtech AB is in a way similar to the Penny AB. Today, company is in a gradual development phase. Capital needed is attracted mostly through the issue of shares. Management of a company is planning to sell out a 10% share fraction in order to satisfy the need for finance. Company is also facing troubles with venture capitalists and does not recognize bank loan as a preferable financing source. At the same time on the early development stage three owners and idea developers invested their own capitals to the business creation.

Svenska Energigruppen AB represents lower stage of development than the previous two respondents. It is also organized as a shareholders company now, but due to the slow development processes caused by specific market conditions there is no rapid growth and consequently no need for additional capital. There is no demand for capital and thus the management does not sell any shares. On the initial development stage company was financed through ALMI foundation, where they got a loan for start-ups on the special preferable conditions. Personal credit card loan and family members’ financial support were also used. These funds are still used now and need to be repaid only in case of financial success.

Xlnt Nail Group AB is probably the most developed company from the sample. Being established in several countries company requires significant funds for R&D and the owners used to finance it by emissions of shares since the initial stage of development. However, the close network between shareholders already existed when the company was established and thus it is possible to classify it as friends financing (of course not in the classic understanding).

Thus, we can see that from the perspective of the stage of development there is a steady trend among entrepreneurs to substitute internal sources of financing by external ones depending on the progress achieved. It is possible to state that sample firms were using financial bootstrapping techniques on the initial stages of development, but on the higher development level financial demands are also higher and it is not more possible to cover development needs by internally generated financial flows. This conclusion perfectly matches Winborg’ conclusion (Appendix 1), stating that with the flow of time and progress in development the actual need for finance changes and access to financial sources increases.
Alongside with stage of development, size is one of the fundamental characteristics of the life cycle approach. It is assumed that size of a particular firm, in terms of number of employees and turnover, influence financial decisions being made (Winborg, p. 53, 2000). The search for financing becomes more sophisticated. In our opinion, this characteristic is very much related to the stage of development one. It is even possible that there is a positive correlation between two variables. In other words, the more developed the firms is – the more employees it hires and the bigger amount of funds are in turnover. But, our aim is to characterize firms from different perspectives and thus, the analysis of the firms’ sizes can be found further.

The size of Penny AB, as well as sizes of three other companies, can be estimated in two dimensions. First one is the number of employees. From this perspective the size of the company is stable and there is no increase from the day of establishment. Now, 1.5 employees officially work for the company. These are CEO (full time employment) and his President (part time employment). However, decisions made are carried through the board of directors, and company explores the advantages of using outsourcing. These people are not employees officially, but actively participate in the firm’s activities. On the other hand, if we focus on the turnover of the company – there is a steady progress in both size and amount of transactions. Nowadays company has stable demand for its product and is ready for serial manufacturing.

QP Medtech AB characteristics are in a way similar with Penny AB. Today the firm officially employs only one person. However, there is a board of shareholders, making financial decisions. From this perspective the size of the company is relatively small, but according to the information received from CEO during the interview, there are employment plans in the nearest future of a company, related to the further growth. From the perspective of turnover there is a positive trend. Company increases amount of transactions and size, consequently, also expands.

Similarly to the previous two cases, Svenska energigruppen AB employs only 2 people and is this regard is small. Many tasks are solved through the outsourcing resources attraction and decisions are carried through the board and informal networks of people who are not officially employed (advisers, coach, etc.). The amount of transactions is not progressing due to the reasons described in the stage of development part and thus we can say that the company is the smallest one among the others in the sample.

Xlnt Nail Group AB is a case different from previous three. Being established in several countries the size of the company is difficult to estimate. Thus, we will focus on the headquarter company in Sweden. From this perspective it is similar with other companies from the Business Incubator. Currently 3 people are employed. In terms of transactions company operates with significant funds attracted through the shareholders.

So, we have evaluated two parameters of the size of the sample group of companies. The size and amount of transactions parameter is very dependent on the stage of development characteristic. Conclusions for these two factors are almost identical and are described in the previous sub-chapter. From the perspective of employment policy – the group is very homogeneous. It seems that owners prefer to use outsourcing instead of hiring new personnel. However, the amount of people actually involved in the business is growing with the growth of the company itself. Even without outsourcing factor, all the companies have the board of directors now. On the initial stage of development they did not have the board and it narrowed down their possibilities for financial pluralism. Referring back to Winborg, we can state that our results correspond with the conclusion developed in his work.
6.1.3. LINE OF BUSINESS

Another characteristic of the life cycle approach for the financial decision making understanding is the line of a business. It is well known that there are resource consuming industries and sectors. Each of them is especially dependent on some type of the recourses – informational, financial, human or natural. In other words, it’s assumed, that sector of the economy where the particular company operates leaves its stamp on the firm. Thus, if the company operates in a financially consuming sector it automatically becomes relatively more capital dependent then others. This factor should be noticed as an important one while making investigation of the financial decision making motives.

The influence of the line of the business involvement on the financial decisions is realized through the asset structures. Here the difference between manufacturing and service industries is crucial. For example from the perspective of bank loan it is much easier to get funding for the entrepreneur if there are tangible assets in his property which can be given as a security. On the contrary, service sector entrepreneurs with the intangible assets will face troubles. As a result they will substitute bank loan by other financial sources.

In our research firms are involved in different sectors of manufacturing and service providing. CEO of Penny AB named hardware as the core line of business. The particular products of the company are described in the empirical findings, but even general characteristics of the line of a business allow us to analyze financial behavior. First of all it is clear that the product needed large amount of capital to be founded. Research and development of a technical solution consumed personal savings of the entrepreneur and time before the firm was legally established. It was impossible to attract external finance on the initial stage of the business development and thus the entrepreneur applied financial bootstrapping techniques and invested personal capital. Now, bank loans are also not common for the business and VC is still not attracted. This situation is to some extent explained by the line of a business.

Xlnt Nail Group AB operates in the cosmetics sector. The key for a business success lies in the specific product the company is offering. Detailed information can be found in the empirical findings part, however the fact that the company holds some unique product, which gives it a strong competitive advantage, provides us with a ground for further financial analysis. From the history of the company we know that the research and development process started with the establishment of the company and shareholders’ capital was used from the initial stage. Funds were not collected through the bank loan, it was impossible to attract VC and the amount of personal savings and help from family were inadequate. This experience of this firm presents a case when the financial bootstrapping techniques were inapplicable. The reason for this is found in the features of cosmetics industry, where development of new products is resource consuming.

QP Medtech AB is involved in the software sector. Particularly, they provide customers with a netware service, described in empirical findings. The development of a product did not require any special equipment or laboratory research (as in two previous cases). In other words the sector generally is not financial resources consuming and thus entrepreneurs could manage to finance the initial stages of development entirely by internally generated funds and thus, it is possible to say that a firm applied financial bootstrapping techniques. The fact that they are planning to sell out a part of their shares in future is not related to this characteristic and will be explained in next sub-chapter.

Svenska energigruppen AB operates in so called ICT (information and communication technology) sector. The owners of the company managed to finance it without attraction of long-
term external capital. Their idea comes from PhD studies project and was financed by personal savings and ALMI special conditions loan. Due to the characteristics of this line of business it does not require the firm to have a heavy assets domination trend. Thus, a firm managed to apply financial bootstrapping for initial phase of development.

Generally, it is possible to conclude that line on the business does matter when financial decisions are made. In the investigated sample all of the companies were affected by the influence of this characteristic. However, the influence on companies is different. One of the four could not apply financial bootstrapping due to the conditions faced. Other three managed to use some of the bootstrapping techniques on the initial stage of development. The major push factor towards internal financing and using own funds was impossibility to attract necessary capital from external sources. This impossibility is usually explained by lack of the assets (both tangible and intangible) in order to secure loans. Research results match Winborg’ conclusions.

6.1.4. GROWTH

Another fundamental characteristic of the life cycle approach for understanding financial decision making is growth. Being an abstract word, growth will be explained from the perspective of the given analysis. We will understand growth as a growth rate or temp of growth, peculiar to one particular company. Potentially, growth rates can be calculated and compared (focusing on the increase in total assets or in revenues). But in the given research qualitative approach for the growth understanding and estimating will be applied. Thus, we will seek for the attitudes of business owners for the further growth of their companies.

This characteristic is interesting for us because it plays a very important role in identifying the real motives of the financial decision making behavior. Earlier, a perspective on growth from the financial point of view developed by Winborg was presented. He suggested that growing businesses need and use more external finance than non-growing businesses. In the given sub-chapter opinions and experiences of the four firms will be analyzed.

We start from the Xlnt Nail Group AB as from the most developed one. Today, headquarter office in Sweden regulates subdivisions of the company in Dubai, London and New-York. Thus, the company is on the high stage in its growth and the processes of growth are still blooming. This fact goes hand in hand with selling of the shares. Company invites new shareholders who make further growth possible by their investments. Manager of a company confirmed that equity issue was a decision directed on the further growth of the company. External capital was attracted because the revenue, generated by company, could not finance further growth projects.

Penny AB reproduces the behavior of Xlnt Nail Group AB to some extent. On the initial stage of development the company was financed by the owner’s resources. However, when the choice between further growth and “company for living” appeared the management has chosen growth. The expected possible level of growth is not reached still and there are no sufficient internally generated funds or their substitutes to support the growth processes. Thus, company has shifted to the external sources of financing.

QP Medtech AB is the third developed company in the sample. It supports the trend discovered above. On the initial development stage owners applied financial bootstrapping. Now there is a possibility for a further market growth and the management desires to explore the opportunity. But the company itself has not accumulated sufficient funds to invest them and there are no network opportunities for low cost financing. Thus, the management of a company took a decision to invite more shareholders and consequently external capital for stimulating further
growth. CEO has confirmed the conclusion saying that: “if it would still have been possible to finance it 100% privately we would have done that.”

Svenska energigruppen AB also constitutes a good example of the influence of growth characteristic on the financial decision making processes. It was explained above that the management of the company has attracted sufficient sources of sources through the bootstrapping techniques on the early growth stage. However, due to the specificity of the market situation and the line of a business the company belongs to, further rapid growth is impossible. The sector where the company operates is limited and new companies are not always trusted. Thus, there is no growth and consequently no need for additional finance.

So, from the analysis it is clear that fast growing start-ups experience greater financial needs then slow growing start-ups. These need is usually satisfied by external capital. In this situation management chooses between further growth and internal financing. This choice is relevant to the “need for independence” characteristic, which will be described in next chapter. The research results match Winborg’ conclusions (Appendix 1).

6.1.5. GEOGRAPHICAL LOCATION

It is the last characteristic constituting life cycle approach for understanding financial behavior. The basic assumption is that the businesses established in larger cities face relatively greater financial possibilities and opportunities than the ones being established in smaller cities (Winborg, p. 56, 2000).

Due to the requirement of our research we focused on the firms established in the Business Incubator organized by the Science Park in Västerås. Thus, from the perspective of the geographical location the companies constituting the sample are absolutely homogeneous. The only contradicting example is XInt Nail Group AB. However, even in this case we focus not on the overseas subdivisions of a company, but on the business managers in Västerås.

While empirical data collecting phase of the given research we analyzed the reasons why the companies were established in Business Incubator in Västerås. The choice of the entrepreneur to start a business in this city seems natural if we take a narrow perspective. Most of the people participating in the investigated firms are closely related or come from this area. Thus, there was no special choice for them where exactly to start a business. Moreover, due to the lines of the business where the companies work there is no special need for a big office or storehouse.

Entrepreneurs we asked about the motives of choosing Business Incubator and all of them stated that it was a gradual and natural process and according to the representative of the Svenska energigruppen AB - “we even could not mention how and when it happened”. It was a process of a steady cooperation and networking, which will be described in the Networking chapter.

Thus, we can not compare the results from several geographical locations different in size and consequently there is no possibility to prove or disprove a conclusion suggested by Winborg. However, we can agree that in smaller areas the importance of personal contact is high and good relations between capital providers and entrepreneurs can assist in obtaining loans or other forms of capital. None of the sample companies relies heavily on bank loans, but there is a correspondence with attracting shareholders. According to the information from the CEOs most of the shareholders participating in the board of directors are not new people for entrepreneurs. Usually it is people whom an entrepreneur knows and trusts. QP Medtech AB CEO stated that unknown people are more likely to be sold “B” shares, instead of “A”, in this way eliminating their influence on the decision making.
6.2. CHARACTERISTICS OF THE ENTREPRENEUR

Referring back to the critical literature review and conceptual framework we can summarize that managerial choice approach can be expressed through a set of variables. These variables are the characteristics peculiar to manager. General assumption of the approach is that it is not only characteristics of the firm, which influence the financial needs and opportunities appearing in and for the company, but it is also the characteristics of the manager, which predetermine financial behavior. Manager or decision maker in this sense influences and actually constitutes financial decision making center and investigating his characteristics it is possible to understand the whole decision making process.

Moreover, characteristics of the manager can not be studies separately from characteristics of the firm and vice versa. Usually, a decision dictated by the characteristics of the firm still needs to be approved by the manager – decisions executer. In order to be complete, our research presents the analysis of the characteristics peculiar to the investigated managers.

6.2.1. NEED FOR INDEPENDENCE

The first and probably one of the most important characteristics in this research is actual need for independence among entrepreneurs. It is assumed that manager who started a company has a specific attitude towards legal ownership. For many small business owners the full control over their companies is very important. Winborg concludes that need for independence implies a negative attitude towards external finance (Winborg, p. 59, 2000).

From the critical literature review we remember that usual layout of financial sources priorities can be ranked from the most preferable to the least preferable. In other words, managerial choice approach supposes, that most of the small business owners/managers rank financial possibilities according to the following list:

1. internally generated equity (most preferable)
2. debt financing
3. external equity provided by a new owner (least preferable)

Ranking order presented above underlines the unwillingness of entrepreneurs to attract external capital. The main reason of such attitude is an independence saving financial policy, carried by the majority of entrepreneurs. Independence is necessary to provide an owner with absolute power inside the firm, and let him realize personal way of doing business.

However, some researched have shown that sometimes external funds are attracted despite the negative attitude of the owner towards independence limitations. These situations are related to those of entrepreneurs, who choose rapid growth (using external capital), instead of moderate growth (relying only on the internally generated sources).

Thus, we can conclude that according to the majority of scholars need for independence is a usual characteristic of small business owner. A choice between further growth and financial independence arises for the owner. Moreover, this characteristic is very similar with the “growth” characteristic of the firm. It is a point when objective market factors interconnect with subjective judgment of the manager. Part of the analysis of the choice between growth and ownership was already discussed above. This sub-chapter will enrich the analysis adding managerial perspective.
We start from Xlnt Nail Group AB as from one being the most notable. It stands out against the background of theories about entrepreneurs. Being a small company, it operates with external capital from the very beginning. CEO of the company stated, that it was impossible to finance the company entirely himself and thus, shareholders were attracted. Moreover, he noticed that this was his own choice and what is most important for the analysis – he feels comfortable being a CEO in the firm and not holding the majority ownership rights. This example proved us with the basis to suppose that not all entrepreneurs need absolute integration of managerial and ownership roles.

The background of the next company is described in empirical findings. It is illustrated that Penny AB is a shareholding company nowadays. Business idea creator started from investing own funds, but further growth of accompany requires additional finance, which were impossible to generate internally. Thus, he shared his independence because of the plan and intension to lead the company to a grater success and growth. However, it should be noticed that the board of directors consists from family members and other closely related partners. Thus, it was not a complete renunciation of ownership rights as in the case with Xlnt Nail Group AB. So, we suppose that independence can be seen from the wider perspective. Officially documented decrease of ownership right does not necessarily mean actual decrease in independence.

QP Medtech AB represents another unique example of ownership-management relations. According to the empirical finding – three people are included to the board of directors and all of them were the developers of the business concept and invested own funds into the company. Today they face a market challenge and need capital for further growth. This company also takes the decision to loose part of its independence and sell out 10% of the stock.

The last example is Svenska energigruppen AB. Due to the currents market conditions there is no need for capital. It was stated by the CEO that “additional capital will not generate additional profits”. However, management of the company has positive attitude towards sharing independence in future, if the finance need will emerge.

Thus, we see the situation when companies choose the option estimated as the least preferable for small business owners (external equity provided by a new owner). It happens because there is no way to satisfy the financial need of the firms for additional growth by internally generated funds or financial bootstrapping techniques. Our conclusion partially contradicts with the conclusion developed by Winborg, who assumed that the waste majority of the business managers are independence oriented. According to our research results managers can change their opinions towards independence and control over firm more frequently due to their own plans regarding further growth of the company. Another minor contradiction is that it is still possible to acquire external capital, but sell ordinary shares with limited amount of voting rights instead of preference shares.

### 6.2.2. ATTITUDE TOWARDS RISK

Departing from the assumption that risk-avert managers use external finance to a relatively low extent (Appendix 1) we made an attempt to observe risk taking attitudes among the sample entrepreneurs. This factor is rather complicated and difficult for the estimation. Moreover, the firms are generally homogeneous in their financial decisions and consequently it is hard to estimate cause and effect relation between risk taking and external financing. Thus, there is no detailed analysis on these characteristics in our work due to the limited research scope. However, from the interview material it can be understood that entrepreneurs have positive attention
towards risk taking in general. Basically, they agree that there are fewer possibilities for absolutely secured manager.

6.2.3. EXPERIENCE

According to Winborg, more experienced managers have greater access to external finance. While collecting the primary data it was estimated that all of the business managers had experience from industry (either academic or professional). But, due to the limited size of a sample all of the participated managers appeared to have experience, thus no proof or disproof of the basic assumption will be given. Part of the information about the contacts remained from the previous experience is covered by the Networking sub-chapter.

6.2.4. AGE AND GENDER

These two factors are peculiar to all people, but it is assumed that they also cause influence on the financial decision making behavior of the entrepreneurs. Winborg states, that younger managers use external finance to a relatively high extent and that male managers use relatively more debt finance than female managers. From the perspective of these two characteristics our sample is extremely homogeneous. All the entrepreneurs are males and all of them are of approximately the same age group (middle-aged). Financial behavior of the entrepreneurs from sample is similar and thus, it can be suggested that external capital attraction investigated in our research is to some extent predetermined by the age and gender of the managers.
6.3. CHARACTERISTICS SUMMARY

Two analytical chapters above present our elaborations upon the financial decision making processes among the investigated business managers. We have found different approaches for financial decision making and attitudes towards various factors influencing financial behavior.

The general picture of obtained results is found in the table below. The columns represent a set of key characteristics taken into consideration while analyzing both firms and managers. The rows represent four companies. Cells include research results collected during analysis. The last row provides a comparison of the research results with conclusions reached by Winborg.

<table>
<thead>
<tr>
<th>Characteristics/ Firms</th>
<th>Stage of development</th>
<th>Size</th>
<th>Growth</th>
<th>Line of business</th>
<th>Experience</th>
<th>Geographical location</th>
<th>Attitude towards risk</th>
<th>Age</th>
<th>Gender</th>
<th>Need for independence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xlnt Nail Group AB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
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<td>Penny AB</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>QP Medtech</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>No</td>
</tr>
<tr>
<td>Svenska energigruppen</td>
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<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>Yes</td>
<td>0</td>
<td>0</td>
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<td>No</td>
</tr>
<tr>
<td>Winborg</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>+</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>0</td>
<td>-</td>
</tr>
</tbody>
</table>

Figure 7 Characteristics summary

Decoding:

“Yes” – indicates existence of influence of the particular factor on the particular company
“No” – indicates absence of influence of the particular factor on the particular company
“+” – indicates match of the research results with Winborg’ conclusions
“-” – indicates mismatch of the research results with Winborg’ conclusions
“0” – indicates unconcludable argument (no sufficient data)

According to the table above the research results can be described according to the degree of influence of the factors on the financial decisions. The factors are grouped by the criteria of their influence of the financial decision making processes and are marked in different colors. The spectrum becomes lighter with the decreasing of the degree of influence.
The sequence of the companies in the rows is also not random. During the research it was discovered that the companies differ in terms of stage of development, size and attitude towards growth. Thus, the firms were ranked starting from the biggest and most developed and finishing with less progressed examples.

While investigating the strength of the influence of the factors on the financial choice it was discovered that the most influential factors are first three: stage of development, size and growth. They are considered by the managers as very important while designing financial policy of the firm and it is expressed by the “yes” indicator in the cells. Moreover, according to the analysis conducted above these factors are extremely interconnected and constitute a certain “backbone” of the financial behavior. All respondents of the investigated companies were motivated by the possibilities of further growth from the very inception. This starting condition immediately sets the scenario for further decision making. It makes managers more open for the external sources of financing and as a result the amount and size of financial transactions increase (increase in size of a firm) and consequently firm reaches higher stage of development. As it turned out during the research the investigated companies applied bootstrapping techniques on the initial stages of development, when the influence of these three factors was not very conspicuous. Thus, it can be concluded that the degree of applicability of financial bootstrapping techniques is mostly dependent from these three factors.

Factors included in the second category – line of a business and experience – are also considered as influential from the financing perspective. These two factors are depicted in the color which is lighter than the color of the previous three factors. It illustrates the lower degree of influence on the financial choice. However, in the cells of this group of factors there are “yes” indicators – designating the existence of influence of the factors on the four companies. During the analysis it was discovered that all business managers have had a previous experience in different lines of business. The impact on the decision making caused by this fact can be evaluated as significant, but not crucial.

The third group of the factors includes the following characteristics: geographical location, attitude towards risk, age and gender. The color of this group of factors is the lightest – indicating the lowest degree of influence on the financial choice. Due to the specificity of the research sample the data collected appeared to be absolutely homogeneous – the companies operate in the same geographical location and are ruled by the managers of the same gender, with equal attitude towards risk taking and approximately even age. Moreover, none of the managers have marked any of the four factors named above as a crucial for the financial choice. Thus, it is possible to state that there is a slight impact on the financial decision making, but the degree of the influence is unclear. This conclusion is expressed by the “0” indicator in the cells, stating that there is no sufficient data and that the argument is unconcludable.

The last characteristic is need for independence. It is placed in the last column and depicted with white color – illustrating the null influence of the factor on the financial choice. In each cell of the table in this column there is “no” sign – indicating the absence of influence of the factor on the particular company. During the empirical data collection stage of the research the managers were asked about their attitude towards independence. As it appeared none of them was driven by this motive and consequently it is possible to state that this characteristic is not peculiar to the managers being investigated. Or, to be more precise, is not taken into account when the need for finance appears. Business owners proved that the growth of the firm is a more significant factor influencing their financial behavior. In other words they prefer additional growth to the complete independence and consequently external sources of financing to internal ones.
The last row represents the comparison of the obtained research results with the conclusions developed by Winborg. According to the summary of the analyses presented in the table it is seen that first five factors match with Winborg, next four can be neither proved nor disproved, and the last factor mismatches with Winborg. Winborg’s conclusion that need for independence implies negative attitude towards external financing is correct, but the assumption that need for independence is an inseparable feature of entrepreneur was not confirmed by the given research.

### 6.4. NETWORKING

According to the conceptual framework, characteristics of the business and entrepreneur constitute the driving gear of the financial decision making processes. These factors we analyzed above. In order to have a complete research the analysis of the influence of networking will be presented in the following chapter.

Networking is a second element influencing financial decision making processes among the investigated companies of the Business incubator. According to the material presented in the critical literature review, networking is an extremely broad sphere of knowledge and activities. But it is possible to narrow down the concept of networking if to understand it from the perspective of financial bootstrapping.

Networking is a cornerstone of the financial bootstrapping. Practically, processes called social contracting constitute the very essence of many bootstrapping techniques applied extensively in the business world. As it was mentioned in the critical literature part the basics of any social contracting is found in “social capital” and “social obligation” concept. Given chapter will present the analysis of the networking of four investigated companies.

Generally, the networking which takes place among the companies of the Business Incubator can be seen from two perspectives: external networking and internal one. External networking is something provided by the Västerås Science Park. It is an environment for day to day operations, where the business managers can freely interrelate with each other and seek for the possible deals and preferable partners or contacts. This external network is very important for the general activities of the firms, but is not related to the financial decision making directly and thus, will not be investigated further.

On the contrary, internal network is a set of contacts and relations which surround the entrepreneur – the engine of financial decision making. These connections usually belong to the manager and therefore this network is called internal in the given research. It is important to notice that the geographical area of these contacts can be extremely wide and is not limited by the Business Incubator borders. By putting the social capital of the manager in the limelight of attention, the research will be well coordinated with the management-oriented view of finance theory applied in the critical literature review.

Penny AB CEO confirmed that the firm is a strong actor in both external and internal networking. Particularly, internal networking is expressed through the set of decisions (many of these decisions had significant financial component) which affected the whole process of the company’s development. For example, when the need for additional finance appeared – new shareholders were attracted to the company and these are manager’s family members and people from inner circle. In other words – the need for financial capital was satisfied by using social capital of the manager and in this way he managed to escape the possible negative influences from other external sources of financing. Moreover, the only person officially employed in the
firm now is the father of the entrepreneur, who holds the position of director. Informal networks are presented by very close partnership with several firms in terms of knowledge sharing.

Interview with QP Medtech AB representative expressed that managers of this company also participate in both external and internal networks and that the company’s involvement to the networking is similar with Penny AB. The realization of internal networking started when the company was established in the legal form of AB. Three owners had strong personal ties before the company was established and then converted their social capitals into the form of shareholding company. Moreover, nowadays QP Medtech also exploits various outsourcing possibilities by applying social obligations principle.

Svenska energigruppen AB representative confirmed high level of network activities carried by the managers. Company started to participate in networks in the Mälardalen University (Idea Lab) and then transferred to the Business Incubator. Thus, managers collected social capital in both academic and business spheres, but it is still not transferred to the financial capital due to the absence of need for finance. However, the CEO reported that financial sources were attracted through the family members on the initial stages of development. Moreover, managers intensively participate in the academic life (the shareholders are PhD students) and thus collect sufficient resources for R&D progress almost at no cost.

Research results from Xlnt Nail Group AB contradict with three other companies. During the interview it was clarified that the company was financed substantially by external shareholders and the CEO emphasized that in his opinion “there is no difference between venture capitalist or new external shareholder. Moreover, after the question about family ties in financing he underlined his personal attitude to network financing: “people in general use 3F principle: friends, fools and family. I did not work that way. Thus, the internal network relations most probably are not considered by the company as an adequate substitution for financial means. However, the advantages of external networks are explored though the participation in the Business Incubator activities.

So, the analysis presented above supports the results of the previous two chapters. It is clear that financial bootstrapping techniques are more likely to be used on the initial stages of firms’ development. Modest stages usually require more sizable amounts of funding which are not available through bootstrapping. However, internal networking in the form of social capital realization can be applied on any stage of development. Entrepreneurs holding social obligation can transfer it to the financial capital and in this way substitute external financial sources. This conclusion coincides with the assumption made in the conceptual framework that networking is one of the gears of financial decision making.

6.5. ENTREPRENEURIAL LEARNING

The concept of entrepreneurial learning is third and final gear in the process of decision making of the investigated companies. This element is necessary in order to build the complete picture of the actual financial behavior of the investigated managers. Moreover, this chapter is a key to answer the research question of this thesis. The research answer will be based on previous chapters also. The influence of the learning program on the financial behavior will be seen through the prism of interrelations between entrepreneurs and their business coaches. Particular contribution of coaches to the financial awareness and decision making of the entrepreneurs will be investigated.
The example of Penny AB is remarkable in the area of entrepreneurial learning. It is necessary to notice that the interviewee described his relation to the learning in the Business Incubator as very positive by saying that “it is always good to have another head”. The coach usually provides entrepreneur with updated information, business advises from own experience, helps with media relation and other activities. However, the contribution of the coach to the search of financial sources was evaluated by the CEO as restricted one. He has also mentioned that the Science Park organizes meetings with VC providers, but there is no successful result for the firm. Moreover, the manager had two different coaches until now and emphasizes the outstanding role of a personality of the coach in the learning process.

XInt Nail Group AB responded also has shown his positive attitude towards entrepreneurial learning program. He told that it is very useful to have an adviser under the same roof, and that they discussed different questions together. However, when it comes to the financing questions it appeared that the coach does not create any additional financial awareness for the entrepreneurs. The manager has told: “together with coach we are getting a better structure of our company, but if you want to find money from VC – we are doing a better job ourselves”. It indicates the insufficient amount of attention paid by the learning program of Business Incubator to the financing issues in general and financial bootstrapping in particular. It also can be one of the reasons why XInt Nail Group AB is more dependent on external financing than other three firms.

QP Medtech AB, unlike the previous company, explores the opportunities of entrepreneurial learning to a great degree. According to the CEO, the coach has organized meetings with Business Angels, who are ready to invest in the company. He says, that: “it feels more secured to have Science Park Business Angels network investing than the outsiders”. This phrase incorporates both active networking position and intensive learning orientation. Moreover, the CEO stated, that: “our coach is not a part of any decision we make, but he is a source of the information that we base our decision on”. Thus, there is a certain degree of contribution to the financial awareness of the entrepreneurs.

Svenska energigruppen AB respondent stated that: “most of the financial discussions we have within the owners of our company”. Moreover, he added, that: “When we are meeting our coach financing is not the main focus. The main focus is customer base and sales”. However, like in the case with QP Medtech AB, the CEO underlined that the coach is a significant source of the information and from this perspective he does contributes to the financial awareness of the manager. The CEO has also characterized the role of the personality of the coach as significant in the learning process.

Thus, the research question can be answered from the perspective of these results. It is obvious that entrepreneurial learning program contributes to the financial awareness of the investigated entrepreneurs. However, the level of this contribution fluctuates among the managers and the general possible positive impact is limited by several barriers that appear between the coach on the one side and entrepreneur on the other side.

Now it is possible to state the initial assumption of this thesis, stating that entrepreneurial learning is one of the driving forces of the financial decision making processes also appeared to be correct. Consequently, considering the conclusions received during analysis of the collected materials, the assumption that all the three gears named in the conceptual framework participate in the financial decision making processes becomes empirically tested and proven.

However, there is a significant difference between entrepreneurial learning gear on the one hand and financial choice and networking gears on the other hand. The most important distinction is that the latter gears can not be easily influenced from outside, while the former – entrepreneurial
learning – can. Thereby, entrepreneurial learning becomes a key for the possible improvements. For example, a proper entrepreneurial learning program can change the characteristics of the manager (financial choice gear) and consequently the attitude towards networking will be changed. It means that by “rotating the entrepreneurial learning gear” it is possible to direct the whole process of the financial decision making in the more efficient way in general and promote financial bootstrapping in particular.

6.6. RECOMMENDATIONS

Previous chapters provide detailed description of the analysis conducted and expressed the conclusion reached in the research question sphere. It was discovered that the learning program of the Create Business Incubator contributes to the general level of the financial awareness of entrepreneurs, but this positive influence is to some extent limited and restricted. Thus, in order to answer the strategic question of the given research the following chapter is presented.

According Fisher in order to answer the strategic question a personal judgment of the researcher has to be applied. At the same time the answer on the research question alongside with theoretical background should constitute the basis of this judgment. Thus, in order to solve the strategic problem of the given research the empirical data collected from the managers will be combined with the theoretical frameworks and interpreted by the researchers according to the interpretative methodology accepted above.

In the sub-chapter 6.5 it was argued that the entrepreneurial learning the only gear (out of the three gears named in the conceptual framework) which is the easiest to be influenced from the outside. It was also assumed that by changing this component – the whole process of financial decision making can be improved. Thus, the strategic question (which looks for the way to increase financial decision making effectiveness of the entrepreneurs) will be answered from the perspective of entrepreneurial learning.

First of all it is necessary to depict the area which can be potentially influenced by the learning program. The quotation of the QP Medtech CEO expresses the situation: “our coach is not a part of any decision we make, but he is a source of the information that we base our decision on”. All the other respondents agreed with this formulation. It means that the coach never takes part in the financial decision making process itself, but can influence it indirectly, by providing necessary and relevant information. But, it appeared that the financial aspects of the activities are not in the focus of the learning process. Svenska energigruppen AB CEO financial discussions with coach in the following way: “Actually, I do not know why we do not discuss it. Probably, the reason, why we do not use our coach as much as we could, is that we have unity in financial questions among the owners”.

At the same time, all the four entrepreneurs had underlined the outstanding importance of the personality of the business coach in the learning process. Two of the respondents have changed their coaches during the learning process and the evaluation of the coaches’ effectiveness is ambiguous. Moreover, we have found the information on the web-site of the Business Incubator that there are vacant places for the new coaches. These facts indicate a certain shortcomings in the learning programs provided and require urgent solution.

According to the theoretical understanding of the entrepreneurial learning, provided in the literature review, Business Incubator holds a good position because it operates with the “learning in enterprise” principle. It means that the question of whether the entrepreneurship can be taught
can be answered positively in the Business Incubator realities. Thus, we suppose that there is a place for improvement. We suggest to the Business Incubator management to check the performance level of coaches and increase it. In order to influence the financial component of the entrepreneurial learning we suggest coaches to put more effort on the informing entrepreneurs about the possible sources of financing in general and financial bootstrapping in particular. According to the feedback from Svenska energigruppen AB CEO we also suggest to implement a possibility for an entrepreneur to have open access to several different coaches. We believe that these measures will cause positive changes in the financial awareness of the entrepreneurs.
Given thesis investigates financial decision making processes among the entrepreneurs participating in the Create Business Incubator learning program. On the first stage of the analysis the research and strategic questions were asked. This shaped the whole structure of the research and the way of data collection and analysis of findings. Given research was conducted from the interpretivist perspective and thus the obtained results should be considered as a certain type of the authors interpretation of the reality.

The major achievement of the research is the development of theoretical conceptualization of the investigated issue. Through the process of critical evaluation of the relevant literatures a certain field of the most appropriate theoretical approaches and concept was defined. This set of theoretical tools was conceptualized in a united framework. As a result, the main subject of the research – financial decision making processes – was theoretically explained. It was argued that the three main gears of the financial decision making process are networking, entrepreneurial learning and financial choice (including characteristics of the manager and his firm).

On the next stage of the research the empirical data was collected and analyzed in accordance with the research aims and theoretical justifications. According to the analysis achieved, it is possible to conclude that the investigated entrepreneurs mostly used bootstrapping techniques on the initial stages of development. It was also proved that financial decision making is influenced by a set of different factors. It was discovered that three of the factors have outstanding importance for the financial choice of the entrepreneur. These are growth, stage of development and size.

Moreover, in the beginning of the work it was planned to compare real life empirical data with the theories applied. During the analysis it appeared that the theoretical assumption stating that the need for independence is a characteristic peculiar to the entrepreneur was not proved by the investigated respondents.

Analysis of the networking activities of the entrepreneurs showed that it is common for the business managers to use social contracting mechanisms and to transfer their social capital into the financial capital. However, a growing need for finance (caused by the growth of the firms) makes social capital an insufficient resource to rely on entirely.

These results created a fundament for the further focus on the entrepreneurial learning program, where the business managers participate. It was discovered that the learning in the Business Incubator creates additional financial awareness among the entrepreneurs, but this positive influence is limited to some extent. It was found that the coach does not participate in the financial decision making process directly, but usually contributes to the decisions made by the entrepreneurs through the information about sources of funding that he provides them with.

Thus, the research aims were reached and the research question was answered. It enabled the researcher to formulate the recommendations for the Create Business Incubator managers. It was suggested that the financial decision making mechanism can be improved by “rotating the entrepreneurial learning gear” in a more efficient way. Consequently, we suggest that the financial awareness of the entrepreneurs can be increased by the coaches of the Incubator. Particularly, it is can be realized through the more intensive and frequent financing discussions, promoting bootstrapping and a possibility for the entrepreneur to communicate with several coaches.


Thierry Gonard, Didier Chabaud “How incubators support the creation of new ventures? The case of a French academic incubator” Doctoral Track and Conference


Web sources:

http://www.createbusinessincubator.com/ Retried 17 April, 2009


http://www.penny.se/ Retried 2 May, 2009

http://www.qpmedtech.se/ Retried 7 May, 2009

http://www.teknikbyn.se/index.php Retried 7 April, 2009

http://www.svenskaenergigruppen.se/ Retried 5 May, 2009
## APPENDIX 1 VARIABLES INFLUENCING FINANCIAL CHOICE

<table>
<thead>
<tr>
<th>Variables</th>
<th>Findings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Business:</strong></td>
<td></td>
</tr>
<tr>
<td>Stage of development</td>
<td>Access to financial resources increases over time</td>
</tr>
<tr>
<td>Size</td>
<td>Need for finance changes over time</td>
</tr>
<tr>
<td></td>
<td>Larger Business have relatively greater access to finance</td>
</tr>
<tr>
<td>Line of Business</td>
<td>Need for finance differs between different lines of business.</td>
</tr>
<tr>
<td></td>
<td>Access to financial resources differs between lines of business.</td>
</tr>
<tr>
<td>Growth</td>
<td>Growing businesses need and use more external finance than non-growing businesses.</td>
</tr>
<tr>
<td>Geographical location</td>
<td>Businesses in larger cities face relatively greater financial possibilities</td>
</tr>
<tr>
<td><strong>Manager:</strong></td>
<td></td>
</tr>
<tr>
<td>Need for independence</td>
<td>Need for independence implies a negative attitude towards external finance</td>
</tr>
<tr>
<td>Attitude towards risk</td>
<td>Risk-avert managers use external finance to relatively low extent</td>
</tr>
<tr>
<td>Age</td>
<td>Young managers use external to relatively high extent</td>
</tr>
<tr>
<td>Gender</td>
<td>Male managers use relatively more debt finance than female managers</td>
</tr>
<tr>
<td>Experience</td>
<td>More experienced managers have greater access to external finance.</td>
</tr>
</tbody>
</table>
## APPENDIX 2 BOOTSTRAP FINANCING TECHNIQUES

<table>
<thead>
<tr>
<th>Category</th>
<th>Sources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Owner’s Resources</td>
<td>Savings Accounts</td>
</tr>
<tr>
<td></td>
<td>Sale of Securities: Stocks, Bonds, CD, etc.</td>
</tr>
<tr>
<td></td>
<td>Sale of Real or Personal Property</td>
</tr>
<tr>
<td></td>
<td>Forgone Salary, and Salary from “Other” Job</td>
</tr>
<tr>
<td></td>
<td>Residence Use as Office or Shop</td>
</tr>
<tr>
<td>Owner’s Borrowing</td>
<td>Installment Loans, Personal Lines of Credit, and Signature Loans</td>
</tr>
<tr>
<td></td>
<td>Credit Cards, and Micro Lending Programs and Agencies</td>
</tr>
<tr>
<td></td>
<td>Franchise Lending</td>
</tr>
<tr>
<td></td>
<td>Collateralized Lending, and Mortgages or Home Equity Loans</td>
</tr>
<tr>
<td></td>
<td>Whole Life Insurance Cash Value</td>
</tr>
<tr>
<td></td>
<td>Personal Retirement Accounts Withdrawals</td>
</tr>
<tr>
<td></td>
<td>On-Line Credit Search Matching Services</td>
</tr>
<tr>
<td>Relationship Resources</td>
<td>Cash Contributions, and Property and Equipment Purchases</td>
</tr>
<tr>
<td></td>
<td>Donated Labor and Expertise, and Below-market Salary</td>
</tr>
<tr>
<td>Barter</td>
<td>Service or Goods Exchanges and Trades</td>
</tr>
<tr>
<td></td>
<td>Organized Service or Goods Exchanges</td>
</tr>
<tr>
<td>Quasi-Equity</td>
<td>Partnerships</td>
</tr>
<tr>
<td></td>
<td>Individual or Group Angels, and Adventure Capitalists</td>
</tr>
<tr>
<td></td>
<td>Incubators’ Interest, and Credit Enhancements</td>
</tr>
<tr>
<td>Cooperation Resources</td>
<td>Equipment and Facilities Sharing or Borrowing</td>
</tr>
<tr>
<td></td>
<td>Joint Ownership or Partnering</td>
</tr>
<tr>
<td></td>
<td>Coordinated or Pooled Purchases, and Customer-sharing Alliances</td>
</tr>
<tr>
<td></td>
<td>Franchisee Support, Advising, and Services</td>
</tr>
<tr>
<td>Customer or Client Financing</td>
<td>Prepaid Licenses or Royalties, and Advance Payments</td>
</tr>
<tr>
<td></td>
<td>Customer-Funded Research and Development</td>
</tr>
<tr>
<td></td>
<td>Letters of Credit, and Investors</td>
</tr>
<tr>
<td>Cash or Asset Management</td>
<td>Trade Credit, Delayed Payments to Vendors, or Deferred Taxes</td>
</tr>
<tr>
<td></td>
<td>Float, Overdraft Privileges, Account Transfers, and Skip Loans</td>
</tr>
<tr>
<td></td>
<td>Accelerated Receipts from Customers or Clients</td>
</tr>
<tr>
<td></td>
<td>Short-term Investments of Excess Funds</td>
</tr>
<tr>
<td></td>
<td>Inventory Minimization, and Used versus New Equipment Purchases</td>
</tr>
<tr>
<td></td>
<td>Theft Control</td>
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<tr>
<td>Leases</td>
<td>Closed- and Open-ended Leases, and Sales and Leasebacks</td>
</tr>
<tr>
<td></td>
<td>Venture Leasing</td>
</tr>
<tr>
<td>Outsourcing</td>
<td>Professional Services, and Temporary Employees</td>
</tr>
<tr>
<td></td>
<td>Manufacturing Co-ops, Flexible Networks, or Virtual Corporations</td>
</tr>
<tr>
<td>Subsidies and Incentives</td>
<td>Direct and Indirect Municipal or County Funding</td>
</tr>
<tr>
<td></td>
<td>Direct and Indirect State or Federal Funding</td>
</tr>
<tr>
<td></td>
<td>Direct and Indirect University Resources</td>
</tr>
<tr>
<td></td>
<td>Indirect “Big” Corporate</td>
</tr>
<tr>
<td>Foundation Grants</td>
<td>Direct Grants, and Flow Through Arrangements</td>
</tr>
</tbody>
</table>
APPENDIX 3 LIST OF INTERVIEW QUESTIONS

Direct questions:

- When was the company established?
- Who many employees are involved?
- What is the geographical location?
- What line of a business does it belong to?
- Do you have previous experience from the industry?
- What is the legal form of a firm?

During the interview the managers were asked to describe the following:

- Owner-manager roles distribution
- Process of development of a company
- Major sources of finance used
- Relations between shareholders

Also, the attitude towards following aspects was clarified:

- Economical independence
- Risk-taking behavior
- Learning program of Business Incubator

In the end of the interview both research and strategic questions were asked:

- Does the learning program of Business Incubator create additional awareness for you?
- How the interrelations between managers and coaches can be improved from the perspective of financial education?