

Educational needs of the entrepreneur

Unique or a predictable pattern?

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Acknowledgment

As a result of my personal interests I became acquainted with a consultancy and training organization called Mensiumgroep, their products and services, and especially a program called 'Directievoering'. In this entrepreneurial education and training program, students assist small business owners in writing their business plan. The goal of the program is to educate or train small business owners thereby enabling them to be more successful in business. The program includes lectures in finance, leadership, marketing, and strategy.

In a conversation a wide variety of subjects was discussed and after analyzing these subjects, one core issue appeared to be prevailing: What is the effect of the program offered by Mensium and how does the program help small business owners or managers to be more successful? This is a complicated question and above all one that I could not answer right away. Research on entrepreneurship is important and contributes to a better world in which small business owners can make better grounded decisions based on knowledge gained from scientific research. The main objective of my study is hopefully to contribute to the current knowledge on entrepreneurship and to enable stakeholders to benefit from this master's thesis.

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Roel Swaders, 2 July 2009

Executive summary

There are a lot of organizations in the world. In The Netherlands alone the number of organizations is enormous. At that, every organization and every entrepreneur that owns or manages one of these organizations is unique. If an organization wants to offer products and services that suit the needs of a large group of entrepreneurs, insights into inter-entrepreneur differences are required. The focus of this study is on an entrepreneurial education and training program and this study is therefore limited to differences in entrepreneurial competencies.

Actual research started after the latest edition of the entrepreneurial education and training program called 'Directievoering', which is offered to entrepreneurs by Mensium. An evaluation of this program showed that each entrepreneur that participated in the program had a different perception of the quality that was offered. Whereas one entrepreneur experienced the program as the ultimate key to success, another was disappointed about what he had learned from it.

One of the main problems is that every organization is unique and therefore, different entrepreneurs encounter different entrepreneurial challenges. To face these challenges entrepreneurial competencies are required. In theory, two different types of entrepreneurial competencies can be distinguished: general entrepreneurial competencies and specific entrepreneurial competencies (Baum, Locke & Smith, 2001). Specific entrepreneurial competencies are related to the industry in which an organization operates. The general entrepreneurial competencies distinguished in this research are: opportunity, relationship, conceptual, organizational, strategic, and commitment competencies. Entrepreneurs from all kinds of different industries participate in the program. Because specific entrepreneurial competencies are different for each industry, these competencies are not considered in this research.

The relative importance of the general entrepreneurial competencies depends on the situation the entrepreneur is in. In this study the organizational phase of development and the uncertainty of the environment exert an influence on the required general entrepreneurial competencies. The entrepreneurial competencies are measured by activities that relate to these competencies. Most of these activities are derived from the study of Man et al (2002) and Chandler and Hanks (1992).

Two organizational phases of development are distinguished (Daft, 2007). First is the entrepreneurial phase, in which the organization is relatively small, and has no formalization, departments, and management layers. The second situation is the collectivity phase, in which the organization is larger, has some formalization, and everything is organized in departments and management layers. The organizations, that are present in these two phases are always SME's. Larger organizations in the pre-bureaucratic and bureaucratic phase of development are not within the scope of this research. The measures used to assess the organizational phase of development are: organizational size, age, and structure, products and services, reward and control systems, innovation, goals, and top management style.

The other factor that influences the entrepreneurial competencies is the uncertainty of the environment. There are four levels of environmental uncertainty distinguished in this research: low, low-moderate, high-moderate, and high environmental uncertainty (Daft, 2007). The uncertainty of the environment is measured by munificence, dynamism, and complexity of the environment.

Combined, the entrepreneurial competencies, the organizational phase of development, and the environmental uncertainty form the research model. It is assumed that this model enables people to predict the required entrepreneurial competencies and therefore also the gap between

the current and the required competencies. This gap predicts the educational needs of the entrepreneur. The goal of this research is to validate the concepts in this model and to analyze to what extent the model enables Mensiumgroep to predict the required entrepreneurial competencies.

In order to research the influence both the organization and the environment have on the required entrepreneurial competencies, a mixed research method is used, combining qualitative semi-structured interviews with a quantitative questionnaire. On top of that, an interview with an expert in the field is used for this research. After all the data had been gathered, 16 interviews and 54 filled out questionnaires were thoroughly analyzed, by combining the data on multiple levels to assure that the right conclusions could be derived.

Eventually, the analysis produced results that show that environmental uncertainty has no significant influence on the required entrepreneurial competencies. The organizational phase of development on the other hand, does have a significant influence on the required competencies. It has a significant influence on the opportunity competencies, which are more important in the entrepreneurial phase of development than in the collectivity phase. Furthermore, it influences the organizational competencies, which are on their turn more important in the collectivity phase of organizational development. The difference between other competencies can to some extent also be explained by the influence of the phase of organizational development, but these results are not significant. This influence, which the phase of development has, eventually creates two different types of entrepreneurs, instead of the eight types that were predefined in the framework.

The results of this research hopefully enable the Mensiumgroep to further optimize the entrepreneurial education and training program that they offer entrepreneurs, which eventually will enable them to satisfy the educational needs of these entrepreneurs better.

Furthermore, implementing the results can help the participants get an increased perception of the quality of the program. One thing seems obvious and is also stressed by the expert that was interviewed for this research: It is important to distinguish different types of entrepreneurs. The expert makes this distinction before the start of the program by selecting participants based on their characteristics. In this research it is recommended to do this by redesigning 'Directievoering', allocating time to focus on the situation of each specific entrepreneur, to be able to meet the educational needs of the specific entrepreneurs.

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Abbreviations

Mensium	Mensiumgroep
SBO	Small Business Owner
SME	Small Medium sized Enterprises
CEO	Chief Executive Officer
NI	Not Important
LI	Little Importance
N	Neutral
I	Important
VI	Very Important

1 Introduction

This research will provide insights into the educational needs of the entrepreneur or SBO, and presents a model how to assess these needs. Attention will also be dedicated to how these specific needs can be incorporated in the education and training of the entrepreneur or SBO. Hopefully this research will therefore contribute to a better understanding of the educational needs of the entrepreneur and how to assess these needs. Furthermore, the question is answered whether every entrepreneur has unique educational needs or if these needs follow a fairly predictable pattern?

First an overview is presented on entrepreneurship; why education and training for entrepreneurs is important, and the difference between the entrepreneur and the SBO is explained. After that the organizational aspects and the specific problems related to these aspects are highlighted.

1.1 Overview

Entrepreneurship is an important aspect of today's society. Entrepreneurs enable us to perform a very large part of our daily activities. People are constantly interacting with or within organizations, which causes organizations and its entrepreneurs to be part of everyday personal and professional life. Organizations provide work for their employees and they enable the existence of suppliers and clients. In other words: entrepreneurs are an important factor in today's economic system (Van Praag, 1999).

The first person to use the term entrepreneur in relation to a precise economic content was Cantillon, somewhere at the beginning of the 18th century. He acknowledged the role of the entrepreneur in the economic system (Brouwer, 2002). Furthermore, Brouwer indicates that before Cantillon, people used the term entrepreneur in an incorrect manner. However, even today, there is still no real consensus concerning the definition of an entrepreneur (Davidsson, 2004). Resulting in the fact that different authors use different definitions to describe the entrepreneur.

'Entrepreneur' is a very broad concept. One can be self-employed while working within an organization, but one can also lead a rather large organization. Between these two different 'types' of entrepreneurs there is an entire spectrum of different entrepreneurs that can be considered in research. Furthermore it is argued in theory, (Carland, Hoy, Boulton & Carland, 1984) that entrepreneurship is often equated with small business ownership and management, therefore equating the entrepreneur with the small business owner or manager (SBO). But, we have to keep in mind, as Carland et al. state, that although there is a clear overlap between the two concepts not every small business owner is an entrepreneur. This indicates that someone with innovative and initiating entrepreneurial characteristics, as defined by Schumpeter (Schumpeter, 1934), does not necessarily have to be a business owner. On the other hand, the small business owner or manager can be a competent manager, but not necessarily innovative and initiating, which indicates that he is not a Schumpeterian entrepreneur. SBO can be used as an abbreviation for both the owner and manager, because Chandler and Hanks (1994) indicate that research has found no evidence of differences between founders, which can be regarded as owners, and non-founding managers.

In light of this research it might be important to distinguish between the entrepreneur and the SBO, because the target audience contains both, and the education and training program teaches both managerial and entrepreneurial competencies. This being said, I acknowledge the differences and overlap between the entrepreneur and the SBO, but for more practical reasons I will refer to the target group for this research as 'entrepreneurs', as it is the general accepted definition.

The number of entrepreneurs and SBO's, or people that are considered to be entrepreneurs and SBO's, keeps increasing over time. One of the reasons for this increase is the fact that more and more people are self-employed and provide services on a freelance basis. This development is not bound to one particular industry, but it is considered a rather general development. Data from the website of the Dutch Chamber of Commerce indicates that there are 1.090.100 organizations in the Netherlands in 2007 (Website KvK, 2008). This means a substantial part of the work force in the Netherlands is considered to be self-employed.

It is assumed that not every entrepreneur has had some sort of formal education or training in entrepreneurship. But the large number of entrepreneurs indicates the relevance of an education and training that enables entrepreneurs to perform better. Especially because in theory entrepreneurs have an important role in the economic system. The success of an individual entrepreneur can contribute to the overall success of an economy. Therefore education and training is crucial. Not only to let entrepreneurs succeed, but also to improve their performance. In the Netherlands there are numerous initiatives to educate entrepreneurs, and future managers. These initiatives range from seminars to complete higher education or university education curricula. The content of all these programs is different. Throughout this research I will refer to these programs as entrepreneurship education and training programs, including both initiatives for the SBO and the entrepreneur, because this definition is used in the theory and covers education and training for managerial and entrepreneurial competencies.

1.1.1 Mensiumgroep

This research is conducted in order to provide objective new insights into entrepreneurship education and training for Mensium, a Dutch organization located in Deventer. This organization was founded two years ago, when a new owner took over the organization/company Performatief and changed the name to Mensiumgroep. For nearly two years Mensium was located in Oldenzaal, but recently moved to a new office in Deventer. The core business of the organization is personal development; all products and services are in a way related to personal development. In the beginning the focus was primarily on outplacement trajectories in reorganization projects and employee mobility.

Today the organization consults individuals and organizations on personal development. Therefore the products and services go beyond outplacement and mobility, however these two activities are still very important to Mensium. Products and services are developed around four specialisms. These are personal leadership, successful teams, outplacement and mobility, and entrepreneurship. In line with these specialisms current products and services are for example outplacement, entrepreneurship education and training, helping teams cooperate more successfully, and personal branding.

The core of the organization consists of four consultants and support staff concerned with finance and marketing. This small core can be extended, when necessary, at any given moment. Furthermore, thirty consultants are cooperating with Mensium. These consultants are self-employed and work on a freelance basis for Mensium. Along with the demand for the services provided by the organization, which can fluctuate from time to time, the organizational size can fluctuate accordingly. This example of a network organization (Daft, 2007) enables Mensium to keep fixed costs as low as possible while they are still able to take on large projects.

Part of the products and services are tailor made for a specific customer. Every consult is different because each situation requires a unique solution. Besides these consults there are a range of standard services that can be offered to customers. These standard services, together with the

structure, are an example of the network organization. An important, and often used, example is the Insights Discovery Profile. This tool provides insights into someone's personal style, and how it impacts their relationships in both personal and professional environments. This tool is not developed in-house, but is acquired. Mensium's consultants are trained and licensed to provide feedback to customer on their personal insights discovery profile.

1.1.2 Directievoering

One of the four specialisms of Mensium is entrepreneurship. To be even more specific it is entrepreneurship, education and training. This service is called 'Directievoering'. Translated into English it roughly means 'running a business'. The program intends to address all issues encountered by entrepreneurs during their day to day activities. The seminars of the program are build around five concepts: strategy, marketing, finance, leadership, and the actual business plan. This layout covers important parts of the entrepreneurial activities and gives entrepreneurs the tools to perform better in their organization and eventually let the organization perform better itself. The final step is to translate knowledge and ideas into an actual business plan. This particular training consists of five two day gatherings, which adds up to ten days filled with seminars, discussions, and lectures. The program is hosted at a remote location between the Dutch cities Apeldoorn and Arnhem.

Initially, the program was not developed by the Mensiumgroep, but by a network partner of the company. This network partner is still involved in the program now and the Directievoering program is offered in cooperation with this partner. Mensium has also attracted people from their network to provide knowledge by lecturing, and by evaluating the business plans of the entrepreneurs at the end of the program, where the business plan is regarded to be the ultimate goal of the program.

Participants in Directievoering are generally Dutch entrepreneurs from rather small organization. It does not matter what business the entrepreneur is in, how old their organization is, or how their performance is. The main requirement is that the participant has its own business.

'Directievoering' is based on the theory of Greiner, which was first published in 1972 (Greiner, 1972), claiming that the development of the entrepreneur has to fit the development of the organization. In 1998 the article 'evolution and revolution as organizations grow' was published once again, indicating that the content is still relevant today (Greiner, 1998). In this article Greiner distinguishes five stages of organizational development. Greiner analyzed research present at the time and defined five key dimensions in organizational development: an organizations size, age, stages of evolution, revolution, and the growth rate of the industry. According to Greiner, the challenge for management is to find a new set of organizational practices in each revolutionary phase to suit the new phase of evolution. It is argued in the brochure that promotes the program, that the development of the entrepreneur has to be in line with the development of the organization. If this is not the case, a misfit emerges between the current competencies of the entrepreneur and the competencies that are required considering the organization. This possible misfit is an important basis for the program, as suggested.

The goal of the program is to educate entrepreneurs that participate in the program, in order to enable them to work on the future of their company, giving it direction, more so than only focusing on daily activities without considering the long term strategy of the company. A lot of entrepreneurs get caught up in everyday business, trying to cope with present customer demands and the delivery of products or services. Of course this is the core business of the organization, but if the long term future plans of the organization are not considered, wrong decisions might be made, leading to less organizational success in the future. The worst case scenario may then be the failure

of the organization as it gets caught up by competitors that did not fail to see new opportunities for future success. The purpose of the training is to enable entrepreneurs to learn about all aspects of entrepreneurship, therefore providing them with the right information to achieve a proper balance between strategy and daily business, to ensure both long and short term successes.

How can the goal of Directievoering be achieved in ten days? The program is divided into five blocks of two days, which all have a different focus. The first block is leadership, the second organizational strategy, the third finance, the fourth marketing, and finally, the fifth blocks is a business plan, which is meant to make the participant a better entrepreneur. At the end of the program, the entrepreneur has translated his newfound knowledge and competencies into a business plan, that gives the organization direction, makes it more successful, and ultimately, also makes himself a better and more complete entrepreneur.

The fact that Greiner distinguishes four phases of organizational development, and with it four possible different misfits, is not considered by the program. That is why a generic program, that is the same for every entrepreneur, is offered to the participants. In practice there are a lot of possible misfits concerning all the different 'configurations' of entrepreneurs and organization that can be distinguished in the field. All these possible misfits are dealt with by using the same ten day program.

1.2 Problem description

'Directievoering' is based on an existing entrepreneurship education & training program, that is partly acquired from the network. Quinn (1999) refers to this phenomenon as outsourcing of a knowledge based service. In practice this means that Mensium and the network partner are both responsible for a different part of the education and training program. The existing program basis gives Mensium a head start and enables the organization to offer the entrepreneurs an education and training program relatively fast, to obtain higher value for customers, and improve the organization's ability to provide required education and training without having to develop all the knowledge in-house.

The downside of this construction is that the organization is obliged to follow a certain concept or strategy, already chosen by the network partner. In a very large way, Mensium depends upon the results of their network partner. This means that if the network partner fails to deliver, for whatever reason, the quality of the service provided by Mensium is directly affected.

As a result of their decision to outsource and the nature of their relationship with their network partner, Mensium does not have total control over the service they provide. This leaves some essential questions unanswered. How does Mensium make their service unique compared to services offered by competitors? Does the program answer to the needs of the entrepreneurs, and what exactly are those needs? How can different entrepreneurs be distinguished, and on what aspects are they distinguished? What improvements can be made in the program? To answer these questions, without acquiring knowledge from the network, research is required.

During the latest edition of 'Directievoering', which coincided with the start of this research, a questionnaire was filled out by the participating entrepreneurs. The goal of this questionnaire, together with conversations with the entrepreneurs, was to get valuable insights into the current situation, the expectations of the entrepreneurs, the satisfaction of the entrepreneurs about the program, and into whether or not their goals were met during the program. Although this small research was not scientific and results were not tested on validity or reliability (Shadish, Cook & Campbell, 2002), one important issue became apparent: every entrepreneur has different expectations of entrepreneurship education and training programs. Whether or not the needs of the

entrepreneurs are met depends on the content of the program, but also on the needs and expectations of the entrepreneur itself. In practice the expectations and needs of some entrepreneurs were being met, whereas the expectations and needs of others were not.

The result of this approach is that the experience of every entrepreneur entering and completing the program is different. Ranging from one entrepreneur regarding the program as his ticket to success and a better world, some sort of panacea, in contradiction to another entrepreneur who said it was 'nothing new'. This gap is enormous, and one goal of the Mensiumgroep is to offer services of value and quality to every single entrepreneur, instead of depending on the entrepreneurial characteristics of every participant.

1.3 Research objective

This study focuses on the educational needs of the entrepreneur and how these relate to the main factors that influence these educational needs. This research will provide a model that presents the most important competencies for specific groups of entrepreneurs and a tool to assess the educational needs of an entrepreneur. This model is the result of an analysis of the gap between the current and the required competencies of the entrepreneur. By creating insights into the most important competencies and providing a tool to assess the competencies of the entrepreneur, an entrepreneurship education and training program can be provided in the future that will better satisfy the educational needs of entrepreneurs.

This research will therefore give valuable insights into the competencies and educational needs of the entrepreneur and how to assess them, and with it prepare the first steps towards future improvement of the entrepreneurship education and training program. These improvements can lead to better programs, more satisfied customers for the Mensiumgroep and finally, with the acquired knowledge the dependency on the network partner can be decreased.

1.4 Research question

The before mentioned problem description and research objective result into the following research question:

"What are the main factors that influence the educational needs of the entrepreneur and what is the impact of the educational needs on the entrepreneurship education and training program offered by Mensiumgroep?"

1.4.1 Concepts

Several concepts are used in the research question. First are the entrepreneurial competencies. Second the educational needs, and the third concept is the entrepreneur itself. These concepts will be explained shortly in order to define the exact research question and with it the focus of the research. In the theoretical framework an in-depth analysis of the used concepts will be presented.

Entrepreneurship education and training program

Entrepreneurship education and training programs vary widely in content. In the research literature three types of entrepreneurship education and training programs are distinguished (Jamieson, 1984). First, there are programs to create awareness. These programs are mainly lectured in schools and universities. Students do not yet have the ambition to become an entrepreneur or SBO., The goal of the program then is to create awareness, so students might consider

entrepreneurship as an option in the future. Secondly there are programs to educate starting entrepreneurs. These programs have the clear goal to educate people who eventually want to become an entrepreneur. The final programs are education and training programs for current entrepreneurs or SBO's. This research will focus on the third group of entrepreneurship education and training programs. Within each category defined above, different types of education and training programs can be distinguished. There are programs that lead to an official degree, which take several years to complete. And on the other hand there are also short programs, consisting of several seminars, that not lead to an official degree. The latter type of program is subject in this research.

Educational needs

Besides abilities and skills, Man et al. distinguish entrepreneurial competencies (Man, Lau & Chan, 2002). Entrepreneurship education and training programs often address preset issues concerning entrepreneurship, not considering which competencies an entrepreneur attending the program, already has. The gap between the current and the required competencies can be considered to be the educational needs of the entrepreneur. Or as argued by Man et al. (2002) *"the entrepreneur's demographic, psychological and behavioral characteristics, as well as his or her managerial skills and technical know-how are often cited as the most influential factors related to the performance of an SME"*.

The entrepreneur

It is difficult to give one single definition of the entrepreneur due to the fact that the theory describes a lack of convergence on the definition of the entrepreneur (Davidsson, 2004). In a lot of research the entrepreneur is equated with the small business owner or manager (Carland, Hoy, Boulton & Carland, 1984). Carland et al. focus their conceptual research on the distinction between the small business owner and the entrepreneur. They conclude that although there is a lot of overlap between the SBO or manager and the entrepreneur, research often neglects to distinguish between entrepreneurs and managers. The target group for this research is the entrepreneur, SBO or manager, with the focus on a rather small organization. In a rather small organization the entrepreneur often is the manager as well as the initiator of the business. So, although the entrepreneur and the SBO are slightly different, this research will focus on both, with the main focus on the rather small organization.

1.5 Research model

The research model displays the research question and the proposed relations. It shows the assumption that the organizational phase of development, entrepreneurial competencies, and the environment influence the activities of an entrepreneur and therefore the required entrepreneurial competencies. This model suggests that the educational needs of an entrepreneur follow a fairly predictable pattern.

The entrepreneurial competencies that are required affect the entrepreneurship education and training program offered by Mensiumgroep, which is indicated by the arrow facing downwards between the required entrepreneurial competencies and the entrepreneurship education and training program.

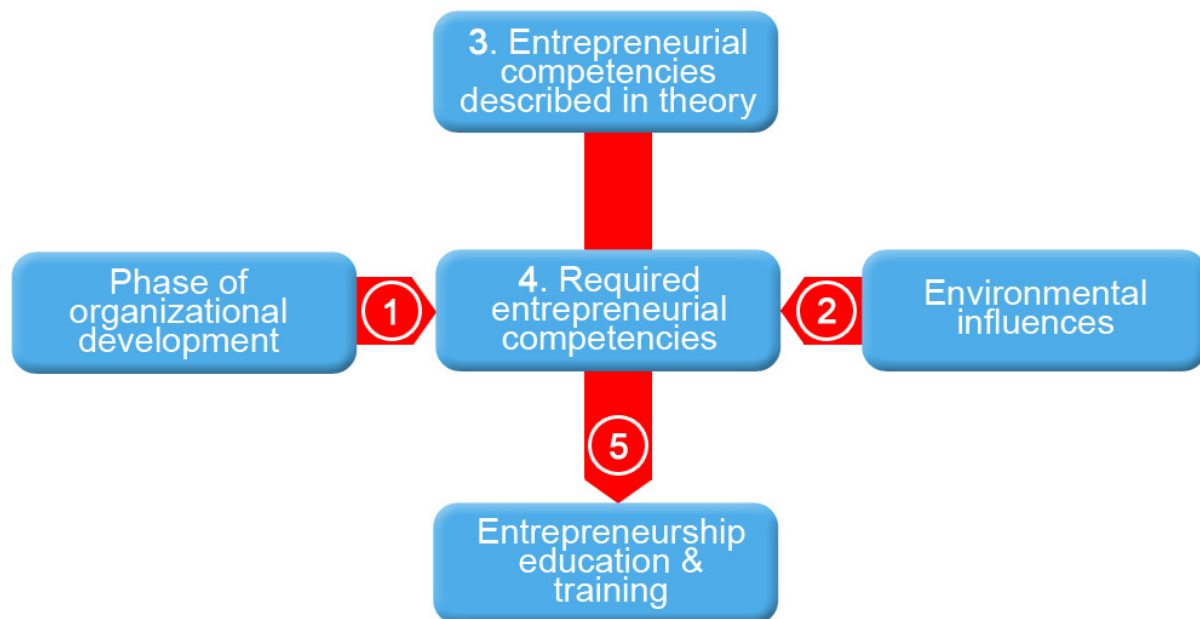


Figure 1 Research model

1.6 Sub questions

The goal of the main research question is to generate a model to assess the educational needs of the entrepreneur by comparing the required competencies with the current competencies, and by considering the implications for the entrepreneurship education and training program. To be able to predict the educational needs of a certain entrepreneur, the major factors influencing the entrepreneurial competencies have to be explored. It is assumed that the phases of organizational development, the current competencies of the entrepreneur, and the environment influence the educational needs. The phases of organizational development (Greiner, 1972) are currently the basis for the entrepreneurship education and training program that is present at the moment. In this theory the environment only affects the organizational speed of development, but it is likely that the environment has more influence than assumed by Greiner. The environment could for example influence competencies required by the entrepreneur. The current competencies of the entrepreneur are always the starting point for future education and training and are therefore being considered in this research.

Because recommendations will be made for an entrepreneurship education and training program, this research will relate educational needs to the actual education and training program. In order to conduct this research several concepts are introduced in the main research question. To relate the concepts to each other and to come to valuable conclusions and recommendations, a set of sub questions can be formulated. With these sub questions the different aspects of entrepreneurship education and training, phases of organizational development, and the educational needs of entrepreneurs can be identified.

It is important to identify the factors that influence the educational needs of entrepreneurs, and it is important to know how an entrepreneurship education and training program has to be designed in order to satisfy the needs of entrepreneurs. The sub questions are formulated below and the numbers in Figure 1 correspond to the numbers of the sub questions presented here.

- 1. How do different phases in organizational development, and therefore different organizational characteristics, influence the required entrepreneurial competencies?***
- 2. Which environmental aspects influence required entrepreneurial competencies?***
- 3. Which entrepreneurial competencies can be distinguished?***
- 4. What are the most important competencies according to the entrepreneur?***
- 5. How do required entrepreneurial competencies relate to the entrepreneurship education and training program?***

In chapter 2, a theoretical framework will be used to address the first sub questions. This framework contains all the above mentioned concepts and will give valuable insights on the current knowledge on entrepreneurial education and training.

2 Literature research

Cope and Watts (2000) start their article with the following statement: *“Previous studies by authors and others have suggested that there are extremely complex interplay and interdependence between these parallel processes of development and that these are not adequately explained within the dominant individualistic and process paradigms within entrepreneurship today”*. These parallel processes of development include the development of the entrepreneur, or SBO, and the development of the organization. This statement indicates the importance of aligning entrepreneurship education and training programs according to the educational needs of the entrepreneur, organizational and environmental characteristics. It is important to align these development processes correctly in order to enable the entrepreneur to be successful with his organization.

As proposed in the sub questions and shown in the research model (Figure 1), three concepts influence the educational needs of the entrepreneur; the organization, the environment, and the entrepreneurs competencies. In turn, the educational needs the entrepreneur has, will influence the design of the optimal program for entrepreneurship education and training. It is assumed that, when these concepts are being optimally aligned, the educational needs of the entrepreneur will be satisfied in a better way. To support this assumption, all above mentioned concepts will be addressed thoroughly in this framework before the actual empirical research begins.

2.1 SME Performance

In order to be able to discuss the performance of an SME, of which the entrepreneur discussed in this research is often the owner or manager, it is important to define exactly what an SME is. SME used to be a concept primarily used in the United States. Outside the US there was no convergence on the definition of a SME. Therefore, the European Commission published a document to provide one single European definition of the SME (European Commission, 2005). In Figure 2 we see a graphical representation of the definition of a SME as formulated by the European Commission. This definition is a generally accepted definition in Europe, or at least the European definition that is supported by the European Commission.

Figure 2 shows that organizations with up to a € 50 million turnover a year is still considered to be a SME. There is a distinction made between micro, small, and medium-sized organizations. The term headcount indicates the number of employees in an organization, and finally the balance sheet total sums up all the assets and liabilities of an organization. This figure is used as an outline, in order to set limitations on the choice of which type of organization to include and which not, with its primary focus on micro and small businesses.

Enterprise category	Headcount: Annual Work Unit (AWU)	Annual turnover	or	Annual balance sheet total
Medium-sized	< 250	≤ €50 million (in 1996 € 40 million)	or	≤ €43 million (in 1996 € 27 million)
Small	< 50	≤ €10 million (in 1996 € 7 million)	or	≤ €10 million (in 1996 € 5 million)
Micro	< 10	≤ €2 million (previously not defined)	or	≤ €2 million (previously not defined)

Figure 2 The European definition of a SME

2.2 Phases of organizational development

Greiner, among others, uses the term 'stages of organizational development', whereas in theory the term 'organizational life cycle' is also often used. I prefer to refer to organizational development as 'phases of organizational development'. The term 'life cycle' is not an adequate one, because the theory on organizational development generally does not describe stages of decline and death, which is very common in other life cycle theories (Quinn & Cameron, 1983). However, 'stages of organizational development' is also not the most accurate description of the development of an organization, because the term stages suggests some sort of platforms between which organizations shift, while phases of evolution are also phases of growth, only without major turmoil (Greiner, 1972). According to Cope and Watts (2000), who describe incidents that occur during a phase, a phase can be better described as a period of rather steady growth without major changes, although they tend not to be as critical as they are about the period of shifting between phases. As a result I prefer to use the term 'phases of organizational development'.

Phases in organizational development have been a popular topic of research for an impressive period of time. Many researchers have attempted to write the one and only true story about phases which organizations go through when they are successful. This has led to different views on the topic without reaching a true convergence, even though some have attempted to summarize the different models present at the time. Research on the matter is discussed chronologically in the next paragraph.

2.2.1 Three phases

In his early model, Lawrence L. Steinmetz (1969) describes some critical stages in small business growth; when they occur and how to survive them. According to Steinmetz there are three critical stages in small business growth. He argues that if the different problems encountered in the

different stages, also referred to as growing pains, are not solved properly, an organization is likely to go out of business or even has to be sold because continuing the business would not be profitable. The growth curve as described by Steinmetz is S-shaped, and consists of three phases. The first is referred to as 'direct supervision', the second is 'supervised supervision', and the final stage is 'indirect control'.

In the first phase the owner is mainly a worker, but there are more and more managerial skills required because of the growing organization. In the phase, the organization employs between ten and thirty employees. If the organization survives the first phase it enters the supervised supervision phase, in which the owner needs to have even more managerial skills. Several problems can arise in the second phase that have to be dealt with by the manager. For example, Steinmetz mentions rigidity of thinking, surreptitious actions by subordinates, business overhead growth, union involvement, more power for the informal organization, diseconomies of scales, production problems, and family problems. An organization in the second phase typically employs between thirty and 300 employees. After coping successfully with the problems encountered in the second phase, the organization is no longer considered to be a small business, and enters the next phase. In this third phase, called indirect control, the encountered problems are mostly created by other small firms that take over market share, but internal affairs such as bureaucracy and division managers leaving the company to start their own business, also cause problems.

2.2.2 Five phases

Another early private sector model by Greiner (1972) defines five critical phases in organizational development in a linear model. The phases distinguished by Greiner are creativity, direction, delegation, coordination, and collaboration. An important analogy in Greiner's theory is between human psychology and organizational behavior, where the future of both humans and organizations is to a great extent influenced by historical forces, more than by other outside or future forces. This implies that current organizational characteristics influence future growth. Furthermore, Greiner uses the terms evolution and revolution. The first is used to describe a longer period of growth without major upheavals, and the latter for periods in which a lot of change and turmoil occurs. These two situations can, in a way, be compared to the phases described by Steinmetz (1969), in which revolution occurs when organizations encounter growing pains and the periods between these pains are considered evolutions. However, whereas Steinmetz argues growth is inevitable, Greiner states the management chooses whether or not growth is necessary. If the management wants to retain an informal organization, growth may not be an option and it could be best for the organization not to develop into the next phase.

There are five dimensions (Greiner, 1972) that are essential in organizational development; age of the organization, size, stages of evolution, stages of revolution, and the growth rate of the industry. Dimensions such as age, size and growth rate of the industry are rather straight forward, but stages of evolution and revolution are not. In the separate phases of evolution there are several practices used to solve the problems the organization encounters. In phases of revolution these practices are no longer sufficient and they become a problem. The organization needs new practices that are suitable to use in a future period of evolution, or as Greiner describes: *"each phase is both an effect of the previous phase and a cause of the next phase"*.

2.2.3 Preliminary summary

Quinn and Cameron (1983) analyze nine models of organizational development, among which the model of Greiner, both in the public and the private sector. They conclude that, although

every model emphasizes its own set of organizational characteristics, in a way they all describe the same four phases. Although the focus is slightly different in the presented theories, in general four phases can be distinguished. The nine models that are reviewed by Quinn and Cameron are summarized in their own four phases summary model, consisting of the entrepreneurial stage, collectivity stage, formalization and control stage, and finally the elaboration of structure phase. This integrated model is shown in Table 1.

An Integration of Nine Life Cycle Models

S U M M A R Y	1. Entrepreneurial Stage	2. Collectivity Stage	3. Formalization and Control Stage	4. Elaboration of Structure Stage
	• Marshalling of resources	• Informal communication and structure	• Formalization of rules	• Elaboration of structure
	• Lots of ideas	• Sense of collectivity	• Stable structure	• Decentralization
	• Entrepreneurial activities	• Long hours spent	• Emphasis on efficiency and maintenance	• Domain expansion
	• Little planning and coordination	• Sense of mission	• Conservatism	• Adaptation
	• Formation of a "niche"	• Innovation continues	• Institutionalized procedures	• Renewal
	• "Prime mover" has power	• High commitment		

Table 1 An integration of nine life cycle models (Quinn & Cameron, 1983)

Furthermore Quinn and Cameron conclude that the organizational characteristics and the criteria of organizational effectiveness change in a predictable way as organizations move through the distinguished phases of organizational development. The phases in organizational development are related to criteria of organizational effectiveness according to Quinn and Cameron, thus organizations have to adapt to new organizational characteristic to be effective in different phases.

In the entrepreneurial stage the focus is on openness, flexibility, and resource acquisition, and in the collectivity stage emphasis is placed on human resource development, morale, and cohesion in an organization typified by an informal setting. In the third stage, the formalization and control stage, the focus shifts to a more formal organization with formal rules, optimization of internal processes, formal goals, and stability and control. In the fourth and final phase, the elaboration of structure, the emphasis is less on all foregoing characteristics and more on decentralization of structure, and a proper balance between differentiation and integration.

2.2.4 Phases in small business growth

The model of Scott and Bruce (1987) focuses on phases of organizational development in small businesses, in contrast to other models that are either focusing on large organizations or present a general growth model, for both small and large organizations. According to Scott and Bruce the characteristics of a small organization are that they are often independent and owned by the management, capital is supplied, ownership is held by an individual or small group, and the area of operation is local.

For these small businesses five phases of development are distinguished, to give managers, and in many small organizations also the owners, some prior knowledge on what to expect if the organization is about to shift phases. The model is not a panacea or the only correct model, as argued by the authors (Scott & Bruce, 1987), but gives valuable insights to managers and owners of small businesses in order to enable them to make better decisions. Thus, this model provides prior knowledge that can help managers to make better decisions on how to cope with the crisis ahead and guide the organization to success. The five phases, presented in an S-shaped model, are inception, survival, growth, expansion, and finally maturity. Between phases, periods of crisis are described that have to be managed properly in order to survive and to enter into a subsequent phase of organizational development.

The first phase describes how the organization is started, with a main emphasis on creativity, a single product, establishing a market, and gathering the required capital. As the organization grows, crises appear and a shift to the subsequent phase becomes inevitable, therefore

the crisis has to be managed by the organization. With each phase a new crisis appears and more and more control mechanisms are required, starting with financial record keeping in the survival phase, a formal organization structure in the growth phase, Decentralized authority and formalized accounting systems are necessary in the expansion phase, and in the final phase the organization will become a large cooperation.

2.2.5 An adapted model

Richard L. Daft (2007) in his book 'Understanding the theory and design of organizations', presents a short overview of the theory on the organizational life cycles, initially written by Quinn and Cameron(1983). The theory suggests that organizations grow in a predictable way. Every phase of organizational development requires a distinct set of organizational characteristics, for example leadership style, administrative system, etcetera. Quinn and Cameron (1983) describe that many authors have introduced organizational life cycle models, but all have a slightly different cycle which show some differences in characteristics. Therefore they try to aggregate different models in their article. Daft (2007) adapted this aggregated model and presented a figure on organizational life cycles in his book, also represented in Figure 3.

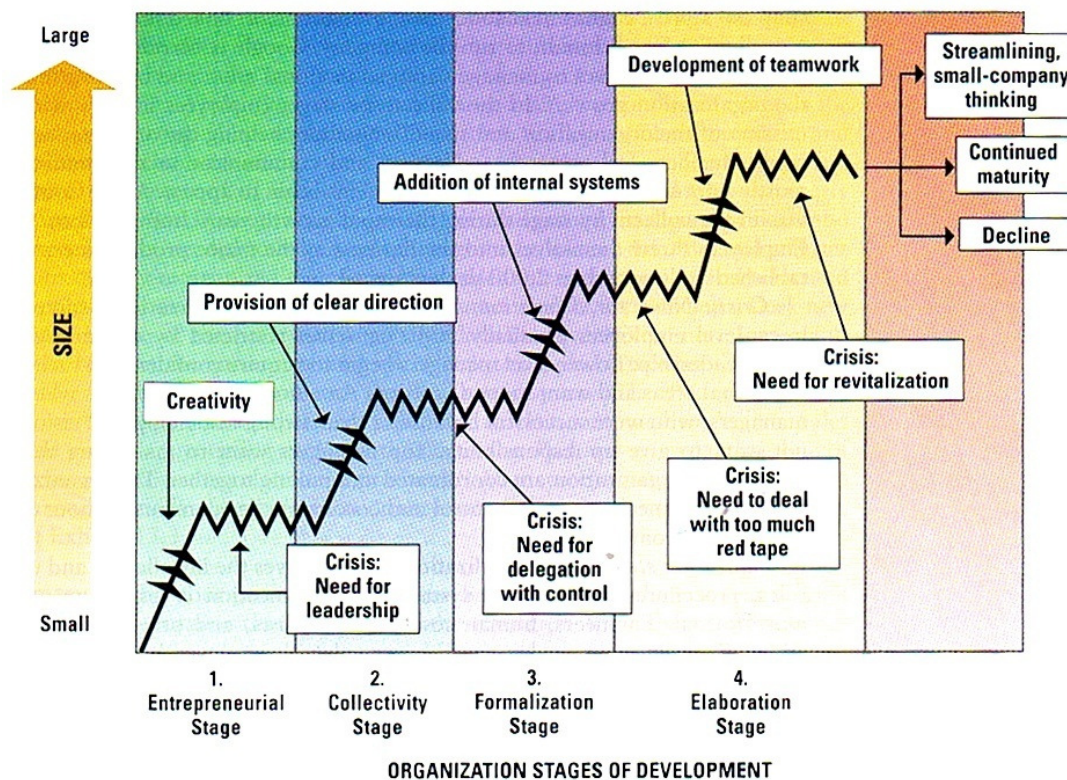


Figure 3 Phases of organizational development (Daft, 2007)

Besides the figure showing the organizational life cycle, Daft (2007) also summarized organizational characteristics and practices in a table, presented in Table 2. These characteristics and practices are constructed from several theories on phases in organizational development. Including the theories of Greiner (1972), and Quinn and Cameron (1983). An important conclusion that can be drawn from all theories is that, no matter how phases of organizational development are described, all authors seem to agree that different organizational characteristics and practices are required in each phase. This indicates that the entrepreneur has to adapt to these new characteristics and practices in order to be successful.

Characteristic	Entrepreneurial (Nonbureaucratic)	Collectivity (Prebureaucratic)	Formalization (Bureaucratic)	Elaboration (Very Bureaucratic)
<i>Structure</i>	Informal, one-person show	Mostly informal, some procedures	Formal procedures, division of labor, new specialties added	Teamwork within bureaucracy, small company thinking
<i>Products or services</i>	Single product or service	Major product or service, with variations	Line of products or services	Multiple product or service lines
<i>Reward and control systems</i>	Personal, paternalistic	Personal, contribution to success	Impersonal, formalized systems	Extensive, tailored to product and department
<i>Innovation</i>	By owner-manager	By employees and managers	By separate innovation group	By institutionalized R&D department
<i>Goal</i>	Survival	Growth	Internal stability, market expansion	Reputation, complete organization
<i>Top management style</i>	Individualistic, entrepreneurial	Charismatic, direction-giving	Delegation with control	Team approach, attack bureaucracy

Table 2 Organizational practices summarized (Daft, 2007)

2.2.6 Entrepreneurial implications

What implications do the phases of organizational development, and thereby the changing characteristics and practices in an organization, have for the entrepreneur? Greiner (1972) describes that entrepreneurs that have experienced several phases of organizational development agree with the theory. But how can insights into these phases of development help entrepreneurs beforehand? How can entrepreneurship education and training be linked to the different phases of organizational development in order to enable entrepreneurs to benefit from this knowledge on organizational development? What competencies does an entrepreneur need in order to guide an organization to success in the different phases of development, and do these competencies change when an organization shifts between phases?

Scott and Bruce (1987) also describe that managers agree with the theory after they have experienced several phases of development. They also argue that insights into organizational phases of development that are gathered in advance enables managers to make better decisions in crises yet to come. This research tries to answer the question how these phases of development, and thereby the changing characteristics and practices in an organization, influence the educational needs of the entrepreneur.

Plaschka and Welsch (1990) have linked the different phases of organizational development to entrepreneurship education and training. They present a model that distinguishes different types of educational programs. The two dimensions used to make the distinction are the transition stages, and the number of disciplines taught. The model is shown in Figure 4. Cope and watts (2000) refer to the article of Plaschka and Welsch indicating that they provide a theory that distinguishes phases of organizational development as an important factor to diversify education and training programs.

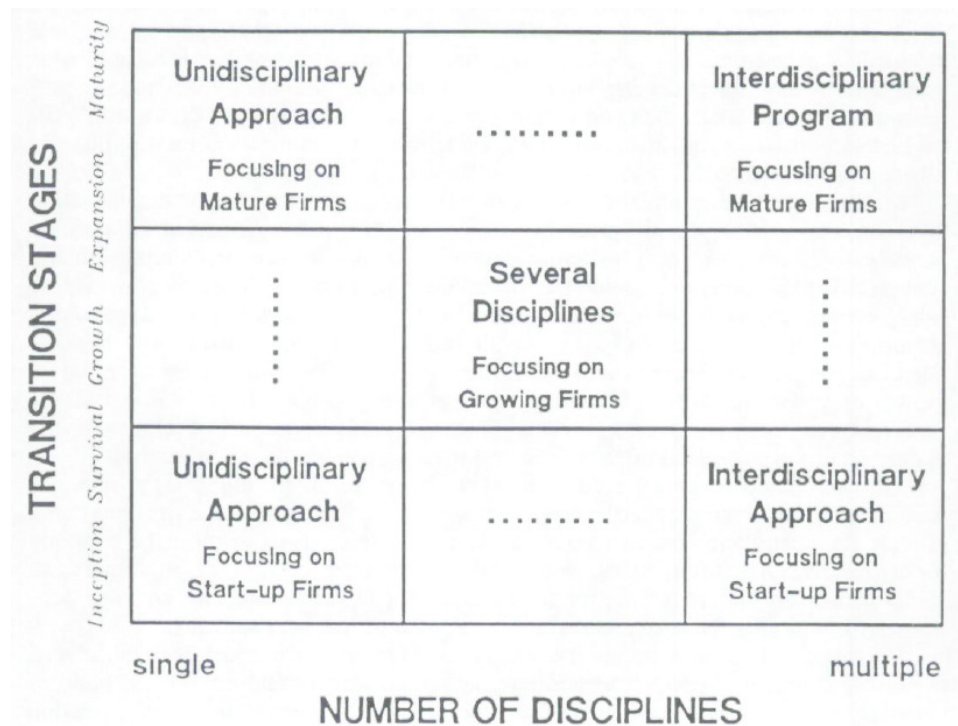


Figure 4 Organizational development and education (Plaschka & Welsch, 1990)

But, when the theory on phases of development is considered, the question remains what the single most important factor that influences the practices and characteristics is in an organization. It is true without a doubt that the industry moderates the growth level of a specific organization and that different organizations move with different speeds through the described phases. It might not even be very surprising that different researches have resulted in somewhat different phases, because for the outcome it is crucial where one draws the line. The only factor all theories seem to agree on is organizational size. When size changes, a lot of other organizational aspects change such as characteristics and practices.

For example a rather large organization requires an entrepreneur or owner that is a good manager, monitoring the results of the organization and steering it in the right direction. On the other hand, a small organization with little or maybe even no employees at all, requires a proactive and above all 'Schumpeterian' (Schumpeter, 1934) entrepreneur, that enables the organization to seize the most valuable opportunities presented to it. It can be concluded that size does matter. According to the size of the organization, the factors as identified by Daft (2007); structure, products or services, reward and control systems, innovation, goal, and management style, do differ significantly. If an entrepreneur fails to acknowledge this, or does not have the ability to adapt to this, he is less likely to guide the organization to success. We can say that a period of revolution (Greiner, 1972) results from a misfit between the organizational size and the practices that are present at that moment in time. In that case the revolution is once again necessary to create a proper fit.

2.2.7 Conclusion

Because this research is limited to SME's, not all organizations, and consequently not all types of entrepreneurs, will be considered. The research will be limited to two organizational sizes defined by Daft (2007), as represented in Table 3: the 'entrepreneurial stage' and the 'collectivity

stage'. The third stage as defined by Daft is the formalization stage where there is no longer talk of an SME.

	Entrepreneurial stage	Collectivity stage
<i>Structure</i>	Informal, one-person show	Mostly informal, some procedures
<i>Products or services</i>	Single product or service	Major product or service, with variations
<i>Reward and control systems</i>	Personal, paternalistic	Personal, contribution to success
<i>Innovation</i>	By owner-manager	By employees and managers
<i>Goal</i>	Survival	Growth
<i>Top management style</i>	Individualistic, entrepreneurial	Charismatic, direction-giving

Table 3 Different SME sizes (Daft, 2007)

2.3 Entrepreneurial competencies

In SME's the performance of the organization depends a great deal on the actions of the entrepreneur. Man et al. (2002) consider *"entrepreneurial competencies to be a higher-level characteristic encompassing personality traits, skills and knowledge, and therefore can be seen as the total ability of the entrepreneur to perform a job role successfully"*. If an entrepreneur performs his job successfully this is very likely to influence the organization in a positive way, and therefore the characteristics of the entrepreneur, or his competencies, are likely to affect organizational competitiveness, where competitiveness is a way to get to organizational performance.

2.3.1 Two types of competencies

Baum et al. (2001) quote Boyatzis (1982) and Chandler and Jansen (1994) in claiming there are two types of entrepreneurial competencies. They relate these to organizational performance. First are general organizing competencies, among which are organizational skills and opportunity recognition skills. Second are specific competencies such as industry and technical skills. Baum et al. claim the before mentioned entrepreneurial competencies appear in common entrepreneurship research and they therefore use two general, and two specific competencies in their research. Together with other factors, these competencies distinguished by the authors influence organizational performance.

The advantage of the competencies as defined by Baum et al. is that they are derived from several theories and that there is data available on its reliability and the effect of the different competencies on the performance of the organization. Furthermore there is a format to measure the different skills that represent the two competencies outlined by the authors. Attention is also paid to the industry specific skills that are required by the entrepreneur. The disadvantage of this is that these two types of competencies seem to be somewhat concise when compared to other theories on entrepreneurial competencies, e.g. Man et al. (2002), that seem to be more extensive in their operationalization of entrepreneurial competencies, e.g., by including strategic competencies and relationship competencies. The competencies as described by Man et al. are presented in paragraph 2.3.3. The competencies as defined by Baum et al. are summarized in Table 4.

Domain and Predictor	Number of Items	Format	Composite reliability	Source
General Competencies				
- Organization skill	3	Likert-type response scales		(Boyatzis, 1982)
	1	Decision scenario	.74	(Chandler & Jansen, 1992)
- Opportunity skill	5	Likert-type response scales	.68	(Chandler & Jansen, 1992)
Specific competencies				
- Industry skill	5	Scales developed for project	.63	(Doutriaux & Simyar, 1987)
- Technical skill	5	Scales developed for project	.79	(Doutriaux & Simyar, 1987)

Table 4 Competencies according to Baum et al. (2001)

2.3.2 The moderating effect

Chandler and Hanks (1994), distinguish two types of competencies that are important to the entrepreneur or SBO: entrepreneurial and managerial competencies. Entrepreneurial competencies are for example scanning the environment, selecting opportunities, and formulating strategies. Managerial competencies are working with people and the ability to attract resources from the environment. These two types of competencies are generally the same as the general and specific competencies, as defined by Baum et al. (2001). An important conclusion of the research of Chandler and Hanks is that abundance or scarceness of opportunities and resources affects the performance of the organization. In turn, entrepreneurial competencies have a moderating effect on the independent variable opportunities that are present in the environment. Furthermore, managerial competencies have a moderating effect on the independent variable resources and capabilities that can be attained by the organization, this effect is shown in Figure 5.

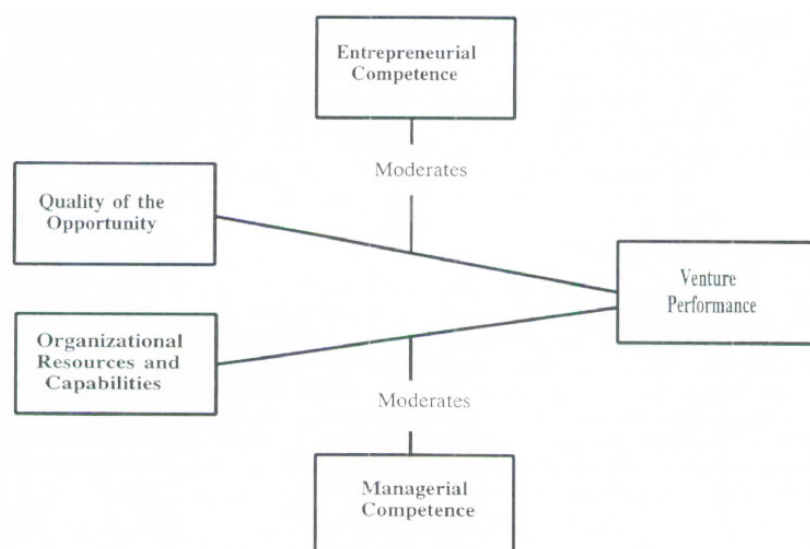


Figure 5 A model of the moderating effect of founder competence (Chandler & Hanks, 1994)

2.3.3 Six entrepreneurial competencies

Man et al. distinguish six entrepreneurial competencies, without making the distinction between entrepreneurial and managerial competencies. The six competencies include opportunity, relationship, conceptual, organizing, strategic, and commitment competencies. These competencies are derived from a number of different literature sources, as shown in Appendix B. As we can see these competencies are very similar to the competencies described by Chandler and Hanks (1994), but they are described in a different way. A difference between the two set of competencies is that Man et al. add the commitment competency, which shows that the latter set is the most complete set of competencies. The competencies listed by Man et al. (2002) are summarized in Table 5.

Competency area	Behavioral focus
<i>Opportunity competencies</i>	Competencies related to recognizing and developing market opportunities through various means
<i>Relationship competencies</i>	Competencies related to person-to-person or individual-group-based interactions, e.g., building a context of cooperation and trust, using contacts and connections, persuasive ability, communication and interpersonal skill
<i>Conceptual competencies</i>	Competencies related to different conceptual abilities, which are reflected in the behaviors of the entrepreneur, e.g., decision skills, absorbing and understanding complex information, and risk-taking, and innovativeness
<i>Organizing competencies</i>	Competencies related to the organization of different internal and external human, physical, financial and technological resources, including team-building, leading employees, training, and controlling
<i>Strategic competencies</i>	Competencies related to setting, evaluating and implementing the strategies of the firm
<i>Commitment competencies</i>	Competencies that drive the entrepreneur to move ahead with the business

Table 5 Six competency areas (Man, Lau & Chan, 2002)

In general, it can be concluded that different competencies are important to an entrepreneur and that different authors distinguish between different sets of competencies (Baum, Locke & Smith, 2001). Nevertheless, in most theories the distinction between organizing competencies, often referred to as management related competencies, and entrepreneurial competencies, such as opportunity and environment skills, is made. This is also shown by the operationalizations of Baum et al. (2001) and Chandler and Hanks (1994). This is a useful distinction that makes a good outline for assessing the abilities of the entrepreneur that, together combine the competencies. But Man et al. (2002) are more extensive in their operationalization of entrepreneurial competencies and distinguish six competencies that are important for the entrepreneur. These competencies include skills and abilities. For the completeness of this research the operationalization of Man et al. is used to assess the entrepreneurial competencies.

2.3.4 Competencies and the firms performance

Researchers have often addressed the relation between the entrepreneurs competencies and the performance of the organization. Baum et al. (2001) relate both general and specific competencies to the performance of the organization. They conclude that the entrepreneur has a significant influence on the performance of the organization. Chandler and Hanks (1994) describe the influence of the entrepreneur more specific, as they conclude that both the entrepreneurial and the managerial competencies have a moderating effect on opportunities, resources, and capabilities.

Man et al. (2002) propose a conceptual model that relates competencies of the owner or manager to long term success of the organization. Long term organizational competitiveness can be divided into three dimensions according to Man et al.; potential, process, and performance, in which the competencies are part of the process dimension. The process dimension can therefore be related to the six competencies required by the entrepreneur, as described by the authors and discussed in paragraph 2.3, also shown in Figure 6. The figure shows the three dimensions, containing the organization, the environment, and the competencies of the entrepreneur.

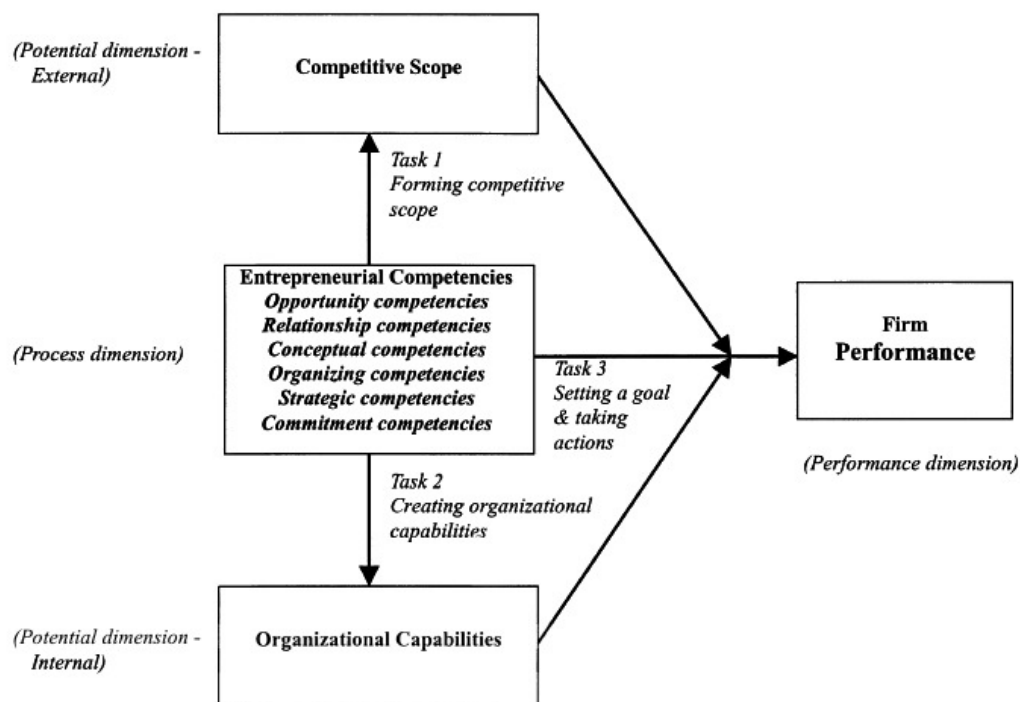


Figure 6 A model of SME competitiveness (Man, Lau & Chan, 2002)

This means that the presence or absence of certain competencies can predict to what extent an organization is competitive. There needs to be a proper balance between the required competencies in order for the organization to be competitive in the long term. It is also argued that developing competencies is a more important issue than providing more resources and a positive environment for the entrepreneur. This is again in line with the arguments of Chandler and Hanks (1994) who argue that the entrepreneur has a moderating effect on the opportunities presented to him. Meaning that if an entrepreneur lacks the opportunity competencies he might fail to recognize a valuable opportunity and subsequently fail to exploit the market opportunities related to this specific opportunity.

This conclusion of Man et al. and Chandler and Hanks corresponds with the conclusion of Baum et al. (2001). They conclude that the Internal aspects, for instance the entrepreneurial competencies, have a greater influence on the performance of the organization than external aspects, for instance the environment of the organization. Therefore it can be concluded that competencies of the entrepreneur are of significant importance to the performance of the organization. When a certain entrepreneur lacks certain competencies it is important to attract these competencies, for example by hiring employees, or to attend some form of education or training in order to update or gain certain competencies.

2.4 Environmental influences

In the research model (Figure 1), it is proposed that the environment has a significant influence on the educational needs of the entrepreneur. In theory, different aspects of the environment are highlighted by different authors, also giving different attention to the aspects. In this part of the theoretical framework an overview is given of some of the environmental influences on the organization and therefore, assumedly, on the educational needs of the entrepreneur that become apparent while trying to cope with these influences.

2.4.1 Phases of organizational development and the environment

As suggested earlier in this framework there is a lot of theory present on the phases of organizational development. In this theory the characteristics and the growth of the organization has been the focus of research, but the influence of the environment has hardly been part of the discussion. Although the influence of the environment on the organization has been highlighted too little, Greiner (1972) recognizes the influence of the environment on the development of the organization. He argues that, depending on the environment, organizations move faster or slower through the distinguished phases of development. Therefore the conclusion of Greiner, among others, is that the environment has a moderating effect on the speed in which organizations move through an almost predestined path of different phases. In a fast growing industry the organization moves relatively fast through the different phases in respect to an organization operating in a slowly growing industry, in which the organization can stay in a certain phase for a rather long period of time.

2.4.2 Task and general environment

A more in-depth analysis of the environment starts in Daft's (2007) work, who describes the environmental domain, which basically includes everything outside of the organization. In a way, Daft claims, this environmental domain is infinite, thus the definition Daft uses is somewhat more specific when limiting the scope regarding the organizational environment: *"organizational environment is defined as all elements that exist outside the boundary of the organization and have the potential to affect all or part of the organization"* (Daft, 2007).

Furthermore, Daft makes a clear distinction between the 'task environment' and the 'general environment'. The task environment consists of sectors an organization directly interacts with and that have the potential to affect the daily operations. The general environment, on the other hand, consists of all sectors that might indirectly influence the organization, without interfering with the daily operations. The general environment, also referred to as the remote environment, for example includes the government, economic conditions, technology, financial resources, and socio-cultural aspects (Daft, 2007). According to Daft, examples of the task environment are the industry, market, and raw materials.

Along with these two aspects of the environment, over the years the international environment has also become more and more important to a lot of organizations. The development of economy, technology, and transport makes it possible for organizations to sell products or services worldwide, not only increasing the potential market dramatically, but also immensely increasing the number of potential competitors. This is why it is important not to think domestically, but to be prepared to act in an international environment (Daft, 2007).

In this particular research the focus is on the task environment of the organization, because the task environment directly influences the daily activities of the organization and is identified as

being the biggest and most direct influence on the organization, and for this reason important to the entrepreneur.

2.4.3 Munificence, Dynamism, Complexity

The task environment is the environment in which an organization and with it the entrepreneur attracts required resources. Aldrich describes obtaining resources as an important task of an organization, and as the most important factor in defining the organizational environment: *“Environments affect organizations through the process of making available or withholding resources, and organizational forms can be ranked in terms of their efficacy in obtaining resources”* (Aldrich, 1979). Aldrich presents the three most important dimensions in the task environment which are almost identical to the important environmental conditions, illiberality, variability, and complexity, as defined by Child (Child, 1972). The three dimensions are listed in Table 6.

<i>Munificence</i>	Capacity
<i>Dynamism</i>	Stability-instability, turbulence
<i>Complexity</i>	Homogeneity-heterogeneity, concentration- dispersion

Table 6 Three dimensions of the task environment (Dess & Beard, 1984)

Baum et al. (2001) build on Aldrich's theory and hypothesize that organizations in a stable (opposite to dynamic), munificent, and simple (opposite to complex) environment will achieve the highest growth rates. Dynamism is defined as the level of predictability of the environment. Good indicators for dynamism are market and industry change, and the level of uncertain forces beyond the span of control of the organization (Baum, Locke & Smith, 2001). Munificence, or capacity of the environment, indicates the degree to which resources and opportunities are available to the organization. Finally, the factor simplicity refers to the number of organizations active in a certain environment and the homogeneity of these organizations. If there are a lot of heterogenic organizations operating in an environment it might be more difficult for an entrepreneur to grasp the complete picture.

Thus, it is hypothesized that where there is a stable and simple environment, little is unknown and therefore organizations are capable of making the best decisions, which enables the organization to achieve high growth rates. Besides simplicity and stability the third indicator for possible high growth rates is munificence. Munificence indicates an abundance of resources and opportunities which enables an organization to achieve high growth rates. The opposite of stability, munificence, and simplicity is a dynamic and complex environment in which resources are scarce. Organizations have to compete heavily in these environments to obtain the required resources which enable them to achieve growth. In contrast to the stable, simple, and munificent environment, growth rates tend to be small, if growth is obtained at all.

Dess and Beard (1984) have dedicated their research to operationalize the three dimensions proposed by Aldrich (1979). By using a factor analysis to analyze data from a lot of different industries, valid and reliable measures emerged for complexity, dynamism, and munificence. The results found by Dess and Beard are listed in Table 21, in Appendix A.

2.4.4 Stability and Complexity

In order to be able to classify organizations and to appoint them to a limited number of groups it is important to translate munificence, complexity, and stability into a model that represents these aspects, and enables the categorization that is needed to conduct this research properly. In practice we see it is rather difficult to produce a model that incorporates three dimensions. However,

it might not be that difficult to include these in field research. For more practical reasons munificence is considered in research but not included in the model presented in Figure 7. Because there is a considerable amount of research available that focuses on the model incorporating the two dimensions stability and complexity, munificence is not regarded here. The model presented below is Daft's (2007), who in turn adapted it from Duncan (1972). As stated earlier, it is also argued (Man, Lau & Chan, 2002) that developing competencies is a more important issue than providing more resources and a positive environment for the entrepreneur. This justifies excluding munificence from this model.

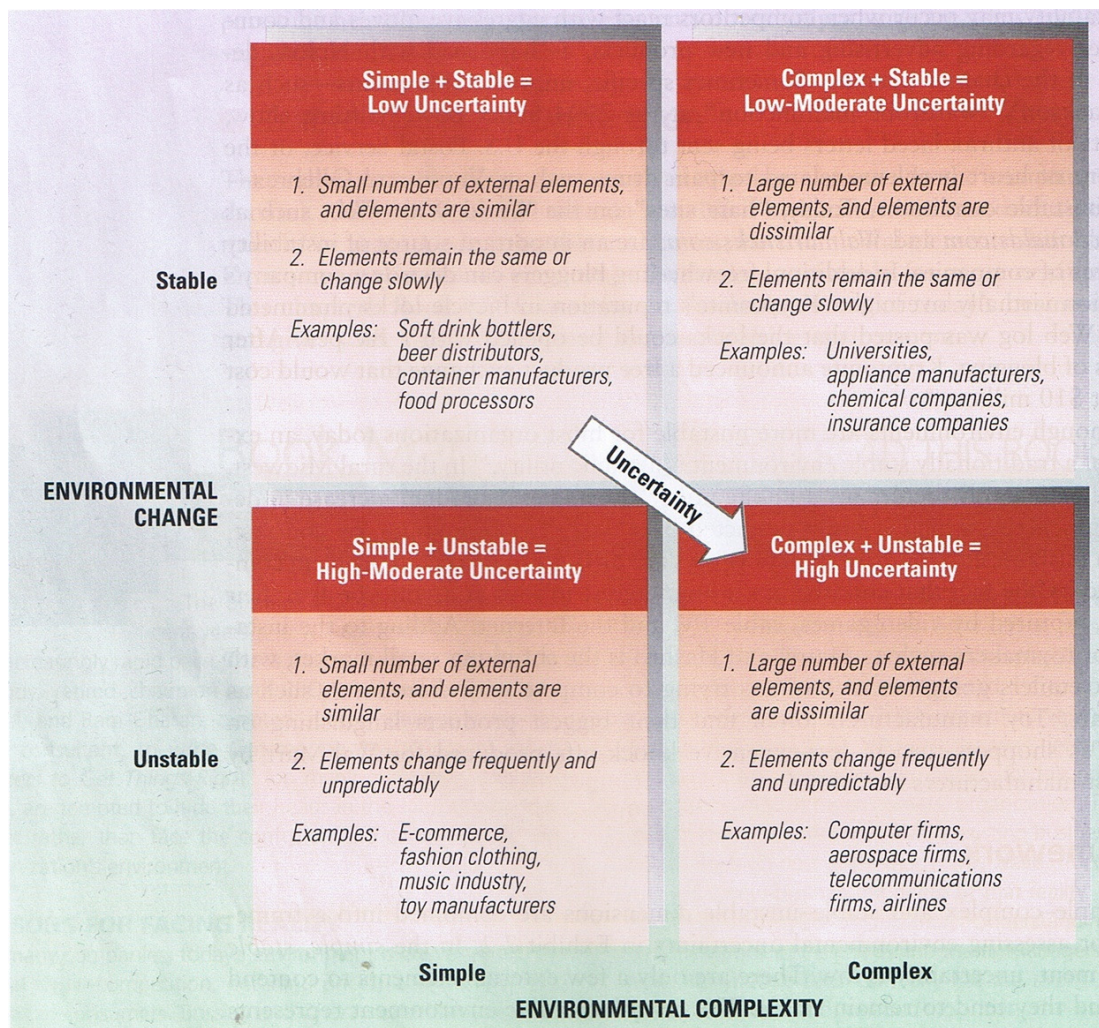


Figure 7 Framework for assessing environmental uncertainty (Daft, 2007)

This framework by Daft brings cuts the environment back into four possible groups: low uncertainty, low-moderate uncertainty, high-moderate uncertainty, and high uncertainty, which can be incorporated in the overall framework in paragraph 2.6.

2.4.5 Opportunities and resources

Chandler and Hanks (1994) also consider the environment to have a significant influence on the success of the organization. To be more precise, the opportunities and resources available to the organization are important factors for organizational success. When the demand for a certain product is growing rapidly, opportunities tend to be more abundant. The competencies of the entrepreneur enable him to see the opportunities and resources that are present, and enable the

entrepreneur him to seize the opportunity and obtain the required resources. Thus, the competencies of the entrepreneur have a moderating effect on these factors. When the entrepreneur does not have the competencies to recognize valuable opportunities, or to distinguish the most valuable opportunity, when they present themselves, he negatively influences the performance of the organization. In this case we see that Chandler and Hanks explain munificence slightly different, but it still includes opportunities and resources.

2.4.6 Environmental forces and educational needs

The theory indicates that the environment has a significant influence on the performance of the organization. Although not all theory attributes the same importance to the environmental aspects it remains important to consider these aspects. The most important reason to consider the environment in relation to the educational needs of the entrepreneur, is that Chandler and Hanks (1994) argue that the entrepreneur has a moderating effect on the opportunities and resources available. This indicates that an entrepreneur does not automatically choose the best opportunity available and does not always obtain the required resources. This also indicates that the performance of the organization does not always have to be optimal, especially not when the environment is dynamic, rapidly changing, and complex. In these situations little information might be available about certain opportunities and it might be difficult recognize the most valuable opportunities and the best resources.

Therefore it can be concluded that, in order to make the most of opportunities and resources, a competent entrepreneur is required. If an entrepreneur lacks the competencies to do so, it is then important to consider attracting knowledge, for example by hiring employees, or by investing in attaining the required competencies. These competencies can be obtained by attending entrepreneurship education and training programs.

2.5 Entrepreneurship education and training programs

A lot of studies explain the importance of entrepreneurship education and training. Ulrich (1997), as cited in De Faoite et al. (2003), for example argues that entrepreneurship education and training is important because entrepreneurship itself is important to the economic system. Adding to this, De Faoite et al. mention that education and training can contribute to more and better entrepreneurs in the future. Entrepreneurs that are in their turn important to the economic development. The ultimate goal of entrepreneurship education and training is to provide information and practices to the entrepreneur that enable him to be better prepared for future situations.

Jamieson (1984), as cited in De Faoite et al. (2003), defines entrepreneurship as: *“the teaching of skills, knowledge and attitudes for people to go out and create their own futures and solve their problems.”* Translated to this particular research the entrepreneur is someone who has to go out and create his own future and solve his own problems by obtaining new competencies that enable him to engage in entrepreneurial activities of higher quality in the future.

Over time there has been a lot of theory published on learning in general and organizational learning in particular. For an entrepreneurship education and training program to be successful it is important it enables entrepreneurs to learn, for which a clear definition of learning is required. The adequate definition of learning is adopted from Huber (1991): *“An entity learns if, through its processing of information, the range of its potential behaviors is changed.”* This definition indicates it is not necessary for behavior to change, as long as the range of possible behaviors is changed. Cope and Watts (2000) acknowledge the importance of learning for the entrepreneur, as the organization is changing. They describe a theory on phases of organizational development and

argue that the entrepreneur has to be able to learn, and in some situations of crisis even adopt complete new practices.

2.5.1 Education and training

Entrepreneurship education and training is the concept in which all entrepreneurship curricula fit. A lot of theory refers to this phenomenon as education and training, and therefore it is rather difficult to distinguish between education and training, although the results of both could be entirely different. In order to try and make a clear distinction between the two concepts of education and training, different levels of learning are explored, as described by Cope and Watts (2000).

Level 1 learning	<i>The individual remains essentially unchanged by the experience, with no significant personal development or increased awareness. This applies mostly to routine and immediate tasks.</i>
Level 2 learning	<i>This involves assimilating something that is transferable from the present situation to another. The individual has changed its conception of a particular aspect of his view of the world in general.</i>
Level 3 learning	<i>This stimulates fundamental change, encouraging the individual to reflect on and question not only their established way of doing things, but also underlying values and perceptions that drive this behavior.</i>

Table 7 Level of learning (Cope & Watts, 2000)

Training is focused on skills and practices, while education tends to be more theory driven, focusing on providing knowledge. When we relate these different levels of learning to education and training, it can be concluded that, although significantly different, both forms are best described as level two learning. Entrepreneurship training tends to be more broadly applicable than only to routines and immediate tasks, as described in level one learning, but it does not change the underlying values and perceptions. The same can be said about education where information is provided to entrepreneurs. Changes in organizational characteristics and patterns often can be described as level two learning. The organization does not change overnight, but all new characteristics and patterns eventually lead to fundamentally new insights. It is important for the entrepreneur to match personal learning to organizational development in order to manage changes ahead.

If the entrepreneurship education and training program only provides level two learning, how can level three learning then be achieved? I believe, this question is difficult to answer in the perspective of entrepreneurship education and training, but Cope and Watts (2000) argue level three learning can happen gradually through level two learning. Values and perceptions can be changed bit by bit, eventually becoming level three learning.

2.5.2 Practice vs. Theory

Training tends to be based on practice, and education tends to be more theory driven. If both forms provide level two learning, then what can be considered to be the best practice? Maybe there is no one best way to provide new knowledge and competencies to entrepreneurs. Cope and Watts (2000) argue that learning by doing, knowledge coming from past events, is a very valuable source of development of the entrepreneur. Greiner (1972) indicates that future development is to a great extent based on past events. Furthermore he states that owners and managers agree with his theory of stages of organizational development on hindsight, indicating they have gained new insights from the experience of going through one or more stages.

Both practical and theory driven education provide level two learning and can eventually, if required, result in level three learning. Both education and training provide entrepreneurs new knowledge, that they can apply to their organizations, in other words, to put new knowledge into practice. The process of how this knowledge is translated into practice is not discussed in this research. The individual preferences of the entrepreneur will eventually be an important factor that contributes to which form of learning is preferred.

2.5.3 Categories and curricula

A lot of research has been dedicated to entrepreneurship education and training. Especially to the effectiveness of the programs and the content of the different curricula. According to De Faoite et al. (2003) an important theme that emerged from this academic research is the failure of programs to answer to the educational needs of the participants.

As mentioned in the introduction, there are three ways to categorize entrepreneurship education and training (Jamieson, 1984). Programs to create awareness, programs to teach starting entrepreneurs or SBO's, and education and training programs for current entrepreneurs or SBO's. In the literature there are some categorizations that are approximately the same, for example the categories as suggested by Scott et al. (1998), however, some differ significantly, for example categorization of education and training in terms of: management training, business and personal skills development, and categorization in terms of the phase of organizational development (De Faoite, Henry, Johnston & Van der Sijde, 2003). As mentioned earlier, this research will focus on the last category of educational programs.

Garavan and O'Cinnéide (1994), cited by Henry et al. (2005a), distinguish between entrepreneurship education and education and training for small business owners, arguing that in a lot of programs management skills are taught, rather than entrepreneurship. They focus on education and training for the SBO and distinguish three categories in these specific education and training programs:

- Small business awareness education (appears in secondary school syllabi)
- Education and training for small business ownership (for starters)
- Continuing small business education (current entrepreneurs)

McMullan and Long (1987) elaborate on different entrepreneurship education and training curricula and acknowledge the fact that these curricula should differ according to the phase of organizational development. Organizations that are in an early stage of development have for example little overhead staff, are entrepreneurial, and seek for survival. They therefore have less management related issues, whereas larger organizations in the later phases of development tend to have more management related issues.

Finally, there is a lot of discussion in the literature on the content of education and training programs. A lot of programs focus on teaching managerial skills, such as finance and management, rather than entrepreneurial skills, for example innovation and creativity (De Faoite, Henry, Johnston & Van der Sijde, 2003). Furthermore, the focus on generating a business plan as the most important product of the program is widely questioned. For all these reasons, and probably many more, there is not one generally accepted curriculum for the education and training of entrepreneurship (De Faoite, Henry, Johnston & Van der Sijde, 2003).

2.5.4 Can entrepreneurship be taught?

De Faoite et al. (2003) describe how there seems to be a general understanding among authors that some parts of entrepreneurship can be learned and other parts cannot.

Entrepreneurship is referred to as both being an “art” and a “science”. In general the conclusion is that there are a lot of education and training programs that focus on the tasks of the entrepreneur rather than on the behavior. Deakins et al. (1996), as cited in De Faoite et al., describes task oriented programs as having a focus on management, marketing, and finance. Behavior oriented programs, on the other hand, focus on opportunities, creativity, innovation, and problem solving.

Henry et al. (2005a, 2005b) address the question whether or not entrepreneurship can be taught, or whether entrepreneurs are born or made. They state the field of research is: “an area that is continuing to receive increased attention, and that research in the area is growing”. Furthermore, Henry et al. argue that entrepreneurship is both an art and a science, and that only the science part can be educated. The authors also argue that, despite the growing attention for entrepreneurship education and training, there is little uniformity on the matter. The theoretical basis for the entrepreneurship education and training programs is not clear and this resulted in a high variety of curricula.

Chandler and Hanks (1994) argue, in an earlier article, that competencies are a major influence on performance, it seems to have a greater influence than experience. They (Chandler & Hanks, 1994) also indicate that entrepreneurship education and training is important, because competencies are a major influence on organizational performance. The better the competencies of the entrepreneur, the more likely the organization is to be successful. This indicates that entrepreneurship is something that indeed can be learned.

Considering that at least some parts of entrepreneurship can be taught and that competencies of the entrepreneur are an important aspect of organizational performance (Chandler & Hanks, 1994), entrepreneurship education and training almost seems a necessity, despite the discussion whether or not entrepreneurship can be taught. Henry et al. (2005a) argue that developments in the more and more globalizing economy, result in more uncertainty and more opportunities for entrepreneurs. Entrepreneurship can prove beneficial in light of such changes. Given these changes, people need to have more entrepreneurial skills and abilities in order to deal with an uncertain future. Therefore, the authors argue that the need for education and training in entrepreneurship is more important than ever before.

2.6 A model on Educational needs

Every entrepreneur, and every organization they own or manage is unique, but are the educational needs of the entrepreneur unique as well? Or do they follow a fairly predictable pattern? Cope and Watts (2002) describe: *“Although each small business is indeed unique, it is argued by life-cycle theorists that all face broadly similar growth challenges and that owner-manager skills and abilities need to follow a fairly predictable evolutionary pattern as the enterprise passes through the various stages of the business life cycle”*. Plaschka and Welsch (1990), cited by Cope and Watts (2000), conclude that the educational needs of the entrepreneur may change when the organization passes through different phases of organizational development. Besides this, the influence of the environmental uncertainty is recognized as a possible influence on the educational needs and competencies of the entrepreneur.

When educational needs are related to the entrepreneurship education and training program as provided by Mensium, it is important to have a good operationalization of educational needs and the factors that influence these needs. This theoretical framework elaborates on all aspects that were initially identified in the research model, presented in Figure 1. Furthermore, it is recognized that the entrepreneur and his competencies are important because the competencies of the entrepreneur have a moderating effect on the performance of the organization.

Cope and Watts (2000) argue that entrepreneurs, or SBO's, find it difficult to capture the current situation of their organization correctly. Therefore, I argue, that the following model, consisting of Table 8 and Figure 8, can be used as a tool to enable Mensium to categorize the current situation of an entrepreneur, without totally abandoning his personal characteristics, for example the competencies he has already mastered. The framework presented below, is a framework that 'measures' the educational needs of the specific entrepreneur. To measure organizational characteristics and the current phase of organizational development Daft's model (2007) is used. To measure the entrepreneurial, as well as the managerial competencies of the entrepreneur, the operationalization of Man et al. (2002) is used. The uncertainty of the environment is measured by combining operationalizations of Daft (2007), Dess and Beard (1984), Baum et al. (2001), and Chandler and Hanks (1994), resulting in a framework with two major environmental influences; stability and complexity.

Environment	Entrepreneurial stage	Collectivity stage
<i>Low uncertainty</i>	Type 1 entrepreneur	Type 5 entrepreneur
<i>Low-moderate uncertainty</i>	Type 2 entrepreneur	Type 6 entrepreneur
<i>High-moderate uncertainty</i>	Type 3 entrepreneur	Type 7 entrepreneur
<i>High uncertainty</i>	Type 4 entrepreneur	Type 8 entrepreneur

Table 8 A combined framework for entrepreneurial competencies

In this framework, required competencies can be determined by looking at both the organization and the environment. However, the eight types of entrepreneurs that can be described, in general do not provide us with enough information on the entrepreneurial competencies that are required. The literature that is currently available on entrepreneurship education and training does cover entrepreneurial competencies, but does not cover the distinction between the different types of entrepreneurs and the required competencies for each type. Therefore, in the empirical part of this research attention will be paid to the competencies required by the entrepreneurs in the given entrepreneurial types, eventually completing the model to assess the educational needs of the entrepreneur. This results in a matrix, with the dimensions organizational phase of development and environmental uncertainty. In the cells the required competencies are listed, which might possibly contain the similar six sets of competencies (Man, Lau & Chan, 2002), but presented in an alternative order. This order indicates the importance of competencies in different situations. Research might show that some competencies are not important at all to a certain type of entrepreneur, in that case this competency will not be listed.

In this matrix the factors influencing required entrepreneurial competencies are presented, derived from the framework. In practice, and after empirical research, this matrix can be used to compare the required set of competencies, given the organizational characteristics and the environmental uncertainty, with the current competencies of the entrepreneur. As a result the educational needs can be derived from this comparison, and ultimately through education and training the moderating effect of the entrepreneur on performance can be limited, making the organization perform better.

These operationalizations together form a graphical model based on the previous table, which is presented in Figure 8.

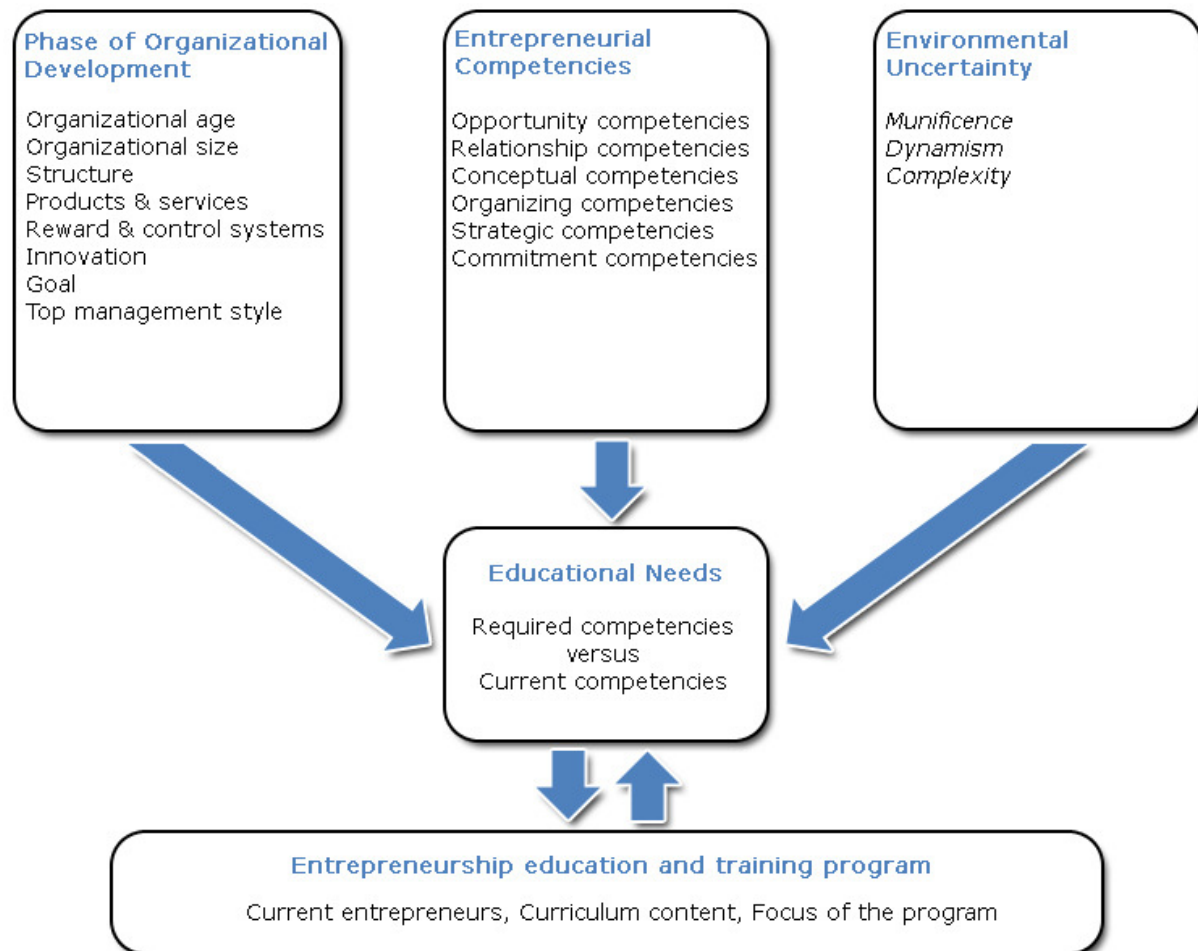


Figure 8 A model to assess educational needs

3 Methodology

This chapter presents the methodology that is used to conduct this research. Babbie (2007) defines methodology as the science of finding out. In order to assess the entrepreneurial competencies that are required by entrepreneurs in different organizational and environmental situations, a dual research strategy is chosen. A strategy that combines in-depth interviews with entrepreneurs, with quantitative research based on a questionnaire. Finally, there will also be one quantitative expert interview to discuss the development of the program and the goal of this research.

3.1 Goal

The goal of the interviews is to provide in-depth knowledge on entrepreneurial competencies, providing a thorough analysis on competencies required by entrepreneurs in the present organizational and environmental situation. The qualitative approach makes the interview flexible enough to provide room for new questions, and rule out the possibility of the respondent misinterpreting certain questions, generally providing better validity than qualitative research (Babbie, 2007). By conducting the interviews before sending out the questionnaire, the possibility of misinterpreting the questionnaire can be diminished.

The quantitative questionnaire provides a larger amount of data, that is often argued to be superficial (Babbie, 2007), and therefore not suitable for the same in-depth analysis. However, it provides more reliable (Babbie, 2007) results on the required entrepreneurial competencies.

3.2 Desk Research

In order to write proper conclusions and recommendations for future improvement of a product or service, it is important to get a clear view of the current situation, in order to test where potential opportunities for improvement can be found. To assess the current situation, the entrepreneurship education program offered by Mensium is described in more detail in the introduction of paragraph 1.1.2. For this elementary piece of desk research all available materials on the program were gathered and summarized in a program description.

3.3 Field research

Field research is conducted in order to generate data that is analyzed and serves as a source of information for the final conclusions and recommendations. In this paragraph, the operationalizations for the constructs that are used in this research, will be presented. Furthermore, the research strategy and methodology are discussed.

3.3.1 Research method

This mixed-model research, shown in Figure 9, in which multiple ways to gather data are combined, is used to overcome the potential problem of creating one idiosyncratic reality, which is the truth according to the researcher (Johnson & Onwuegbuzie, 2004). Of course, it is always best to call the results of research a subjective truth according to Johnson and Onwuegbuzie, as well as reflecting ideas and decisions made by the researcher. But mixed methods can help to overcome this problem and lead to rigorous research results. Both used methods will be conducted concurrently, with its main focus on the qualitative research, enforced by the quantitative data.

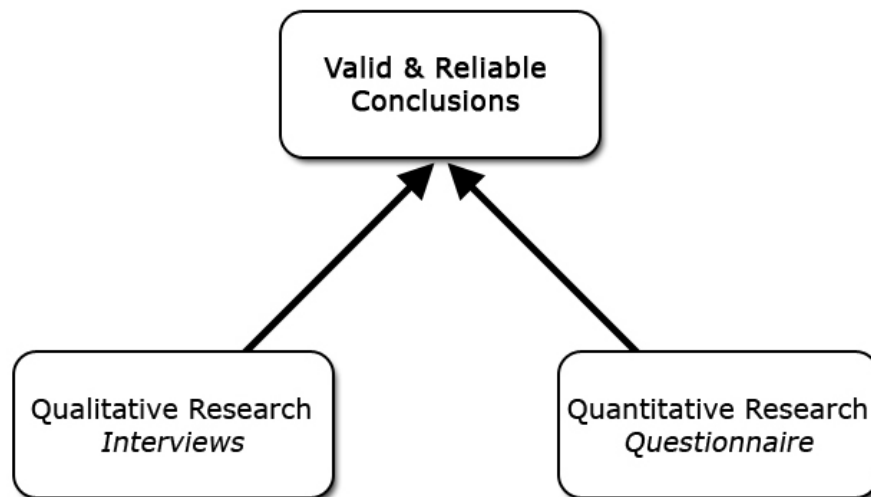


Figure 9 Mixed-model (Johnson & Onwuegbuzie, 2004)

3.3.2 Operationalization of the phase of organizational development

Entrepreneurs can be categorized according to organizational characteristics and environment, as shown in the theoretical framework. First the construct organization is discussed and the measures that can be used to determine which phase of organizational development an organization is in. Important organizational characteristics, defined by Daft (2007) are structure, products and services, reward and control systems, innovation, goal, and top management style. This is shown in Table 3. To measure these characteristics following measures are identified:

Organizational characteristic	Measures
<i>Structure</i>	<ul style="list-style-type: none"> • Size (small versus large) • Specialization (overlapping tasks versus separate tasks and roles) • Professionalism (no, or low professional training versus high professional training) • Hierarchy (no, or flat hierarchy versus tall hierarchy) • Formalization (few rules versus many written rules)
<i>Products and services</i>	<ul style="list-style-type: none"> • Number of products or services (single product versus many products, or many variations)
<i>Reward and control systems</i>	<ul style="list-style-type: none"> • Focus (Personal versus impersonal)
<i>Innovation</i>	<ul style="list-style-type: none"> • Who innovates? (Owner or manager versus employees and managers)
<i>Goal</i>	<ul style="list-style-type: none"> • Goals (not defined versus well-defined)
<i>To management style</i>	<ul style="list-style-type: none"> • Management style (entrepreneurial, direct involvement versus delegation)

Table 9 Organizational measures (Daft, 2007)

3.3.3 Operationalization of environmental influences

The other dimension used to categorize entrepreneurs is the environment. In this dimension several influences are identified in the framework, of which environmental change and complexity are most important. This model, developed by Daft (2007), will be used to measure the

environmental factors that influence the entrepreneur. Measures to assess the environmental dimensions are:

Environmental dimension	Measures
<i>Change</i>	<ul style="list-style-type: none"> • Environmental changes (little versus many) • Predictability of environmental changes (predictable versus unpredictable)
<i>Complexity</i>	<ul style="list-style-type: none"> • Number of external elements (e.g. competitors, producers, customers, other stakeholders) • Diversity of external elements (very similar versus divers)

Table 10 Environmental measures (Daft, 2007)

3.3.4 Operationalization of competencies

In order to research competencies it is important to have a thorough operationalization of the competencies involved. In the theoretical framework six entrepreneurial competencies (Man, Lau & Chan, 2002) are identified. The six competencies identified here are based on several theories on entrepreneurial competencies, presented in Appendix B. One of the most important theories used is the theory of Chandler and Jansen (1992), who present an overview of five of the six distinguished competencies, as shown in Appendix B. In this overview they clarify the competencies and show which of the researched factors load on a certain competency. This article is an important source for this research and shows extensively how to assess required competencies. Unfortunately, the research of Chandler and Jansen (1992) does not discuss the exact same competencies as described in the article of Man et al. (2002), who discuss the identified competencies less extensively. Therefore, other measures have to be used to address all six competencies identified in the framework.

For translation purposes the book of PiMedia (2002) is used. Although this book is not based on scientific research, the entrepreneurial competencies described by Man et al. are presented in this book. Moreover, this book is based on years of practical experience, which enables me to translate measures properly and to use the right term when translating. To translate questions correctly, it is important to test the used questions, to eliminate for example the possibility of misinterpretation by the respondents. PiMedia offers a very extensive, and in practice properly tested, set of questions to assess entrepreneurial competencies.

Competency	Measures
<i>Opportunity competencies</i>	<ul style="list-style-type: none"> • Identify goods or services people want (search for new markets) • Perceive unmet consumer needs • Look for products that provide real benefit • Seizing high-quality business opportunities
<i>Relationship competencies</i>	<ul style="list-style-type: none"> • Involve people with important resources • Involve people with important knowledge (both internal and external) • Venture team with complementary competencies • Enlist the support of key people
<i>Conceptual competencies</i>	<ul style="list-style-type: none"> • Maximize results in resource allocation • Organize resources • Detect and analyze problems • Set priorities
<i>Organizational competencies</i>	<ul style="list-style-type: none"> • Organize and motivate people • Delegate effectively • Organizing and coordinating tasks • Supervise, influence, lead
<i>Strategic competencies</i>	<ul style="list-style-type: none"> • Set clear goals • Control long term objectives • Assess if goals are met • Adjust strategy according to changed circumstances
<i>Commitment competencies</i>	<ul style="list-style-type: none"> • Make venture to work no matter what • Refuse to let venture fail • Make large personal sacrifices • Extremely strong internal drive

Table 11 Competency measures (Chandler & Jansen, 1992), (Man, Lau & Chan, 2002)

In this table a rather extensive list of possible measures for the competencies is presented. In their research, Chandler and Jansen (1992) to a large extent also tested this list. There is no evidence to ensure the list is exhaustive, covering all aspects of the constructs and therefore being a valid construct (Shadish, Cook & Campbell, 2002). It would be a study on itself to research whether or not the list is exhaustive, but fortunately exhaustiveness is not the primary goal in this research. The goal is to rank different entrepreneurial competencies according to their relative importance to each other. This research method does not necessarily require a fully operationalized concept. It is more important that activities, that are identified and related to a certain competency are indeed valid. Another goal of the research is not only to assess which entrepreneurial competencies are important, but it is also important to use the qualitative part to assess which activities, related to a certain competency, are important. Two different types of entrepreneurs might indicate the same competency as the most important one, but this competency might consist of different activities in both situations.

3.3.5 Measures

Now that the operationalization of constructs, research strategy, and data-collecting method are clear, it is time to discuss the measures used to design the questions required for data collection, and how to code this data after collection. Furthermore, the operationalization of the previous paragraph forms the guideline for the interviews, which will be semi-structured.

As mentioned in the previous paragraphs the interviews will be semi-structured, using the operationalization presented in this chapter. The operationalization gives the interviewer a direction for the interview, trying to find out the most important competencies of the entrepreneur in a given situation. During the interview respondents are asked what they feel are important competencies for an entrepreneur to have, and there will be a possibility to rate the different activities. The interviewer has to see to it, that all the competencies identified in this research are discussed.

The questionnaires are a somewhat different story, as Fowler (2009) argues: *“with respect to question design, the researcher must decide the extent to which previous literature regarding reliability and validity of questions will be drawn upon, the use to be made of consultants who are experts in question design, and the investment to be made in pre-testing and question evaluation”*. In the theoretical framework, and in the operationalization it became apparent that for assessing competencies the operationalization of Man et al. (2002) is a proper one to use. For the organizational and environmental influences, two models are used, but they come without a clear operationalization of the different factors that are included in these models. Therefore, it is important to dedicate attention to these concepts, regarding the book of PiMedia (2002) as a source coming from a consultant, or expert, that can help in translation. The qualitative part, which will start previous to the quantitative part, can serve as a pre-test for the survey, evaluating the questions and diminishing the chance of the misinterpretation of questions.

Fowler (2009) presents some possible reasons why questions are poorly defined. He mentions incomplete wording, forcing the respondent to use his own interpretation to answer the question, he also mentions unacceptable wording, that gives direction to answers that respondents might give. Furthermore poor wording and poorly defined terms are discussed. According to Fowler it is also important to avoid asking multiple questions at once, making it hard for the respondent to give the perfect answer. Finally, Fowler reports four basic reasons why respondent might answer questions with less than perfect accuracy, these reasons are important to consider while defining questions for a survey. First the respondent does not understand the question, secondly, they do not know the answer, thirdly, they cannot recall the answer even though they know it, and finally, they do not want to report the answer (Fowler, 2009).

As mentioned, it is important to categorize the entrepreneur at first by assessing the organizational characteristics and the important environmental influences. The measures used to categorize entrepreneurs are described in Table 24, Appendix C. To assess required competencies a Likert scale is used, enabling respondents to respond in different categories ranging from Not important to very important. According to Babbie (2007) the Likert scale enables respondents to score the relative importance of the presented items, ultimately leading to a classification of important competencies in a given category of organization. The questionnaire items are shown in Table 22 to Table 24 in Appendix C.

3.3.6 Questionnaire

In the previous paragraph a lot of measures and questions were used to assess the organizational and environmental characteristics of the organization. In the perfect scenario every entrepreneur would have no problem at all with filling out lengthy questionnaires, like the

questionnaire that would have been used for this research if all questions were asked. But in practice things are somewhat different. Response rates to questionnaires tend to be low and therefore the researcher that conducts a survey wants the ideal mix of good questions and non-obtrusiveness for the respondent, allowing the respondent to go back to his daily activities as soon as possible, preventing for example attrition or an enormous threshold to participate.

For this reasons the questionnaire is somewhat reduced to a more practical format, while it is still able to collect the required data. At first, the competencies part was not altered, because this is the core of the research, but questions to categorize entrepreneurs according to the organizational and environmental characteristics are reduced to a minimum. The idea behind this reduction is that the respondent provides data about the industry and the type of business and a few general questions about the organization and environment. These general questions provides data on how to categorize entrepreneurs, while data about the industry and the type of business help the researcher to check if the categorization the entrepreneur indicated was correct. This reduced questionnaire, more useable than the list of questions presented above is shown in Table 25 to Table 27 in Appendix D. The questionnaire is translated to Dutch for empirical purposes. The translation is included in Appendix E.

Notice how items derived from Table 11 are mixed in the competency scoring table (Table 27, Appendix D) to prevent entrepreneurs deliberately scoring one set of elements as important mainly because of their positioning in the table. Afterwards, during data analysis, the items are once again linked to the competency they refer to. Furthermore headers are left out preventing biased results.

3.3.7 Pretest

As always, testing a questionnaire is a very important part of achieving valid and reliable results. Does the questionnaire measure what the researcher wants to measure? That is why, after testing, a number of essential changes were made. This testing was done with the first interviews, by respondents that filled out the actual questionnaire. During these tests some basic problems occurred that had to be solved before the questionnaire could be sent out.

One of the problems encountered in the questionnaire, see Appendix D, is that rather difficult organizational and environmental situations are captured in as little questions as possible. Because of this, a complex question was formulated which contained multiple questions in one question. This is exactly what Fowler (2009) is trying to warn researchers about in his book. Another problem was that respondents did not understand the question in which they had to interpret a model to assess the environmental situation of their organization. Without any knowledge, an interpretation of this model appeared to be difficult and therefore it had to be replaced with several other, more simple, questions.

The final issue that was encountered during pretest was the long list of activities that relate to the six entrepreneurial competencies. The list of activities was rather lengthy and entrepreneurs were tempted to score every single activity as important. If everything is rated to be important, results become worthless and above all incomparable. To solve this problem several improvements were made to the initial questionnaire. The lengthy list was reduced to four groups of six activities, where every group consisted of activities based on all six competencies. Furthermore, the initial scoring possibilities ranged from not important to very important, which was changed into the numbers 1 to 6. This indicates that the activity scoring 1 is not completely unimportant, but only that it is the least important activity. This is fundamentally different. The four groups of six activities, in Appendix E, also require the respondent to choose between the importance of different activities,

because each score may only be used once. This prevents the respondent to score every activity as very important, and automatically provides insights on the relative importance of the different competencies.

Besides this basic problems another warning by Fowler (2009) had to be taken into account. Some questions suffered from poor wording, which means questions implied a certain answer or can be misinterpreted by respondents. For the translation into Dutch, the language used for the questionnaire, this has been taken into account. The results of the above mentioned problems and changes are shown in the Dutch questionnaire (Appendix E).

3.3.8 Data collection

The data is collected using mixed methods, using both qualitative and quantitative research methods, meaning qualitative and quantitative data is combined. Interviews are conducted to gather in-depth information, and rule out the possibility of misinterpretation by the respondent. The interview has an extra advantage over a questionnaire, namely the interaction between the interviewer and the respondent. This enables the interviewer to address all the topics formulated before the start of the interview, without having a well-defined set of questions to ask. This also enables the researcher to dig for more information when necessary, enabling an explanation of a phenomenon that might be discovered. This offers an extra possibility compared to a questionnaire.

An interview is not as predefined and structured as a questionnaire, but in this research it is important to address all the competencies defined in the theory, also during the interviews. Furthermore, it was also a goal to let interviewees rank the importance of different entrepreneurial competencies. In order to do so, and to give some structure to the interview, I used six small cards that show the entrepreneurial competencies. These cards enabled me and the participants to talk about all the competencies in a natural way and to order the cards during the interview. In a way this approach has multiple advantages: first it visualized competencies and how to order them according to importance, and then it ensured me not to forget to address a competence during the interview.

The questionnaire is sent out and only requires input of the respondent. Unlike interviews, where the researcher does not have the possibility to ask why a certain answer is given, he only receives a particular answer that is given. Because of the small amount of personal attention devoted to this type of research it is possible to gather a rather large amount of data, without having to spend a large amount of time with every respondent. In a way this is the same paradox as described by the two research paradigms.

3.3.9 Sample

Fowler (2009) describes a number of critical issues with respect to sampling that need to be considered. The first issue is whether or not to use a probability sample, second is the sample frame (who has a chance to be selected), third is the sample size, fourth the sample design (the strategy used to sample), and finally, the fifth is the rate of response.

Nonprobability sampling is the sampling method used in this research. This sampling method, according to Babbie (2007), is used in situations that do not permit probability sampling. Nonprobability sampling indicates that the sample used for research might not be representative for the entire population. The entire population in this research is the Dutch entrepreneur in the SME. Generally there are two important reasons not to use probability sampling in this research. The first reason is limited time and resources, and second, it would not make research findings more valuable for the Mensiumgroep if a representative sample was selected. This research will probably provide more valuable results for the organization if possible future participants of Directievoering

participated in the program. It has to be mentioned that this sampling method also has a downside, as it will obviously put limitations on the research findings concerning the generalizability.

More specific, purposive sampling is used to select respondents for both the interviews and the questionnaire. The advantage of purposive sampling is that predefined criteria are met by the respondents. By using this sampling method the eight different types of entrepreneurs defined in the theoretical framework have a chance to be selected in research, limiting the possibility that a situation unfolds where no data is collected from one or more of the predefined groups. Furthermore, the sampling can be based on entrepreneurs from the network of the Mensiumgroup, where obtaining access to a full database of all Dutch entrepreneurs is a costly and very time consuming activity, without adding value to the outcome of this research. Although the sample would not be representative for the entire population of Dutch entrepreneurs, it would be sufficient to compare the different groups of entrepreneurs defined in the theoretical framework (Babbie, 2007).

The downside of selecting participants from the Mensium network is that this might be entrepreneurs that already have an interest in entrepreneurship education or training, indicating they already acknowledge to have an entrepreneurial problem in a certain area. Moreover, these entrepreneurs can be rather similar in a way, for example most entrepreneurs in the network have rather similar businesses and face similar problems and challenges.

The sample size is an important issue in quantitative research. Because response rates are generally rather low in quantitative research, and to generate more in-depth data, both quantitative and qualitative research methods are used. This enables a smaller amount of samples to be used in the quantitative part, and more rich data due to the qualitative part, without decreasing validity and reliability. So, an estimated sample size of ten respondents for every predefined group of entrepreneurs seems a reasonable goal for this research, with the possibility to change the sampling method when this number is reached for a certain group. This means respondents can be preselected to participate in this research based on characteristics they possess.

3.3.10 The gathered data

The results of the mixed methods, interviews and questionnaires, will enable a categorization of the organization of the entrepreneur along with the two dimensions phase of organizational development and the environment. This will result in eight possible configurations, as shown in Table 8, with different characteristics. It is argued in the research question that entrepreneurs in different categories will have different educational needs, simply because they face different challenges. By categorizing the organization and assessing the importance of the defined competencies, according to the entrepreneur, information can be compiled showing the order of importance of the different competencies in relation to the different configurations.

This information enables Mensiumgroep to predict which competencies are required in a certain situation an entrepreneur is in. By assessing how the entrepreneur performs on the important competencies the educational needs become apparent.

4 Data analysis

In this chapter the gathered data is analyzed. The first part of the chapter will address the analysis of the semi-structured interviews, and the latter part contains the analysis of the questionnaires. The aim of the data gathering is to test which competencies are important to entrepreneurs in different organizational and environmental situations. It is assumed that the organization and the environment have a large influence on the required entrepreneurial competencies.

4.1 The interview

The semi-structured interview was mainly a useful tool, in testing the assumption that every entrepreneur has different educational needs, because these needs are influenced by the differences in the organization and the environment. Furthermore, interviews enable new questions to be asked, providing more information on some aspects of this research. A total of 17 people were interviewed during the course of this research. Each person was either an entrepreneur or a general manager of an organization, except for one man, who is a lecturer at both the Open university of Amsterdam and the Avans Hogeschool in Breda.

This person is the network partner of the Mensiumgroep, who cooperated with the organization in providing the actual program 'Directievoering'. I consider this person to be an expert on the matter, even though he is an entrepreneur. Therefore, the questions that I asked him were somewhat different than the ones used for other interviewees. Since it was the last interview, the focus of it was the expert opinion on the development of 'Directievoering'. Analysis of this conversation can be found at the end of this chapter.

4.1.1 The interviewees

To analyze the interviews it is important to know who participated and especially what the characteristics are of their organization and the environment of this organization. Therefore I visualized all the interviewees in one table (Table 13), providing insights into their organizational and environmental characteristics. The numbers in the figure correspond with the numbers on the list of interviewees (Table 12).

#	Company description	Function Interviewee
1 ^F	Personal development & Outplacement	Owner
2	Business intelligence software	Business Unit Manager
3	Training institute for metal and plastic industry	Business Unit Manager
4	Candy Wholesaler	Owner
5	Financial software consultants	Owner
6	Computer & telecom supplier	Business Unit Manager
7	Washing-powder manufacturer	CEO
8	Clothing store	Owner
9	Clothing manufacturer	CEO
10	Regional marketing initiative	General Manager
11	Interim professionals for health-care	CEO
12	Direct mail, surveys, document solutions	Owner, General Manager
13	Accountancy	Owner, General Manager
14	Change management consultancy	Owner
15	Software company	Sales manager
16	Marketing consultancy	Owner

Table 12 Interviewees, company descriptions & functions

Organizational phase Of development Environmental uncertainty	Entrepreneurial phase	Collectivity phase
Low uncertainty	4 - 8	7 - 13
Low-moderate uncertainty	5 - 9	3 - 6 - 15
High-moderate uncertainty	11 - 16	2 - 14
High uncertainty	1 - 10	12

Table 13 Interviewees

In this case, the interviewees are scattered across the table. The organizational and environmental characteristics are indicated in the predefined dimensions. This automatically means that the entrepreneurs are categorized according to their predefined types as shown in Table 8. For company seven this means that it is in the collectivity phase, because it, for example, has around a hundred employees and a focus on lean manufacturing and supply chain management. Company 16,

on the other hand, is in the entrepreneurial phase since it is a rather young organization, consisting of only two people.

The categorization of the interviewees in the figure was done according to the data that was collected during the interviews, see Appendix F. Table 13 does however not provide insights into the possible differences between entrepreneurs that are in the same category. This information is not relevant for this research and therefore not considered.

4.1.2 The activities

During the interviews the focus was on the organization, the environment and the entrepreneurial competencies. To assess these competencies, several activities were discussed and ranked by the interviewee. Cards with the six competencies were presented to the interviewees and they were asked to indicate how they rated the competencies presented on these cards; which activities did they link to their organization, and which competency was most important.

This method made it possible to check if the activities that were predefined in the theoretical framework were also the activities that the entrepreneurs could relate to. In practice it turned out that the general entrepreneurial competencies, which are the focus of this research, are in large part the same for every entrepreneur. Besides some inter-industry differences and some personal preferences, the general entrepreneurial competencies consist of the same activities for every entrepreneur.

In some situations the entrepreneur defined competencies in order to include somewhat different activities than those defined in this research. To make sure that the results of the questionnaire, interviews, and expert interview contribute to the same results, the operationalization of the competencies was discussed during the interviews. If an entrepreneur used a different operationalization of a competency, examples of activities that were predefined in theory were used to make sure that the intended competency was discussed. By doing so, it is guaranteed that the competencies discussed during the interviews are the same as the competencies used in the questionnaire.

4.1.3 The results

Due to the semi-structured approach of the interviews, it is possible to summarize and analyze the same characteristics and competencies for all interviewees. In Table 13 the characteristics are shown in relation to each other, in Table 14 these characteristics are related to the entrepreneurial competencies. This table shows how the interviewees rated the different competencies during the interviews.

	Entrepreneurial phase		Collectivity Phase		
Low uncertainty	8. Commitment Relationship Strategic Organizational Opportunity Conceptual	4. Commitment Relationship Organizational Strategic Conceptual Opportunity	13. Strategic Organizational Relationship Commitment Conceptual Opportunity	7. Strategic Organizational Conceptual Opportunity Relationship Commitment	
Low-moderate Uncertainty	5. Commitment Strategic Opportunity Conceptual Organizational Relationship	9. Commitment Opportunity Conceptual Relationship Strategic Organizational	3. Strategic Relationship Opportunity Commitment Conceptual Organizational	6. Commitment Organizational Relationship Opportunity Strategic Conceptual	15. Relationship Commitment Conceptual Organizational Opportunity Strategic
High-moderate Uncertainty	16. Relationship Commitment Strategic Opportunity Conceptual Organizational	11. Strategic Relationship Organizational Opportunity Commitment Conceptual	14. Strategic Organizational Opportunity Relationship Commitment Conceptual	2. Opportunity Commitment Relationship Organizational Strategic Conceptual	
High uncertainty	10. Organizational Opportunity Relationship Commitment Strategic Conceptual	1. Opportunity Commitment Organizational Relationship Strategic Conceptual	12. Relationship Strategic Organizational Commitment Conceptual Opportunity		

Table 14 Entrepreneurial competencies related to characteristics

The data in Table 14 shows us some relevant conclusions that were made after the first analysis. In the entrepreneurial phase the commitment and relationship competencies are most often rated important. Five times, out of a possible eight, commitment and relationship commitment came out in first place. These competencies appeared in second place five times as well. Most entrepreneurs indicated the commitment competency as being the most important, followed by the relationship competency.

In the collectivity phase other competencies become important according to the interviewees. We see that the first position is taken by strategy and in second position, organizational competencies are mentioned most often. To analyze this table more thoroughly the most important competency is ranked 6, the second most important one 5, and so on. The use of these numbers enables a more thorough analysis. The results are shown in Table 15. This table shows an inter-type analysis between entrepreneurs.

Competency	Entrepreneurial phase								Collectivity phase							
	L		L-M		H-M		H		L		L-M		H-M		H	
<i>Opportunity competencies</i>	2	1	4	5	3	3	5	6	1	3	4	3	2	4	6	1
<i>Relationship competencies</i>	5	5	1	3	6	5	4	3	4	2	5	4	6	3	4	6
<i>Conceptual competencies</i>	1	2	3	4	2	1	1	1	2	4	2	1	4	1	1	2
<i>Organizational competencies</i>	3	4	2	2	1	4	6	4	5	5	1	5	3	5	3	4
<i>Strategic competencies</i>	4	3	5	5	4	6	2	2	6	6	6	2	1	6	2	5
<i>Commitment competencies</i>	6	6	6	6	5	2	3	5	3	1	3	6	5	2	5	3

Table 15 Competencies ranked by interviewees

4.1.4 Inter-type analysis

Table 15 is a valuable basis to use in the comparison between different groups of entrepreneurs and to study how important they believe entrepreneurial competencies are. The numbers enable a more thorough analysis of how entrepreneurs rate certain entrepreneurial competencies. In Figure 10 the general rating of competencies according to entrepreneurs is displayed.

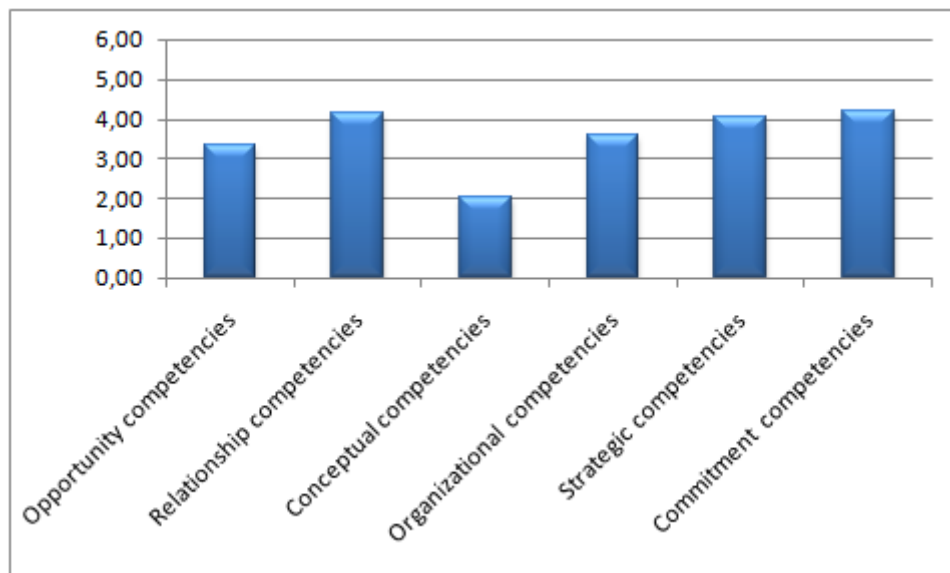


Figure 10 Competencies according to all entrepreneurs

In this figure we see that, in general, entrepreneurs tend not to emphasize on conceptual competencies. However, the ratings on the other competencies do not differ a lot. The fact that these overall competency ratings do not differ significantly, is surprising, given that in this research it is assumed that required competencies differ for different entrepreneurs.

In search of the right conclusion it might just be that a more thorough analysis is required in this situation. Even though the general competency rating can differ a lot in different groups, it can still have a predictable average rating in the end. To analyze this more thoroughly, different entrepreneurial characteristics are highlighted one by one, and related to entrepreneurial competencies.

First, in Figure 11, the entrepreneurial competencies are related to the phase of organizational development, see also Figure 3.

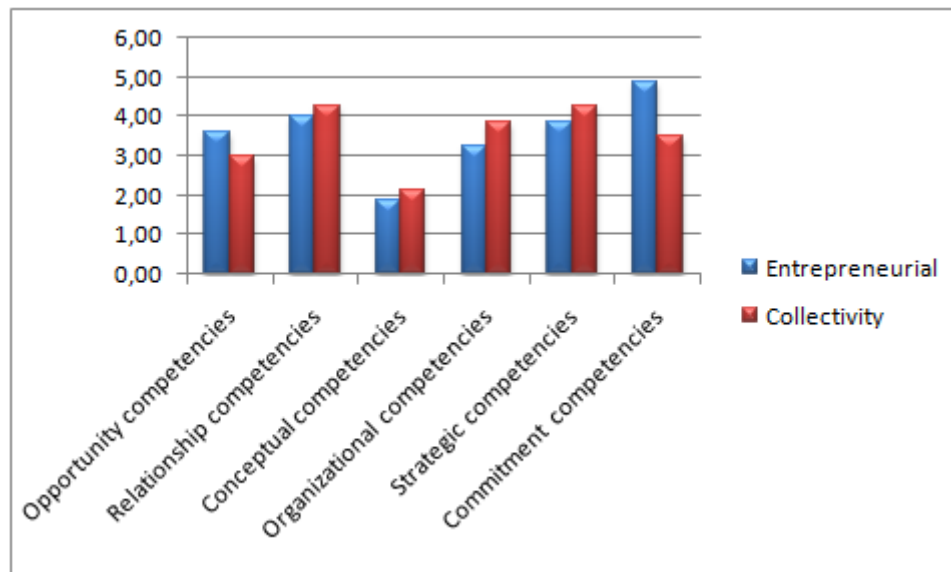


Figure 11 Competencies according to organizational phase of development

Because the number of interviewees is limited, it is difficult to draw significant conclusions from this analysis. All differences between the entrepreneurs in the two phases of development appeared to be non significant. As presented in Table 16, commitment competencies almost seemed significant. In this table we see that the results of the independent samples t-test indicate that the mean importance for commitment competencies is higher in the entrepreneurial phase. The variance over both groups can be considered to be equal, because Levene's test resulted in a value higher than 0,5. Therefore, the top row that indicates that equal variances are assumed, must be considered. Here we can see that the two tailed result is not significant at 0,05, which indicates a reliability of 95%.

Group Statistics

Organizational phase of development		N	Mean	Std. Deviation	Std. Error Mean
Commitment competencies	Entrepreneurial phase	8	4,8750	1,55265	,54894
	Collectivity phase	8	3,5000	1,69031	,59761

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Commitment competencies	Equal variances assumed	,188	,671	1,694	14	,112	1,37500	,81147	-3,65428E-1	3,11543E0
	Equal variances not assumed			1,694	13,900	,112	1,37500	,81147	-3,66602E-1	3,11660E0

Table 16 Significance test Commitment competencies

Nevertheless Figure 11 presents useful information. We see that a number of relevant issues become apparent in this analysis:

- Opportunity and commitment competencies are more important in the entrepreneurial phase
- In the collectivity phase organizational competencies and strategic competencies are a little more important

- In both phases relationship competencies score high
- Conceptual competencies are relatively unimportant

Moreover, the competencies can be related to the environmental uncertainty. It is assumed that the environment influences the competencies required by the entrepreneur, see also Figure 7. In Figure 12 the entrepreneurial competencies are related to the environmental uncertainty.

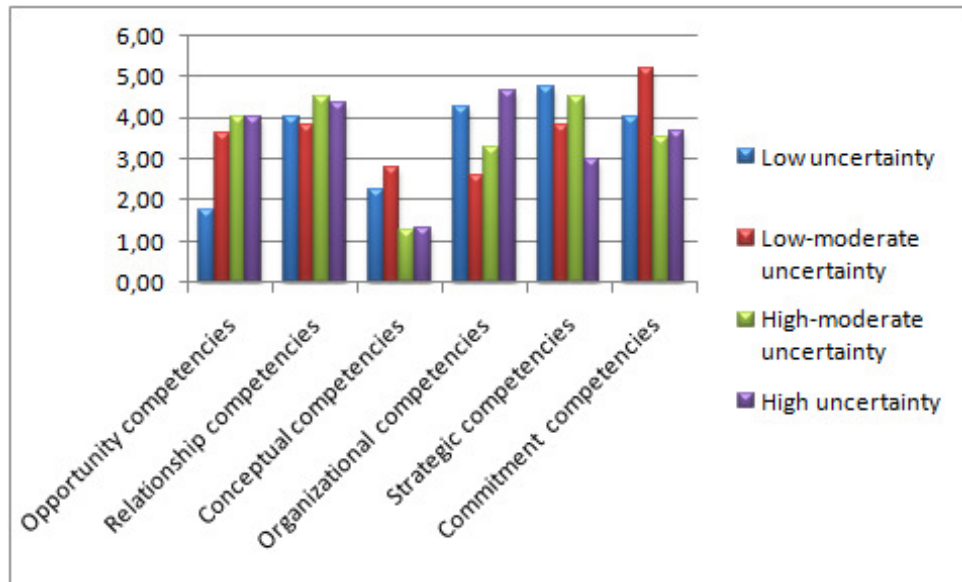


Figure 12 Competencies according to environmental uncertainty

The figure above still indicates that entrepreneurs tend to rate conceptual competencies as relatively unimportant. Furthermore, it seems that opportunity competencies are less important with low environmental uncertainty and that commitment competencies are especially required in a low-moderate uncertain environment.

Group Statistics

Uncertainty of environment		N	Mean	Std. Deviation	Std. Error Mean
Opportunity competencies	Low uncertainty	4	1,7500	,95743	,47871
	Low-moderate uncertainty	5	3,6000	1,14018	,50990

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Opportunity competencies	Equal variances assumed	,144	,716	-2,588	7	,036	-1,85000	,71489	-3,54045	-,15955
	Equal variances not assumed			-2,645	6,955	,033	-1,85000	,69940	-3,50601	-,19399

Table 17 Significance test Opportunity competencies

A significance test is conducted once more, in which opportunity competencies are compared in cases of low and low-moderate environmental uncertainty, see Table 17. This test shows the difference is most significant at 95% reliability. In Appendix G, Figure 18, the

environmental uncertainty is related to entrepreneurial competencies one by one. This figure provides more clarity on the results:

- Opportunity competencies are significantly less important in case of low uncertainty
- Organizational competencies are more important in case of low and high uncertainty
- Conceptual competencies are relatively unimportant, regardless of the environmental uncertainty
- Relationship competencies are relative important in all environmental situations

In Figure 19 (Appendix G), the 8 entrepreneurial types are divided into four different groups, as presented in Table 18. By doing so, the number of environmental uncertainty levels are reduced to two.

	Entrepreneurial phase	Collectivity phase
<i>Low & Low-moderate Uncertainty</i>	Type 1 & 2 entrepreneurs	Type 5 & 6 entrepreneurs
<i>High-moderate & High Uncertainty</i>	Type 3 & 4 entrepreneurs	Type 7 & 8 entrepreneurs

Table 18 Four entrepreneurial types

With the reduction of environmental circumstances the following becomes apparent:

- Commitment competencies are important to entrepreneurs in low & low-moderate uncertainty in the entrepreneurial phase of development
- Opportunity competencies are important to entrepreneurs in high-moderate & high uncertainty, regardless of phase of development
- Conceptual competencies are still relatively unimportant, but more important in case of low & low-moderate uncertainty
- Organizational, strategic, and relationship competencies do not seem to differ over different environments

Finally, in Figure 20 (Appendix G), the 8 types of entrepreneurs are related to the entrepreneurial competencies. The 8 different types are presented in Table 8. The figure shows that there is a lot of spread in results between different types. No clear predictable pattern has emerged from this analysis:

- Commitment is important to type 1 & 2 entrepreneurs, which are in the entrepreneurial phase with low or moderate environmental uncertainty
- Organizational competencies are important to type 4 & 5, which are completely opposite types of entrepreneurs

Finally, in Figure 21 (Appendix G), finally, a matrix is presented that compares all types of entrepreneurs. Because of the large amount of variables included, the figure is small. But from left to right the following competencies are shown: opportunity, relationship, conceptual, organizational, strategic, and finally commitment. The data shows a large amount of spread, which makes it difficult to draw valuable conclusions from this figure.

4.1.5 Entrepreneurial and collectivity phase

When we, once more, look at the analysis of the interviews, some important conclusions can be drawn. The first one is that there is a clear distinction between the entrepreneurial and the

collectivity phase. When an organization grows, it becomes more difficult to manage, therefore the emphasis tends to be on the strategy and the organizational aspects of entrepreneurship. We could say the focus is more on the management of the internal organization. The results of the semi structured interviews show this, as the larger part of entrepreneurs relate to this.

In the entrepreneurial phase, on the other hand, entrepreneurs find it important to have solid relationships and a lot of commitment. A lot of opportunities can be derived from these relationships and it generates a lot of business. In a relatively small organization it is rather easy to manage the processes. There are only few people in the organization, and they have the knowledge on the processes in their heads, which diminishes the need of formalization of the processes. We could state that here the focus is on the external environment, for example relationships.

An entrepreneur in the collectivity phase referred to this effect: *“the organization was getting bigger and bigger and everybody was trying to keep up with the daily activities, and trying to keep customers satisfied. But at one point in time I thought about what we had achieved and what would be a possible next step for the organization. That is when I realized we needed some sort of formalization to optimize the internal organization”*.

4.1.6 The environmental uncertainty

Some interviewees believe the organization itself has more influence on the required entrepreneurial competencies compared to the environment: *“When the organizations grows, organizing the internal chaos is important. We made all the mistakes we warn our customers for, but this was an important learning process for the organization. We came out stronger and most of all better organized”*. Analysis of the influences of the environment on the required entrepreneurial competencies will show whether or not this remark from one of the interviewees will prove to be right.

The influence of the environment is analyzed in several ways. First, interview data was sorted on environmental uncertainty. Second, the number of environmental uncertainty situations were reduced to two, and analyzed once more. From this analysis some conclusions were drawn. These conclusions show that opportunity competencies are more important to entrepreneurs who operate in an uncertain environment, while in a more certain environment it tends to increase the importance of commitment competencies.

If the environment is uncertain, little information is available on the value of an opportunity. In these situations it becomes more important how an entrepreneur deals with the opportunities presented to him, which requires opportunity competencies. When a lot of information is available in a relatively steady environment, it is easier to select the right opportunity. But in these situations information is also available to the competition, which makes it seem likely that the most committed entrepreneur will be most successful, which proves the need for commitment competencies.

The service provider in an environment with high uncertainty claimed: *“Opportunities are abundant in the business we are in and they tend to come and go. From all the opportunities we select only few will grow to be a true success, the clue is to predict which opportunity that will be”*.

4.1.7 Relations

Another remarkable conclusion, derived from the interviews is that all competencies relate to one another. Although the different competencies were discussed separately during the interviews, in many occasions the conclusion was that every single competency could not exist without the other five. The most frequently encountered example is the commitment competency:

According to the candy wholesaler: *“all the competencies are important and they influence one another. Without a good strategy it is difficult to select the best opportunity, and without a proper internal organization it is difficult to satisfy relations. But commitment is absolutely required for an entrepreneur to be successful in whatever competency required.”*

The relations between the competencies indicate that, although one competency is more important than another, it is important to pay attention to all six competencies. By neglecting one of the competencies, unavoidable problems will arise which the entrepreneur has to find a proper solution for.

4.1.8 Conclusions

By discussing both the environment and the organizational characteristics, information is provided on the relationship between these two aspects and the required entrepreneurial competencies. The data seems to show that both the organization and the environment influences the required competencies, especially when the data is analyzed by making several different combinations of data.

Looking at the required entrepreneurial competencies related to the organizational phase of development we see that

- opportunity and commitment competencies are important to the entrepreneur in a small organization.
- while organizational and strategic competencies are more important to the entrepreneur in a larger organization, results are not significant.

Furthermore the comparison between the environment and the entrepreneurial competencies also provide valuable insights,

- In cases of low-moderate environmental uncertainty commitment competencies are more important
- In an environment with low uncertainty the opportunity competencies are significantly less important.

4.2 Questionnaire

The total number of respondents for the questionnaire was 54. The process of gathering a large number of respondents turned out to be a bigger challenge than expected. The strategy for gathering respondents was simple; entrepreneurs in the direct environment were approached to ask entrepreneurs in their environment to participate in this research. Initially, this is a form of snowball sampling (Babbie, 2007). Moreover, it is also a convenience sample. The number of entrepreneurs in The Netherlands is enormous, but my own network, being a student, is rather small. Therefore, I tried to use the networks of other entrepreneurs to approach respondents.

Examples of the entrepreneurs that invited respondents are the owners of Mensium, the owner of a wholesale company, the network partner that provides the program Directievoering, two members of two different business clubs, and a member of a network of entrepreneurs. In total the personal invitation to participate in my research was sent out to about 150 entrepreneurs. The advantages of this approach are a wider reach, and respondents are often more willing to participate when they are approached by someone they know. After two weeks a reminder was sent out to increase the response rate.

Another way to approach respondents was online. The link to the questionnaire was posted on four communities that were especially designed for entrepreneurs. An example of such a community is ‘Hallo!’ provided by the Dutch chamber of commerce. In practice this impersonal

inquiry turned out to be unsuccessful. Although it is impossible to entirely trace which respondents were provided through these links, in the best scenario it provided three respondents.

Another method of impersonal inquiry was a digital newsletter. For this research a network partner of Mensium was approached who regularly distributes electronic newsletters to a large group of entrepreneurs. This person indicated that his list of addressees consisted of approximately 1700 entrepreneurs. This method turned out to be unsuccessful as well. Approximately, I had about five responses to the newsletter, which implies a response rate of less than one percent.

Overall we can say that around 150 entrepreneurs received an invitation from someone they knew, an unidentified number of entrepreneurs read the message with the link on the internet, and 1700 entrepreneurs potentially read the newsletter in which a link to the questionnaire was provided. Scoring 54 out of a 150 indicates a response rate 36%. This is not bad for a questionnaire in general, but rather disappointing regarding the fact that the invitation was sent by a good relation. After including the responses that came from impersonal inquiry the response rate drops dramatically to around three percent, indicating the enormous differences in response rate between personal and impersonal inquiry.

4.2.1 The respondents

Next to the research strategy, response rates, and number of respondents, more can be said about the respondents. It is important to have insights into how respondents are divided over predefined types of organizations and types of environmental uncertainty. Above all it is important to see if there are respondents representing each predefined group of entrepreneurs derived from the theoretical framework.

First, the 54 respondents are divided according to the organizational phase of development, see Figure 22 in Appendix H. Second, the respondents are divided according to the environmental uncertainty, see Figure 23 in Appendix H. And finally, respondents are divided, depending on the type of entrepreneur they are in Figure 24 in Appendix H. These eight different types of entrepreneurs are shown in Table 8.

Table 19 combines the same information as the three figures mentioned above. It shows how the respondents are divided over the different types of entrepreneurs that were predefined in the framework.

		Organizational phase of development		
		Entrepreneurial phase	Collectivity phase	Total
Uncertainty of environment	Low uncertainty	2	3	5
	Low-moderate uncertainty	9	6	15
	High-moderate uncertainty	15	6	21
	High uncertainty	8	5	13
	Total	34	20	54

Table 19 Respondents by type of entrepreneur

The figures 22, 23, 24 in Appendix H, and Table 19 indicate that most entrepreneurs are in the entrepreneurial phase of development. These organizations are small, approximately less than twenty employees, there is little formalization, and there are often no departments in these organizations. The data also indicates that there are entrepreneurs representing every category that was predefined in the theoretical framework.

4.2.2 The results

To analyze the data that was gathered through the questionnaire, a number of graphs are produced to provide insights on the required competencies in different environmental and organizational configurations. Figure 13 shows all predefined six competencies and how entrepreneurs scored rated this competencies.

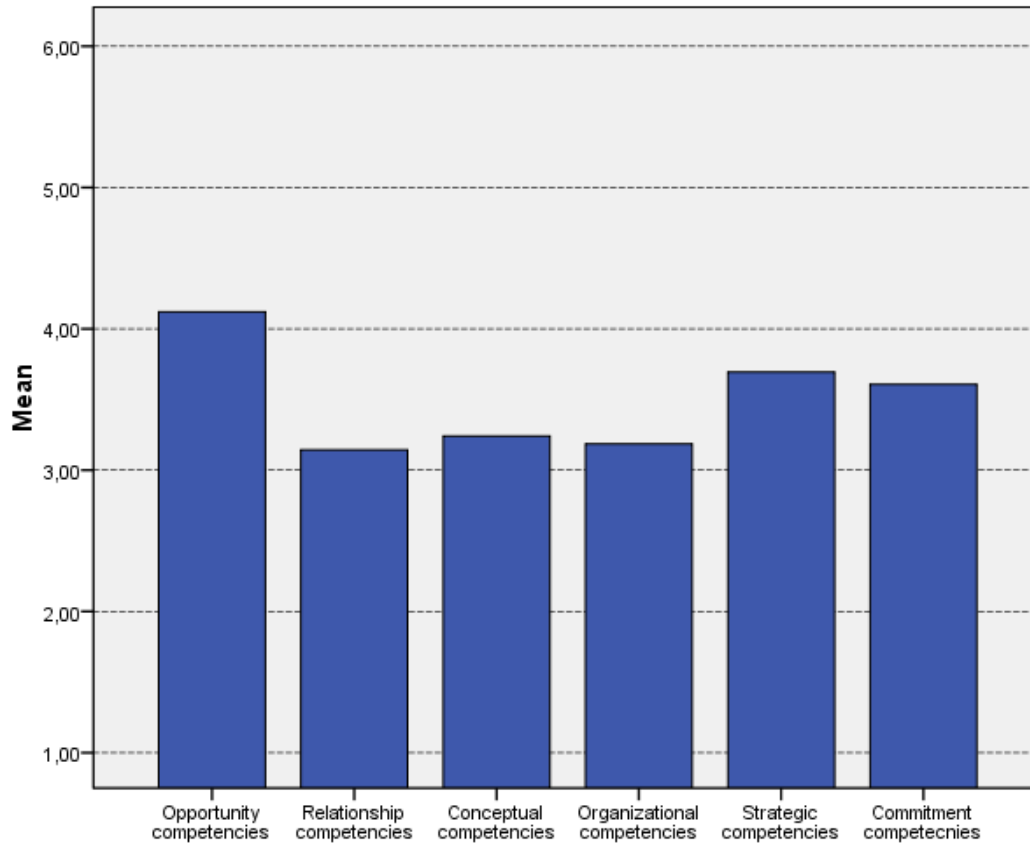


Figure 13 General mean of all competencies

The figure above shows that, in general, entrepreneurs find opportunity skills most important. Remarkable is that, in contrary to the interviews, conceptual competencies are not less important than relationship and organizational competencies. In the figure, opportunity competencies score above average, relationship, conceptual, and organizational competencies below average and strategic and commitment competencies score about average.

To find out more about the required entrepreneurial competencies, and especially to distinguish between the influence of the organizational and environmental characteristics more analysis is required. In Figure 14 the entrepreneurial competencies are related to the organizational phase of development.

Entrepreneurial competencies vs Organizational phase of development

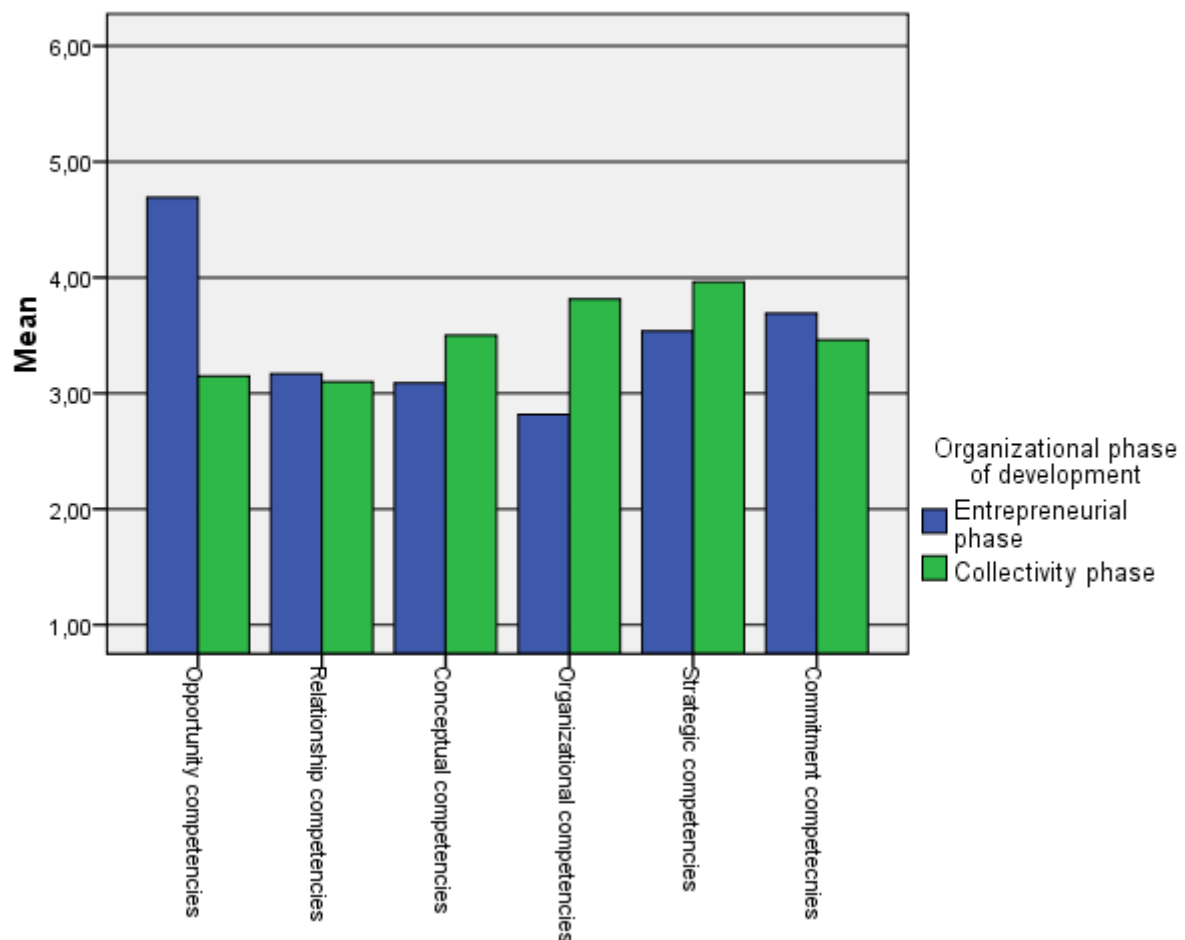


Figure 14 Entrepreneurial competencies vs Organizational phase of development

Figure 14 shows that the main difference can be found in the opportunity competencies. Whereas an entrepreneur in the collectivity phase scores this competency somewhat below the average of 3,5, an entrepreneur in the entrepreneurial phase of development rates this competency as the most important one by far. Table 20 shows what this difference in the average means and it also shows these results are significant.

Group Statistics

Organizational phase of development		N	Mean	Std. Deviation	Std. Error Mean
Opportunity competencies	Entrepreneurial phase	34	4,6912	1,03180	,17695
	Collectivity phase	20	3,1500	1,00786	,22537

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Opportunity competencies	Equal variances assumed	,020	,887	5,345	52	,000	1,54118	,28832	,96263	2,11973
	Equal variances not assumed			5,379	40,735	,000	1,54118	,28653	,96239	2,11996

Table 20 Significance test Opportunity competencies

After an analysis of the figure and the table:

- Opportunity competencies are significantly more important to entrepreneurs in the entrepreneurial phase of development
- In the collectivity phase of development there is significantly more emphasis on organizational competencies (see Table 29 in Appendix H)

The environment is another factor that assumedly has influence on the required entrepreneurial competencies. To analyze this, the entrepreneurial competencies are related to the environmental uncertainty. The results of this analysis are shown in Figure 15.

Entrepreneurial competencies vs Environmental uncertainty

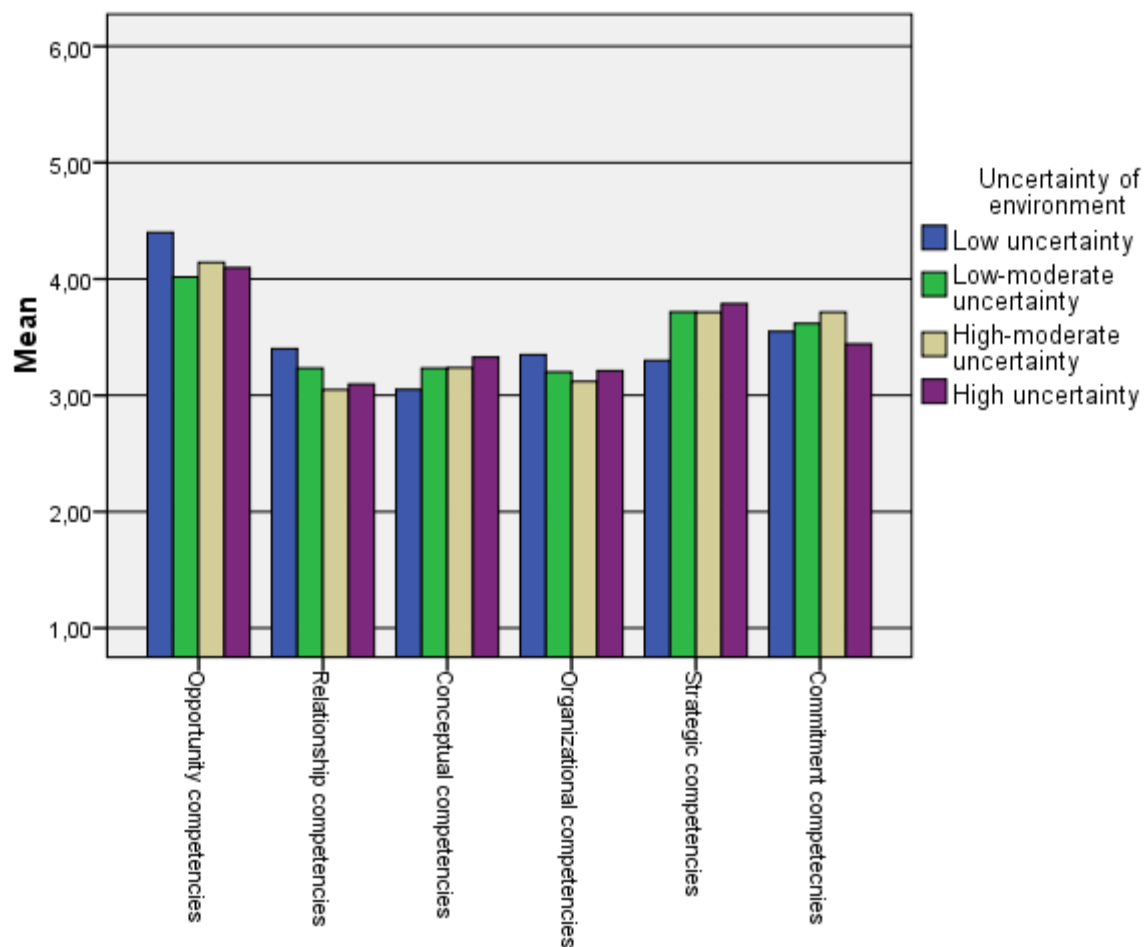


Figure 15 Entrepreneurial competencies vs Environmental uncertainty

We can see that the bars representing the opportunities in different environmental configurations generally indicate the same means. This can only imply that required entrepreneurial competencies are not related to environmental uncertainty. Therefore this analysis provides one conclusion:

- Environmental uncertainty is not a predictor for required entrepreneurial competencies

Like with the interviews, the number of environmental configuration is once more reduced to two, combining low and low-moderate uncertainty with one another and high-moderate and high

uncertainty, see also Table 18. This generates four types of entrepreneurs to be analyzed, shown in Figure 16.

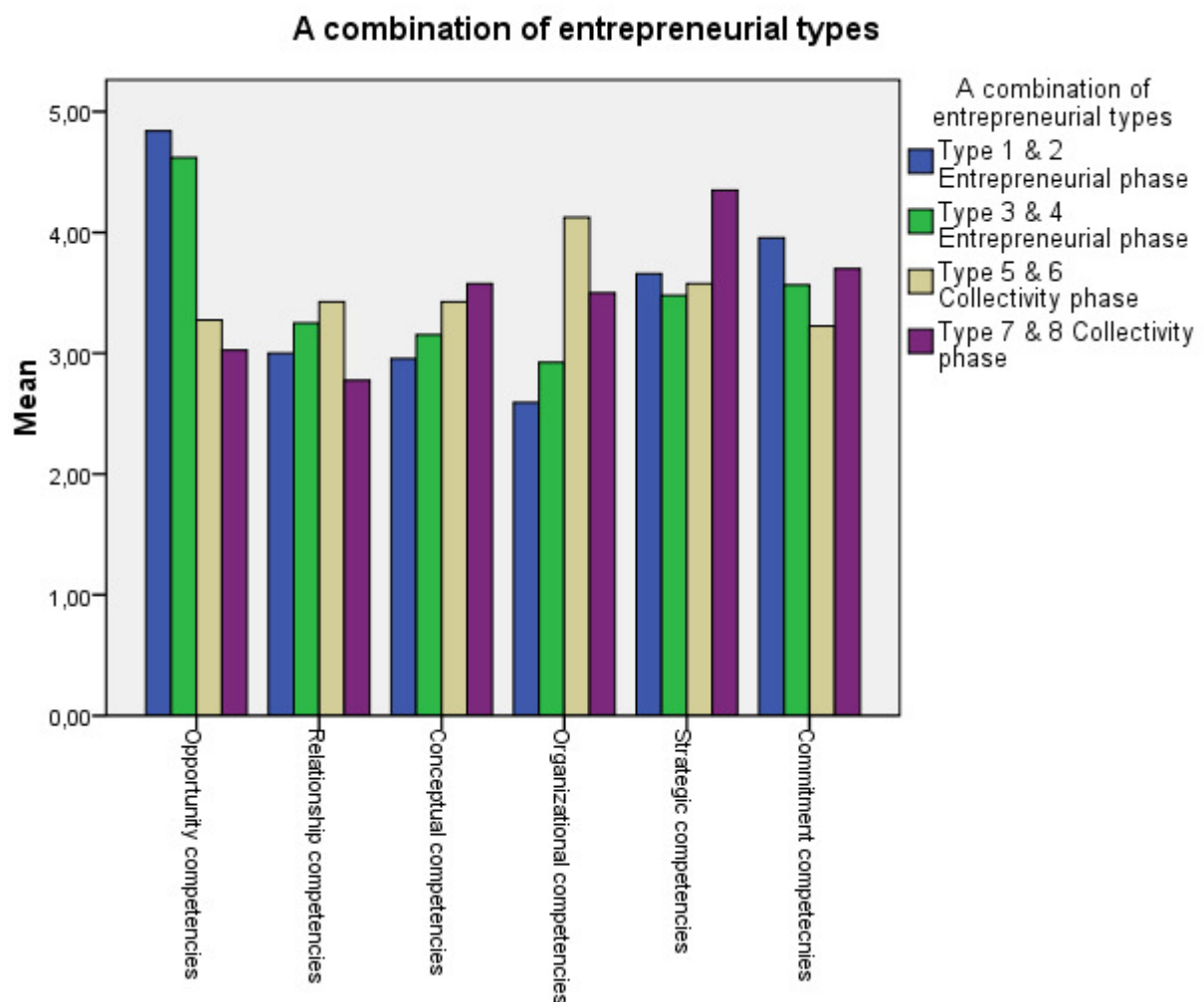


Figure 16 Combination of entrepreneurial types vs Competencies

This analysis is in some way clearly a summary of the previous two analyses. We see once again that opportunity competencies are important in the entrepreneurial phase, which is represented by types 1 to 4. Organizational and strategic competencies are more important in the collectivity phase, but now a distinction can be made between the types of uncertainty. For the low and low-moderate uncertainty organizing is more important, while in cases of high uncertainty strategy is more important.

- Opportunity competencies are important to entrepreneurs in the entrepreneurial phase of development
- Organizational competencies are important to entrepreneurs in the collectivity phase and with low and low-moderate environmental uncertainty
- Strategic competencies are important in the collectivity phase where environmental uncertainty is high

The previous analysis provide insights on the influences of both the organization and the environment on the required entrepreneurial competencies. A further analysis of the required

competencies related to the type of entrepreneur can be found in Appendix H, Figure 25. This figure shows a relation between opportunity competencies, the type of entrepreneur and furthermore the other relations that are discussed before; for example the relation between strategic and organizational competencies and the type of entrepreneur.

To analyze which characteristics that are defined in research, influence the required entrepreneurial competencies, a regression analysis is conducted. But before you can conduct a regression analysis you have to make sure that the independent variables do not correlate, because this might influence the results. The correlation matrix is provided in Appendix H, Table 31. The independent variable 'organizational phase of development' and 'uncertainty of environment' are computed with the data from the other independent variables. Therefore the correlation between these two variables and the rest is obviously expected:

- Departments, Management layers, and formalization are predictors for the organizational phase of development
- The number of external elements, the diversity of these elements, and the change of these elements predict the uncertainty of the environment
- Communication of goals and initiator of innovation do not correlate with the phase of development
- The organizational function does not correlate with environmental uncertainty

Another correlation between two independent variables is the one between departments and management layers. This correlation is predictable, because if there are departments in an organization, there are often management layers required to manage the organization properly. In other words, without departments there is no need for management layers. Besides this correlation we see that other independent variables do not correlate and therefore a regression analysis is an appropriate method.

The regression analysis is graphically displayed in Appendix H, Figure 26. In this figure, which contains six separate analyses we can see that opportunity, strategic, and organizational competencies have the highest R Sq Linear score when related to the eight different types of entrepreneurs, see Table 8. This R square score indicates which percentage of the variance in the dependent variables is explained by the independent variables, being the type of entrepreneur. Regression analysis can also indicate whether or not an independent variable has a significant influence on the dependent variable. To do so the regression analysis is conducted with all the independent variables that were used to compute the type of entrepreneur. In Table 32 to Table 37 (Appendix H) the results of the regression analysis are displayed by one entrepreneurial competency at a time. The scores are considered to be significant if they are below 0,05. Analysis of the tables provides relevant information:

- Opportunity competencies are significantly influenced by the phase of organizational development with a score of 0,023, which is below 0,05 and therefore significant
- Organizational competencies are influenced by the organizational phase of development, but by a score of 0,13, which is not significant
- Strategic competencies are influenced by the organizational phase of development, but by a score of 0,056, which is not significant
- Relationship competencies are influenced by the initiator of innovation. This score is significant.

- Conceptual and commitment competencies are not significantly influenced by either the organization or the environment

Remarkable facts from this analysis are that opportunity is the only competency that is significantly influenced by one of the variables. Because the organizational phase of development is a variable that consists of several other variables, that are in itself not a significant influence, we see that the used variables to compute add up to the same overall variable. This effect was also shown by the correlation matrix, see Table 31 (Appendix H). Another effect is that the environment has no significant influence on any of the dependent variables used in this research. This leads to the conclusion that the environment is not influencing the required entrepreneurial competencies, and therefore the educational needs of the entrepreneur.

Finally, the most remarkable conclusion is that the relationship competency is influenced significantly by the independent variable 'initiator of innovation'. How innovation relates to relationship competencies is curious, although one might expect that if the entrepreneur was the initiator of innovation he would value relationship that provide him with knowledge en resources he needs in the process. Nevertheless this remains very difficult to conclude, because the initiator of innovation is used to compute the phase of organizational development and above all the phase of organizational development itself has no significant influence on the relationship competency.

4.2.3 Other influences

In research it is important to draw conclusions from the data that was gathered in the course of research, as is done in the previous paragraph. However, in research it is also very important to exclude other possible explanations from the conclusions. This is done by comparing and analyzing other data, to make sure, not latent variables influence the results of this research.

One of these other variables that might influence the results is the organizational function. An entrepreneur who is an wholesaler has a completely different organization compared to an entrepreneur that operates in production or is a service provider. These differences could possibly influence the ultimate outcome of the research. The graph in Appendix H, Figure 27, shows the results when the organizational function is related to the required entrepreneurial competencies. The general pattern, in which opportunity, strategy, and organizational competencies are most important, also seems to emerge here. Although it has to be said that for example retailers and producers emphasize less on opportunities. This is a common conclusion for a production facility since this type of organization has low flexibility, because a change in their production plant can be a very expensive operation.

Finally, there are also the activities that were used in the questionnaire. These activities together form the competencies that are used in this analysis. Therefore it is important that variance in these competencies cannot be explained, for example by outliers in these activities. In Figure 28, Appendix H, we see the activities that are related to the six competencies. The abbreviations used in this figure can be found in Table 38, and in Appendix H. The figure shows no real extreme outliers in these activities, except for 'comm3'. This is an abbreviation for 'making large personal sacrifices', which indicates that entrepreneurs are committed to their organization, but they would refuse to let personal life, for example their families, suffer the consequences of this dedication.

4.2.4 Conclusions

In general the opportunity, strategic, and commitment competencies are considered to be most important by entrepreneurs. The conclusions of the analysis of the questionnaire show that the

phase of organizational development influences the required entrepreneurial competencies. The uncertainty of the environment, on the other hand, is not influencing these competencies. Furthermore, it can be said that the phase of organizational development mainly and significantly influences the opportunity and organizational competencies:

- Environmental uncertainty has no significant influence on the entrepreneurial competencies
- The organizational phase of development significantly influences opportunity and organizational competencies. First is more important in the entrepreneurial phase, while the latter is more important in the collectivity phase

The correlation analysis shows that some indicators, such as the communication of goals and the initiator of innovation, that are meant to measure the organizational phase of development and the uncertainty of the environment, do not correlate to these concepts. Other measures do correlate to the concepts and are therefore proper measures. A regression analysis also shows that:

- Opportunity competencies are significantly influenced by the organizational phase of development

4.3 Expert

The expert involved in this research is mr. Ter Horst. He is the network partner of Mensiumgroep and offers 'Directievoering' to entrepreneurs in cooperation with several parties and at several locations in the Netherlands.

'Directievoering' was initially developed somewhere around 1986 by Wim During, who was working at the university of Twente. The goal of the program was to educate entrepreneurs about innovation and entrepreneurship and to introduce students to real businesses cases. To do so 'Directievoering' was an optional course for the students, and at some point a rather popular course as well. Over time the organization of 'Directievoering' was done by TSM, the business school of the university. Mr. Ter Horst worked at TSM at that time and became involved in the program.

Today, 'Directievoering' is exploited by mr. Ter Horst and his company 'Know How'. It is the oldest entrepreneurial growth program in Europe. For this research mr. Ter Horst was interviewed about 'Directievoering' and his vision on specific educational needs of the entrepreneurs, related to entrepreneurial competencies.

At the time this interview was conducted the other 16 interviews with the entrepreneurs were already conducted, but not analyzed. The results of the interviews were therefore not available at that moment, there was only a general idea about the possible results. The gathering of respondents for the questionnaire was also started around the time of this particular interview.

4.3.1 Entrepreneurial competencies

After explaining the purpose of the research and an explanation of the used research methods, the assumptions on which this research is based were discussed. The main assumption that different types of entrepreneurs face different entrepreneurial challenges and therefore require different entrepreneurial competencies was supported by the expert. He indicated that there was a clear distinction between different types of entrepreneurs: *"Where small organizations tend to focus on the opportunity, relationships, and commitment competencies, larger organization generally tend to focus on organizational, strategic, and conceptual competencies."* This is an interesting shift in the competencies required by the actual entrepreneur. It can be concluded that the expert believes three completely different competencies are required if an organization has the intention to move from the entrepreneurial stage to the collectivity stage.

The exact shifts between types and phases were not discussed in this interview, but the expert did provide a possible explanation for the shift in required competencies between the entrepreneurial and the collectivity phase of organizational development: *"In large organizations there usually is a gap between top management and middle management. The more practical knowledge on relationships, opportunities, and commitment is present in lower hierarchical layers, while top management makes decisions based on strategy, organizational aspects, and conceptual knowledge. It is important to create bridges between these two worlds."*

4.3.2 Selection of entrepreneurs

Another assumption this research makes is that the perceived value of the program relates to how well the educational needs of the entrepreneur are met. During the interview I discussed that this assumption was derived from the preliminary survey conducted during the previous edition of 'Directievoering'. The expert made a remarkable statement that related to this assumption: *"If there is an entrepreneur participating in the program who is surrounded by entrepreneurs that are in a completely different kind of organization or sometimes maybe not even an entrepreneur, this directly influences the perceived quality by this specific entrepreneur."* The expert also indicated that this was why he, although informally, always sought for a group of participants with as much homogeneity as possible, to increase perceived value.

In a way, this corresponds exactly to the goal of this research, as it aims to predict the educational needs of the entrepreneur, in order to create a better fit between the program material and the entrepreneur. The selection of entrepreneurs creates good fit between participants and increases their perceived value of acquired knowledge because discussions and cases presented during the education are in line with what they experience on a daily basis.

4.3.3 Conclusions

The expert interview was very useful to help me as a researcher, to get more insights into entrepreneurial competencies. Furthermore, it was used to test some of the assumptions on which this research is based. Exact results were unfortunately not derived from this expert interview. Nevertheless, the selection process, that is conducted every time there is a new edition of the program, indicates the need for more insights on the required competencies and how to deal with them. Furthermore, the fact that the expert was able to sympathize with the assumption that the required entrepreneurial competencies could vary over different entrepreneurs was a valuable insight for his research and for me personally.

- The assumption that different entrepreneurs require different entrepreneurial competencies is supported
- Selecting entrepreneurs based on their characteristics is important according to mr. Ter Horst

4.4 Discussion

By using multiple methods in order to gain the required data for this research, a number of problems that are encountered when using only one research method, are addressed. Whereas it is hard to quantify results from semi-structured interviews, the questionnaire allows quantitative analysis. The weakness of questionnaires is that they do not provide in-depth information and the opportunity to ask new questions, which can be done in interviews. By sharing thoughts with an expert on the gathered data and discussing what is missing, what might be new insights, and what is valuable information, it becomes clear which limitations this research might have.

Nevertheless, it must be noticed that one of the biggest challenges of this particular research still is the conversion of data of a lot of different organizations. To compare a consulting company to a company that focuses on lean-manufacturing of a convenience good, is a big challenge. To do so in this research, only general environmental and organizational characteristics, present in every situation, are researched. The general entrepreneurial competencies, that influence every entrepreneur, are researched. The limitation of this particular approach is that information, specifically related to the line of business that the company is in, cannot be considered. This information and the influence of this aspect might be influential, but also considering this information might just be too big a challenge for this research.

Another point that arose from conducting this research is that the entrepreneurial competencies strongly relate to one another. Often heard examples are that one cannot be a successful entrepreneur without commitment and that without relationships a strategy seems abundant. When respondents were asked to rank the competencies according to importance this issue was brought up frequently. Nevertheless, after a discussion about the competencies all interviewees were able to set their competency priorities.

5 Conclusions and Recommendations

The goal of this research is to provide new insights into entrepreneurship and more specifically in the required entrepreneurial competencies, given a specific entrepreneurial situation. An entrepreneurial situation is assumed to be influenced by two aspects; the organization and the environment of the organization. In the entrepreneurial situation, it is assumed that when the organization or the environment changes, different entrepreneurial challenges are presented to the entrepreneur. In order to deal with these challenges different entrepreneurial competencies are required.

This final chapter presents the research findings and the conclusions. In the beginning of the research relevant theory on the subject was gathered and combined into a theoretical framework. This framework provided insights into entrepreneurs, the organizational characteristics and the environment of organizations. Together, these aspects were combined into a single framework which shows the influence of the environment and the organization on the competencies that are required by entrepreneurs while running their organizations.

To test this framework and provide insights into the entrepreneurial competencies, a number of interviews was conducted. Besides these interviews a questionnaire and an expert interview were conducted that together provided the necessary data to formulate the conclusions presented in this chapter. These conclusions will have implications for the program 'Directievoering' which is offered by the Mensiumgroep. In the last two paragraphs of this chapter attention is paid to the limitations of this research and suggestions for further research are made.

5.1.1 Conclusions

The preliminary survey, conducted at the start of this research, indicated that the program 'Directievoering' was not providing optimal results for the provider and the participants. The program is an entrepreneurial education and training program that aims to enable entrepreneurs to make their organizations perform better. In practice, the participant's perception of the quality of the program appeared to differ enormously. The preliminary survey showed that whereas one entrepreneur considered the program to be his ultimate key to success, another did not learn as much as he intended to.

Ultimately the Mensiumgroep, who provides the program, would like to improve it in order to create a good fit between the program and the educational needs of all the different participants. To improve the program it was necessary to analyze inter-entrepreneur differences, so they could be incorporated into the program. To do so, a thorough theoretical analysis on the subject was conducted, which showed a lack of knowledge about the differences in entrepreneurial competencies over different types of entrepreneurs. These inter-entrepreneur differences are therefore the basis for this research. Because these differences have to relate to the educational program 'Directievoering', they are based on inter-entrepreneurial differences with a focus on entrepreneurial competencies. The general entrepreneurial competencies distinguished in this research are: opportunity, relationship, conceptual, organizational, strategic, and commitment competencies.

For these competencies it is assumed that all entrepreneurs are different, and therefore face different entrepreneurial challenges. These different entrepreneurial challenges in turn require different entrepreneurial competencies. The inter-entrepreneur differences are, according to the theory and the framework, influenced by both the organization in which the entrepreneur operates and the environment the organization operates in.

To analyze the inter-entrepreneur differences properly, a framework was developed which consists of eight entrepreneurial types, see Table 8. In the interviews as well as the questionnaire, data is gathered on how important entrepreneurs consider the six entrepreneurial competencies to be for their specific entrepreneurial situation, see Table 5.

To start research into these inter-entrepreneur differences in competencies and how these differences influence the educational needs of the entrepreneur the following research question was formulated: ***“What are the main factors that influence the educational needs of the entrepreneur and what is the impact of the educational needs on the entrepreneurship education and training program offered by Mensiumgroep?”*** An answer to this main question is provided by studying the data, collected from both interviews and questionnaires.

The results do not show an obvious distinction between the eight types of entrepreneurs that were predefined in the framework. Nevertheless, the results of the data gatherings provide some valuable insights into the differences between entrepreneurs considering the entrepreneurial competencies. The first important conclusion is derived from the interviews. It shows that all competencies relate to one another and cannot exist by themselves. An example that is often used, is commitment. The general idea with commitment is that it is not the most important competency, but an entrepreneur cannot be successful at anything without it.

1. All competencies relate to one another and an entrepreneur needs all competencies

Another important conclusion, derived from the questionnaire, is that the uncertainty of the environment has no significant influence on the required entrepreneurial competencies. In fact, the only significant influence is the one a certain phase of organizational development has on the opportunity and organizational competencies. Opportunity competencies are significantly more important when an organization is in the entrepreneurial phase of development and organizational competencies are significantly more important in the collectivity phase. Just because the environment has no significant influence on entrepreneurial competencies, it is not justified to draw conclusions based on the uncertainty of the environment.

2. The uncertainty of the environment does not influence the required entrepreneurial competencies

3. The organizational phase of development significantly influences opportunity and organizational competencies, where the first is important in the entrepreneurial phase and the latter in the collectivity phase

It can be concluded from the regression analysis conducted on the questionnaire data, that if the uncertainty of the environment increases and the organizational phase of development progresses, opportunity competencies become less important. Moreover, strategic and organizational competencies become more important, although results are not significant. This supports the conclusions drawn from the interview, which indicate that entrepreneurs in the entrepreneurial phase of organizational development find commitment and opportunity competencies more important than entrepreneurs in the collectivity phase. On the other hand, entrepreneurs in the collectivity phase of organizational development, find strategic and organizational competencies more important than entrepreneurs in the entrepreneurial phase.

It is important to note that, unlike indicated before, there are not eight clear types of entrepreneurs that each have their own set of competencies that are important to them. The results

show that the phase of organizational development is the independent variable that has the most influence on the competencies required by the entrepreneur. This will eventually create a clear distinction between the entrepreneurial and the collectivity phase of development. This indicates two categories of entrepreneurs that can be distinguished.

Finally, the results from the expert interview proved the significance of this research, because the expert emphasized the importance of anticipating to the inter-entrepreneur differences. What this research is trying to prove on a scientific base, is what the expert was unconsciously practicing for many years now.

4. It is important to anticipate to the inter-entrepreneur differences

The model provided in the framework, see Table 8, indicated that both the environment and the organizational phase of development would influence the required entrepreneurial competencies. Ultimately, for every type of entrepreneur a specific set of competencies could be formulated. Unfortunately, this research shows that the influence of the predefined aspects were not as great as was assumed in the framework. At the end, some influences appeared to be significant, but the entire framework did not hold.

5. The influence of the factors predefined in the framework on the educational needs of the entrepreneur is smaller than initially assumed in the framework

Do these conclusions provide the answers to the main research question defined at the beginning of this study? We can say that the most important influence on the required competencies, and therefore the educational needs of the entrepreneur, is the organizational phase of development. Environmental uncertainty is not considered to be an influence. The organizational phase of development significantly influences the opportunity and organizational competencies.

In the entrepreneurial phase of development, in which the organization is small and informal, the focus must be on opportunities. On the other hand, In the collectivity phase in which the organization is larger and generally more formal, entrepreneurs should focus more on organizational competencies. The impact of these conclusions for 'Directievoering' is discussed in the next paragraph.

6. The results enable Mensium to predict the required entrepreneurial competencies. The gap between the current and the required competencies is the educational need of an entrepreneur.

Finally, and most importantly, the results of this study enable Mensium to predict the educational needs of the entrepreneur. Because a specific organizational situation requires specific entrepreneurial competencies, the gap between the competencies of the entrepreneur and the required competencies can be analyzed. By doing this, the educational needs of the entrepreneurs become apparent.

5.1.2 Recommendations

As indicated, the educational needs of different entrepreneurs are not satisfied to the same extend during 'Directievoering'. This research was conducted, to improve the program's ability to anticipate on the specific needs of every entrepreneur. Initially eight types of entrepreneurs were

distinguished, but after analysis of the data this was reduced to two types, categorized according to the phase of organizational development they were in. These insights can be used to improve the program offered by the Mensiumgroep. The preliminary survey, conducted during a previous edition of the program, indicated that every entrepreneur is different, and that they tend to have very different perceptions of the quality of the program.

The conclusions show that, although every entrepreneur is different, a clear distinction is made between the entrepreneurial and the collectivity phase of organizational development. These differences between different types of entrepreneurs have implications for the services that are provided to these entrepreneurs by Mensiumgroep. In practice, we see it is common to focus on a specific target audience and products and services are designed to fit the specific needs of the target audience. This could also be done for 'Directievoering', if only entrepreneurs from a certain phase of development are selected to participate in the program. Another possibility is to change the design of the program in order to be flexible and able to satisfy the needs of different entrepreneurs. The conclusions of this research provide the most important recommendation:

- Although all competencies matter to entrepreneurs, the focus should be on the phase of organizational development as a predictor of required entrepreneurial competencies. Entrepreneurs in the entrepreneurial phase have to focus on opportunity competencies, while entrepreneurs in the collectivity phase have to focus on organizational competencies.

To take these inter-entrepreneurial differences into consideration in 'Directievoering' two different approaches can be used:

- Insert individual training next to group training, to devote attention to the needs of the specific entrepreneur
- Design a program especially for entrepreneurs with the same educational needs and select participants with these same needs so they can relate to one another during the course of the program

Finally, I recommend to assess the current situation of an entrepreneur before the start of the program, regardless which approach will be used. This current situation can be assessed by using the measures defined in this research, especially the activities used to measure the competencies and the organizational phase of development. If the current situation is analyzed correctly, entrepreneurs can decide which education or training they need. If the entrepreneur is satisfied with the current situation, focus should be on improving the current competencies that are required. However, if an entrepreneur has the ambition to for example move from the entrepreneurial to the collectivity phase, the focus of the program should switch from opportunity competencies to organizational competencies. This results in the final recommendation:

- Insert an intake procedure at the start of the program to assess the current situation and goals of the entrepreneur (Appendix I).

5.1.3 Limitations of the research

This research has some limitations that have to be considered. In the course of this research some of these limitations came up, and others have not. But in general there are three limitations that have to be mentioned, especially because they can influence how one has to interpret the results of this particular research:

- Limited sample size

- Only general entrepreneurial competencies are researched
- Eastern part of The Netherlands

The first limitation is related to the quantitative part of this research. In total, 54 respondents were willing to participate in this research. This number is somewhat limited, which can influence the reliability of the results. The positive side of this method of analysis is that the eight different types of entrepreneurs that are researched, are often divided into larger groups, also making the size of the analyzed groups larger.

Another limitation of this research is that only the general entrepreneurial competencies are researched. Specific entrepreneurial competencies are industry related competencies. These differ over different industries, and since the goal of this research is to generalize over a group of entrepreneurs, these specific competencies are not part of this study. Because entrepreneurs in eight different situations participated in this research and these situations were related to six general entrepreneurial competencies, a lot of data was produced. The scope of this research was limited to general entrepreneurial competencies because of lack of time and resources. Furthermore, general entrepreneurial competencies were the scope of this research, because the goal is to provide new insights into entrepreneurs, in order to provide better education and training that is not industry specific.

The final limitation of this research is a geographical limitation. Because the Mensiumgroep was previously located in Oldenzaal and nowadays in Deventer, the network is largely concentrated around these areas. As a result the respondents for the interviews and questionnaire came from the eastern part of The Netherlands. Therefore one should be careful to generalize the results to the rest of the country, let alone other geographical areas.

5.1.4 Suggestions for further research

Scientific research always intends to provide new knowledge on not yet, or not properly, researched areas. This research tries to contribute to this knowledge by providing new insights on entrepreneurship and inter-entrepreneur differences. From this research other researches can be initiated that support the results or build on them with new knowledge.

In this research the organizational phase of development and the environmental uncertainty are related to entrepreneurial competencies. Eventually the environment turned out to be of little or no influence. The phase of development did influence the competencies. Therefore, for further research I would suggest to exclude the environmental aspects.

Another important focus of the research were of course the entrepreneurial competencies. A clear set of entrepreneurial competencies was distinguished in the theoretical framework. A Major disadvantage of researching competencies is that entrepreneurs are easily tempted to consider all the competencies to be very important. Maybe it would be equally or more valuable in future research to consider entrepreneurial activities and relate them directly to the phase of organizational development, without a conversion to competencies.

If this line of research is to be continued, the first suggestion is to conduct a bigger, longitudinal research in which competencies are related to organizational characteristics to define exactly how required entrepreneurial competencies change in different circumstances. A longitudinal research enables researchers to monitor an entrepreneur over a period of time, thereby providing insights into entrepreneurs switching entrepreneurial type and how this affects the required entrepreneurial competencies.

Another suggestion is to research a new edition of the program 'Directievoering'. This enables a further look into the importance of the amount of attention that is paid to the individual entrepreneur, and people can then measure if this will lead to the intended improvements in quality perception of the participating entrepreneur as recommended in this research. Furthermore, it could provide insights into the improvements an entrepreneur makes, which new competencies he obtains, and how this affects his organization.

Finally, it would be useful to conduct a research with a bigger scope. For example to research what the influence is of industry specific competencies on the success of the organization and how this influences the required entrepreneurial competencies. Another possibility to enlarge the scope is to include organizations in the pre-bureaucratic and bureaucratic phases of development, see Figure 3. A bigger scope could also mean that other geographical areas can be included, or organizations in other phases of organizational development.

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Appendix A

Seventeen Environmental (Industry) Variables: Factor Structure and Communalities

Industry variable	Factor 1 Munificence		Factor 2 Complexity		Factor 3 Dynamism		Communalities (h_j^2)
	Factor loadings (a_{j1})	Squared factor loadings (a_{j1}^2)	Factor loadings (a_{j2})	Squared factor loadings (a_{j2}^2)	Factor loadings (a_{j3})	Squared factor loadings (a_{j3}^2)	
Growth							
Sales (V1)	.92095*	.84815	-.07482	.00560	.04196	.00176	.85551
Price-cost margin (V2)	.89898*	.80817	-.10973	.01204	.06985	.00488	.82509
Total employment (V3)	.89310*	.79763	.09359	.00876	-.05010	.00251	.80890
Value added (V4)	.96117*	.92385	-.08532	.00728	.03215	.00675	.93788
No. of establishments (V5)	.46774*	.21878	.11835	.01401	-.00685	.00004	.23283
Concentration of inputs (V7)	-.18339	.03363	-.15073	.02272	-.04804	.00231	.05866
Specialization ratio (V9)	-.02895	.00084	-.30621*	.09376	-.53626*	.31726	.41186
Geographical concentration							
Sales (V16)	-.04131	.00171	.97554*	.95168	.06298	.00397	.95736
Value added (V17)	-.01437	.00021	.96786*	.93675	.07796	.00608	.94304
Total employment (V18)	.00989	.00010	.96892*	.93881	.08547	.00731	.94622
No. of establishments (V19)	-.08689	.00755	.83587*	.69868	-.06210	.00375	.70998
Instability							
Sales (V11)	.08894	.00791	-.09246	.00855	.83417*	.69583	.71229
Price-cost margin (V12)	.19111	.03652	.07399	.00547	.65123*	.42410	.46609
Employment (V13)	-.19607	.03844	.04213	.00178	.64185*	.41197	.45219
Value added (V15)	.02228	.00050	-.02898	.00084	.92508*	.85577	.85711
Indirect effect on industry output (V21)	-.11866	.01408	-.10979	.01205	.00600	.00004	.02617
Intermediate market orientation (V22)	-.15797	.02495	-.14126	.01995	.31519*	.09934	.14424
Eigenvalue		3.92140		3.73708		2.83367	10.49215
Common variance (%)	37.37		35.62		27.01		100.00
Total variance (%)	23.07		21.98		16.67		61.72

*Factor loadings $\geq .30$.

Table 21 Seventeen environmental variables (Dess & Beard, 1984)

Appendix B

The six competency areas identified in the literature		Literature source ^a											
		1	2	3	4	5	6	7	8	9	10	11	12
Competency area	Behavioral focus												
Opportunity competencies	Competencies related to recognizing and developing market opportunities through various means	*	*	*	*	*	*	*	*	*	*	*	*
Relationship competencies	Competencies related to person-to-person or individual-to-group-based interactions, e.g., building a context of cooperation and trust, using contacts and connections, persuasive ability, communication and interpersonal skill	*			*	*	*	*	*	*	*	*	*
Conceptual competencies	Competencies related to different conceptual abilities, which are reflected in the behaviors of the entrepreneur, e.g., decision skills, absorbing and understanding complex information, and risk-taking, and innovativeness	*	*	*	*	*	*	*	*	*	*	*	*
Organizing competencies	Competencies related to the organization of different internal and external human, physical, financial and technological resources, including team-building, leading employees, training, and controlling	*	*	*	*	*	*	*	*	*	*	*	*
Strategic competencies	Competencies related to setting, evaluating and implementing the strategies of the firm	*	*	*	*	*	*	*	*	*	*	*	*
Commitment competencies	Competencies that drive the entrepreneur to move ahead with the business	*			*	*	*	*	*	*	*	*	*

^a Literature source: (1). Adam and Chell (1993); (2) Bartlett and Ghoshal (1997); (3) Baum (1994); (4) Bird (1995); (5) Chandler and Jansen (1992); (6) Durkan et al. (1993); (7) Gasse (1998); (8) Hunt (1998); (9) Lau et al. (1999); (10) McClelland (1987); (11) Mitton (1989); (12) Snell and Lau (1994).

Figure 17 The six identified competencies (Man, Lau, Chan, 2002)

Appendix C

Organizational Characteristics (entrepreneurial or collectivity stage)

Construct	Characteristics/ measures	Questions	Coding
Structure	Organizational size	How many employees does the organization count? employees	The theory does not provide exact numbers that indicate a phase development. Together with other evidence for a certain phase a <i>relatively</i> (compared to other organizations) small organization is entrepreneurial, and a <i>relatively</i> large organization is in the collectivity phase. To be more exact, the number of employees is not a decisive factor, but it supports evidence for the organizational phase of development.
	Specialization	Every employee in the organization O Has a documented job profile O Has no documented job profile	No documented job profile = entrepreneurial Documented job profile = collectivity
	Professionalization	Does the organization provide training for their employees? O Yes O No Give an indication of the percentage of employees that had professional training in the past year: percent	A professional organization provides training to at least some percentage of their employees (collectivity). No training (entrepreneurial)
	Hierarchy	How many formal management layers are there in the organization? Layers	< two layers = Informal organization (entrepreneurial) > Two layers = formal organization

			(collectivity)
	Formalization	Procedures and activities of the organization are written down in procedures or handbooks, quality handbooks O No O Some are, some are not O Yes	No = little formalization (entrepreneurial) Some & Yes = collectivity
Products & Services	Number of products & services	How many product lines or service lines does the organization provide? (e.g. different models of televisions add up to one product line, where computers, televisions and vacuum cleaners add up to three product lines) O 1 (maybe with variations) O more than one	<ul style="list-style-type: none"> - Single product or service = 1 product or service line (entrepreneurial) - Multiple product or service lines = more than one product or service line with 1 or more variation (collectivity)
Reward & Control systems	Focus	Is there a formal system to reward or control employees? O Yes O No How is control over employees generally executed? O on the individual O on a group responsible for a certain result	Entrepreneurial = individual and mostly no formal system Collectivity = on an group and more often formal
Innovation	By who	Did the organization innovative in the past year? (innovation is introducing something new or different, a new product or service) O Yes O No	Innovation by the owner = entrepreneurial Innovation by others = collectivity

		<p>Who suggested most innovations?</p> <p><input type="radio"/> By the owner</p> <p><input type="radio"/> Employees or managers</p>	
Goals	Goal	<p>Top management has defined and described clear organizational goals</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>Everyone in the organization is aware of the organizational goals</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	<p>Entrepreneurial = without clearly defined goals</p> <p>Collectivity = clearly defined and well communicated goals</p>
Top management	Style	<p>Top management involvement is</p> <p><input type="radio"/> individualistic, with attention and instructions for every employee</p> <p><input type="radio"/> not individualistic, giving direction to the organization, for example by instruction middle managers</p>	<p>Entrepreneurial = individualistic</p> <p>Collectivity = not individualistic</p>

Table 22 Organizational characteristics

Environment (Change and complexity)

Construct	Characteristics/ measures	Questions	Coding
Environmental change	Environmental changes	<p>Were products or services changed in order to suit a changed market situation in the past year?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p> <p>Was the organization forced to change the strategy because of external changes in the past three years?</p> <p><input type="radio"/> Yes</p> <p><input type="radio"/> No</p>	<p>Stable environment = both answers no or only products adjusted, not strategy.</p> <p>Unstable environment = both answers yes, or only strategy adjusted.</p>
	Predictability of changes	<p>Think of the three most important changes in the environment of the past year and to what extend you could predict these changes:</p> <p><input type="radio"/> two or three changes were predictable</p> <p><input type="radio"/> two or three changes were a total surprise</p>	<p>Stable environment = predictable</p> <p>Unstable environment = unpredictable</p>
Environmental complexity	Number of external elements	<p>What describes the organization most accurately?</p> <p>Number of customer, compared to direct competition:</p> <p><input type="radio"/> few customers</p> <p><input type="radio"/> a lot of customers</p> <p>Number of suppliers, compared to direct competition:</p> <p><input type="radio"/> few suppliers</p> <p><input type="radio"/> a lot of suppliers</p>	<p>Simple = few external elements</p> <p>Complex = a lot of external elements</p>

		<p>Number of stakeholder (e.g.: staff, shareholders, members of the industry, etc.), compared to direct competition:</p> <p><input type="radio"/> few external stakeholders</p> <p><input type="radio"/> a lot of external stakeholders</p>	
	Diversity of elements	<p>The organization offers products or services to:</p> <p><input type="radio"/> one market (one target audience)</p> <p><input type="radio"/> more than one market (multiple target audiences)</p> <p>Suppliers of the products of services relevant to the core business of the organization...</p> <p><input type="radio"/> mostly operate in the same industry</p> <p><input type="radio"/> operate in a lot of different industries</p> <p>Customers of the organization...</p> <p><input type="radio"/> Operate in the industry concerned with the product or service of your organization (e.g. if you produce paint, customers will be painters)</p> <p><input type="radio"/> operate in a lot of different industries (e.g. if you sell cars, customers operate in many different industries)</p>	<p>Simple = 1 market, same industry</p> <p>Complex = more markets, different industries</p>
	Information on elements	<p>The availability of information on the environment is...</p> <p><input type="radio"/> All or almost all information is available on the environment of the organization (customers, suppliers)</p> <p><input type="radio"/> Little information available</p>	<p>Simple = information available</p> <p>Complex = information not available</p>

Table 23 Environment

Competencies

<i>Opportunity competencies</i>	NI	LI	N	I	VI
• Identify goods or services people want (search for new markets)	O	O	O	O	O
• Perceive unmet consumer needs	O	O	O	O	O
• Look for products that provide real benefit	O	O	O	O	O
• Seizing high-quality business opportunities	O	O	O	O	O
<i>Relationship competencies</i>	NI	LI	N	I	VI
• Involve people with important resources	O	O	O	O	O
• Involve people with important knowledge (both internal and external)	O	O	O	O	O
• Venture team with complementary competencies	O	O	O	O	O
• Enlist the support of key people	O	O	O	O	O
<i>Conceptual competencies</i>	NI	LI	N	I	VI
• Maximize results in resource allocation	O	O	O	O	O
• Organize resources	O	O	O	O	O
• Detect and analyze problems	O	O	O	O	O
• Set priorities	O	O	O	O	O
<i>Organizational competencies</i>	NI	LI	N	I	VI
• Organize and motivate people	O	O	O	O	O
• Delegate effectively	O	O	O	O	O
• Organizing and coordinating tasks	O	O	O	O	O
• Supervise, influence, lead	O	O	O	O	O
<i>Strategic competencies</i>	NI	LI	N	I	VI
• Set clear goals	O	O	O	O	O
• Control long term objectives	O	O	O	O	O
• Assess if goals are met	O	O	O	O	O
• Adjust strategy according to changed circumstances	O	O	O	O	O
<i>Commitment competencies</i>	NI	LI	N	I	VI
• Make venture to work no matter what	O	O	O	O	O
• Refuse to let venture fail	O	O	O	O	O
• Make large personal sacrifices	O	O	O	O	O
• Extremely strong internal drive	O	O	O	O	O

Table 24 Questionnaire items

Appendix D

Instructions: To assess the organizational characteristics a number of questions are asked concerning the organization. A distinction is made between the number of people working in the organization (employees) and the number of fte's (full time employees). Together the questions will give a general indication about the characteristics of the organization, which are important to the results of the research. At question 4 please read both answers carefully and select the situation which describes your organization most accurately.

Organization

1. How many people work at the organization? (including employees and management) Employees, fte's
2. Does your organization distinguishes departments? (e.g. finance, sales, marketing, expedition, etc.)	<input type="radio"/> Yes, departments <input type="radio"/> No
3. Does your organization have management layers? (e.g. top management, department managers, etc.)	<input type="radio"/> Yes, management layers <input type="radio"/> No
4. Which of the following describes your organization best?	<input type="radio"/> The organization is informal, there are practically no formal procedures. The goals are not clearly predefined and communicated throughout the organization. The organization focuses on seizing opportunities and the owner or manager is the initiator of innovation. <input type="radio"/> There are formal procedures present and the organization is formal. The organization has clear and predefined goals and innovation is initiated by employees or managers. The owner or managers main task is to give the organization direction.

Table 25 Question to assess organizational characteristics

Instructions: The next questions concern the environment of the organization. The function of the organization defines to a great deal which elements are present in the environment in which the organization operates. To get a general idea of the organizational environment, three questions are asked. Once more, the final question presents a model with four different environmental configurations. Please read the four different situations carefully and choose the situation that most accurately describes the environment of your organization.

Environment

5. In which industry does the organization operate? (e.g. retail, agriculture, finance, manufacturing, etc.)
6. What function does the organization have?	<input type="radio"/> Products manufacturer <input type="radio"/> Products wholesaler

	<input type="radio"/> Products retailer <input type="radio"/> Service provider (business to business) <input type="radio"/> Service provider (business to consumer)
7. Which of the following quadrants describes the environment the organization operates in best?	
Stable	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <input type="radio"/> Simple + Stable Low Uncertainty <p>1. Small number of external elements, and elements are similar 2. Elements remain the same or change slowly</p> <p>Examples: Beer producer Container manufacturer</p> </div> <div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <input type="radio"/> Complex + Stable Low-moderate uncertainty <p>1. Large number of external elements, and elements are dissimilar 2. Elements remain the same or change slowly</p> <p>Examples: Insurance company Car dealer</p> </div>
Environmental Change	<div style="border: 1px solid black; padding: 10px; margin-bottom: 10px;"> <input type="radio"/> Simple + Unstable High-moderate uncertainty <p>1. Small number of external elements, and elements are similar 2. Elements change frequently and unpredictably</p> <p>Examples: Fashion clothing Toy manufacturer</p> </div> <div style="border: 1px solid black; padding: 10px;"> <input type="radio"/> Complex + unstable High uncertainty <p>1. Large number of external elements, and elements are dissimilar 2. Elements change frequently and unpredictably</p> <p>Examples: Computer firms Telecommunications</p> </div>
Unstable	
	Environmental Complexity
	Simple Complex

Table 26 Questions to assess the environment

Instructions: In the next section different activities related to entrepreneurship are presented. On the right side there is a scale ranging from not important (NI) to very important (VI). LI is little importance, N is neutral, and I is important. Score the importance of every activity according to you as entrepreneur. This is the final section of the questionnaire.

Competencies

8. Entrepreneurial competencies	NI	LI	N	I	VI
• Identify goods or services people want (search for new markets)	O	O	O	O	O
• Seizing high-quality business opportunities	O	O	O	O	O
• Maximize results in resource allocation	O	O	O	O	O
• Perceive unmet consumer needs	O	O	O	O	O
• Control long term objectives	O	O	O	O	O
• Involve people with important resources	O	O	O	O	O
• Involve people with important knowledge (both internal and external)	O	O	O	O	O
• Venture team with complementary competencies	O	O	O	O	O
• Keep the organization running smoothly	O	O	O	O	O
• Organize and motivate people	O	O	O	O	O
• Make large personal sacrifices	O	O	O	O	O
• Enlist the support of key people	O	O	O	O	O
• Organize resources	O	O	O	O	O
• Detect and analyze problems	O	O	O	O	O
• Make venture to work no matter what	O	O	O	O	O
• Refuse to let venture fail	O	O	O	O	O
• Set priorities	O	O	O	O	O
• Look for products that provide real benefit	O	O	O	O	O
• Supervise, influence, lead	O	O	O	O	O
• Delegate effectively	O	O	O	O	O
• Organizing and coordinating tasks	O	O	O	O	O
• Set clear goals	O	O	O	O	O
• Assess if goals are met	O	O	O	O	O
• Adjust strategy according to changed circumstances	O	O	O	O	O
• Extremely strong internal drive	O	O	O	O	O

Table 27 Competency scoring

Appendix E

The Dutch questionnaire:

Ondernemerschap en de organisatie

Ondernemerschap en de organisatie

Hartelijk dank dat u tijd wilt nemen voor dit onderzoek. Het doel van dit onderzoek is meer inzicht te verwerven in ondernemerschap in het algemeen en in het bijzonder hoe ondernemers in de toekomst beter ondersteund kunnen worden bij de verdere ontwikkeling van hun bedrijf.

Uw gegevens met al uw gegevens wordt uiterst vertrouwelijk omgegaan en de data zal anoniem worden verwerkt in het onderzoek.

De vragenlijst deze vragenlijst bestaat uit drie blokken: vragen over uw bedrijf, de omgeving van uw bedrijf en activiteiten van een ondernemer.

Bedrijfsnaam

Uw naam

Dit onderzoek is onderdeel van mijn afstudeerscriptie aan de Universiteit Twente en wordt uitgevoerd in het kader van de ontwikkeling van op ondernemers gerichte producten en diensten van de Mensiumgroep.

Roel Swaders
Student Business Administration

Vragen over het bedrijf

Vraag 1. Hoeveel mensen werken er in totaal in uw bedrijf?

medewerkers

fte (full time equivalent)

Vraag 2. Zijn er in uw bedrijf afdelingen te onderscheiden? (bv.: Financiën, Marketing, Verkoop, Productie, Magazijn, HRM)

☐ Ja,

afdelingen

☐ Nee

Vraag 3. Zijn er in uw bedrijf verschillende management niveaus? (bv.: top management en daaronder afdelingsmanagers, dit voorbeeld kent twee lagen)

☐ Ja,

management niveaus

☐ Nee

Vraag 4. Is het bedrijf meer informeel of formeel? (b.v. formeel is duidelijke functieprofielen, beschreven procedures, kwaliteitshandboeken, etc.)

☐ Informeel

☐ Formeel

Vraag 5. Zijn de doelen van het bedrijf intern duidelijk gecommuniceerd?

☐ Ja

☐ Nee

Vraag 6. Wie is voornamelijk verantwoordelijk voor het ontplooiën van nieuwe initiatieven/innovaties?

☐ De ondernemer zelf

☐ Medewerkers en managers

Vragen over de omgeving

Vraag 7. In welke branche is uw bedrijf actief? (Geef, indien mogelijk, de hoofdbranche en de subbranche aan. Bv. "Horeca, café" of "Industrie, machinebouw")

Vraag 8. Wat is de functie van uw bedrijf? Heeft deze functie betrekking op producten of diensten?

- ☐ Fabrikant (producten)
- ☐ Groothandel (producten)
- ☐ Detaillist (producten)
- ☐ Dienstverlener (business to business)
- ☐ Dienstverlener (business to consumer)

Vraag 9. Zijn er weinig of juist veel partijen in de omgeving van uw bedrijf? (b.v. leveranciers, afnemers, andere stakeholders)

- ☐ Relatief weinig
- ☐ Relatief veel

Vraag 10. Zijn deze partijen veelal gelijk aan elkaar of zijn ze erg verschillend? (b.v. allemaal klanten uit dezelfde branche zijn vaak gelijk aan elkaar)

- ☐ veelal gelijk
- ☐ verschillend

Vraag 11. Blijven de partijen over langere periode hetzelfde of veranderen ze vaak en onvoorspelbaar, zodat uw bedrijf zich hieraan moet aanpassen?

- ☐ Partijen blijven hetzelfde
- ☐ Partijen veranderen

Ondernemende activiteiten

*Toelichting: Scoor voor de volgende activiteiten hoe belangrijk u ze als ondernemer op dit moment vindt voor uw organisatie. 1 is het minst belangrijk en 6 het belangrijkste. **U mag iedere score slechts één keer gebruiken!***

De activiteiten zijn afgeleid van verschillende ondernemende competenties. Door de activiteiten te scoren ontstaat inzicht in de voor u, als ondernemer, belangrijke competenties.

Vraag 12. Ondernemende activiteiten	1	2	3	4	5	6
Leiding geven aan en positief beïnvloeden van personeel	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Doelstellingen voor de lange termijn bewaken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ongeacht de situatie zorgen dat het bedrijf het goed doet	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zoeken naar producten die echt meerwaarde hebben voor klanten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Middelen (bv.: financieel, personeel, locatie, etc.) zo effectief mogelijk inzetten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mensen met de juiste kennis bij het bedrijf betrekken (zowel interne als externe mensen)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ondernemende activiteiten

Toelichting: Scoor voor de volgende activiteiten hoe belangrijk u ze vindt. 1 is het minst belangrijk en 6 het belangrijkt. U mag iedere score slechts één keer gebruiken!

Vraag 13. Ondernemende activiteiten	1	2	3	4	5	6
Het verkrijgen van benodigde middelen (bv.: financieel, personeel, locatie, etc.)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het organiseren en coördineren van taken	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Behoeften van de klant onderscheiden waaraan nog niet wordt voldaan	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Bewaken of doelstellingen gehaald worden	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het samenstellen van teams met leden die elkaar aanvullen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Ten koste van alles het bedrijf niet willen laten falen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ondernemende activiteiten

Toelichting: Scoor voor de volgende activiteiten hoe belangrijk u ze vindt. 1 is het minst belangrijk en 6 het belangrijkt. U mag iedere score slechts één keer gebruiken!

Vraag 14. Ondernemende activiteiten	1	2	3	4	5	6
Het identificeren van producten of diensten waaraan behoefte is in de markt (nieuwe markten ontdekken)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Een sterke interne motivatie	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het stellen van duidelijke doelen voor het bedrijf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het opsporen en analyseren van problemen in het bedrijf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Effectief delegeren	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Zorgen dat de juiste personen het bedrijf ook steunen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Ondernemende activiteiten

Toelichting: Scoor voor de volgende activiteiten hoe belangrijk u ze vindt. 1 is het minst belangrijk en 6 het belangrijkt. U mag iedere score slechts één keer gebruiken!

Vraag 15. Ondernemende activiteiten	1	2	3	4	5	6
Het aanpassen van de strategie wanneer omstandigheden veranderen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mensen met middelen (bv.: financieel, personeel, locatie, etc.) voor de organisatie betrekken bij uw bedrijf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het stellen van prioriteiten	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het organiseren en motiveren van mensen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Het maken van grote persoonlijke offers ten behoeve van uw bedrijf	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
De juiste kansen selecteren uit de kansen die zich voordoen	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Dit is het einde van de vragenlijst! Hartelijk dank voor uw medewerking.

Met vriendelijke groet,

Roel Swaders

Student Business Administration
Universiteit Twente



Appendix F

In this chapter short reports on all the interviews are presented. Organizational characteristics and the environment are summarized here. Furthermore the entrepreneurial competencies are ranked according to the perceived importance by the entrepreneur.

1. Personal development & Outplacement

The organizational characteristics

Employees	4 full time equivalents
Departments	No formal departments, although there is a focus in the activities of every person, where everybody is responsible for a certain set of activities (e.g. sales, general management, finance)
Management layers	Everybody working at the company is an associate. Although not everybody has the same amount of shares, there are no management layers and everybody is considered to be equal.
Formalization	There is little or practically no formalization, procedures are often re-invented and proposals for customers are adjusted to specific customer needs.
Goals	The goals of the company are communicated throughout the organization, all associates have an equal say in setting the goals. They are together responsible for meeting goals and assessing if goals are met.
Details	The company is a network organization, when necessary the organization has the ability to expand to 30 people.

The environment

Industry	Consultancy, outplacement
Organizational function	Service provider, business to business
External elements	The organization has a lot of external elements. There are consultants that are connected to the company, network partners that cooperate with the organization to offer products or services, suppliers, and of course a lot of customers and potential customers.
Diversity	All this external elements are very divers, mainly because the company offers a wide range of products to a possible even wider range of customers. This makes it difficult to gather information about the environment and to anticipate to the environment.
Change	The environment changes. Because of the large environment it will change constantly and unpredictable.
Details	The environment tends to be extra turbulent from time to time because the organization offers outplacement. This service is offered to organization that have a need to cut costs or might have trouble surviving.

The entrepreneurial competencies

Opportunity
Commitment
Organizational
Relationship
Strategic
Conceptual

2. Business intelligence software

The organizational characteristics

Employees	20 fulltime equivalent
Departments	The company has 2 business units with business unit managers. The business units are divided according to the products and services they offer. Above these units there are two owners. The units themselves have no department structure.
Management layers	As mentioned there is general management and business unit managers.
Formalization	Outside the division in units, there is little formalization, because the business units itself have no formal division of roles and tasks.
Goals	The main goal of the organization is growth. Furthermore there are sales targets provided by the main supplier. This automatically sets clear goals for the organization.
Details	The two business units have their own specific focus concerning products, services and customers. The main software solution provided by this company cooperates with different software solutions from other providers.

The environment

Industry	Provider of financial software, not for a specific industry.
Organizational function	Product wholesaler and business to business service provider
External elements	Little elements on the suppliers side, because there are a few suppliers of software that the organization sells. Furthermore there are a lot of other software suppliers that have to be considered, because data from their systems is used and therefore necessary. Finally there are a lot of customers, because there is no specific focus chosen.
Diversity	Suppliers are homogeneous. The same goes for the other software manufacturers that this organization partly depends on. The customers on the other hand are very divers and can be found in all possible industries.
Change	There are a lot of external elements that obviously can change. The most important change will be on the suppliers side, affecting the actual product.
Details	Changes in the environment (and third party software) can be trivial to the organization.

The entrepreneurial competencies

Opportunity
Commitment
Relationship
Organizational
Strategic
Conceptual

3. Training institute for metal and plastic industry

The organizational characteristics

Employees	35 full time equivalent
Departments	There are three formal business units, with a general management and business unit managers.
Management layers	There are multiple management layers
Formalization	People have their own specific tasks and roles. Procedures and business concepts are clear and well documented.
Goals	The organizational goals are clear and communicated throughout the organization.
Details	The three business units provide different services: education, production methods, and subsidy for innovative projects.

The environment

Industry	Production, metal
Organizational function	Service provider business to business
External elements	There are a lot of external elements, with different functions. Although the organization has a clear focus on one single industry, there are a lot of stakeholders that have to be considered. Examples are providers of subsidy to promote innovativeness, government and of course organizations in the industry.
Diversity	External elements are not very divers. All elements are in the same industry.
Change	Change in this industry is predictable for the organization. This is mainly due to the fact that the organization is the provider of new technologies to organizations in the industry.
Details	Because the organization provides new production technologies and industry-specific education a lot of stakeholders follow the organization. Think of a machinery producers that have an obvious interest in the fact that their products are used for new technologies.

The entrepreneurial competencies

Strategic
Relationship
Opportunity
Commitment
Conceptual
Organizational

4. Candy Wholesaler

The organizational characteristics

Employees	10 full time equivalent
Departments	There are departments, e.g. warehouse, logistics, sales. Because of the size departments may have some overlap.
Management layers	There are no formal management layers, the owner works in the company.
Formalization	There is little formalization. The core process is clear and well-defined. It is everybody's concern to complete delivery of goods to clients. This means employees can be shifted between departments from time to time.
Goals	The goal of the organization is primarily growth. Another goal is to be a specialist wholesaler with excellent product knowledge, added value to the customer.
Details	This wholesaler has a specific focus and therefore few product lines with many product variations.

The environment

Industry	Wholesaler, Candy
Organizational function	Wholesaler, business to business
External elements	There are relatively few external elements. Only suppliers and customers. Of course there is more than one supplier, otherwise the organization would have no function at all. There are a lot of customers because candy is an impulse product.
Diversity	Both customers and supplier are generally alike. They all come from the same industry. Customers may differ because customers are both other wholesalers and retailers.
Change	Customers do not change or change very slowly. Suppliers and their products tend to change rather slow and not dramatically. Innovation in the industry is above all continuous improvement and product innovation focuses mainly on producing new variations to existing products.
Details	The customers and suppliers are well-spread at this company. This is important for survival, but also a necessity. Clients for example often have contracts which force them to buy 80% of their goods at one specific wholesaler. In this situations a maximum of 20% of the assortment can be supplied.

The entrepreneurial competencies

Commitment
Relationship
Organizational
Strategic
Conceptual
Opportunity

5. Financial software consultants

The organizational characteristics

Employees	7 full time equivalents
Departments	There are no formal departments. The organization is a franchise between different software consultants. They all have their own little company and are connected through a holding.
Management layers	There are two franchisers that own the holding and therefore they are considered to be the formal owners of the organizations. Furthermore everybody is owner of their own organization, so there are no real management layers.
Formalization	There is no formalization, and even no formal offices. New concepts that are developed in-house are obviously well-documented because it is software that has to be written. Besides this there is a clear and formal organizational strategy.
Goals	The goals of the organization consist of seven smaller goals. One overall goal is to provide know-how to customers, and to see problems as opportunities for their customers.
Details	The 7 persons are all franchisers connected to one holding. They are responsible for their own part of the turnover.

The environment

Industry	Software, Financial
Organizational function	Business to business service provider
External elements	The software product (Exact) the consultants are specialized in is one important external element. Furthermore there are a lot of customers and of course the general development in the computer industry that have an influence.
Diversity	Customers are very divers and can be in every possible industry. For the current economic situation this is an advantage, but the organization is looking for more focus.
Change	The computer industry changes constantly. It is important for the consultants to have knowledge about these changes. The organization monitors Exact (producer of the product they work with) closely for possible changes that might affect the company. Furthermore there are changes at the customers. A changed process automatically means new software is required.

Details	The company is involved in strategy discussions at the producer of Exact software. This enables the company to have insights in future changes in strategy, but also to affect strategy to suit theirs.
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The entrepreneurial competencies

Commitment
Strategic
Opportunity
Conceptual
Organizational
Relationship

6. Computer & telecom supplier

The organizational characteristics

Employees	35 full time equivalents
Departments	There are formal departments, organized geographically. There are establishments in the Dutch cities Raalte, Deventer, and Rijssen.
Management layers	There are formal management layers. Every establishment has its own manager and there is a general management.
Formalization	Tasks and roles a formal and clear. Products, services and procedures are documented and well formalized.
Goals	The organizational goals are clear and communicated.
Details	Although the organizational goal is clear the organization was obliged to change their goal due to changed circumstances. The strategy used to be having an office close to the customer, but due to changed technological environment this requirement changed dramatically. Computers can be controlled from a distance nowadays, not requiring service at the desk physically.

The environment

Industry	Computers and telecom
Organizational function	Service provider business to business, hardware supplier
External elements	There are not a lot of external elements. The company has learned to adapt to frequently changing circumstances and their focus is rather local. Important external elements are, besides customers of course, suppliers of hardware.
Diversity	Suppliers are all in the same industry and in the computer and telecom industry there are a few big players. Customers on the other hand can be divers and spread over different industries.
Change	The environment changes rather fast and these changes can be predicted to a large extend. The organization has to make sure that they implement new changes fast and are able to showcase new technologies to possible customers. They are in a way sale representatives with specific knowledge for these new technologies. Therefore changes offer opportunities.

Details	The organization is not able to influence the more general developments in the industry. That makes the company more of a wholesaler of electronics which provide excellent service.
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The entrepreneurial competencies

Commitment
Organizational
Relationship
Opportunity
Strategic
Conceptual

7. Washing-powder manufacturer

The organizational characteristics

Employees	100 full-time equivalent
Departments	There are several department. There are two production departments in two different locations, there is overhead staff for finance, HRM.
Management layers	There is general management, plant managers, and department managers. With the amount of workers in the company the organization is rather flat.
Formalization	Everybody in the organization has his own clear tasks.
Goals	The goal of the organization is to use the free capacity of their factory. Currently only 45% of the capacity of the factory is used.
Details	The organization produces private label washing-powder products. The focus is on lean-manufacturing and supply chain management.

The environment

Industry	Manufacturer, Washing-powder
Organizational function	Producer, business to business
External elements	There are few external elements. In industries where the focus is on lean-manufacturing and supply chain management the focus is on big numbers. External element are a few competing producers and a few big customers. Due to supply chain management the company delivers directly to big retailers.
Diversity	Customers are alike and all in the same industry. Customers are big retailers and most of the time drugstores or supermarkets.
Change	The most important changes in the industry come from big competitors that produce their own brands. These companies try to be innovative all the time.
Details	The organizations has to react constantly to changes in the industry. When big producers implement changes or adjust their packaging they have to react. When an A-label producers introduces a new product the R&D development has to develop a similar product worth similar quality very rapidly.

The entrepreneurial competencies

Strategic
Organizational
Conceptual
Opportunity
Relationship
Commitment

8. Clothing store

The organizational characteristics

Employees	5 full-time equivalents (7 employees)
Departments	No departments, this entrepreneur has a franchise clothing store.
Management layers	There are no management layers. The entrepreneur is the owner and the general manager. He regards every employee to be his equal.
Formalization	There is no or very little formalization. Some formalization is provided by the franchise organization. They provide checkout processes and tools to run the store.
Goals	The goal of the organization is above all customer satisfaction. Employees must be friendly and the wishes of the customer are the most important aspect. Should a customer be in the wrong store for the best service? He will be redirected to the right store. Truly devoted to service.
Details	The organization is a franchise of a big clothing store with a regional focus. The headquarter is located in Wilp, in the Eastern part of the Netherlands. A lot of decisions are made by the headquarter, e.g. the assortment.

The environment

Industry	Clothing, retailer
Organizational function	Retailer business to consumer
External elements	There are few external elements. The headquarter for one and there are of course the customers. Most customers come from the same city as were the store is located. Other influences for the organization can be the local authority, or other cities that attract people that want to buy cloths.
Diversity	Customers are male persons between 25 and 45. Besides this focus group there is a large customer base with a higher age. The entrepreneur feels this is not the true focus group, because these customers are relatively stable. They tend to come back.
Change	The environment changes relatively predictable. The fashion is different four times a year. New fashion each season. Furthermore the environment might change. Other cities can change, big attractions can emerge relatively close to the store.
Details	The local authority has decided to remove 70 parking spots next to the store, leaving no parking spots at all near the store. The entrepreneur

	believes this is a true disadvantage for his store, which he is currently expanding. This is a good example of possible influences of the local authority.
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The entrepreneurial competencies

Commitment
Relationship
Strategic
Organizational
Opportunity
Conceptual

9. Clothing manufacturer

The organizational characteristics

Employees	7 full time equivalents (1 part time)
Departments	There are no formal departments. The organization has a hybrid way of organizing, where an employee has his own set of tasks, but when necessary is very flexible and can switch to other tasks.
Management layers	There is one management layer. Above the employees there is a general manager that provides strategy, direction, and goals for the organization.
Formalization	There is little formalization. Some procedures are clear and fixed, they relate to the core business of the organization. In other cases work is divided between employees.
Goals	The goal of the organization is to be one of the top three players in the market for male wedding suits. This is rather specific and the organization has come a long way and has almost reached its goal. This goal is clear, but not that well communicated throughout the organization.
Details	The organizations only exists for 5 years, and only recently the general manager became aware of the need to organize his business.

The environment

Industry	Clothing, wedding suits
Organizational function	Manufacturer, business to business
External elements	The company outsources its production to Morocco, there is only one major production company. There are several other suppliers that provide additional products, but the relationship with the producer of the suits is trivial. Furthermore there are customers divided over several countries, some of them approached through a sales agent representing the company in a certain area. So customers and sales agents are important external elements.
Diversity	The eventual customers a very similar. This is mainly because the clear focus of the company only to produce male suits for weddings. Customers generally are retailers that sell bridal wear.

Change	Customers tend not to change at all or very slowly. The most important factor of change is fashion, this company wants to be innovative and fresh, so designs have to cutting-edge.
Details	Sales agents typically sell more than one brand. It is important to maintain a good relationship with sales agents to make sure they prioritize selling your brand.

The entrepreneurial competencies

Commitment
Opportunity
Conceptual
Relationship
Strategic
Organizational

10. Regional marketing initiative

The organizational characteristics

Employees	3.2 full time equivalents (4 employees)
Departments	There are no formal departments, although the organization begins to feel the need to attract overhead staff.
Management layers	There are no management layers.
Formalization	There is little formalization. A lot of the business is derived from the network and the knowledge of the general manager. The marketing organization on the other hand is good to translate its efforts into nice brochures and commercials.
Goals	There is a clear goal. The strategy is to promote 'Twente' as a Dutch region. Other regions also know these kind of initiatives, but the proposition in this region is different. They try to attract younger people that have a double income. The strategy seems to be working, because tourism is growing in the region.
Details	The initiative was started in 2006. A lot of effort was put in making a good strategy to promote the region. Twente is now called 'Langoed van Nederland'. With this strategy a lot of brochures, magazines, and commercials were created to promote the region. The initiative is paid by the government and local organizations.

The environment

Industry	Marketing
Organizational function	Service provider, business to region (including all the inhabitants and organizations in this region)
External elements	There are a lot of external elements for this organization. At first there are the providers of funds, both organizations and authorities. They all have their own agenda that has to be satisfied. Furthermore there are the people in the region that have to be able to identify with the proposition of the organization. Last but not least there is the target

	audience that has to be persuade to come and visit the region.
Diversity	The target audience is very divers and they come from all over the country. They can enjoy everything that Twente has to offer, but this has to be shown in one single proposition that says it all. Furthermore the organizations and communities in the region are very diverse as well.
Change	The environment and the target audience changes all the time. The organizations has to adapt to these changes and in the meanwhile have a slogan that is current for many years to come. This is a big challenge for future changes.
Details	All the communities have different ideas on how to promote the region, this also goes for all the authorities and organizations that provide funds. The company has to challenge all these ideas and come with one proposition that fits all needs. This was a very challenging experience.

The entrepreneurial competencies

Organizational
Opportunity
Relationship
Commitment
Strategic
Conceptual

11. Interim professionals for health-care

The organizational characteristics

Employees	7 full time equivalents
Departments	There are no formal departments in this organization. There is a holding above the organization that has different other companies.
Management layers	There are formal management layers in the company. There is general management, one manager of the company and below that the employees.
Formalization	There is a relatively large amount of formalization. Procedures are written down and there are rather large systems in place.
Goals	The main goal of the organization is growth. Al systems and procedures are growth-proof. The goal is clear and well communicated throughout the organization.
Details	The organization has invested a lot of resources in their internal systems. This increases the overhead costs for now, but makes the organization future-proof.

The environment

Industry	Healthcare, HRM (with focus on management)
Organizational function	Service provider, business to business
External elements	There are a lot of external elements. E.g. customers, interim professionals. Furthermore the services that are provided are rather

	broad, ranging from management consultancy to the selection of new staff. This means there are a lot of possible clients with a wide range of problems that have to be solved.
Diversity	The diversity of external elements is not that high. All the people involved with the organization and the customers are operating in healthcare.
Change	The healthcare industry changes frequently. The pressure is on expenses and costs have to be reduced constantly. This is a big influence on the industry and the way the industry react to the services this organization has to offer.
Details	The company cooperates with a network of interim professionals that can be put to work in other companies when necessary. This approach enables the organization to be a large player without having a lot of fixed costs.

The entrepreneurial competencies

Strategic
Relationship
Organizational
Opportunity
Commitment
Conceptual

12. Direct mail, surveys, document solutions

The organizational characteristics

Employees	41 employees
Departments	There are a lot of formal departments. Three departments to produce services or products, and two overhead departments (Finance and sales).
Management layers	There are three formal management layers: general management, management team, and department managers. Business units and departments are formed according to the product or service they produce and are all located in the same building.
Formalization	Formalization is rather high. This has to do with the formal department structure and clear task for all employees. But it has also something to do with the products and services offered to customers. The company deals with confidential information about persons and companies, this requires a good and trustworthy organization.
Goals	The goals of the organization are clear. They aim to be a reliable partner that offers a complete document solution.
Details	The company offers more than direct mail. The vision changed dramatically with new technological possibilities. Documents solutions used to be tangible and in a paper format. Today a document

The environment

Industry	Direct mail, surveys, document solutions
Organizational function	Service provider business to business
External elements	There are a lot of external elements. This is due to the three subunits of the organization that all offer a different product. Furthermore there are a lot of external stakeholders to take into account. For example government and their rules concerning direct mail and surveys. Participants of surveys, Companies that outsource their documents and people that receive these documents.
Diversity	The elements in the environment are very divers. It can range from the government and organizations to private persons that participate in a survey or receive a document.
Change	The environment is also subject to a lot of changes. Rules concerning big mailings and surveys tend to change a lot and all the time. Besides these changes there are also technological developments that influence the organization. Where mailings used to be on paper, today more and more mailings are sent over the internet or mobile phone.
Details	The direct mail environment is changing rapidly due to technological possibilities. Only ten years ago mailings were all tangible, while nowadays mailings are intangible and sent over the internet.

The entrepreneurial competencies

Relationship
Strategic
Organizational
Commitment
Conceptual
Opportunity

13. Accountancy

The organizational characteristics

Employees	52 full time equivalents
Departments	The organization has formal departments, for example for support staff. Furthermore the organization has three locations in the eastern part of The Netherlands.
Management layers	The organization is rather flat. Little hierarchical layers, especially when compared to big accountancy organizations in the country. There are five associates that run the company together.
Formalization	The company is rather formal. This of course is for a large part related to the nature of the business. Accountants need formal procedures as a solid base to execute their work. Customers expect accountants to do so, therefore formalization tends to be high.
Goals	The goals of the organization are clear. They focus on SME's in a rather local market and the goal is to grow and be a reliable business partner for their customers.

Details	The company focuses on SME's in the eastern part of the Netherlands.
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The environment

Industry	Accountancy
Organizational function	Service provider business to business
External elements	There are many possible external elements, because almost every organization has a need for the services of an accountant. Furthermore there is the government that can change legislation concerning accountancy, and most of all there is the competition. There are a number of big and well-known players on the Dutch market. Furthermore there are a lot of relatively small accountancy firms serving their own niche market.
Diversity	Customers are very diverse and operate in a lot of different industries. But the principles of accounting are the same for every industry. This makes the provided service almost the same for every customer.
Change	The external environment is surprisingly stable at accountancy firms. Relationships with clients are mostly long term relationships that do not change all that much. Major changes might be noticed in the macro environment, for example legislation concerned with accounting or the general economical climate.
Details	The interviewee devoted a lot of attention to technological changes in the financial industry. More and more accounts are not only the people that check the accounting of a company, they become providers of software solutions that can be accessed online. The accountancy firm saves all the customer data in one place, making it easier for themselves and their clients.

The entrepreneurial competencies

Strategic
Organizational
Relationship
Commitment
Conceptual
Opportunity

14. Change management consultancy

The organizational characteristics

Employees	22 full time equivalents
Departments	There are formal departments with support staff and management, but compared to other organizations there are less departments. This is due to the fact that this is a process-based organization.
Management layers	There is a formal management and a CEO that is assigned by the management. There is less focus on the hierarchy in the organization because its design is process-based.
Formalization	Products are well formalized. Also due to the fact that the organization

	buys the product elsewhere. The organization is also a reseller of the product, which means customers have certain expectations that the organization has to meet. Therefore formalization of procedures is important.
Goals	The goals of the organization is clear. Both in the reseller part of the organization as well as for the consultancy part. The organization wants to be a knowledge based solution provider.
Details	The organization is entirely process-based. The focus is on the products and services provided and everything in the organization is organized around this.

The environment

Industry	Consultancy. Organizational change
Organizational function	Service provider, business to business
External elements	There are a lot of possible external elements. Consultancy may be beneficial for every organization. No matter how large or small. Nevertheless the organization has a focus. Some clients are big multinationals, others are somewhat smaller. This is where the organization provides its products and services directly. There are also people that are licensed to resell the products of this organization
Diversity	Customers are divers as mentioned before. There are multinationals, other customers, and resellers. There is one basic provider of the products used on the suppliers side. Furthermore the organization makes use of general knowledge on organizational change.
Change	Knowledge on organizational change develops constantly. It is important to stay current. Customers and the environment in general are constantly changing as well. Therefore it is important to stay ahead of all these changes. The organization has some sort of a buffer, provided by the resellers. In this situation the organization does not have to deal with the changing environment directly.
Details	The organization has two types of customers. The first group are direct consultancy clients, for example big organizations in The Netherlands that need consultancy. Other clients are practitioners, these are people that have a license to sell an Insights Discovery Profile to their clients (the biggest product of the organization).

The entrepreneurial competencies

Strategic
Organizational
Opportunity
Relationship
Commitment
Conceptual

15. Software company

The organizational characteristics

Employees	25 full time equivalent
Departments	There are formal departments and even business units. The organization distinguishes sales, consultancy, and education.
Management layers	There is an owner and a management team. The rest of the organization has no hierarchical layers.
Formalization	Part of the organization is very formalized. This is the educational business unit. It is important to formalize education, for example to have predefined educational goals, sets of learning material, brochures, procedures, and so on. The other part of the organization is less formalized.
Goals	The goals of the organization are clear, although not always understood throughout the organization. The goal is to survive, where some employees are ambitious and would love to thrive for growth. But unless these efforts goals remain stability.
Details	The company sells, consults, and provides education for open source software. Open source is free software that can be implemented in a lot of businesses.

The environment

Industry	Software, open source
Organizational function	Service provider business to business
External elements	There are a number market niches on which this software company focuses. These groups are government, telecom, a multinationals in general. The organization provides several service to these groups of customers, but all with a focus on open source.
Diversity	The environment is very divers, because every organization nowadays uses software. On the software development side of the organization the environment is less divers, because the organization focuses only on open source software.
Change	The environment of computer technology in general changes rapidly. The software market also changes very rapidly. The changes in the open source software are maybe even more difficult. Because open source is a community that build a software solution, developments might be more unpredictable.
Details	There are government rules that obligate departments of the government to use a certain percentage of open source software.

The entrepreneurial competencies

Relationship
Commitment
Conceptual
Organizational
Opportunity
Strategic

16. Marketing consultancy

The organizational characteristics

Employees	The company consist of two partners
Departments	There are no departments
Management layers	There are no management layers
Formalization	There is little formalization. Being a marketing company it is important to focus on a clear and consistent way of presenting the company. This is rather formalized, but there are no task descriptions and formal procedures.
Goals	The goals of the company are not very clear. It is of course important for a young company to provide a living for the two partners. Furthermore the goal is to build strong relations with network partners and customers. Another goal is survival.
Details	The company has to formal core businesses. First is marketing consultancy and the other one is producing business gifts made out of crystal.

The environment

Industry	Marketing & production
Organizational function	Service provider business to business & manufacturer
External elements	The environment is twofold. For the manufacturing part of the organization the environment is rather stable. There one production facility and only a limited number of large clients, because the product is produced in badges. For the marketing part of the company the environment is more complex. There is more competition and the environment, mainly concerning internet marketing, has a lot of aspects that need to be considered.
Diversity	Being both a service provider and a manufacturer creates a rather divers environment. This diversity is present both on the supply and on the demand side. There are supplier, network partners, competitors, and customers for both businesses. This makes the environment divers, especially for a small organization, and rather difficult to analyze properly.
Change	Being in the internet marketing industry changes are abundant. It seems that every day a new and better technology is developed that can be implemented in the consults the organization provides. It is very important to filter out the most important technologies and to know

	everything about it. Stay ahead of customers, but more importantly on competition.
Details	The company is specialized in online marketing, a rather new and fast changing concept in marketing. Online marketing is becoming more and more important to everyone and every organization in the world, and therefore it is assumed that demand for related services will grow in the future.

The entrepreneurial competencies

Relationship
Commitment
Strategic
Opportunity
Conceptual
Organizational

Appendix G

Analysis of the semi-structured interviews.

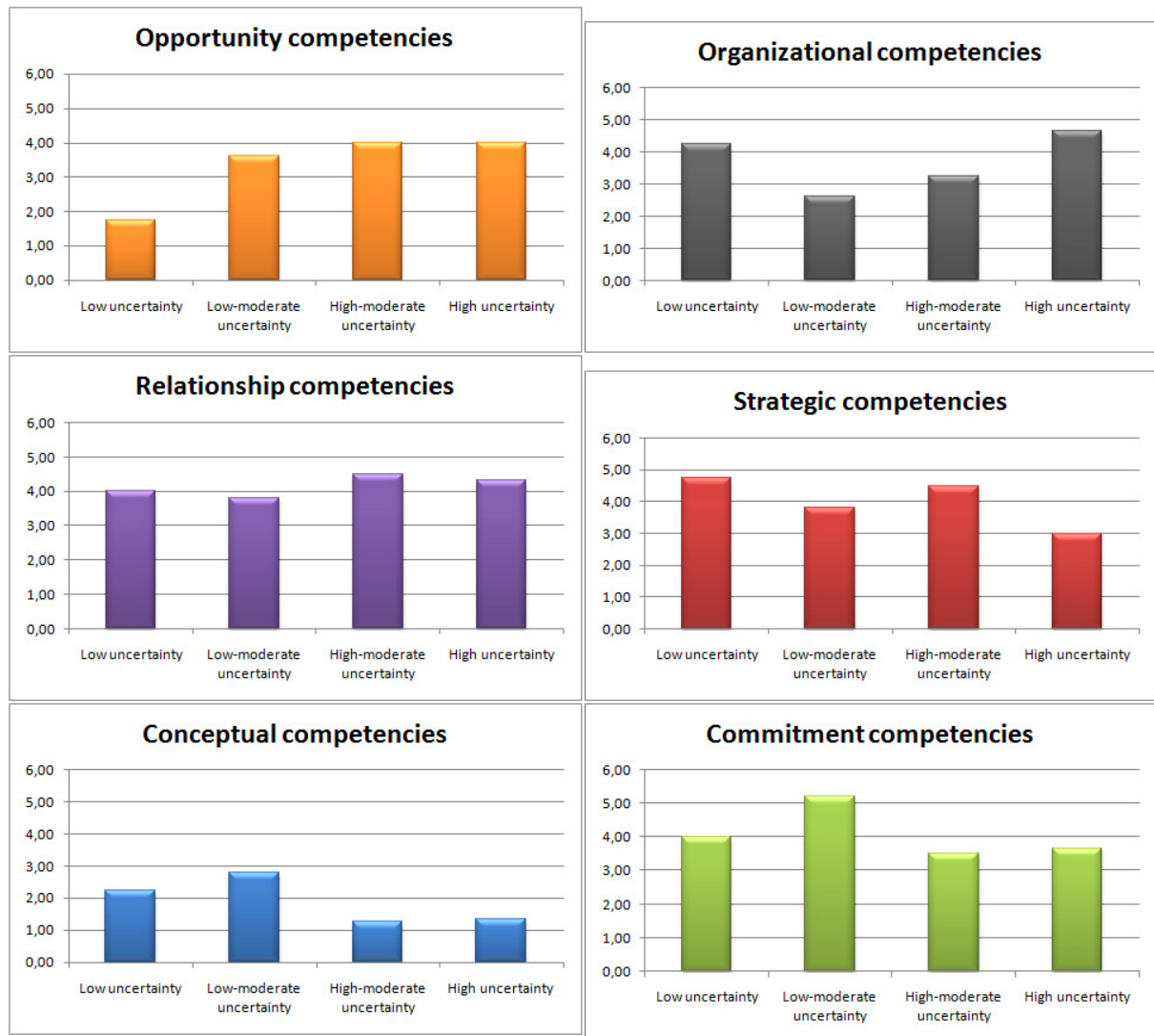


Figure 18 Competencies vs Environmental uncertainty

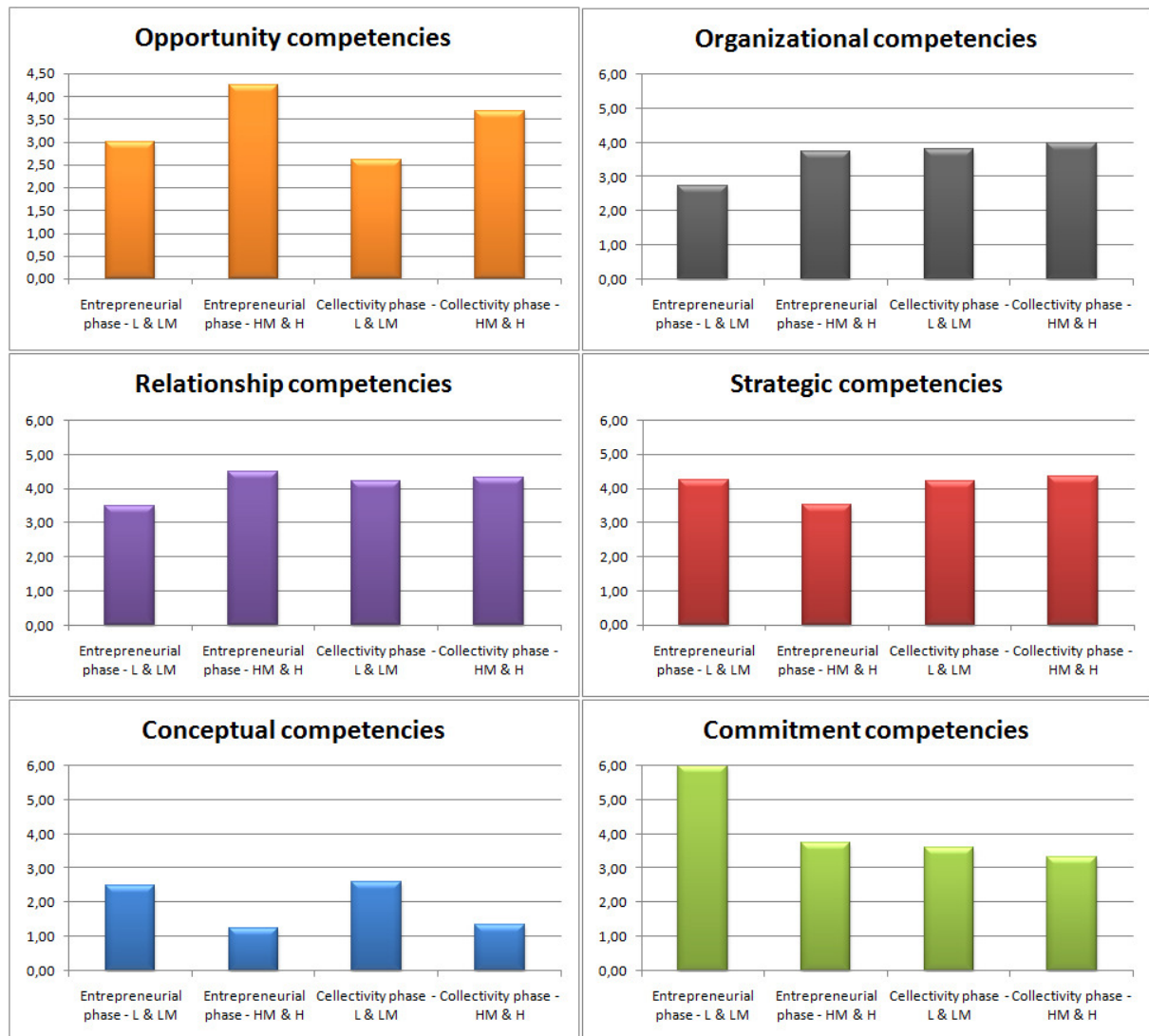


Figure 19 Competencies vs Quadrants

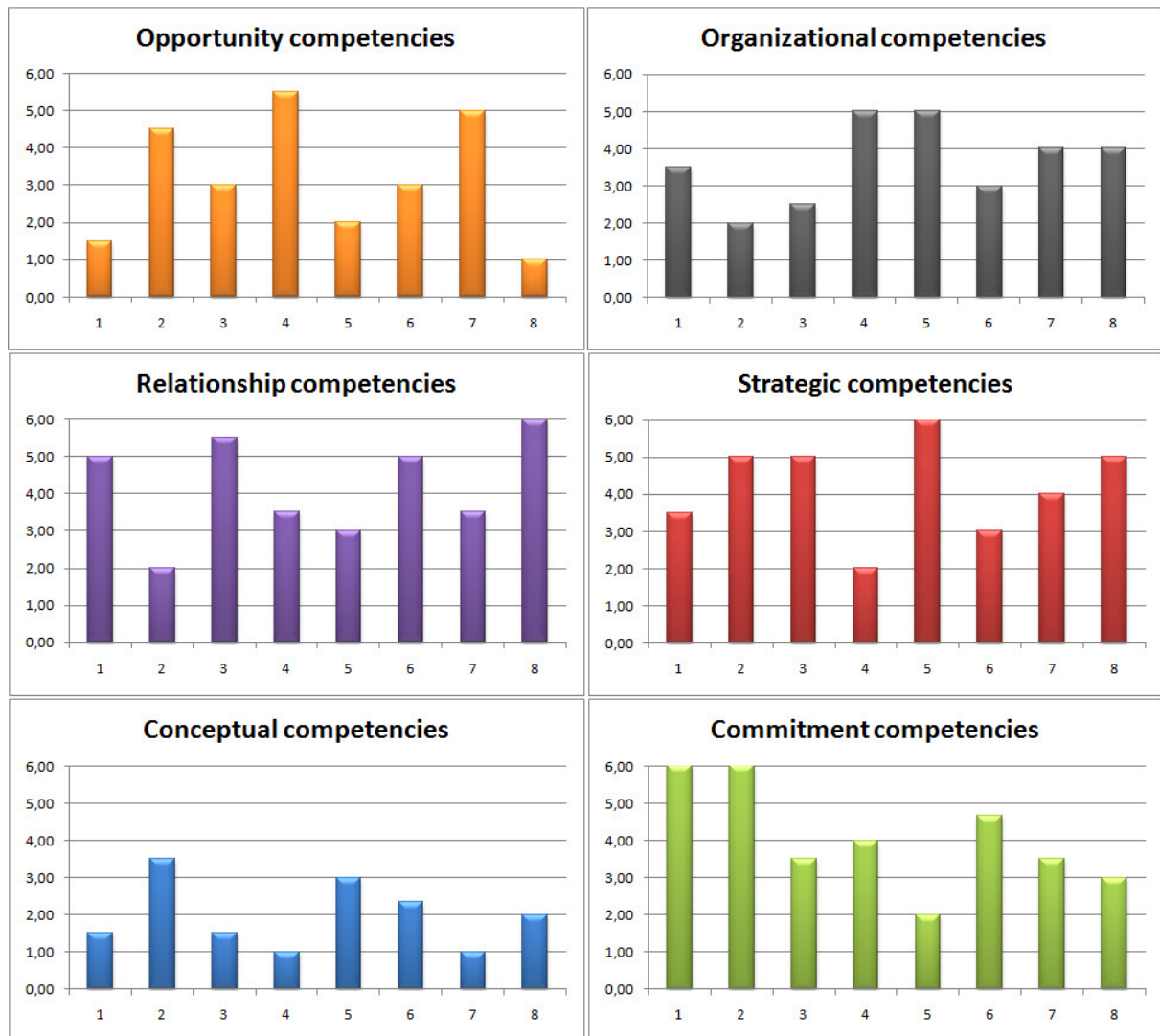


Figure 20 Competencies vs Type of entrepreneur



Figure 21 Matrix all entrepreneurial types

Appendix H

Organizational phase of development

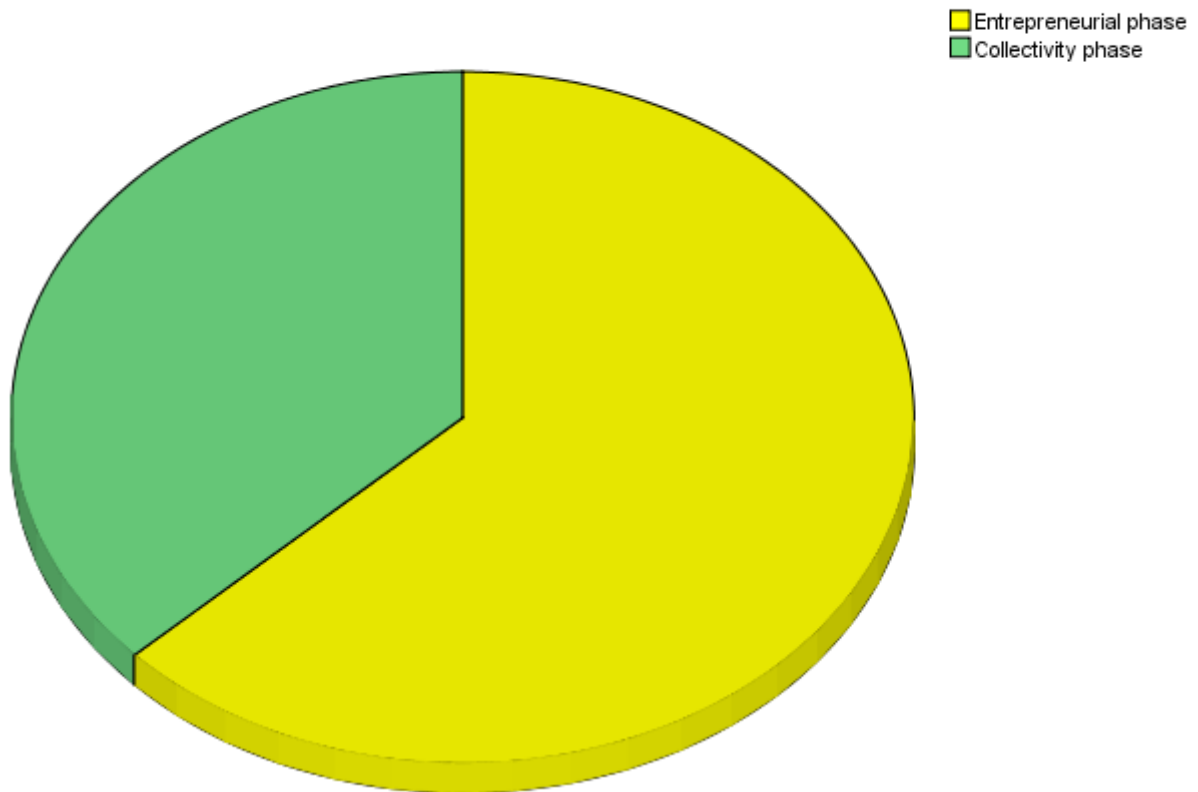


Figure 22 Respondents and the Organizational Phase of Development

Uncertainty of the environment

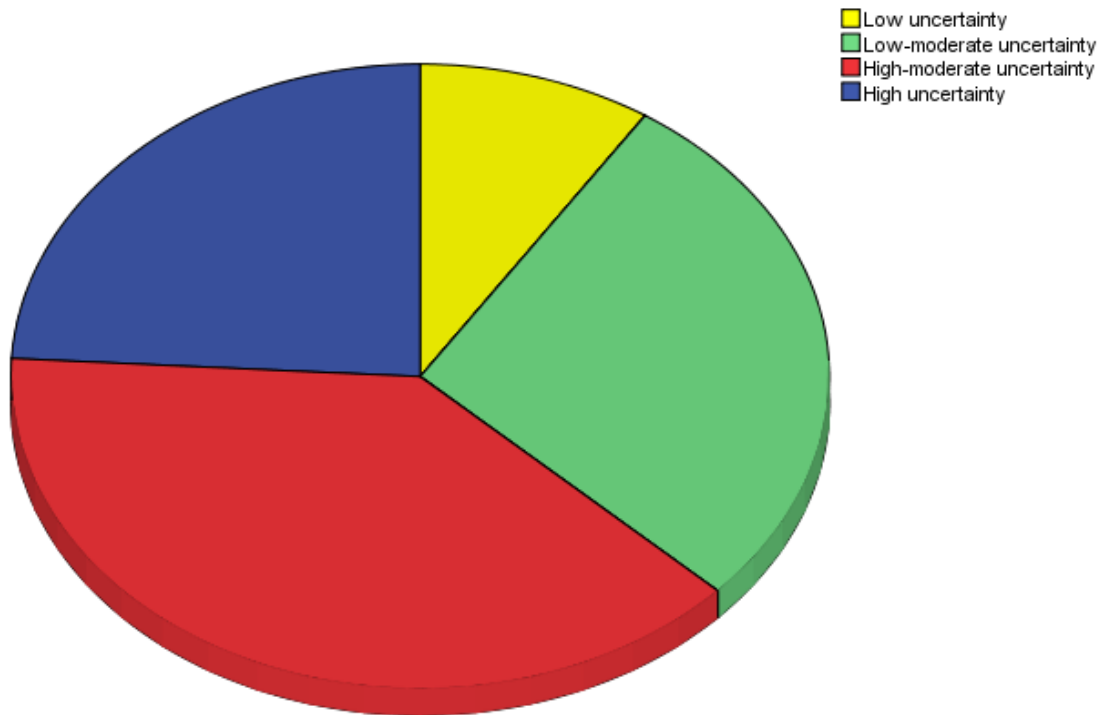


Figure 23 Respondents and the Environmental uncertainty

Type of entrepreneur

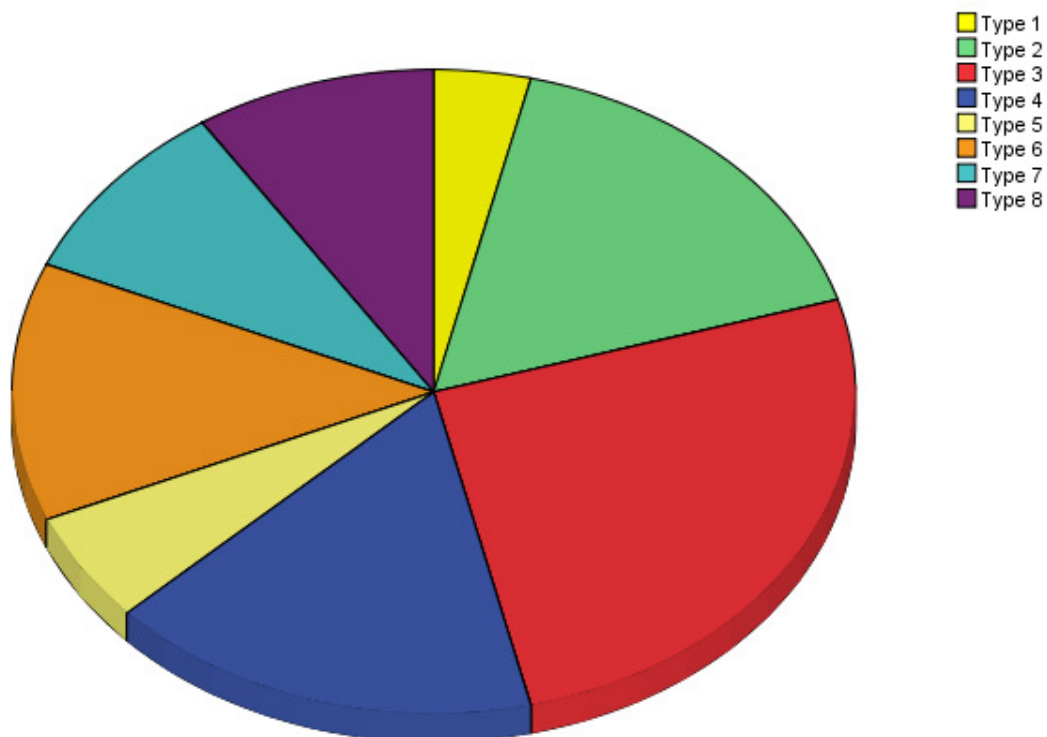


Figure 24 Respondents by type of entrepreneur

Group Statistics

Organizational phase of development		N	Mean	Std. Deviation	Std. Error Mean
Conceptual competencies	Entrepreneurial phase	34	3,0882	,88310	,15145
	Collectivity phase	20	3,5000	,82318	,18407

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Conceptual competencies	Equal variances assumed	,073	,788	-1,696	52	,096	-,41176	,24282	-,89903	,07550
	Equal variances not assumed			-1,727	42,277	,091	-,41176	,23837	-,89271	,06918

Table 28 Significance test Conceptual competencies

Group Statistics

Organizational phase of development		N	Mean	Std. Deviation	Std. Error Mean
Organizational competencies	Entrepreneurial phase	34	2,8162	,96787	,16599
	Collectivity phase	20	3,8125	,95929	,21450

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Organizational competencies	Equal variances assumed	,007	,931	-3,665	52	,001	-,99632	,27187	-1,54186	-,45079
	Equal variances not assumed			-3,673	40,257	,001	-,99632	,27123	-1,54438	-,44826

Table 29 Significance test Organizational competencies

Group Statistics

Organizational phase of development		N	Mean	Std. Deviation	Std. Error Mean
Strategic competencies	Entrepreneurial phase	34	3,5368	,77149	,13231
	Collectivity phase	20	3,9625	,77915	,17422

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Strategic competencies	Equal variances assumed	,028	,868	-1,951	52	,056	-,42574	,21820	-,86358	,01211
	Equal variances not assumed			-1,946	39,643	,059	-,42574	,21877	-,86801	,01654

Tabel 30 Significance test Strategic competencies

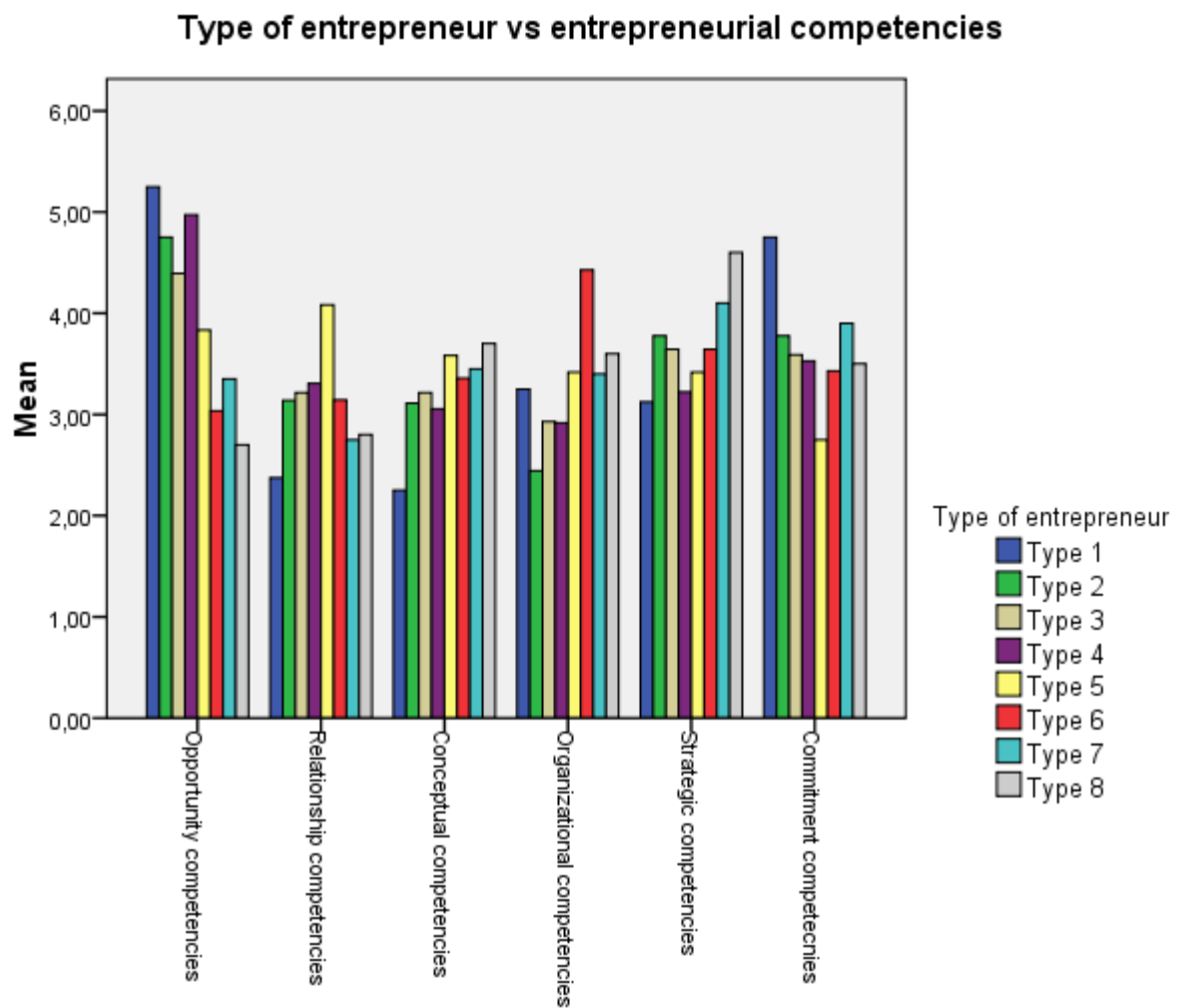


Figure 25 Type of entrepreneur vs entrepreneurial competencies

Correlations

	Departments	Management layers	Formalization	Communication of goals	Initiator of innovation	Organizational phase of development	Organizational function	Number of external elements	Diversity of external elements	Change of external elements	Uncertainty of environment
Departments	Pearson Correlation Sig. (2-tailed) N	1,000 ,647** 54,000	-.255 ,063 54	,012 ,932 54	-.222 ,107 54	-.725** ,000 54	,290* ,033 54	,114 ,412 54	,048 ,729 54	,326* ,016 54	,263 ,055 54
Management layers	Pearson Correlation Sig. (2-tailed) N	,647** ,000 54	1,000 ,295 54	-.072 ,605 54	-.171 ,215 54	-.678** ,000 54	,065 ,642 54	,000 1,000 54	-.199 ,150 54	,211 ,126 54	,020 ,888 54
Formalization	Pearson Correlation Sig. (2-tailed) N	-.255 ,063 54	1,000 ,295 54	-.187 ,177 54	,302* ,026 54	,377** ,005 54	-.088 ,529 54	-.050 ,721 54	-.076 ,587 54	-.083 ,551 54	-.054 ,697 54
Communication of goals	Pearson Correlation Sig. (2-tailed) N	,012 ,932 54	-.072 ,605 54	1,000 54,000	-.128 ,357 54	-.104 ,454 54	-.020 ,884 54	,104 ,453 54	,009 ,950 54	,074 ,597 54	-.101 ,467 54
Initiator of innovation	Pearson Correlation Sig. (2-tailed) N	-.222 ,107 54	,302* ,026 54	-.128 ,357 54	1,000 54,000	,246 ,073 54	,117 ,399 54	,000 1,000 54	-.036 ,798 54	,126 ,366 54	,097 ,484 54
Organizational phase of development	Pearson Correlation Sig. (2-tailed) N	-.725** ,000 54	,377** ,005 54	-.104 ,454 54	,246 ,073 54	1,000 54,000	-.178 ,198 54	-.077 ,581 54	,016 ,907 54	-.211 ,126 54	-.107 ,441 54
Organizational function	Pearson Correlation Sig. (2-tailed) N	,290* ,033 54	-.088 ,529 54	-.020 ,884 54	,117 ,399 54	-.178 ,198 54	1,000 54,000	,045 ,746 54	,055 ,694 54	,246 ,074 54	,184 ,182 54
Number of external elements	Pearson Correlation Sig. (2-tailed) N	,114 ,412 54	-.050 ,721 54	,012 ,932 54	-.222 ,107 54	-.725** ,000 54	,290* ,033 54	1,000 54,000	,000 1,000 54	,260 ,058 54	,647** ,000 54
Diversity of external elements	Pearson Correlation Sig. (2-tailed) N	,048 ,729 54	-.199 ,150 54	,211 ,126 54	-.020 ,884 54	-.088 ,529 54	,065 ,694 54	,000 1,000 54	1,000 54,000	,129 ,354 54	,548** ,000 54
Change of external elements	Pearson Correlation Sig. (2-tailed) N	,326* ,016 54	-.083 ,551 54	,016 ,932 54	-.222 ,107 54	-.725** ,000 54	,290* ,033 54	,114 ,412 54	-.199 ,150 54	1,000 54,000	,707** ,000 54
Uncertainty of environment	Pearson Correlation Sig. (2-tailed) N	,263 ,055 54	-.054 ,697 54	,101 ,467 54	,097 ,484 54	-.107 ,441 54	,184 ,182 54	,647** ,000 54	,548** ,000 54	,707** ,000 54	1,000 54,000

** . Correlation is significant at the 0.01 level (2-tailed).

* . Correlation is significant at the 0.05 level (2-tailed).

Table 31 Correlation between independent variables

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Organizational phase of development	-1,302	,553	-,503	-2,356	,023
Departments	,091	,529	,035	,172	,865
Management layers	,092	,523	,034	,176	,861
Formalization	-,342	,464	-,102	-,736	,466
Communication of goals	,005	,450	,002	,012	,991
Initiator of innovation	,014	,394	,005	,036	,971
Uncertainty of environment	,021	,906	,015	,023	,982
Organizational function	,091	,134	,089	,677	,502
Number of external elements	-,375	,913	-,150	-,411	,683
Diversity of external elements	-,148	1,002	-,052	-,148	,883
Change of external elements	-,004	,883	-,002	-,005	,996

a. Dependent Variable: Opportunity competencies

Table 32 Regression analysis opportunity competencies

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Organizational phase of development	-,033	,441	-,017	-,075	,941
Departments	-,067	,422	-,035	-,159	,875
Management layers	,147	,417	,073	,353	,726
Formalization	-,421	,370	-,169	-1,139	,261
Communication of goals	-,244	,359	-,094	-,681	,500
Initiator of innovation	,985	,314	,466	3,140	,003
Uncertainty of environment	-1,199	,722	-1,187	-1,661	,104
Organizational function	,021	,107	,028	,200	,842
Number of external elements	1,040	,728	,562	1,429	,160
Diversity of external elements	,802	,798	,379	1,004	,321
Change of external elements	1,241	,704	,668	1,763	,085

a. Dependent Variable: Relationship competencies

Table 33 Regression analysis relationship competencies

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Organizational phase of development	,303	,444	,168	,682	,499
Departments	,045	,425	,025	,107	,915
Management layers	-,133	,419	-,070	-,318	,752
Formalization	,310	,372	,133	,832	,410
Communication of goals	,157	,361	,064	,436	,665
Initiator of innovation	-,351	,316	-,177	-1,112	,272
Uncertainty of environment	,051	,727	,054	,071	,944
Organizational function	-,042	,107	-,059	-,391	,697
Number of external elements	,343	,733	,198	,468	,642
Diversity of external elements	,244	,804	,123	,303	,763
Change of external elements	-,332	,709	-,191	-,469	,642

a. Dependent Variable: Conceptual competencies

Table 34 Regression analysis conceptual competencies

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Organizational phase of development	,759	,494	,345	1,535	,132
Departments	-,640	,473	-,294	-1,353	,183
Management layers	,399	,467	,171	,854	,398
Formalization	,017	,415	,006	,041	,968
Communication of goals	,274	,402	,092	,681	,499
Initiator of innovation	-,144	,352	-,059	-,410	,684
Uncertainty of environment	,812	,810	,701	1,003	,322
Organizational function	,131	,120	,152	1,095	,280
Number of external elements	-,770	,816	-,363	-,943	,351
Diversity of external elements	-,226	,895	-,093	-,253	,802
Change of external elements	-1,099	,789	-,516	-1,392	,171

a. Dependent Variable: Organizational competencies

Table 35 Regression analysis organizational competencies

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Organizational phase of development	,737	,375	,452	1,965	,056
Departments	,501	,359	,310	1,396	,170
Management layers	-,067	,355	-,039	-,189	,851
Formalization	-,167	,315	-,079	-,532	,598
Communication of goals	-,695	,305	-,314	-2,278	,028
Initiator of innovation	,043	,267	,024	,160	,873
Uncertainty of environment	,411	,615	,478	,668	,508
Organizational function	-,133	,091	-,208	-1,465	,150
Number of external elements	-,392	,619	-,249	-,632	,531
Diversity of external elements	-,536	,679	-,298	-,789	,435
Change of external elements	,004	,599	,002	,006	,995

a. Dependent Variable: Strategic competencies

Table 36 Regression analysis strategic competencies

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
Organizational phase of development	-,415	,512	-,204	-,810	,422
Departments	,079	,490	,039	,162	,872
Management layers	-,381	,484	-,177	-,788	,435
Formalization	,538	,430	,204	1,252	,217
Communication of goals	,477	,416	,173	1,146	,258
Initiator of innovation	-,582	,364	-,260	-1,599	,117
Uncertainty of environment	-,104	,839	-,097	-,124	,902
Organizational function	-,077	,124	-,096	-,618	,540
Number of external elements	,139	,845	,071	,164	,870
Diversity of external elements	-,127	,927	-,057	-,137	,892
Change of external elements	,152	,817	,077	,186	,854

a. Dependent Variable: Commitment competencies

Table 37 Regression analysis commitment competencies

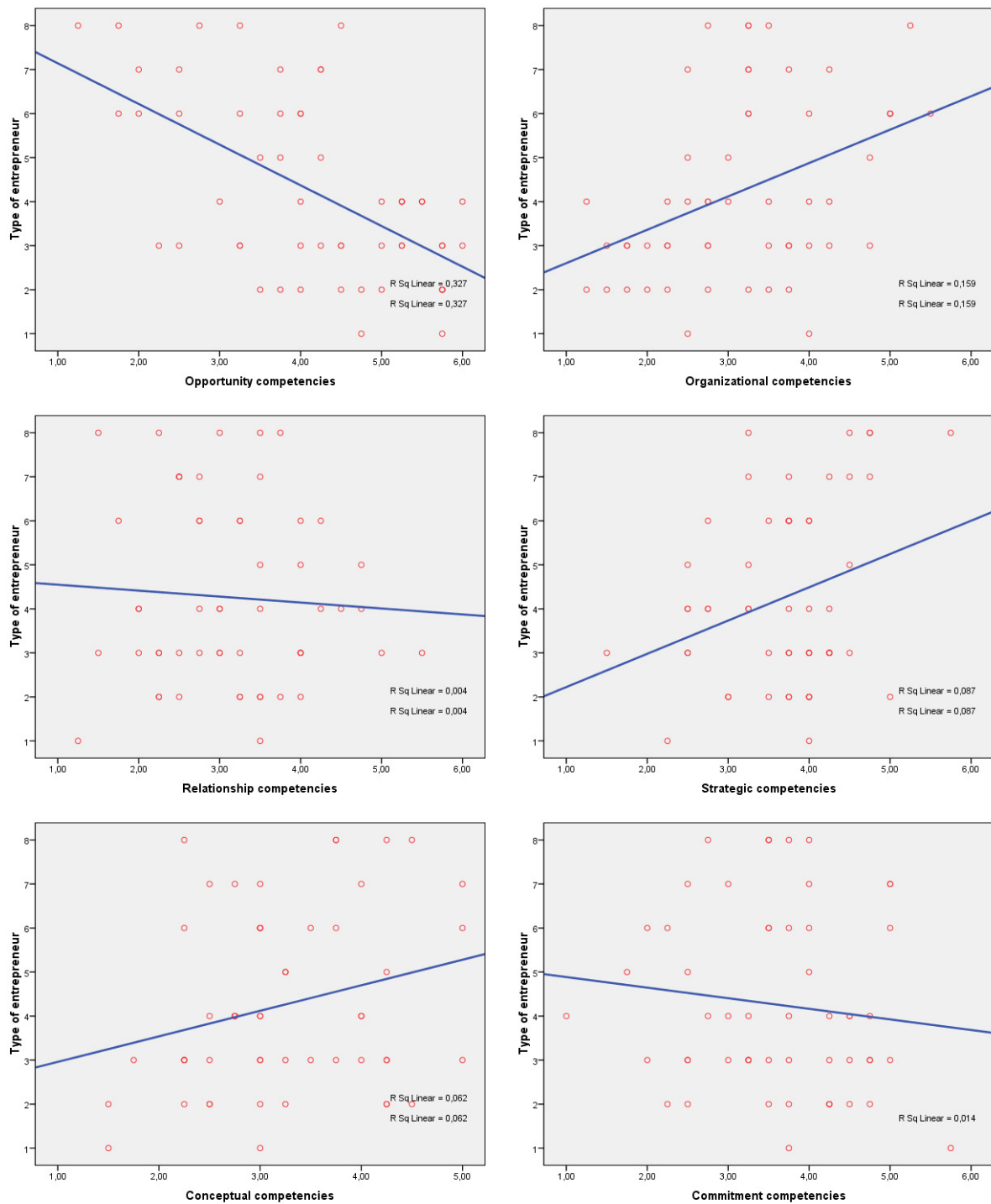


Figure 26 Linear regression analysis

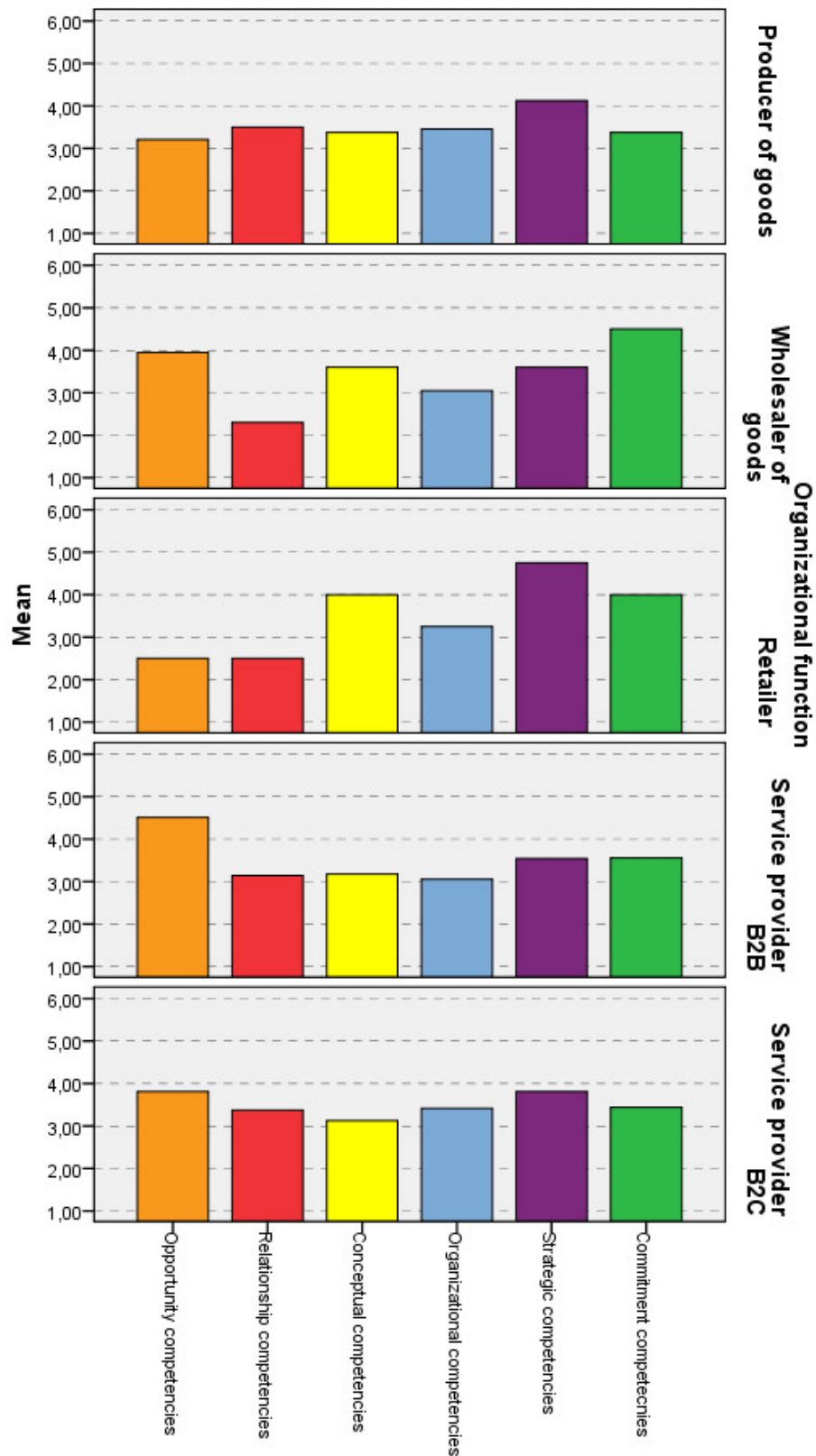


Figure 27 Competencies related to organizational function

Opportunity competencies

<i>opp1</i>	Identify goods or services people want (search for new markets)
<i>opp2</i>	Perceive unmet consumer needs
<i>opp3</i>	Look for products that provide real benefit
<i>opp4</i>	Seizing high-quality business opportunities

Relationship competencies

<i>rel1</i>	Involve people with important resources
<i>rel2</i>	Involve people with important knowledge (both internal and external)
<i>rel3</i>	Venture team with complementary competencies
<i>rel4</i>	Enlist the support of key people

Conceptual competencies

<i>conc1</i>	Maximize results in resource allocation
<i>conc2</i>	Organize resources
<i>conc3</i>	Detect and analyze problems
<i>conc4</i>	Set priorities

Organizational competencies

<i>org1</i>	Organize and motivate people
<i>org2</i>	Delegate effectively
<i>org3</i>	Organizing and coordinating tasks
<i>org4</i>	Supervise, influence, lead

Strategic competencies

<i>strat1</i>	Set clear goals
<i>strat2</i>	Control long term objectives
<i>strat3</i>	Assess if goals are met
<i>strat4</i>	Adjust strategy according to changed circumstances

Commitment competencies

<i>comm1</i>	Make venture to work no matter what
<i>comm2</i>	Refuse to let venture fail
<i>comm3</i>	Make large personal sacrifices
<i>comm4</i>	Extremely strong internal drive

Table 38 abbreviations of activities

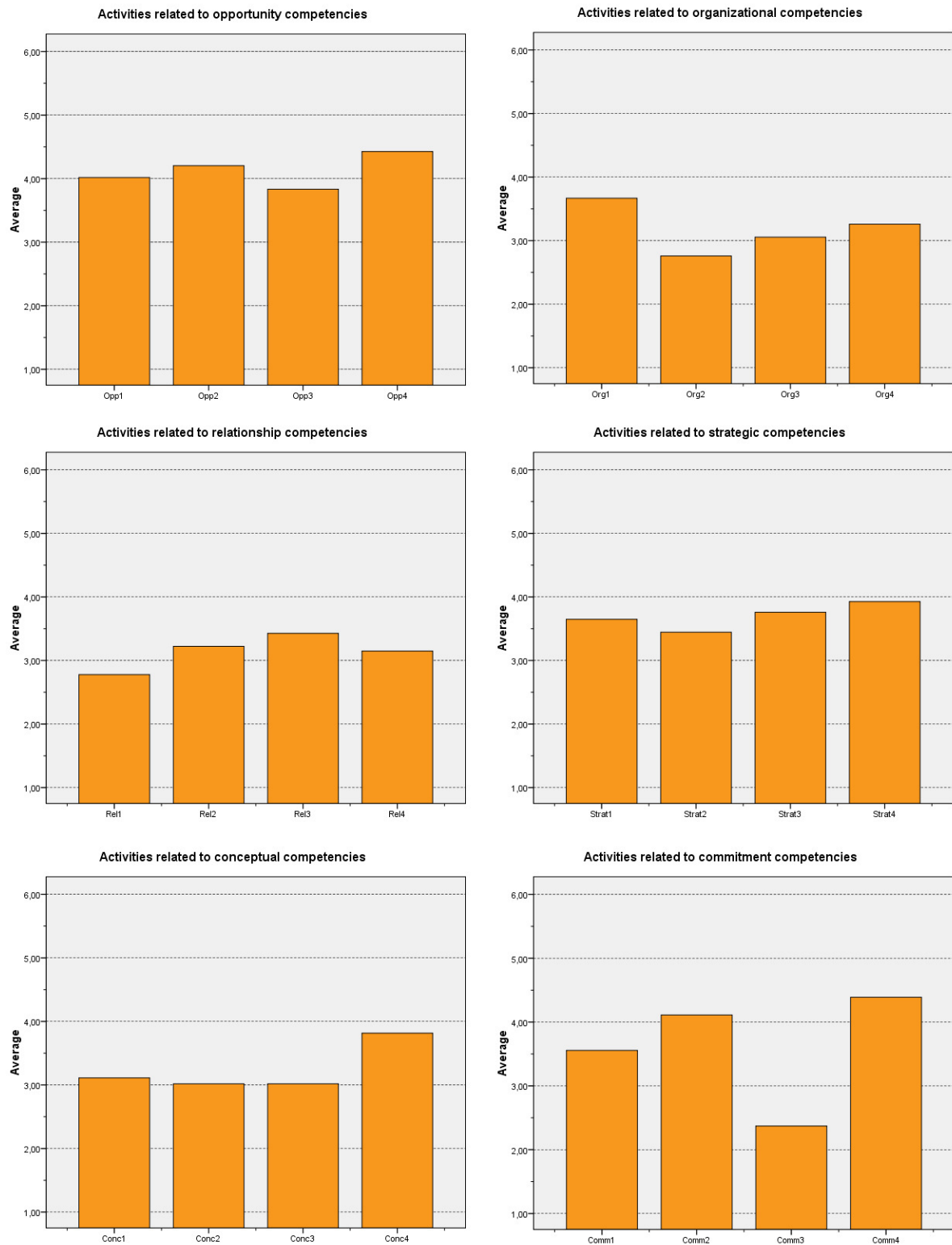


Figure 28 Activities related to competencies

Appendix I

