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Stimulating high growth entrepreneurship in Hungary; *A case study of the Hungarian Baranya region and the Dutch region of Twente*

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Abstract

Researchers have for a long time been trying to pinpoint the reasons for the differences between regions that are excelling in economic development and excelling in restructuring their economy through new business start-ups, and regions that are still lagging behind because of a lack of beneficial entrepreneurship. This thesis has tried to find a cause for this difference by focusing on an institutional approach.

In the scientific literature on entrepreneurship, the concept of role models is more and more being acknowledged. However few good empirical studies on the exact effects of role models have been made. This largely explorative study has tried to fill the gap of a good empirical base for the role model effect combined with the presence of beneficial entrepreneurship within two opposite regions in terms: the excelling region of Twente within the Netherlands and the lagging region of Baranya within Hungary. By providing results of a questionnaire within innovative sectors of these two regions I have found indications for the relationship between entrepreneurial role models and respectively; opportunity recognition, growth ambitions and innovativeness. The most interesting part, and simultaneously the most unexpected part, was that the results are much stronger within the lagging region of Baranya than they are in Twente. It is thus suggested that role models in lagging regions provide possible entrepreneurial skills, but are mostly an alleviating effect for 'bad' institutions, but only so far until a certain critical threshold of 'good' institutions is reached. The exact nature as to how the role model effect works is not found. It is suggested that it mostly serves as an (unconscious) example of a good working business strategy rather than direct useable tacit advice. It follows thus that the role model effect can be 'used' as a tool for institutional change due to its effects on the institutional reciprocity of a region.

Additionally, qualitative data found on high impact entrepreneurs hints to the fact that these entrepreneurs specifically serve as good role models, and very often are a source of support and advice for nascent entrepreneurs in the region, making the role model effect of high impact entrepreneurs specifically interesting due to their larger potential sphere of influence. So far however, partly due to the small research sample, no hard conclusions can be drawn about what makes a high impact start-up significantly different from other ambitious innovative opportunity based nascent firms, nor about how high impact entrepreneurship can be specifically stimulated. It is still assumed that increasing the occurrence of ambitious, innovative opportunity based firms automatically increases high impact firms since essentially these firms are considered similar to each other. However the qualitative research hints that the high impact entrepreneur differs from other entrepreneurs in terms of 'entrepreneurial skill', something that is, although less tangible, hypothetically well suited for the role model effect.

Interlude & Acknowledgements

Before you lies the rapport of the research that I conducted for the master economic geography of the Faculty of Geosciences at the University of Utrecht. This research forms the final aspect of my study. With great joy I look back to what has been a long, sometimes difficult but nevertheless interesting and meaningful experience, not only an a professional level but also on a personal level.

During my studies I was always looking for my 'sweet' spot: at first I thought my future lied in urban planning, soon however I found out this was too bureaucratic and to strict for my taste. Later I searched for options in the more social side of geography by following courses on human development and urban geography which resulted in a bachelor thesis on poverty stricken troubled neighborhoods. However the backbone and the 'leitmotif' of my study were economic (international) oriented courses: evolution economics and globalization related subjects. In retrospect this was fueled by my personal need for more 'hard' science within my study. The choice for the master study economic geography was thus clear in this case. However during my master study I found the subjects to be too much policy related to my taste and lacked depth. Therefore it was difficult for me to directly find a good subject.

However during a course on regional entrepreneurship my interest was immediately sparked. I found the study on entrepreneurship having both hard science and entailed a lot of depth and possibilities. Somehow I wanted to combine this with my interest in the country my mother grew up in: Hungary. And thus my research was born. Hungary lacked good innovative entrepreneurship and the more I read about that and the entrepreneurship literature in general the more excited I became. Over the course of this project it has proved to be ever so interesting. My main interest was the emergence of new entrepreneurship, and the creation of a self-enforcing entrepreneurial culture.

Many people have either directly or indirectly contributed to my research. First I want to give the utmost gratitude and respect to Dr. Niels Bosma and Dr. László Szerb, who have been supervising and counseling me in realizing this thesis. Both of them gave me clear guidance at any time, and most of all a clear vision when I was lost in the forest without a compass.

Next I want to thank all the wonderful people who directly helped me with my thesis: Veronika Parag, Anna Moricz and Boglárka Kiss were of great help to me by giving me their time and effort to gather data from Hungarian entrepreneurs, in particular Veronika whose professionalism left a huge impression on me. I would also like to thank Karoly Oszvald for the enlightening interview and for helping me to send the survey of my research through e-mail to 600 Hungarian entrepreneurs who are operating in Pécs. My cousin András-Gabor Antal helped me a great deal during the early stages of my research by providing an excellent Hungarian translation of my questionnaire. Also I owe special gratitude to my wonderful mother Edith Beems-Nagy for continuous and unconditional support. This would have been something which I could never have realized with my mediocre Hungarian language skills.

My appreciation which I would also like to express to are all the great (anonymous) entrepreneurs who provided me with wonderful and insightful information and did all of this without any compensation. Lastly, I owe special gratitude to my family and friends who have helped me. Their

support and care helped me overcome obstacles and stay focused on my graduate study. ‘Mom and Dad, thank you for your love and support even though the majority of things I did, but most of all, my time-management seemed well out of order’. ‘Tim and Ákos, thanks for telling me to get real and serious’. Finally, ‘Yolanda, thank you for everything. Without your work on the details, your care but most of all assertiveness, I probably would never have been able to finish this project’.

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List of abbreviations

HIE	High Impact Entrepreneurship / High Impact Entrepreneur
SME	Small and Medium sized Enterprises
KBF	Knowledge Based Firm
FDI	Foreign Direct Investment
Narrow role model	A conscious mentioned entrepreneurial example that may or may not provide direct help during the business start-up phase
Wide role model	An unconscious entrepreneurial example that is not explicitly mentioned as being an entrepreneurial example, but has provided direct help during the business start-up phase
Social capital	The direct social environment that provides tangible help with the start-up phase of the company

1 Introduction

1.1 Background

'Opportunity is missed by most people because it is dressed in overalls and looks like work' (Thomas Edison; inventor/businessman, 1847-1931).

During the post-WWII era, political instability along with the Cold War made potential investments within Eastern Europe and the developing world volatile and rather uninteresting. International trade and investments were normally confined to North-America, Europe, Japan and the Asian tigers. Comparative advantages among developed nations were based on scale-economies; large scale production at a low cost. Therefore, the (relatively) small markets of the European Union posed a threat to the competitiveness. This resulted in two strategies, developed by European countries (exempt the communist countries), in order to cope with the risk. The first strategy entailed the focus of exploring international markets. The second strategy was to rely on skilled labor and use of high levels of human capital to produce superior quality products. Through superior management and organization, it was possible to create production on a large scale with exceptional quality through the use of high-skilled labor (Audretsch & Thurik, 2000). Therefore, the comparative advantage of Europe lied on the usage of economies of scale for medium technology-intensive products in traditional industries (Audretsch & Thurik, 1997).

However, in the last decade this comparative advantage has been lost in the developed nations of Europe and North-America because of two reasons. The first reason is the emergence of a (partly) globalized economy which ensured competition of not only countries from Southeast-Asia but also from former communist countries. The labor costs (and the overall costs of products) are much lower in these countries. Other emerging nations such as India and China have more recently became even more interesting to transnational companies. The second reason is the revolution in communication technology. This ensured the steady fall of information costs across geographic space to virtually nothing, causing dilemma for producers in high-cost countries. With the prospect of losing global market share, they have three options:

- reduce wage and other production costs;
- increase productivity by substituting technology and equipment for labor;
- move production sites to low-cost locations.

In general the companies within these high-cost countries successfully applied the latter two strategies thereby ensuring their viability. However, this got accompanied with corporation downsizing among all countries in the OECD, resulting in large job losses (mainly blue collar jobs). Nevertheless the alternative is shifting the comparative advantage towards knowledge based economic activity, which actually is compatible with high wages and high employment levels (Audretsch & Thurik, 2000; 2001; 2004). Many OECD countries have successfully shifted towards a comparative advantage of knowledge based production which is often nation or even region specific (this has mainly to do with the paradox of an increasingly importance of geography in economy, but in politics and social aspects as well; see Massey & Allen, *Geography matters*! 1984, for a more elaborate explanation). This knowledge consists of subjective ideas, which are often the result of face-to-face contact and interchange, are difficult and uncertain to explicitly record. This region or nation specific knowledge and ideas are very hard to copy by competitors outside of the

concentrated loci of economic activity where the knowledge and ideas are created (Audretsch & Feldman, 1996; Audretsch & Stephan 1996). There is significant proof that there actually is a shift going on towards this knowledge based economy; for instance a study of Kortum & Lerner (1997) found a large increase in the amount of patenting in the US since 1985. Within the previous 'era' of the hegemony of the large firm, competition was based on effectively allocating inputs such as machinery, resources and labor. Within the production process, knowledge is a qualitatively different and less tangible input (Audretsch & Thurik, 1997). Additionally, Berman et al. (1997) found a sharp decline for less skilled workers in the OECD countries, and simultaneously a large increase in the demand for skilled workers. However, this transition did initially not come easily because of the dominance of large companies and their incompetence for shifting their core activities from traditional industries to newer (more advanced) ones.

Due to the uncertainty that accompanies new ideas, necessary for innovation and the inflexibility of large organizations, successful application and commercialization of new knowledge and creative ideas is best served through the start of a new enterprise. Entrepreneurship can therefore be seen as conducive for the innovative ability of a region or nation (Audretsch & Thurik, 2000).

1.1.1 Entrepreneurship

Academic literature on entrepreneurship already dates a couple of ages back from the works of Richard Cantillon and Jean-Baptist Say (van Praag, 1999). However the first researcher who really underlined the importance of entrepreneurship for economic growth was Joseph Schumpeter. Schumpeter (1911) stressed that the key determinant of an economy's technological performance was entrepreneurship. With his theory of creative destruction he theorized that long-term economic growth is being sustained because of the entry of innovative entrepreneurs who destabilized the market and the exit of obsolete firms; hence the term creative destruction. '*On the basis of a stimulus towards a creative function [the entrepreneur], breaks away from the path of routine'* (Santarelli and Pesciarelli, pp. 694, 1990). On to this day entrepreneurship is still a hot issue and this multifaceted phenomenon receives increasing attention from researchers in business administration, economics, sociology, economic geography (Tamásy, 2006) and even in politics because of its potential to create new employment and 'productive innovation' (Baumol, 2002), thereby providing a useful 'tool' against unemployment and promoting economic growth.

1.1.2 Hungary

One of the formerly mentioned low-cost countries from the former communist bloc is Hungary. Hungary is currently labeled as an efficiency driven economy in transition to an innovation based economy. Szerb et al. (2007a) made a comparison of Hungary and Ireland, two countries that were on the same level of economic development in the 1970's; both countries had similar levels of GDP per capita. While Ireland was (before the economic crisis) one of the most developed countries in the world and could by all standards be considered a knowledge based economy, Hungary is far from it. Szerb et al. (2007a) showed in the case of Ireland that certain factors led to the country's transformation. Among many factors Ireland for one could account for a large share of EU financial support. Secondly, a large inflow of FDI lead to steady economic growth and eventually transforming the economy to an innovation driven world class competitive one by absorbing technology and knowledge spill-over from FDI. One very important point that Szerb et al. (2007a) stress is the creation of new firms based on knowledge. In Ireland this knowledge was partly absorbed from FDI.

Local employees and managers learned the tacit knowledge that accompanied the production processes of these foreign companies and were later able to apply that knowledge in domestic firms.

Currently Hungary is in European and global perspective not in the same position as Ireland was 20 years ago: it does not receive sufficient FDI inflow (and probably will not in the future due to fierce competition of other low-cost countries such as China and India), it receives very little financial support from the European Union, but most of all the entrepreneurial sector within Hungary is relatively small. Alike the views of many researchers, in this thesis it is assumed that this marginalized entrepreneurial sector is detrimental for the country's economic development. One specific quality that Hungary lacks in, is the availability of opportunity based (high growth) innovative firms.

1.2 Research Objectives & Approach

The challenge faced in this paper follows the (yet unsuccessful) transformation of the Hungarian economy from an efficiency driven economy to a knowledge based economy. This study will be a regional institutional case related approach for an unfavorable region in terms of development and in terms of entrepreneurship within Hungary.

1.2.1 Research Objectives and Main research Question

The main objective of this thesis is to improve the general understanding of an unfavorable environment for entrepreneurship, commensurate it to a comparable region that is favorable to entrepreneurship, and thereby trying to pinpoint certain variables that can be altered on a (sub) regional level to facilitate entrepreneurship. The main research question reads as follows:

'*Why is entrepreneurship lagging in post-communist peripheral regions and what is the relationship between the institutional context, entrepreneurial opportunities and the presence of entrepreneurial role models in an unfavorable environment for entrepreneurship?*'

This thesis will shed light on the subject from an institutional perspective by conducting a case study of the Pécs region within Hungary. This thesis puts central the mechanisms underlying the observation that the Baranya region is unfavorable for opportunity based (high growth) innovative entrepreneurship.

1.2.2 Approach

Scope of the study

As been said previously, Hungary is a country that is in transition from an investment based economy to an innovation based economy. Literature has pointed out, that entrepreneurship can be a catalyst for both economic growth and innovation (though theoretically these two already interact with each other). Though not all entrepreneurship is constructive (see for instance Baumol, 1990) the so-called high growth gazelles certainly are. In this department Hungary is definitely lagging. Literature has pointed out, that though the national level certainly is important for entrepreneurship; it is the regional level that is most relevant. Following GEM data it shows that regional differences are large within Hungary: the Baranya region has the lowest figures for both high growth potential entrepreneurship and innovative entrepreneurship (Bosma, 2009). Since the purpose here is to figure out the reason for these low figures, a favorable region within Netherlands was chosen with comparable characteristics that serve as a comparison: Twente. Though not entirely similar, all

regions are within the periphery of the country, are not densely populated and have one large University that is the regional focal point of science and education.

This thesis will be an empirical application for an unfavorable environment for entrepreneurship from an institutional perspective by comparing it to a favorable environment. The way this research is structured through quantitative data, open ended interviews and historical analysis, can lead to different and most of all new discoveries and form a basis for new and different research. Through these in depth interviews, a bulk of information about the relationship between the firm and the environment will be gathered.

The literature section of this thesis focuses primarily on high impact firms. It connects to the empirical part that focuses on opportunity based entrepreneurship and its limiting factors by assuming that - although market imitators are beneficial for industry development, knowledge diffusion and market expansion - it is the entrepreneurial pioneer regarding innovation and growth that within the regional economy have the biggest multiplier effect (Carree & Thurik, 2003). In short a region needs two inputs: market followers and market pioneers. The first step in creating pioneers, or better put, in increasing the occurrence of entrepreneurial pioneers is establishing an entrepreneurial climate that is conducive to ALL entrepreneurial activity. From there one it is perhaps easier to actively stimulate high impact firms. This can be done by figuring out whether high impact firms and especially their founders differ fundamentally from their less successful peers.

The importance of the role model effect here, will be investigated using a questionnaire directed to high impact entrepreneurs that tries to find limiting factors on 'regular' opportunity based ambitious innovative entrepreneurship. It is assumed here, that the occurrence of high impact entrepreneurship is but a function of opportunity based ambitious innovative entrepreneurship. With other words: a certain percentages of those opportunity based, ambitious innovative firms turn out to be high growth and thus high impact firms. It is thought that role model effects can negate the impeding institutional effects on entrepreneurship. The additional idea is that high impact firms can serve as 'super' role models for other firms, market followers, who diffuse this knowledge, expand markets, and possible create knowledge of their own. In the quantitative research part it will be investigated whether 'regular' opportunity based entrepreneurs are sensitive to such a role model effect. The qualitative research will shed more light on the enigma that surrounds high impact entrepreneurship, its success, starting motivations and possible factors that affect and impedes the occurrence of this sort of firm more than it does with other types of firms.

The approach of this research will follow an institutional perspective. Institutional economic geography is mostly based on inductive case study research that emphasizes the local 'uniqueness' of a certain place. In this school of thought, economic behavior is rationally bounded and the actions of economic agents are guided in their decisions and actions by an institutional framework. These institutions are embedded in local practices with a distinct geographical scale, making the local level the relevant level of analysis (Boschma & Frenken, 2006). Firm behavior and industrial dynamics is not primarily based on routines gathered in the past, but rather on durable institutions that affect inter-firm relations and industrial relations.

According to Hall & Soskice (2001) on the national level, the most important institutional factors are the labor market regulations, corporate governance and the education and training system. Van Stel et al. (2006) propose capital requirements as the main obstruction for entrepreneurial entry rates.

On the regional level, Fornahl (2003) states that many (rural) areas lag in entrepreneurial qualities not because of physical disadvantages like weak infrastructure and the likes, but also unsuitable social-cultural traits in their institutional framework making it non-beneficial for effective entrepreneurial activity. Baumol (1990) stated that the levels of entrepreneurial activity in a specific time and place are determined by socio-cultural factors within the institutional framework. Another study of the OECD (2003) shows that within rural areas there are several cultural barriers, limited networks and a lack of positive role models or entrepreneurial examples that influence entrepreneurship in both its extent and in its survival. It is this socio-cultural factor, and in specific the role model effect that will be emphasized here.

In short, institutions matters, especially for economically peripheral regions. For this research and the research question there will be resided towards a more regional institutional take on (nascent) entrepreneurship which In this case is applied to entrepreneurial 'unfriendly' post-communist regions.

Partial research questions

In order to investigate the central research question (shown in paragraph 1.2.1) six partial questions need to be answered in congruence to a case study applied to the Baranya region within Hungary, a former communist country which will be contrasted with the Twente region within the Netherlands.

- Q1 Why is entrepreneurship important for economic growth and is all entrepreneurship beneficial?
- Q2 What is the influence of the institutional context on entrepreneurship?
- Q3 How does Hungary's communist history influence entrepreneurship to this day?
- Q4 How is the general institutional context for entrepreneurship within Baranya?
- Q5 Why is the perception of entrepreneurial opportunities within the Baranya region so low?
- Q6 How does the presence of entrepreneurial role models influence the two regions?
- Q7 How does the high impact firm differ from their less successful counterparts?

Main contributions

Due to the multisided approach taken within this thesis the results could harvest several useful contributions to the literature. However, the two most important considerations within this thesis that could have a profound effect are the influence of role models or entrepreneurial examples on opportunity recognition, ambition levels and innovativeness of the firm, three variables that are in this thesis considered to be essential for entrepreneurship. So far there has been limited empirical evidence on the direct relation between role models and new firm start-ups (Bosma et al., 2011, find preliminary evidence for this relation). Moreover there is yet to be a study found in how role models influence other entrepreneurs. Furthermore, there will be given a closer examination on the regional factors that are beneficial in stimulating high growth entrepreneurship along with given an insight in the general way high impact firms develop and evolve.

Limitations

Performing this research certainly has had its limitations. In all fairness there are better examples than regions within the Netherlands to serve as a source of comparison. However, due to time and money limitations it was not possible to research more regions in other countries outside the Netherlands. However within the Netherlands the Twente region is a perfect example of a peripheral economy that has boosted its economy through knowledge creation and entrepreneurship.

Furthermore, the scope of and size of the empirical investigations in this thesis form a problem in the sense that it is difficult to make sound conclusions out of a small research sample, and a small research population such as the high impact entrepreneurs. Moreover due to small sample size it was not feasible to distinguish the role model effect between pre-business start-up phase, and post start-up phase. Lastly it was not controlled whether entrepreneurs had previous business start-up since this, according to Bosma et al. (2011) decreases the necessity for a role model.

Structure of the thesis

This study entails two research parts: the first parts will revolve around investigating the historical context of a post communist economy and its economic culture. The second part combines a empirical qualitative approach with a large questionnaire among entrepreneurs. In depth open ended interviews with entrepreneurs with an innovative high growth firm about their opinions of the region, their success, their influence on the region and their presumable function as entrepreneurial role models themselves, along with an interview with a government figure should supplement the empirical research findings, as well as providing insight in potential new research questions for later studies.

The theoretical framework and the empirical application are based upon two conceptual models that build on the models proposed by Wennekers (2006). The key conceptual models are derived in chapter 2. They reflect two different effects with regards to nascent entrepreneurship. The first model is a more generalized model that roughly shows the reciprocal relationship between nascent entrepreneurship, innovations, economic growth and the creation of new economic opportunities. The second model shows the intricate causal mechanism behind the (regional) occurrence of nascent entrepreneurship.

In Chapter 2 and chapter 3 the theoretical framework will be discussed. In chapter 4 more light will be shed on the (difficult) economic history Hungary has had to deal with due to 'goulash' communism and the negative effects the contemporary entrepreneurial sector has had to endure due to this past. The 5th chapter shows the two regions the case study will be focused on. Chapter 6 and 7 will revolve around explaining the methodology used in this thesis, and the results from the empirical research. In chapter 8 the research question will be answered.

Defining research topic

Hungary is a relatively large country with relatively large differences between regions regarding entrepreneurship. Within Hungary, the Baranya region lies in the periphery and performs below average on several indicators such as income level, productivity but most of all entrepreneurship. Given the fact that it is the regional level, which is important for competitiveness and it is entrepreneurship that gives a region its competitive edge, it is the entrepreneurial climate that should be altered and improved. Within the Netherlands, the peripheral region of Twente performs above average, especially regarding starting and new innovative firms. Besides, a large part of the 'Deloitte fast 50 contestants' of the Netherlands and even the Benelux come actually from this region.

What both of these regions have in common are their peripheral geography and peripheral part in the economy. Secondly, both have a past that is influenced by a heavy industrial sector and both regions had to restructure for that. Thirdly both regions have a large University that is important for the region.

2 Macro-Economic factors in entrepreneurship

'*Entrepreneurial profit and interest are the immediate fruits of the process of development*'.
Joseph. A. Schumpeter in: Backhaus (pp. 80, 2003)

This quote from Schumpeter draws the attention because of the link between the individual entrepreneur and its assumed impetus towards regional development. When put in a regional and national context this becomes very relevant for economic growth. At first this chapter will roughly follow two conceptual models that are based on Wennekers (2006). One is used to explain the effect of (nascent) entrepreneurship on economic growth and vice versa (model 1), which will be dealt with from paragraph 2.2 and the second one is used for the determinants of nascent entrepreneurship (model 2), which will be dealt with from paragraph 2.5.. At the end of the chapter the models will be partly conjugated and used in the second chapter where they will be explained further.

This chapter is structured in three parts; firstly there will be a short definition of what precisely entails entrepreneurship. After that the influence of entrepreneurship on economic growth and development along with the interrelated process of innovation in both a national and regional sphere will be shown. The third part of chapter 2 will revolve around opportunity based entrepreneurship and in particular high impact entrepreneurship.

Based on this, the first partial research question will be answered: Q1 *Why is entrepreneurship important for economic growth and is all entrepreneurship beneficial?*

2.1 Entrepreneurship an introduction

From an etymologic perspective an entrepreneur is defined as a person that undertakes something. Interestingly enough the first example of a modern day entrepreneur was found in the 16th and 17th century Dutch republic (Wennekers, 2006). In historical perspective, one of the earliest theoretical accounts of entrepreneurship is from Cantillon and scientists alike who proposed the entrepreneur as someone who buys at a fixed price and then sells at uncertain prices, thereby bearing a certain amount of risk. Subsequent intellectual traditions followed this theory and expanded it. In the German school of von Thunen and Schumpeter the entrepreneur was the creator of instability and creative destruction (following the Schumpeter's theory of creative destruction). The entrepreneur changes the way competition works within an industry. The Austrian schools focused on the entrepreneur as the perceiver of profit opportunities. The entrepreneur improves market inefficiencies and deficiencies and satisfies unfulfilled needs of the market by combining resources. Additionally, in the Chicago view it is theorized that the entrepreneur establishes market equilibriums (Wennekers, 2006).

Regardless of which school one adheres, Nooteboom (2003) stresses that there is not a 'right' notion of what entails an entrepreneur, but rather a good myriad of theories that compliment the different stages of the market and discovery and the role of the entrepreneur in that. Nowadays there are still many definitions of what an entrepreneur or entrepreneurial activity may entail. Garnsey (1998) states that an entrepreneur matches opportunities and resources to create (economic) value. Casson & Wadeson (2007) present the entrepreneur as an individual who separates itself from the average person by the lower information costs that he or she has, which gives him/her a competitive benefit

in the search of a new business opportunity. Santarelli & Vivarelli (pp. 456, 2007) present it as *'the process by which new enterprises are founded and become viable'*. Hébert & Link (1989) theorize that entrepreneurship deals with the start of a new enterprise and the role of risk takers and creative individuals. Cromie (2000) talks about entrepreneurship not only being associated with the formation of new firms, but the simple action of developing something new. In that sense this could happen within an enterprise or organization as well, without the necessity of creating a new enterprise. What is striking is that all researchers refer to the creation of something new when addressing the entrepreneurial typology.

Wennekers (2006) comes across two possible definitions for entrepreneur: on one hand you have the display of entrepreneurial behavior by setting up a new venture by seizing an opportunity; the entrepreneur as an innovator (following Schumpeter's ideas and the German school). On the other hand one could view the entrepreneur as: *'one who organizes, owns, manages and assumes the risks of a business'* (Wennekers, pp. 38, 2006); or better put, the entrepreneur as a business owner or the self-employed (following the ideas of Cantillon and Say). Baumol (1968) too recognizes such a dichotomy between on the one hand the entrepreneur as the manager and the entrepreneur as an innovator. Some researches would go as far to view entrepreneurship as a behavioral phenomenon that is the process of individuals who either within organizations or on their own, '*pursue opportunities without regard to the resources they currently control'* (Stevenson & Jarillo, pp. 23, 1990). In short they do not propose the necessity of owning an enterprise to be considered an entrepreneur. In this light of both an occupational notion of entrepreneurship (working for one's own account and risk) and the behavioral notion Wennekers (2006) proposes a table which divides a double dichotomy of entrepreneurship.

Table 2.1: The double dichotomy of entrepreneurship

	Self-employed	**Employee**
Entrepreneurial Managerial	Independent entrepreneurs (managerial business owners	Corporate entrepreneurs executive managers

Source: Wennekers (2006)

At first hand, Wennekers (2006) divides between the occupation of entrepreneur and the employee. Secondly he also divides between managing and organizing resources, and creating en exploiting new economic opportunities. It is interesting to note that the independent entrepreneur is also defined as the Schumpeterian entrepreneur, which is in the words of Schutjens (2007), the sort of entrepreneur that is also the most important for the economy, as will be shown later on in this thesis. In this thesis entrepreneurs will be referred as those who are self-employed; the occupational notion of the entrepreneur.

This is useful and interesting for multiple reasons:

- Firstly, and most importantly, the occupational notion of the entrepreneur is the one that is most used in most theoretical research papers;
- Secondly, the occupational entrepreneur is the also the most measured notion in most statistical data, and also it is considered an import policy issue for most governments;
- Thirdly, the occupational entrepreneur is more easily measureable than the wider definition of entrepreneur.

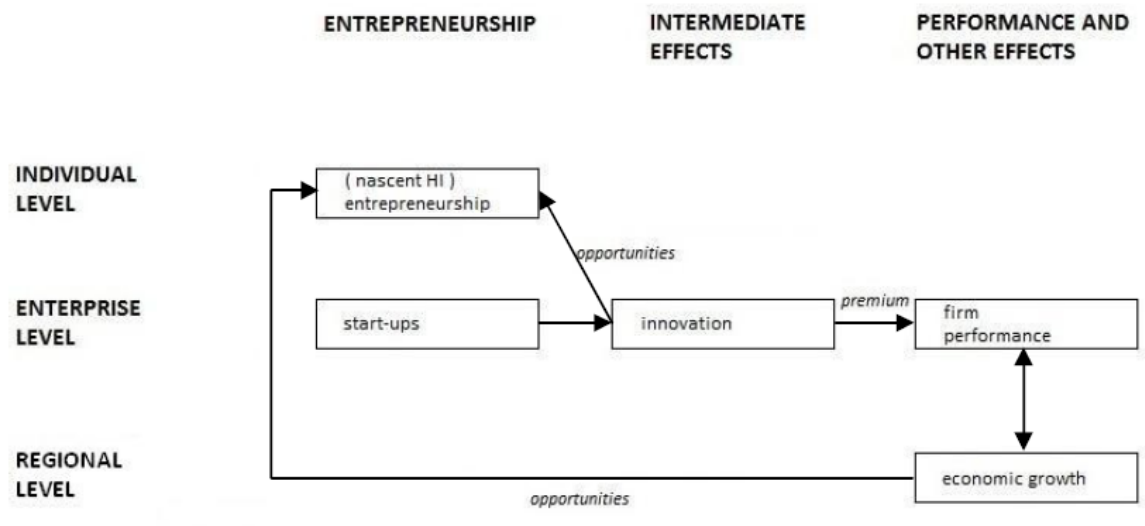
Entrepreneurial activity can also be seen in different phases. Reynolds et al. (2005) recognize 4 phases and 3 transitions. The first phases constitutes of latent entrepreneurs who are contemplating setting up a business. The next phase is the start-up phase and the entrepreneur is classified as the nascent entrepreneur. When creating an operational business the third phase comes into play, and the entrepreneur is thus now known as an owner-manager. With the ageing of the firm, the firm becomes known as an established firm and it hits the fourth phase. The distinction between a nascent firm and a new firm depends on age. A new firm is considered one which has paid salaries and wages for three months and less than 42 months. These types of entrepreneurs and business will be addressed accordingly. Most of the time I will refer to nascent entrepreneurship, since it is the most commonly used term when referring to new entrepreneurial activity.

Chapter I will further elaborate on the –as, along with many others, mentioned by Schutjens (2007)- 'significance' of the occupational entrepreneur. As will be shown, not all entrepreneurship is beneficial for economic growth and development. Furthermore it has different effects on different levels and if under the right circumstances, will actually lead to more entrepreneurship, thus facilitating a multiplier effect for economic development.

2.2 Entrepreneurship, economic growth and development

Entrepreneurship is in the economic and geographic literature more and more linked to economic growth and development. What are the basic assumptions about this? What are the theories about this and how is this measured? This paragraph will answer these questions, resulting in explaining model 1. For the rest of the thesis, I will refer to this model as model 1.

Figure 2.1 Nascent entrepreneurship and its effects (model 1)



Source: Based on Wennekers (2006)

2.2.1 Entrepreneurship in different stages of development

Porter (1990) stated that entrepreneurship is at the heart of the national advantage. However, before the impact of entrepreneurship is discussed, one has to define what is meant with economic growth and development. Economic growth is often an easy measurable term since it constitutes of hard measurements which are easily comparable. Researchers often refer to employment growth and/or wage increases along with GDP increases and capita per income increases, but also productivity increases (Stam, 2008). This is often arbitrary and dependent on the specific research. It is nevertheless a tangible measurement. Economic development is another story however, since it is less clear cut what this development might entail.

Within the literature economic development is often measured by various methods. An operational notion would encompass accompanying, interrelated processes of structural change, otherwise known as structural transformations (Syrguin, 1988). Syrguin build an entire theory, called the structural transformations theory around these processes. The core components of these structural changes translate themselves into accumulation of capital (both physical as human capital) and shifts in the sector composition of economic activity which holds employment, consumption and production. Socio-economic side-effects are demographic transitions, urbanization, growing levels of education and income distribution changes. Earlier models such as the Rostow's theory (1960) recognizes five stages of economic growth: *the traditional society, preconditions for take-off, take-off, drive to maturity and the high mass consumption society.* Major critique on this theory was the purposely uniformity of the stages and the notion of an unique development path. Other theorists such as Chenery & Syrquin (in: Syrquin, 1988) propose a three stage model: primary production, industrialization and the developed economy, with a further specialization of altering population sizes and international economic specialization of a nation. A more contemporary study of Porter et al. (2002) opt for an increasingly refined and 'developed' ways of producing and competing in a way to economic development. A model of economic development applied in GEM reports of 2008 and onward concur with the aforementioned model of Porter et al. Basically this model implies the transition from a resource based to a knowledge-based economy. Within this 'dichotomy' they actually identify three consecutive stages:

- The first stage is a factor driven stage of economic development. It is based on mobilizing production factors such as land, unskilled labor and primary resources. International competitiveness is based on low factor costs, and the shear presence of (valuable) resources such as gold, oil or diamonds;
- The second stage is the industrialization of the economy. As countries move to the industrialized economy, further economic growth becomes more capital intensive and dependent on investments. An important factor in this progression is the efficient allocation of labor and capital, and the just functioning of these markets. Furthermore attracting FDI and educating the labor population so as to attain a certain level of technological knowledge caused by foreign knowledge spillovers is essential. Competitiveness relies on manufacturing production efficiency. Essential in the transition first and second stage is the accumulation of both capital and technological knowledge attained through diffusion. As we will see later on, Hungary falls within this stage and the transition to the third stage;
- The third stage is an innovation-driven economy such as the Netherlands. Countries in this stage have certain competitive innovative economic sectors that compete at the global level. Income levels within these countries are high. To transition from the industrialized economy

to the innovation driven economy requires both the ability to produce and effectively commercialize and market innovations and technology. This requires often the (intensive) cooperation between universities, government and the private business: the triple helix model by Etzkowitz & Leydesdorff (2000). Goal is to create a large amount of knowledge, skills, technologies and purchasing power to attain a level of increasing returns to scale on innovation. Eventually this will ensure a multiplier effect of continuing innovation and long-term economic growth (Sachs, 2000). In the light of this chapter Audretsch & Thurik (1997; and onwards) refer to a rather interesting term to describe the knowledge economy: '*the entrepreneurial economy'*.

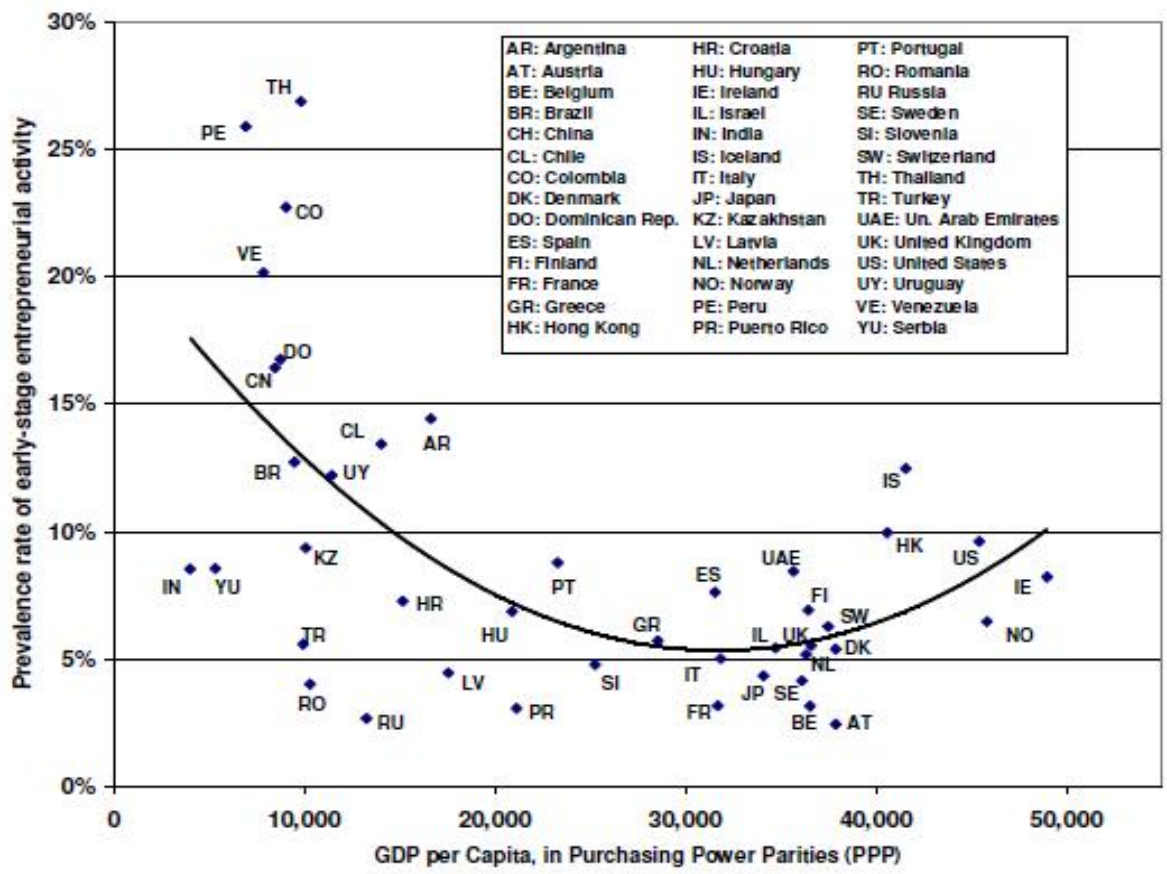
Multiple scholars such as Kuznets (1971), Schultz (1990), Yamada (1996), Iyigun & Owen (1998) notice an actually negative relationship between rates of business-ownership in the labor-force (defined as self-employment) and economic development (in: Wennekers , 2006). Wennekers gives several reasons for the declining self-employment rate and increasing income per capita. In an industrial economy, economies of scale are most beneficial. Larger firms have to ability to profit from these economies of scale, while at the same time minimizing transaction costs. In the past it was thus thought that new and small firms actually impede economic growth since they were attracting scarce resources from larger established firms (Audretsch & Thurik, 2000). Moreover, according to Lucas (1978) increases in real wages also increase the opportunity costs for entrepreneurship, thus making it more likely to choose for a career as employee. Iyigun & Owen (1998) notice an increase in risk aversion as economic development progresses. However in advanced economies, statistical evidence indicates a reversal of this negative relationship between economic development and self-ownership.

An increase in business ownership implies thus also an increase in nascent entrepreneurship, economic development and per capita income. This so-called U-shape trend was first noticed by Blau (1987) as a longitudinal study on entrepreneurship in the US. Acs et al. (1994) and Wennekers et al. (2005) find comparable results while Carree et al. (2002) already theorized a similar trend (Carree et al., 2007 however come back to this statement and find no particular statistical significant u-shape of the entrepreneurial equilibrium rate). Because of an increase in the service sector and an accompanied increase in income per capita and wealth, opportunities for entrepreneurship increase as well as the consumer demand for product and service variety. This demand can thus be met by small firms operating in niche markets (Wennekers et al., 2006). Aforementioned study by Carree et al. (2007) concludes that for highly developed countries stimulating business ownership is beneficial for the economy as a whole. A study performed by van Stel et al. (2005) shows that the TEA rate (total entrepreneurial activity rate; nascent entrepreneurial rate summed with the percentage of young businesses in the total adult population) has indeed an effect on countries. However its effect is negative on relatively poor countries; GDP is negatively affected by high levels of entrepreneurship. The effect of entrepreneurship is interestingly enough positive for the higher income countries. This causal relation is however not as straightforward as it seems, and may be influenced by the very nature of the economy in its whole (later on in this chapter there will be made a distinction between two types of economies).

Bosma et al. (2008b) based on GEM data, made a good graphical depiction of the U-shaped relationship of total early stage entrepreneurship (TEA) and per capita income (PPP), as is

exemplified in figure 2.3 below. This figure clearly supplements the found correlation between developing nations, GDP growth and prevalence of nascent entrepreneurial activity.

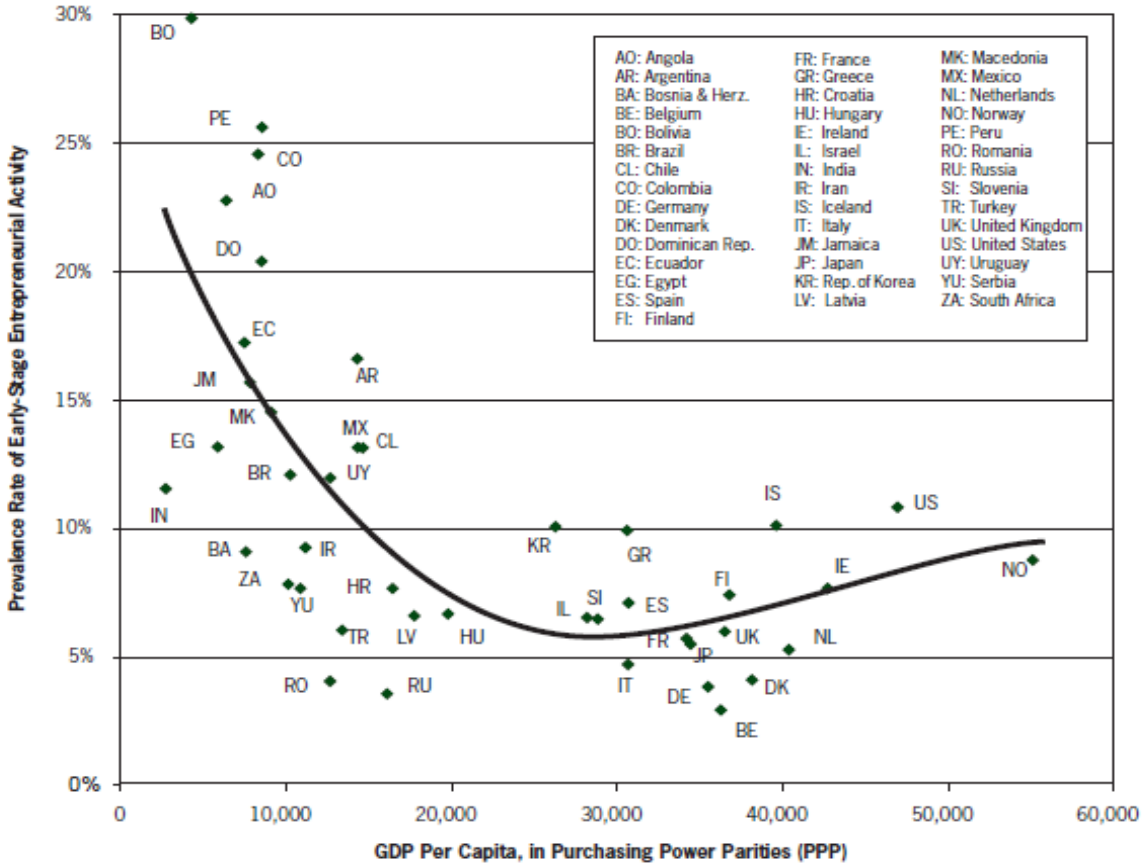
Figure 2.3 The U-shaped correlation between TEA prevalence and PPP 2007



Source: Bosma et al. (2008b)

Regarding the presumed upward slope of higher income countries, one should note however that that although the U-shape pattern has been consistent over the years (Bosma et al. 2008b), it is still a yearly snapshot which can change per year, there is a limited amount of high income countries to accurately base the upward trend on and not every country should follow this trend, since national institutions obviously differ. Alternatively the 2008 GEM-data and the consecutive curve as plotted by Bosma et al. (2009) in figure 2.4 does not show a clear steep u-shape fit for higher income countries, but a more conservative slightly upward slope where a complete revival of entrepreneurship is anything but certain.

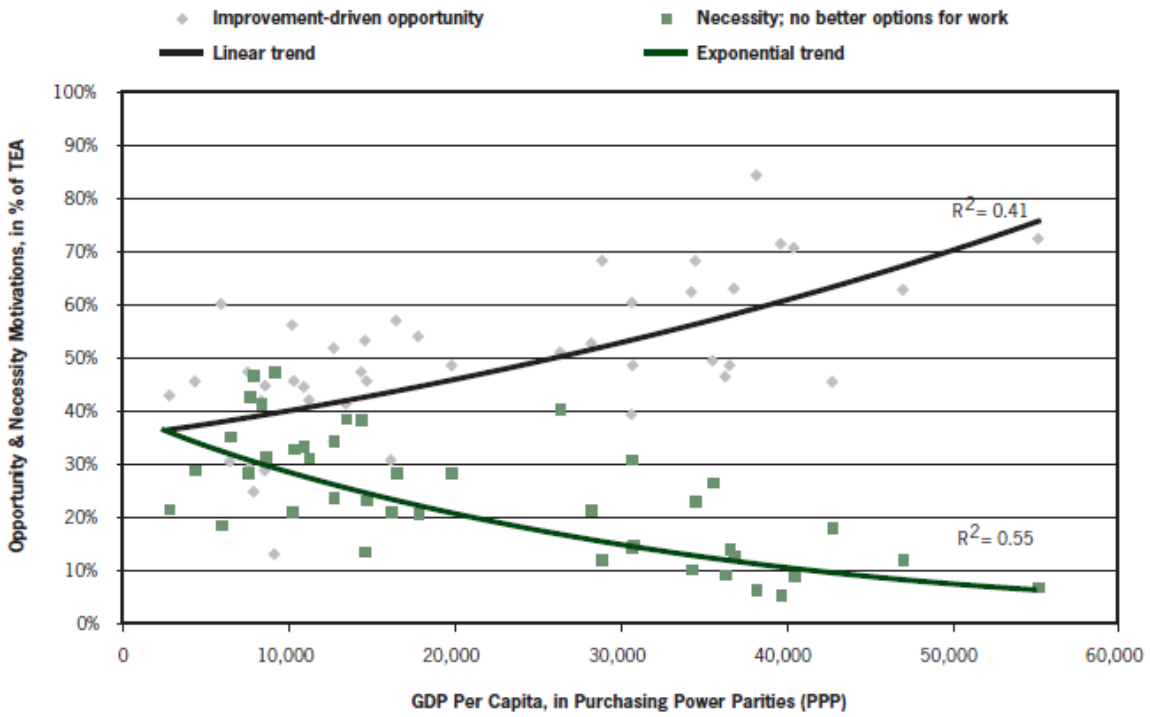
Figure 2.4 The correlation between TEA prevalence and PPP 2008



Source: Bosma et al. (2009)

An additional figure can be shown which shows the changing nature of entrepreneurship for higher income countries. Whereas entrepreneurship in low GDP per capita countries is mostly out of necessity (people being forced into an entrepreneurial career) the nature of entrepreneurship in higher GDP per capita countries is mostly opportunity based (or as they call it improvement driven). There is thus a change of the qualitative nature of entrepreneurship that goes along a rise of GDP per capita. It is very well possible that necessity based entrepreneurship drops and thus causes the initial fall in total entrepreneurship rates after a certain threshold until the level of opportunity based entrepreneurship begins to rise. On the other hand, it could be that opportunity driven entrepreneurship rises earlier, but a significant drop in necessity driven entrepreneurship may mitigate for these effects thus lowering the total entrepreneurship prevalence rates regardless.

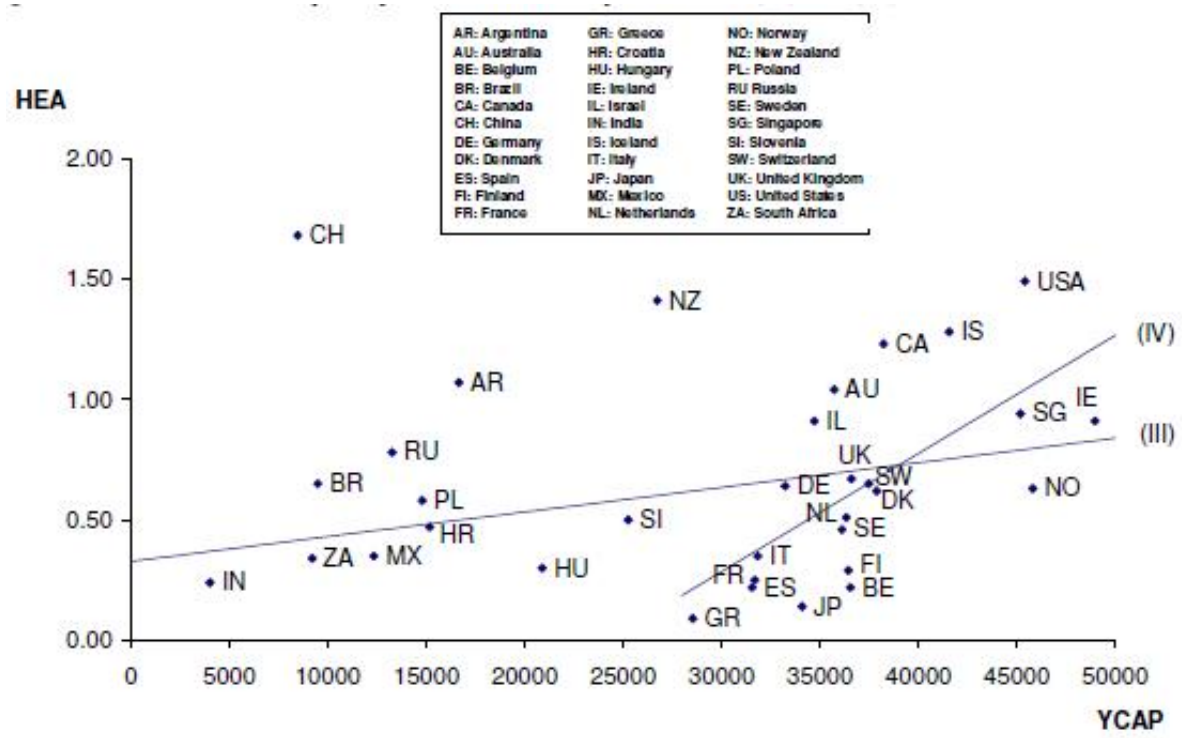
Figure 2.5 Opportunity based and necessity based entrepreneurship as % of TEA, 2008



Source: Bosma et al. (2009)

Wennekers et al. (2010) show on the one hand that there is a positive correlation between high growth expectation (or ambitious) entrepreneurship and economic development and the other hand overall business ownership rates and economic development. In short, the entrepreneurial rate may very well be affected by a limited amount of young fast growing firms. This however will be dealt with further on in this chapter.

Figure 2.6 Ambitious entrepreneurship (HEA) and economic growth



Source: Wennekers et al. (2010)

Following theories from social psychology, Wennekers et al. (2005) also see an increase in the desirability of an entrepreneurial career as income rises, since self-realization becomes more important in developed societies and entrepreneurship facilitates a certain level of autonomy for the individual. Two much cited studies by Carlsson (1992; 1999) shows indeed that within the period of 1970-1996 the employment share of the 500 largest companies in the US dropped from 20% to 8,5%. He was not the only one; Loveman & Sengenberger in 1991 also found an emergence of small-scale production as early as the 1970's in the US. Carlsson's explanation for this change is two-fold. He sees the fundamental changes in the 1970's of the world economy as a major actor; intensified global competition, increasing uncertainty and growing market fragmentation are the results. Secondly the changes in technological processes are accountable: flexible automation resulted in a shift to smaller firms. Brock & Evans (1989) have an additional explanation for this increase in small firms: increasing levels of education coming along with an increase in labor supply and lower real wages, changes in consumer preference, regulation improvements and a period of creative destruction. In Europe a study of EIM (2000) shows that within the period of 1988-1998 small business employment growth within the Netherlands was rising. Audretsch & Thurik (1998) point out that the cause of this U-shape relationship is the transition to the knowledge based economy, or as Audretsch & Thurik (1997; onwards) later referred to as: the transition from the managerial economy to the entrepreneurial economy (as seen in the introduction). Since knowledge as an input for economic activity is substantially different than capital, land and labor, it is characterized by high uncertainty, high transaction costs and high asymmetry across people. Economies where knowledge serves as the main source of comparative advantage are more congruous with this entrepreneurial economy. The consequences of this shift are multiple: increased entrepreneurship by these small firms serving as agents of change, increased innovative activity, creating a large share of new jobs and stimulating

industry evolution, along with a whole different take on how economies should thrive, how business should be performed and how these economies should be governed. Audretsch & Thurik (2004) summed up the differences between the two economies up in the following table.

Table 2.2 The entrepreneurial economy vs. the managed economy

Category	Entrepreneurial economy	Managed Economy
Underlying forces	Localization	Globalization
	Change	Continuity
	Jobs and high wages	Jobs or high wages
External environment	Turbulence	Stability
	Diversity	Specialization
	Heterogeneity	Homogeneity
How firms function	Motivation	Control
	Market exchange	Firm transaction
	Competition and cooperation	Competition or cooperation
	Flexibility	Scale
Government policy	Enabling	Constraining
	Input targeting	Output targeting
	Local locus	National locus
	Entrepreneurial	Incumbent

Source: Audretsch & Thurik (2004)

The locus of the entrepreneurial economy within this framework is local. Local proximity, especially concerning knowledge and innovation is crucial. Therefore, the entrepreneurial economy is also a regional economy since this is the locus of the most economic activity (Thurik, 2008). One can also see that change, turbulence and diversity are being favored. This leads for example towards a more heterogenic, competitive business environment with higher risks. Whereas in the former type of economy small business was a market follower, it is now the engine of growth and innovation in the entrepreneurial economy and It is increasingly acknowledged that the small firm plays a major role in contributing to the overall economic performance of countries (Dean et al., 1996).

2.2.2 Entrepreneurship, innovation and growth

Innovation and entrepreneurships are two terms which are thought to be overlapping. This can be traced back to the workings of Schumpeter, who used the term 'innovator' to refer to an entrepreneur. However, even though economic agents adopt some elements of innovation in their business start-ups and innovativeness or innovation (at least some) is often needed to survive and compete, innovation is not central to entrepreneurship (Stam, 2008). Nevertheless, there are certainly entrepreneurs and starting businesses that are focusing on change (of either society, economy or on the organizational level), by bringing something new which is either more or at a lower costs than the pre-existing supply condition. Those firms do indeed have a significant input in economic growth and development and could be considered real innovators. However, one could first ask the question: what is the underlying intrinsic motivation for innovation in the first place? A contemporary study by the Dutch statistical agency CBS (CBS, 2006) showed that these agents want to improve the quality and goods of services and offer a broader range of those goods and services along with accessing new markets and improving their market share. This is in contrast to 'regular' entrepreneurs who merely want to supplement their income, and most of the time proceed their

earlier activities as an employee. The innovativeness of new firms and entrepreneurs is interesting for economic growth because of several factors:

- Knowledge spillovers: whenever knowledge created somewhere else becomes available to external agents, be it specific knowledge concerning an innovation or more intermediate knowledge, this knowledge will be absorbed by other groups and individuals than the originator of the initial discovery. This is referred to as knowledge spillovers. It is researched that firms locate near knowledge sources implement innovations at a faster rate than competing firms located in different regions. Often these are new start-up firms from former employees of these knowledge sources. They have acted upon this knowledge and/or innovation because of the believe (or fact) that innovations would not have been commercialized or implemented, or at least with a considered time-lag, in the organization in which it was initially developed (Stam, 2008);
- Economic growth implies adaption and change, this adaption and change takes place through the forming of new business entities, which are initially small to begin with. New firms are ideal to experiment with new ideas and innovations because of the fact that this can be established at a relatively small experimental scale at a low cost, and all input can be focused on this specific innovation. This however is accompanied by a high failure rate. So amongst innovative firms one can see a both high entry and exit rate. This high level of variety is nevertheless needed and is actually considered a key-mechanism to economic progress;
- Within highly developed economies a fundamental organizational characteristic is decentralization; whereby authority and responsibility is diffused and the pyramid-like hierarchical managerial structure is limited. It seems that within social life, there is hardly any situation in were the benefit of strict hierarchy outweighs the costs. Firms that try to break out of the old bureaucratic institutions are more likely to innovate;
- Not only do new firms stimulate economic growth by introducing new products, but indirectly they to trigger old firms to restructure and improve their own activities thereby avoiding habits of rigidity (Stam, 2008);
- Tamásy (2006) concluded that firm's success is positively impacted by innovative activities.

Audretsch & Thurik (1998; 2004) note that smallness of firms improves innovative activity and innovative change is largely brought by new firms. Due to the uncertainty that accompanies new ideas necessary for innovation and the inflexibility of large organizations, successful application and commercialization of new knowledge and creative ideas is best served through the start of a new enterprise. The benefit of these small new firms lies in part in their smaller agency costs, along with their earlier mentioned suitability for innovative experimentation (Stam, 2008). Therefore entrepreneurship can be seen as conducive for the innovative ability of a region or nation (Audretsch & Thurik, 2000). Following the last paragraph, in the entrepreneurial economy the increased focus on small firms, and the ease by which economic agents can start-up new firms leads to an enhanced ability to break out of technological lock-in caused by existing paradigms (Audretsch & Thurik, 2004).

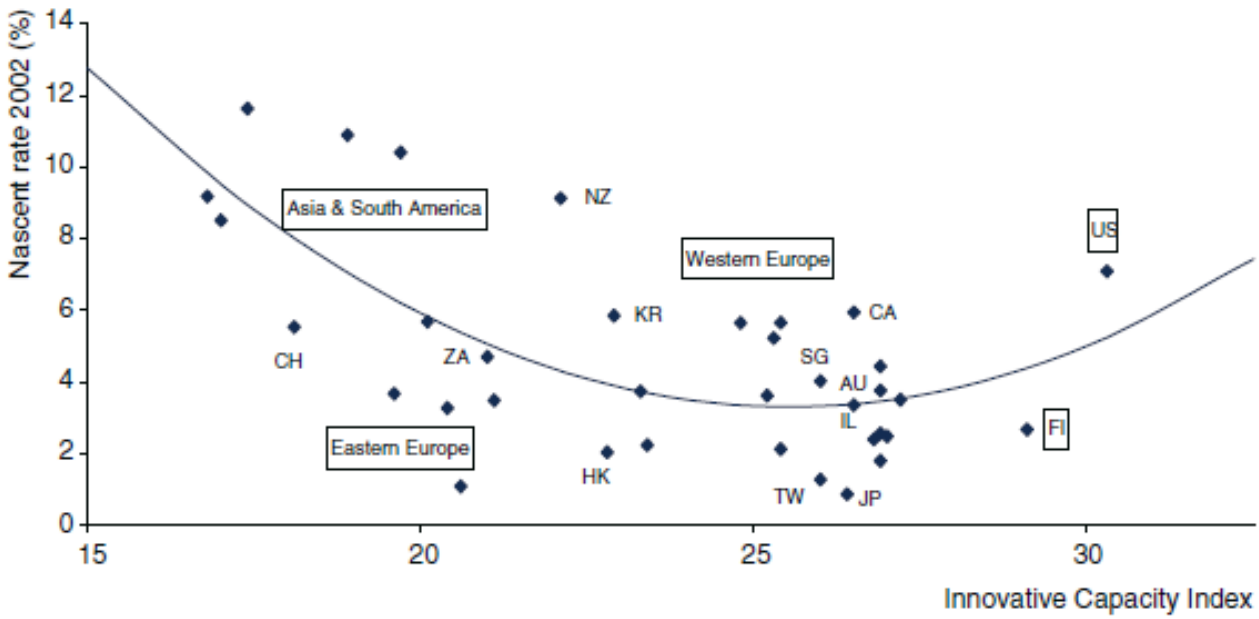
This is rather interesting when put in the light of the knowledge based economy. Sternberg (1996) states that when the comparative advantage of an economy shifts towards knowledge creation, regional growth and employment creation becomes linked with the ability to generate innovative activity. It seems that innovation, economic growth and entrepreneurship are logically linked through the recognition and exploitation of opportunities in economic and social arenas (Drucker, 1985; Schumpeter, 1951). Acs & Audretsch (1990) haven proven that small firms are actually more

innovative than their larger counterparts. Wennekers et al. (2005) also recognize in the literature that in the last 25 years there has been a shift of innovative advantage from larger firms to smaller ones. This was mainly caused by new ICT technologies in many sectors reducing the importance of scale economies. Increased globalization and an increased uncertainty have further caused this shift by creating an increased need for new firms as agents of change. There are however also contradictory signals. Pagano & Schivardi (2003) for instance find that larger firm sizes are associated with faster innovation rates. Van Praag & Versloot (2007) notice mixed evidence around the innovativeness of new and small firms. They show that both large incumbent firms and new and small firms equally contribute to the innovativeness of societies. In terms of quality, quantity and efficiency the serve different goals however. Furthermore, new and small firms tend to have relatively high levels of innovative sales, and are less likely to adopt innovations that are high in costs.

Continuing on economic development and innovation, Carree et al., (2002) find two types of regimes that fall within the Schumpterian method. The first Schumpeter regime is one of creative destruction, where incumbent firms are challenged by new entrepreneurs who bring innovations on the market. The second Schumpeter regime is one where established companies determine the rate of innovation by their own R&D activities. As (partially) quoted earlier, Audretsch & Thurik (2000) refer to this as the transition from a *managed* to an *entrepreneurial economy*. In the last decades one can notice a switch from the second regime to the first (Audretsch & Thurik, 2000) –which is already explained in the previous paragraph as the U-shaped relationship between economic development and business ownership-. It also holds no surprise that the first Schumpeterian regime is more beneficial and provides more opportunities for small (and new) start-ups. Porter et al. (2002) state that economies that are in the outer right spectrum of the economic development stage have a great need for new business start-ups. Winter (pp. 297, 1984) explains: *'An entrepreneurial regime is one that is favorable to innovative entry and unfavorable to innovative activity by established firms; a routinized regime is one in which the conditions are the other way around'*. Though Winter (1984) does not state one type of regime is superior over the other, rather he recognizes distinct knowledge conditions underlying an economy. That is, an economy is based on either on regime or another.

When the comparative advantage of an economy is new knowledge creation this thus requires a different industrial structure along with different economic values. Creating and implementing new ideas is a highly valued quality in this economy since new products and new firms create large increases in employment. However the implementing of new ideas and products by the creation of new firms comes with a certain amount of uncertainty. A large percentage of firms will therefore not be economic viable and successful. Wennekers et al. (2005) did find statistical significant evidence for these two regimes. Figure 2.6 shows the relationship between nascent entrepreneurship and innovative ability. The figure shows that this relationship is also U-shaped, and that in higher developed economies, innovative ability indeed tends to come more from new start-ups. Wennekers (2006) adds that initially the adherence of a developing innovation system actually discourages new and small business formations (the so-called creative accumulation of the Schumpeter Mark II regime, or better said managerial regime), up to a certain threshold point were further enhancement of this innovative system encourages entrepreneurship (the entrepreneurial economy, or in terms of Schumpeter, creative destruction).

Figure 2.7 Nascent entrepreneurship and innovative capacity



Source: Wennekers et al. (2005)

What we see here above is a presumed U-shaped fit. However looking at the points, one can actually see a decline. Does this mean that there is not really a revival of the innovativeness of small firms? One could argue however that since more developed technological advanced nations rely more on opportunity based entrepreneurship real innovations are mostly found in these small opportunity based firms. In short, the total amount of nascent firms may decline but the amount of opportunity based firms which are innovative may rise, and thus relatively speaking a higher share of small new firms are innovative.

Audretsch & Fritsch (2002) too pose the question whether large established firms or new firm start-ups are the engine of regional growth. Despite the traditional debate, they try to reconcile both views by introducing the concept of growth regimes. It holds that in some regions small firms are the engine of growth, while in other regions large firms are more conducive to regional growth. Gort & Klepper (1982) researched the relative innovative advantage of new firms over incumbent firms and found that it largely depends on the source of information that provides the innovation. In a routinized regime innovation based on non transferrable tacit market experience puts incumbent firms in a favorable position. Since there is little divergence in the evaluation of the expected value of innovative ideas on the hand of an inventor and decision makers within the large firm, individuals have little incentive to start new firms for the sake of exploiting different ideas (Audretsch & Fritsch, 2002). However when routines aren't preferable for innovation and other information is more important as an input for generating innovation, small firms tend to excel. Here there will be a larger discrepancy between the evaluation of the economic value of an innovative idea between innovator and decision maker. Start-ups of new firms is more likely to arise because of the motivation to grasp and utilize the economic value of new knowledge which is otherwise not appropriately valued by larger enterprises (Audretsch & Fritsch, 2002). Additionally Audretsch & Fritsch found another two regimes: the revolving door regime and the downsizing regime. Revolving door regimes are not specifically innovative and both a high start-up rate and a high exit rate can be noticed. Consequently

these regimes have a relatively low growth rate. As been said, this regime is not focused on innovation and new entries will provide about the same products and technology as incumbent firms. There is no real technological advantage over competitors so it is expected that these firms will not grow significantly or create a large amount of jobs. These regimes tend to correlate with high unemployment regions where push-factors for becoming an entrepreneur are relatively strong. The downsizing regimes exhibit low start-up rates and high unemployment due to closure and downsizing of incumbent firms.

In applying these concepts of growth regimes over time to regions within Germany, Audretsch & Fritsch come to rather interesting conclusions. They found that new-firm start-ups and small firms are important for future growth for a region. Regions with a high start-up rate tend have a higher growth rate over time compared to regions that lacked such a start-up rate: '*One of the keys to a high growth performance region in the 1990's was having a high start-up rate in the 1980's* (Audretsch & Fritsch, pp. 121, 2002). Moreover over a longer period, routinized regimes have higher chances of becoming downsizing regimes with low growth rates. They conclude that though on the short run, both a routinized and entrepreneurial regime can be beneficial for regional growth, on the long run promoting new start-ups may be more beneficial

The knowledge economy is in the eyes of Audretsch & Thurik (2000) characterized by a high velocity where a high degree of people start new firms which shakes business institutions and in the long run ensures a healthy competitive environment. Leibenstein (1968) seems to reassure this notion. Those firms who are successful often grow rapidly and create large amounts of jobs, but on the downside one can notice a high degree of exit (Audretsch & Thurik, 2000). Audretsch & Thurik however also ask themselves if this transition to a knowledge economy actually leads to more employment than the managerial economy. They find that an increased rate of business-ownership indeed has a negative effect on unemployment within OECD countries in the period 1974-1994.

2.3 Entrepreneurship and Job Growth

One specific debate around nascent entrepreneurship is (direct) job growth or job loss. The first researcher ever to find that small businesses are beneficial for employment growth was David Birch (1979). He first made a study in 1979 called 'The Job Generation Process' for the Economic Development Administration of the U.S. Through a longitude approach he examined employment growth over time and found that almost 80% of the jobs were created by small businesses. This statement was met with large criticism however it was most critically acclaimed, by for instance Storey & Johnson (1987); Brown et al. (1990) Davis et al. (1993). Later Birch admitted that the figure of 80% held little value. Davis et al. (1993) for instance found no relation. Harrison (1994) argues that regional development policies are best met by larger firms. The OECD report (1994) states that net new jobs are often exclusively created in small firms. The OECD report continues by stating that small firms are seen as more consistent creators of jobs since they are less influenced by cyclic macro-economic patterns and other macro-economic conditions. In their study of several countries in the period 1984-1992 they found in all countries that small firms displayed more rapid employment growth than their larger counterparts. However in these countries about half of all firms are considered small establishments. Therefore the results should be accounted for that. A previous study of the OECD report (1985) shows an increase in the share of small businesses in employment in the period 1970-1980. Thurik (1996) and Carree & Thurik (1998; 1999) find for some European

countries a relationship with a rising share of small businesses and industry output. Additionally studies such as that of Reynolds et al., (1995), Cooke (1996) and Feldman (1996) find that new and small enterprises serve as the bringer of regional growth and employment creation. Miller (1990) found that in small rural firms net employment growth was much faster than in larger firms over the period 1980-1986. Karlsson et al. (1993) found that in the US economy in 1990 new firm births and small enterprise expansion were the most importance sources of job creation, thus facilitating positive regional economic change.

A longitudinal case study in the UK around the 1980's period by Hart & Hanvey (1994), clearly showed the importance of new and small firms especially in Northern Ireland, where the cohort of small firms in the economy increased by 11% in the period 1986-1990. Interestingly enough in the period 1973-1986 it was the inability of the small firm sector to create jobs that highlighted the bad functioning indigenous sector of Northern-Ireland. However they point out that regardless of the job increase in new and small firms, it was the performance of the larger firms that determined the overall performance of the economy. They therefore conclude that policies should focus on both types of firms; sustainable growth created by merely stimulating new firm formation is in their opinion too simplistic.

Fritsch & Noseleit (2009) find that the effect of new business start-ups is not as direct as it seems: the larger effects of new business formations are noticeable on an indirect level and mostly in larger agglomerations. In fact, the net impact of rural areas may negative. Regional differences within countries may also be strong. They suggest that both the direct and indirect effects of innovative firms may be much stronger, but this is still subject to further research. A study on employment effects (which is the impact of employment creation by firm over time, both the creation and displacement of existing jobs, along with the path of employment created by firm over time) by Fritsch & Mueller (2004; 2006) show that employment effects increase employment directly at first hand, secondly crowd out inefficient incumbents thereby lowering employment and shrinking and exiting of entrants, thirdly challenging incumbents which leads to increase in employments in the incumbent businesses.

Additionally there are studies that give contradictory prove of the role of small businesses. Some studies such as performed by Acs & Audretsch (1993) show that small firms indeed show higher percentile growth rates, but most new firms do not grow at all and the majority of new firm growth is found amongst larger firms. Even though the gross rate of job creation and job loss is higher in small firms, Davis et al. (1993) find no systematic relationship between net job creation and firm size. Other studies such as Brown et al. (1990) state that the jobs offered in small firms are low quality compared to job within large firms. Furthermore large firms offer more stable employment higher wages and more non-wage benefits than their smaller counterparts.

Small starting firms do not make up the majority of the jobs within a country, they do however create more jobs than one could suspect based on their share of employment (Acs & Mueller, 2008), and they (especially the innovative firms) do seem to have a positive effect on the economy. Birch posed the question thirty years ago whether mice, gazelles or elephants create the most jobs? Birch explained that it were mostly the new rapidly growing firms which were responsible for employment effects in regional economies. Next paragraph will go into detail about these 'gazelles'.

2.4 The High Impact Entrepreneur

Not all occupational entrepreneurship acts as a conduit between knowledge, innovation, economic activity and economic growth. Interestingly enough, Tambunan (1994) stated that in many situations entrepreneurship could be considered a sign of economic poverty than of growth. Wennekers & Thurik (1999) noted that not all firms can be characterized as really entrepreneurial. Shown by many empirical examples in the paragraphs before, entrepreneurship does not in all cases stimulate economic growth, innovation and employment growth. The question is thus: in what cases ***is*** entrepreneurship unambiguously beneficial for an economy?

Baumol (1990) refers to entrepreneurs as persons who are creative and ingenious in finding ways to add to their own prestige, wealth and power. Therefore one could expect that not all of their activities directly have a positive spillover to society or the general economy. In general one could distinguish between two types of entrepreneurs: *necessity* based and *opportunity* based (these terms have been used in previous paragraphs before). On the outer left spectrum of the economic development graph (a quadratic graph measured by per capita income), one mostly finds necessity based entrepreneurs who choose to be entrepreneur mostly out of push factors (mostly lack of employment). The further one goes to the right the more opportunity based entrepreneurship. This is because many new economic opportunities are seen in the high end spectrum of economic development. There is thus a negative relationship between per capita income and necessity based entrepreneurship. Not surprisingly innovative capacity is linked to opportunity based entrepreneurship which follows a L-shaped quadratic function whereas the innovative capacity decreases quadratic when necessity based entrepreneurship is concerned. Malecki (2009) goes further in this classification. He sees necessity based entrepreneurs as survival entrepreneurs who seek to create businesses to supplement their incomes. Additionally he recognizes lifestyle entrepreneurs; those who want to pursue a certain lifestyle or live in a particular community. These types of entrepreneurs are often content with a certain level of success. He notes that neither of those two types of entrepreneurs contributes anything significant to economic growth and development. Growth entrepreneurs on the other hand do, since they are motivated to develop their businesses and thereby create wealth and jobs. These growth entrepreneurs are basically the same as gazelles (these terms will be used here interchangeably, often dependent on which research is being recited). The exact definition of this 'gazelle' is difficult to pinpoint, however definitions always revolve around firms of a young age and high growth.

This entrepreneurial type corresponds to two SME business models (Malecki, pp. 177, 2009):

- The SME that runs small projects and targets market niches; often small firms and segmented markets in a small geographic area;
- The Research-Intensive SME that targets broader markets, typically niche markets which cover a large geographic area or large national or international markets.

A large determent in the actual impact of new firms on economic growth and development lies also in their survival (Schutjens & Wever, 2000) which is of far more importance than the sheer quantity of new firms. Schutjens & Wever (2000) note that behind the successful firm there is often a very specific type of starter: the 'Schumpeterian' starter. As been mentioned earlier in this chapter, the Schumpeterian entrepreneur (or in this case starter) is one that strives for innovative growth and maximizes profits. On the other end of the spectrum one has the entrepreneur who merely strives for independence and is not concerned with firm growth nor specifically with innovation.

Within the entrepreneurship literature, firm success is by many researchers often linked to specific personality types. This results in a myriad of theories, classifications and typologies about psychological models and firm success. A specific factor within this entrepreneurial personality type is the ambition level of the agent. Empirical research however is not unambiguous about this 'ambition effect'. Wicker & King (1989) for instance found no clear connection between motivational factors and firm growth, while Keasy & Watson (1991) did find such a relation. Interestingly enough Busstra & Verhoef (1993) found out that the least successful starters were more governed by so-called 'pull factors' than their more successful counterparts. More recently a 2007 GEM report by Autio (2007), states that growth rarely occurs without expectations. He agrees however that these expectations may very well not be realized in factual growth. When data on the relative prevalence of expected growth and factual established high-growth per country is compared, the correlation is quite strong however (0,75). Although it seems that some countries like for instance the China are notable for their confident entrepreneurs, but are lacking in the realized growth compartment. He also finds that high expectation entrepreneurship is linked towards more highly developed countries. Although ambitious entrepreneurship is correlated with GDP per capita, opportunity based entrepreneurship as well as realized high growth entrepreneurship, it is still not a causal effect and the figures should not be taken for a fact. Although not unambiguously, growth ambitions are thus still very relevant. Finally, he adds that both low-expectation and high-expectation entrepreneurship are positively correlated with socio-cultural factors hinting to the malleability of the high-expectation entrepreneur by national or regional policies. A study by Bosma (2009) shows that high growth oriented firms have a positive effect on regional productivity and employment density, thus establishing an 'objective' effect of entrepreneurial ambition levels.

Going back to the earlier mentioned statement of the 'Schumpeterian starter' or by Schumpeter referred to as promoters of new combinations, Acs (2008) says that these entrepreneurs are able to recognize latent power in new inventions, recognize subsequent possibilities, asses market needs and bring these inventions to the market. This differentiates them from other creators of firms since they are rather market followers. Leibenstein (1968) distinguishes the two types as follows: one the one hand he sees routine entrepreneurship which is in fact rather a type of management. The activities involved are coordinating and carrying on parts of known production function, along with its alternatives, in a established well defined market. On the other hand one has the new type of entrepreneurship, or Schumpeterian entrepreneurship, where the activities are carried out in a sphere where not all markets are established and well defined, along with a production function where not all parts are well known. Although routine-entrepreneurship and market followers surely contribute, it is the Schumpeterian entrepreneur that facilitates productivity, creates new markets, and increases economic growth and prosperity. In fact it is this high impact entrepreneurship that is the main form of entrepreneurship in developed countries to carry and stimulate their economies (Acs, 2008). High impact entrepreneurship is a class of entrepreneurship. It is more than a mere inclination towards growth and change; it differs from other entrepreneurship since it uses economic leverage to increase returns to stock.

Acs (2008) sums early stage high impact entrepreneurship up as a leverage start-up; these start-ups are distinct from other types of start-ups in that way that they are involved in developing, implementing and commercializing innovative breakthroughs that: '*shift the wealth creation curve at the industry and the individual level*' (Acs, pp. 545, 2008). A lot of firms and firm owners do believe they are of this particular niche since some of these founders genuinely believe that they possess

rare knowledge about market opportunities, only to discover that their knowledge was neither rare nor valuable. A specific characteristic of a high impact start-up is the earlier mentioned leverage, which entails being a business that is revolved around a product and not a service that is semi-customized for their clients. This sort of firm thus extends economic activity and does not replace it. High impact start-ups are opportunity based ventures that shifts the wealth curve. Szerb (2004) argues that the high impact entrepreneur is characterized by high risk taking, creativity, innovativeness and non-routine decision-making.

Autio (2006) refers in his 2005 GEM report to the high growth entrepreneur as firms with 20 employees or more which is a far simpler methodology and definition than employed by Acs & Mueller (2008).

Theoretical classification aside, is this high impact entrepreneur actually statistically viable? To do so, one has to have certain criteria. The literature presented above leads to the notion that high impact entrepreneurship need to be defined as high growth entrepreneurship in terms of both sales and employment. Acs & Mueller (2008) defined a HIE as an enterprise with both sales rates that doubled and total employment quantity that increased at least twofold in the first 4 years after the start. With empirical evidence Acs & Mueller (2008) found notable differences between firms that could be considered high impact and those that could not. Especially for medium sized high impact businesses, employment growth is staggering if put against the non-HI group. They also found a distinction between HIE and high technology firms; high technology firms only constituted for 10% of total HIE; thus in their opinion the term is not to be mistakenly used interchangeably. Henrekson & Johansson (2009) also note that gazelles are not overrepresented in high technology industries, and they can be found in all economic sectors. However it still holds that these high impact businesses are innovative and guided to 'change'. As shown earlier, innovativeness is indeed correlated with firm growth. Autio in the 2005 and 2007 GEM report (2006; 2007) on the other hand finds an overrepresentation of high growth firms in manufacturing, transportation, utilities and communication along with an underrepresentation in consumer services and agriculture.

One thing that is confusing is the apparent interchangeability between small firms and high impact firms. It is true that in previous paragraphs sometimes studies were presented where small firms were considered as engines of economic growth, job growth and innovation. That is not to say however that these two are the same. Jones (2008) writes that both types of firms indeed take risks, but those risks are actually rather different. Additionally, both types of firms have different goals. For instance, most small businesses are looking to achieve financial independence. In short their main financial goal would be attaining a regular income. Au contraire, the HI entrepreneur expects on the short term a limit income, but on the longer term a large amount of wealth creation. This difference in matter of financial goals leads to different takes on risk taking, business financing and employee recruitment.

A small business entrepreneur would in general aim towards short term income generation, whereby the so-called midterms exit value (which is what the firm would sell for within 10 years) of the business would be of little importance since the primary objective is attaining a regular income. A high impact entrepreneur primarily focuses on this midterm exit value. There is less interest in achieving stable and regular income, and more interest in growth of the business. Although starting any new business is taking a risk, risks for short term prospects on income potential are always lower

than risks for mid-term wealth generation. This leads to alternate risk taking behavior: the HI entrepreneur is prepared to take a much larger risk for attaining his mid-term goal, subsequently this shows itself in a lower survival rate for HIE.

As a consequence of this low risk behavior along with decreased wealth creation potential and short term income potential, small business entrepreneurs are rather adverse to ownership dilution. This holds that outside equity investments are kept to a minimum, since that would decreases short-term income potential. Traditional bank loans or equipment financiers are much more common especially since the higher expectations of a short term positive cash flow is much more interesting for these financiers. The high impact entrepreneur on the other hand is more inclined to rely on equity investors. Lastly there is a notable difference in employee recruitment and compensation. Although job stability is still much less than it was a couple of decades ago, job stability in small businesses is much greater than in high impact businesses. Employees within these small firms are typically looking for a stable regular paycheck along with job security. They sacrifice however upward mobility for that. A HI employee stresses less importance on a regular income and job stability and places higher value on upward mobility in the form of wealth increase and job positioning (Jones, 2008). In short, one could conclude that the HIE is opportunity based; will the average small firm is not.

To eliminate any further confusion Acs & Mueller (2008) explain that the size is not so much the question, but the age; younger firms are mostly smaller than already established firms. An HIE can thus very well be small (especially in the early start), even though its effect on the economy is considerable. Henrekson & Johansson (2009) concur to this, and conclude that on average gazelles are smaller and younger than other firms. It is nevertheless this young age that is associated more with this rapid growth than the smaller size. Additionally a study performed by Picot & Dupuy (1998) on Canadian firms shows that small firms generate a disproportionate amount of net jobs in the national economy. However, when accounting for new firms, the disparity between small and large firms largely disappears. The increase in net jobs was thus accountable to mostly new firms, and specifically concentrated among a couple of fast growing firms.

Finally, the question is what the empirical evidence states about high impact entrepreneurship influence. Several studies such as Stam et al. (2007), Wong et al. (2005) show that national income increases and is thereby unambiguously related to high levels of high-growth start-ups. Birch et al. (1997) found that the 3% gazelles generated over 70% of new jobs in the US, in the period 1992-1996. Kirchhoff (1994) found that 4% of the firms formed in 1977-1978 created 74% of the entire cohort employment growth 6 years later. However this percentage should be deducted with 25% when controlled for job losses in exiting firms and surviving firms. Birch & Medoff (1994) found that within the US a relatively small percentage of firms caused 60% of all new jobs in the whole economy. Most of these firms were small in size. Acs et al. (2008) also performed a study on high impact firms and found empirical evidence of the existence of these firms. However they find that high impact entrepreneurship is to be found in all sorts of businesses: young, old, large and small. The average age of the high impact firm was 25 year. This was still considerably less than the average non high impact firm. They conclude that high impact entrepreneurship emerges within diversified economies, with a large variance in industries. One interesting point that has come forth from his analysis is the fact that rural areas harbored 23% of all high impact firms, showing that urbanization economies are not necessarily crucial for development of these firms.

Henrekson & Johansson (2009) performed a literature study about a myriad of research on gazelle firms. They cite several authors and come to interesting understandings. Even though most studies have their own variable empirical definition of the gazelle or high impact firm, the evidence overall is quite robust. There is indeed in most economies the occurrence of a few, mostly young firms that grow within a small amount of time very rapidly, thereby ensuring most of the increase in net-jobs. This effect is especially noticed in times of economic recession, where contrary to non-HI businesses, gazelles still continue to grow. The size of the gazelle is not uniform, although smaller firms are overrepresented. Age is however the most important factor in here since young gazelles tend to grow more organically and therefore have a slightly more profound sustainable effect on economic growth (in this case job growth). They conclude with an addition to a wailing discussion: whether it is the large influx of new firms, or merely a couple of rapid growing firms that causes economic growth, they state that both views are complementary; employment in new firms is crucial for total employment growth and is equally important as the net job contribution of incumbent gazelle firms. The positive employment effect of new firm however tends to decline over time, which makes continuous entry of new firms a requisite for achieve economic growth. They also find it plausible that a high influx of new firms increases the likelihood of young gazelles occurring that experience sustained growth. A study of Bosma (2009) performed in the Netherlands on three regions however showed that a high start-up rate does not automatically lead to a high amount of ambitious entrepreneurship. Keep in mind though that ambitious entrepreneurship is nevertheless not similar as realized growth. Audretsch & Fritsch (2002) find that a high incidence of new small firms correlates with a higher growth over time.

Henrekson & Johansson (2009) add to this discussion that gross jobs flows are critical for net job growth, since they are intertwined with the dynamic process of creative destruction and the discovery procedure of new business opportunities which creates jobs on the long term. They thereby strengthen the view of the importance of the small and young firm. Their policy measures would thus be aimed at lowering entry and exit barriers for firms as so to stimulate an experimental process which increases the potential number of Gazelles. One last word on necessity based entrepreneurship: this paragraph revolved mainly around opportunity based and high growth entrepreneurship. This is not to say that necessity based entrepreneurship is without its merits. Reynolds et al. (2004) wrote in a study of the OECD in 2004 that it shows, particularly in developing countries, that higher levels of entrepreneurship even though it was based on necessity start-ups was correlated with higher levels of economic growth. A somewhat similar notion holds for market imitators: they are still necessary for market expansion, knowledge diffusion and industry development, and have thus a profound effect on the economy.

2.4.1 Determinants of high impact entrepreneurship

The individual stands at the basis of the decision to start a firm. The probability of this event depends in majority on the balance between economic opportunities and individual values, personality, preferences and capabilities (Frank et al., 2007). At the individual level Davidsson (1991) found that growth aspirations of small-business owners depend on the need to grow, opportunities and the individual ability. For the factors ‘the need to grow’ and ‘individual ability’ characteristics such as educational level, industry experience and age of the entrepreneur are important. Several authors such as Kolvereid (1992) and Brush et al. (2001) find that human capital has a positive effect on growth ambition. Additionally Brush et al. (2001) also find that financial capital (household income)

to have a positive effect. Autio (2006; 2007) finds that high growth entrepreneurs are typically males in the age bracket of 35-44.

At the regional level this holds that personal opportunities are affected by market perspectives, business premises, employment possibilities, competition structure and accessibility. Population composition could influence firm entry too. At higher levels, socio-cultural values, entrepreneurial attitudes or formal institutions could influence individual values, self assessment and opportunity recognition. Subsequently, differences in regional rates of entrepreneurial activity could be the caused by three major factors: regional economic attributes, regional demographics and regional institutions (Henrekson & Johansson, 2009). These regional institutions will be discussed in the next paragraph.

Autio (2006) gives educational level as well as a high income as a prime indicator of high impact entrepreneurship. Autio (2007) finds that in high growth entrepreneurs there is a notable absence of individuals with lower and secondary education and a higher incidence of higher educated individuals. A longitudinal study by Davidsson (1991) shows a significant correlation between growth aspirations and realized firm growth. A positive effect of innovative inclination and post-entry performance, employment growth, economic returns and export growth is shown by Vivarelli & Audretsch (1998). A contemporary study on European regions from Bosma (2009) holds interesting conclusions. He finds that on the individual levels, strong associations exist between financial- and human capital variables and growth oriented entrepreneurship. The associated effects are however much stronger for low-growth oriented entrepreneurship. Bosma (2009) however finds no evidence of national and regional characteristics (e.g. high unemployment rates, GRP level and growth) to be a conclusive factor in stimulating growth oriented entrepreneurship. Another interesting finding was the absence of a significant relation between growth-oriented entrepreneurship and perceived opportunities, but the high correlation between knowing a new start-up and individual growth ambitions. Finally, Bosma (2009) finds a negative relationship between national employment protection and growth-oriented entrepreneurship.

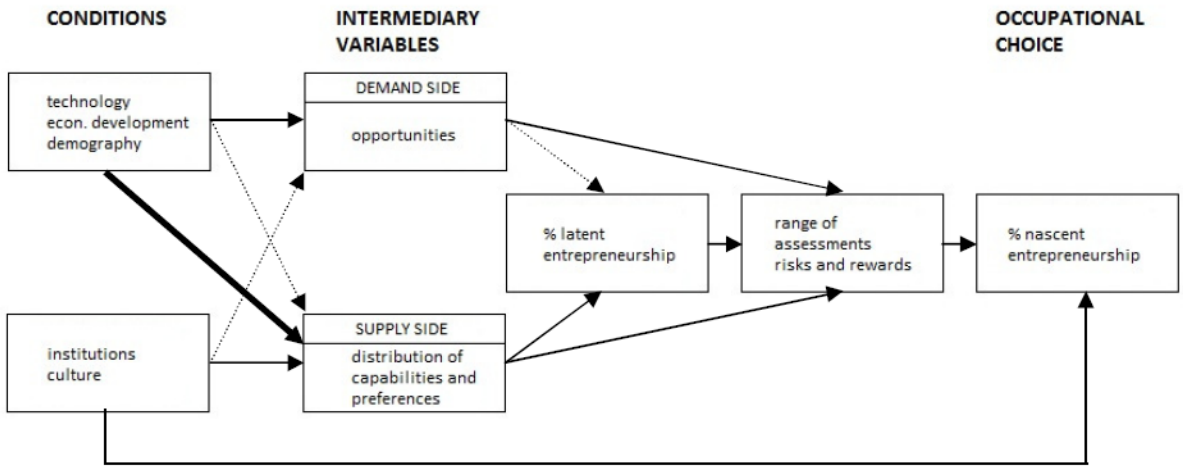
As Carree and Thurik (2003) already said that an economy is most benefited with a high rate of high impact start-ups even though regular market followers serve their purpose too. Nevertheless, these types of firms are the most interesting for research.

Next paragraph will make a distinction of the interplay between entrepreneurship and both the regional level as well as the national level.

2.5 Entrepreneurship and the influence of national and regional economies

This paragraph will be based on model 2 and it will make a distinction between the interplay of entrepreneurship and the regional level, as well as the national level. The main question that will be answered here is: *'Which factors influence the occurrence of nascent entrepreneurship?'*

Figure 2.2 Determinants of nascent entrepreneurship (model 2)



Source: Based on Wennekers (2006)

First part of this paragraph will look at national factors, the second part will look at the regional factors and it will become clear that the regional level is the relevant level for analyzing entrepreneurship.

2.5.1 Entrepreneurship and the national economy

As has been explained in the aforementioned paragraphs, entrepreneurship is related to economic growth and development. But although new business start-ups are to be found in all countries across the developed economies (factor driven economies partake in this too, but the nature of entrepreneurship is as explained related to push-factors instead of pull-factors) there is still substantial differences across those countries when it comes to the level of business start-up activity. It is safe to say that some countries are more entrepreneurial than others. In some cases this discrepancy is around a factor six when new business start-ups are considered (Reynolds et al., 2004). The question however is what factors make a certain country more entrepreneurial than another one? Reynolds et al. (2000) suggest in the GEM report of 2000, which matters three factors: demographics, economic order and the entrepreneurial framework conditions.

<u>Demographics:</u>

The demographic structure has several important features within it; the projected population growth, the age structure; male/female ratio, proportion of the working population, and the proportion of inhabitants between the age of 25 and 44. Thirdly inward migration is a factor to reckon with. It holds no secrets that an expanding population will lead to an increased demand in goods and services; this in turn results in increasing entrepreneurial opportunities along with an increase in nascent entrepreneurship. Aside from that, the age 25-44 group seems to be the most entrepreneurial active. A large proportion of this group within the total population will lead to more entrepreneurial activity, with all the economic consequences (read: development) on the long term.

The third dimension, inward migration, seems however to have no significant effect on new business start-ups. Validity of these factors aside, demographics is a tool that is not easily adjusted by policy makers to their likening. Therefore, it is often thought of as a given factor, or control variable. The other two dimension named are nevertheless still rather interesting to consider.

Economic order

Although any economic order in a developed country will be vast, difficult to conceptualize and a lot of the factors will be interrelated and therefore not to be seen in isolation. However there are still certain major variables that are considered crucial for understanding entrepreneurial activity. Reynolds et al. (2000) seem to have found 6 crucial variables: government presence, labor market, taxation, participation of women, education and income differential. According to Reynolds et al. (2000) contemporary science states that entrepreneurship is best served with as little governance as possible as so to stimulate individual initiative. Government influence should strict itself to 3 tasks, namely; creating a legal system that corroborates patent rights and stable property, creating a stable economic climate, and providing a decent infrastructure. Besides that, the regulatory framework around businesses should be kept to a minimum along with the proportion of state-controlled activities. GEM report of 2000 showed interesting results when comparing tax revenues as a % of GDP, along with a general measure of state influence in the overall economy. Tax revenue as % seemed to be lower as total entrepreneurial activity gets higher. A similar pattern was seen with overall state influence and high TEA; high levels of TEA were accompanied by low state influence. Results thus suggest that countries with higher levels of entrepreneurial activity have low government interference.

Taxation of firms is often a highly debated topic, whether or not it impedes entrepreneurship. Many argue that it is a critical issue for two reasons. The first arguments holds that high tax burdens prevent entrepreneurs from building new firms solely because a large part of their created wealth is absorbed by taxes. Secondly taxes impede entrepreneurs from letting their business grow simply because the capital that is now paid in taxes, could be used to invest in the company, ensuring long term growth and survivability along long term job creation. When we look at empirical data, again we can find a correlation between lower rates of TEA and higher overall corporate taxes. Bottom line is here: the less the government interference in the economy is felt, the higher the entrepreneurial participation rate will be.

The third factor income inequality is actually intertwined with the previous factors of government interference since government could choose for a more egalitarian income differential tax. Earlier GEM report in 1999 (Reynolds et al. 1999) concluded that one important aspect of the entrepreneurial culture was tolerance of income disparities caused by wealth accumulation through personal activities. When one takes a income-inequality within nations (as measured by the total income of the wealthiest 10% in proportion to the poorest 10%) one indeed sees a correlation between TEA and larger income inequalities. However the causality of this correlation is questionable. It could be very well that rather entrepreneurship creates wealth and thus income disparities, instead of the reverse.

Labor market flexibility and non-wage labor costs are a factor in determining firm growth; the ability to easily ‘hire and fire’ employees along with non-wage costs (social costs) impedes growing firms to easily match their workforce to changing business needs. Again one can notice a striking significant

relationship between low social costs, along with labor market flexibility and high TEA. In 2000 social costs for employment were in high TEA countries on average 12% of the GDP, whereas in the low TEA group, this was a staggering 37%.

Education and in particular post-secondary educational opportunities seems to benefit TEA. The more extensive the national educational system is in regards to post-secondary education, the greater the TEA. Secondly, broadening educational programs along post-secondary educations seems to provide additional entrepreneurial opportunities. It is suggested that incorporating specific entrepreneurial courses on all levels in the education system could stimulate TEA. Lastly female participation may actually hinder entrepreneurial potential. Evidence suggests that the female potential is still not realized in a lot of countries.

Entrepreneurial framework conditions

The final major factor within national differences regarding TEA is the condition of the entrepreneurial framework, which is on itself divided into a couple of dimensions: entrepreneurial capacity, entrepreneurial opportunity, social legitimacy and finance.

Entrepreneurial opportunity and entrepreneurial capacity will be explained in more detail in a following paragraph so I will not discuss this here. Social legitimacy refers to the role of the entrepreneur is society, especially regarding its social status: is it considered a worthy way of earning ones income, and has it a high and/or respected social status? Empirical data points out that countries with a larger proportion of individuals involved in entrepreneurship, the population seem to be less likely to resent wealthy entrepreneurs. This however is hardly any strong factor in determining business start-up rate or overall TEA levels (nevertheless it is part of the bigger institutional framework, which will, again, be explained in the next chapter). Financing (in particular early-stage financing) on the other hand has a much stronger effect on early stage entrepreneurship, and thus TEA. Countries with higher levels of TEA have a higher availability of both formal and informal investment opportunities. It is interesting to note that often the largest proportion of financial equity comes from informal sources, which in turn may hint towards a localness of entrepreneurship. Problematic however, is again causality: is TEA and nascent entrepreneurship higher because of the availability of risk capital in the form of both informal and formal investors, or is it the other way around? Do high value entrepreneurial opportunities attract risk capital?

Another OECD study by Reynolds et al. (2004) confirms the above mentioned statements and adds another few that are of particular importance in developing and developed countries. Table 2.3 below gives a short summary of the beneficial variables that affect entrepreneurial rates within countries, divided by developing and developed countries. It is a varied table and a good overview of the cause of national differences. However, researchers more and more acknowledge that entrepreneurship is best to be seen in the regional context. Next paragraph will elaborate on the regional focus of entrepreneurship

Table 2.3 Beneficial National Variables for entrepreneurship

	Countries with more wealth	Countries with less wealth
Other measures of national economic potential	Positive association with firm entrepreneurship and opportunity based start-ups.	Positive association with firm entrepreneurship; strong negative correlation with necessity start-ups.
Population structure	Younger workforce modest positive correlation with business start-ups.	Younger workforce has strong positive correlation with business start-ups.
	Older workforce negative correlation with firm and necessity start-ups.	Older workforce negatively correlated with all start-up activity.
	Net in-migration positive association with firm entrepreneurship.	Net in-migration has no significant impact
Relative economic status	Higher average growth more opportunity entrepreneurship.	Recent average growth has n o significant impact
	Higher GDP per capita, more opportunity entrepreneurship.	Lower GDP per capita has strong association with more start-up activity of all kinds.
	Long-term unemployment associated with less opportunity start-ups.	Long-term unemployment strongly related to less firm and start-up entrepreneurship.
Economic organization and structure	Greater government role in economy strongly associate with less necessity start-ups.	Greater national wealth absorbed in taxes, less start-ups of all kinds.
	Greater informal economy has no significant impact.	Greater informal economy associated with more start-ups of all kinds
	More hours worked per year more firm and necessity entrepreneurship.	More hours worked per year has no significant impact.
	More workers in agriculture, more opportunity start-ups.	Higher levels of social and economic security costs and benefits, less start-up entrepreneurship.
	Higher levels of social and economic security costs and benefits, much less firm and start-up entrepreneurship.	Higher levels of social and economic security costs and benefits, less start-up entrepreneurship.
Government operation, economic rights	Corruption-free, effective government with property right recognized has no effect on any entrepreneurial activity.	Much less start-up activity where corruption-free, effective government with property right recognition are in place.
	Reduced requirements, time, and costs to register new businesses associated with high levels of firm and start-up entrepreneurship	Higher levels of start-up entrepreneurship where there are more procedures to register a new business.
Social equality educational structure	Higher levels of income inequality associated with higher levels of firm and necessity entrepreneurship.	No relationship between income inequality and entrepreneurial activity.
	Higher age appropriate participation in secondary education associated with LESS start-up activity.	Higher age appropriate participation in secondary education associated with LESS start-up activity.
	Higher age appropriate participation in post-secondary education associated with MORE firm entrepreneurship and opportunity start-ups.	Higher age appropriate participation in post-secondary education associated with LESS necessity start-ups.
Cultural, social context	National cultural support associated with higher levels of opportunity and necessity start-ups.	National cultural support associated with much higher levels of opportunity and necessity start-ups.
	More positive personal entrepreneurial context associated with higher levels of firm entrepreneurship and opportunity start-ups.	More positive personal entrepreneurial context associated with higher levels of firm entrepreneurship and much higher levels of all start-ups.

Source: Reynolds et al. (2004)

2.5.2 Entrepreneurship and the regional economy

Perhaps the most important challenge facing entrepreneurship researchers today involves explaining why some local communities promote the founding of large numbers of organizations while others do not' (Romanelli & Schoonhoven, p.66, 2001).

Entrepreneurship has since long been approached and discussed within a national context and perspective. However more and more researchers find out that 'entrepreneurship is a regional event' (Feldman, 2001), and entrepreneurial activity is highly unevenly distributed over regions (Bosma, 2009). Moreover, it is the regional context that matters in the decisions of individuals to engage in entrepreneurship (Tamásy, 2006). It has been shown by many researchers such as Reynolds et al. (1994); Sternberg (2000), Tamásy (2006), Fritsch & Mueller (2006) and Bosma (2009), that the sub-national level rather than the national level explains differences in entrepreneurship rates.; In this paragraph it will be argued that the regional framework is most important for the decision to start a business and the success of that business, along with the effect of entrepreneurship which is mostly felt on the local and regional level.

Regional relevance

The basis decision to start a firm begins at the individual level; a balance between economic opportunities and individual values, personality, capabilities and preferences (Frank et al., 2007). At the regional level, the local availability of (cheap) business premises, employment possibilities, competition structure, regional market perspectives and accessibility may affect personal opportunities. At a higher spatial and analytical level socio-cultural values and attitudes towards business ownership and national regulatory impediments influence opportunity perception. Therefore regional differences in entrepreneurship could very well be caused by regional demographic factors (high representation of individuals or groups with high entrepreneurial spirits), regional economic factors (market opportunities and employment opportunities), and institutional factors both informal (values concerning self-employment) as formal (tax regulations, or employment protection, social security system) operating at the regional and national scale.

According to Sternberg (2009), entrepreneurship is a social and collective phenomena partly influenced by the regional environment. Even though the national framework is still important and will explain international differences to a large extent along with the individual level, when national frameworks are considered more or less equal, empirical evidence suggests that regional framework conditions within countries may influence individual decisions regarding entrepreneurship.

Entrepreneurship can be divided into phases (as explained previously). Underlying these phases are various determinants. In the regional context one could split these determinants up in the macro (national) environment, the micro (individual) environment and the meso (regional) environment. As explained in the previous paragraph: the macro environment constitutes of political, financial, social and culture conditions as well as educational and research system, infrastructure and the structure of the whole economy. This counts for regional/meso environment as well, but now the focus is on the individual region instead of the whole country. The individual level contains social and professional background and the network of the economic agents. Personal traits such as age, sex, motivation and push or pull factors are not part of the environment but do influence the perception of the environments by filtering out the environmental signals and thus shape start-up decision and success.

The entrepreneurial activity of the region is basically the sum of all individual entrepreneurial activities. The importance of the region for entrepreneurial start-ups lies actually in the spatial immobility of the economic agent, causing them to start new businesses in the vicinity of their home (Sternberg & Wagner, 2004; Tamásy, 2006). Firms and in particular firm owners develop localized networks making them even more regionally embedded; most contacts are local. Most economic agents also start businesses in sectors related to where they were previously employed. An individual gathers local knowledge about his industry in a particular region. The process of entrepreneurship is geographically constrained because of the fact that an entrepreneur gathers both experience and information networks locally.

Regional determinants

Bosma et al. (2008a) find three categories of regional determinants: agglomeration effects, demand and supply, and policy environment and culture.

Examples of agglomeration effects are regional or local consumer market opportunities as well as broad access to necessary resources (e.g. knowledge and a diversified and large labor market). Even though agglomeration effects may also be negative (such is the case with congestion and high input and land costs, overall positive agglomeration effects overrule these agglomeration diseconomies for firms both incumbent and nascent (Armington & Acs; 2002). This agglomeration effect constitute of two parts: localization economies and urbanization economies. Localization economies occur when same industry firms cluster together in their spatial proximity. This clustering stimulates specialized knowledge flows and the spread and access of tacit knowledge which opens up the possibilities of stimulating innovative firms. Urbanization economies occur when firms that are unrelated in terms of branch, market of industry, cluster together (Bosma et al., 2008a). These urbanization effects often occur in densely populated urban areas. Empirical findings show that especially in larger urban areas, entrepreneurship seems to thrive.

The first to actually link the degree of urbanization to regional entrepreneurial activity was Vernon (1966). This high occurrence of entrepreneurship in urban areas is for a part linked to population size, leading to a higher start-up rate which increases the likelihood of inter-industry connection, but also to spill-over effects (e.g. knowledge), inter-firm competition, improved infrastructure and firm heterogeneity causing a growth of the regional economy (Sternberg, 2009). Urban areas are also related to human capital (investments in knowledge and education) and the concept of the 'creative class' by Richard Florida (2002). Florida, proposes that cities with a relative large creative class have a higher productivity and regional growth than cities that lack those people. Regardless of the existence of a creative class, urbanization economies often do exhibit a large and highly qualified labor force, a large and diversified customer market and supplier inputs, and more general knowledge about resources and markets. According to Ciccone & Hall (1996) there is on a regional level a positive correlation between density in economic activity and levels of productivity. This makes especially the urban area an interesting focus in regional entrepreneurship. It should however be noted that it is still unclear what the exact importance is of localization and urbanization economies and how they influence entrepreneurial activity (Tamásy, 2006).

The demand and supply effects new firm formation on different levels. On the demand side population growth, local industry diversity, size structure and income and profitability comes into play. On the supply side unemployment rates may influence firm formation. This subject is however

highly debated because on the one hand, unemployment levels may serve as a push-factor for a entrepreneurial career, since other options of income are nearly absent. On the other hand, high unemployment rates suggest unfavorable economic circumstances and limit new business entries (Grilo & Thurik, 2006).

The third determinant, policy environment and culture (or better put: institutions) constitutes of local or regional authorities who may influence small and new firms by their tax and spending strategies. On the regional level there seem to be differences in the supportiveness of local policy makers towards entrepreneurship, as is shown by a study of Sutaria & Hicks (2004). The impact of culture has been shown by for instance Beugelsdijk & Noordhaven (2002). They found a proxy of culture in the form of entrepreneurial attitude which is a dataset based on norms and values of European regions. Empirically they found a relation between high scores on entrepreneurial culture economic growth.

Other authors have also delved into the subject of what makes a place more entrepreneurial than another one. A good example is a table presented by Dubini (1989) that lists characteristics of munificent environments.

Table 2.4 Characteristics of munificent and sparse environments for entrepreneurs

Munificent environment characteristics	- A diversified economy in terms of size of companies and industries represented - A rich infrastructure and the availability of skilled resources - A solid financial community - Presence of government incentives to start a new business
Sparse environments characteristics	- Lack of an entrepreneurial culture and values, networks, special organizations or activities aimed at new companies - Absence of innovative industries - Weak infrastructures, capital markets, few effective government incentives to start a new business - Lack of tradition of entrepreneurship and family business in the area

Source: Dubini (1989)

Feldman (2001) also presents a short list of favorable characteristics when describing entrepreneurship in the context of the region. He notes:

- entrepreneurial expertise/support services;
- research universities as growth engines;
- availability of venture capital;
- supportive social capital.

An econometric analysis by Wagner & Sternberg (2002) gives us also an interesting insight in the way the region influence entrepreneurship. They found that both growth rate of the population, average monthly wage, population density, average price of building plot and new firms per 1000 residents all have a significant profound effect on the individual decision to start a business. Low et al. (2005) show that entrepreneurial potential is dependent on certain factors: quality of life, in-migration, education and infrastructure. Naturally some places have a higher quality of these factors than others, leading to regional differences.

Audretsch & Keilbach (2004) defined the term entrepreneurship capital to describe the region's endowment with factors that are beneficial in stimulating new business formations. They measure entrepreneurship capital by the number of start-ups in the region relative to its population. It follows that entrepreneurship stimulates more entrepreneurial activity by setting an example and providing information and support. Entrepreneurship can thus be considered as a process of cumulative causation. It is this specific characteristic that will be investigated into more detail in this thesis.

2.6 Summary

There has been a large shift in the economic paradigm about entrepreneurship. Whereas in earlier decades the large firm had the advantage due to economies of scope and scale, nowadays in developed economies there has been a shift towards new and smaller innovative firms. This transition however is not a dichotomy nor is the large firm made obsolete; rather there is an increase in the occurrence of new, small and rapidly growing firms. To what extent is however often dependable on the regional circumstances: some are more favorable to new and small firms, some are more favorable to large incumbent ones. Nevertheless research hints that in the long run, stimulating nascent entrepreneurship (regardless whether this is based on necessity or opportunity) may be more beneficial to economic growth and development. Wennekers & Thurik (1999) state that the most relevant factors linking entrepreneurship to economic growth is competition and newness through start-ups and innovation. Stam (2003) wrote that in a quickly changing economy with a premium on innovation, the degree to which the economy is composed of new, rapidly growing firms is said to be indicative of innovative capacity**.** This short summary of the literature has proven that the transition and progression to the knowledge economy is often (but not always) accompanied by increasing numbers of mostly innovative high growth start-ups that could be summed up as high impact firms which has a distinct benefit to an economy, making it an economic premium. High impact entrepreneurship could be described as risk-taking, opportunity based and growth oriented long term entrepreneurship. It is geared towards change; that is not to say it is necessarily high technology entrepreneurship, but it is certainly innovative, as is described in the previous statement of Stam (2003) and could be related to some sort of technological breakthrough.

Hall & Sobel (pp. 74, 2008) theorize that 'human movement is not uniform across space'. Regions that have similar demographics, geographical features and a similar level of resources can differ very much from each other in terms of economic outcomes because of different institutional frameworks (Hall & Sobel, 2008). Reynolds et al. (1994) showed already that there exists a high variance of firm entry rates between regions. Recent empirical studies by for instance van Stel & Suddle (2008) point out the relevance of certain aspects of business dynamics on regional economic growth. Apart from the often national differences in entrepreneurship, regional differences have proven to be just as useful since differences within regions of a country are often more extensive than differences between countries themselves.

When looking at model 2 presented in the beginning of paragraph 2.5, which shows the determinants of nascent entrepreneurship, one can see a strong influence of the institutional context in the occurrence of nascent entrepreneurship.

When dealing with practical solutions as so to stimulate entrepreneurial activities, determinants such as population size and population growth and purely surpass the possible influence that applied

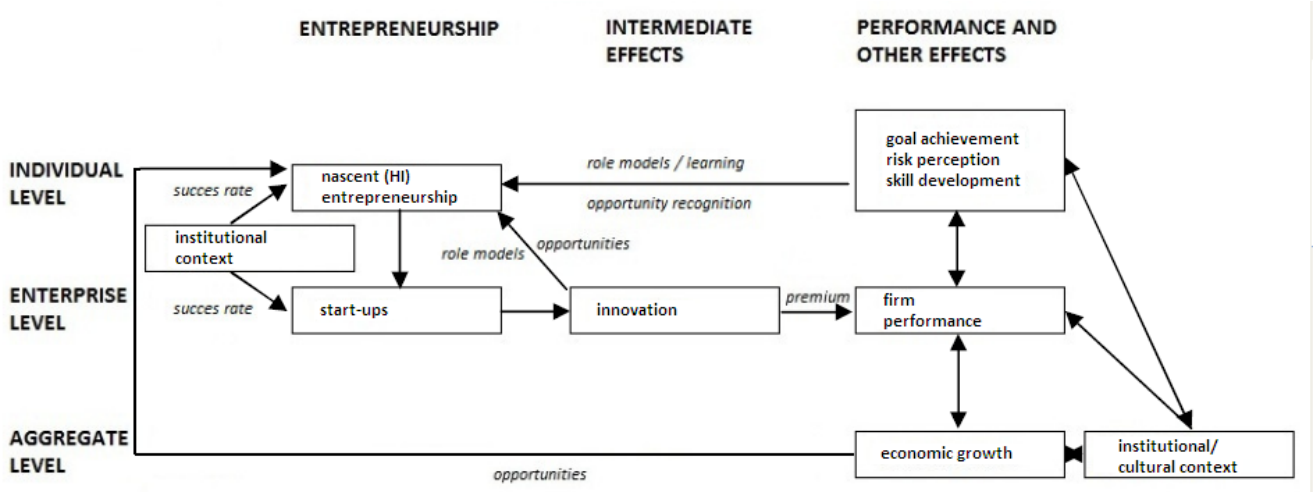
science can have. Henrekson & Johansson (2009) argued that regional rates of entrepreneurial activity could be explained by 3 factors: economic attributes, demographic factors and institutions. The focus of this paper will be the institutional and consequently cultural, differences across regions that ensure these regional differences in entrepreneurship and to a certain extent the influence they have on the recognition of individuals of regional economic conditions (the case of economic opportunities). The rest of this paper will therefore have a regional institutional focus on entrepreneurship which will be explained in the next chapter.

2.7 Conclusion

This first chapter provided a short overview of the economic geographic literature on entrepreneurship and its effects introducing and discussing model 1 and model 2, presented in respectively paragraph 2.2 and 2.5.

The relevant factor here is both the effects of nascent high impact entrepreneurship on economic growth and the factors that cause the emergence of high impact nascent entrepreneurship by itself. Therefore both models will be congregated into one specific model that deals with the institutional context, regional economic growth and high impact entrepreneurship. Some of the variables though will still need to be explained in the next chapter (the institutional context, role models, opportunities and opportunity recognition). For now, the above figures will be conjugated into a new model; referred to as model 3:

Figure 2.8 The institutional effects on nascent entrepreneurship (model 3)



In general opportunity based entrepreneurship lies at the basis of new innovations which by themselves are essential for inter firm competition. This competition leads eventually to a higher economic growth which stimulates even more nascent entrepreneurship, thus being a cumulative causation effect. Note however that the term HI (high impact) is between marks since it certainly does not necessarily have to be that only high impact entrepreneurship causes innovation and economic growth, nor that the role model effect (or other institutional effects) is only relevant for the high impact entrepreneurship.

Answering the research question

In the beginning of this chapter I asked the following research question: *'Why is entrepreneurship important for economic growth and is all entrepreneurship beneficial?'*

With the knowledge gathered in this chapter it is now possible to answer the partial research question. First of all it is important to know that entrepreneurship is not universally related to economic growth and development. This relation is by now difficult to pin-point, and the causal mechanism is not uniform: economic development could influence entrepreneurship, as well as entrepreneurship influencing economic development. Countries with a relatively low GDP have high amounts of entrepreneurship, but with a rise in GDP consecutively a sharp decline in entrepreneurship rates can be found. This goes on till a certain point of GDP-rate where a trend-break occurs and entrepreneurship rates tart to slowly rise again. However research points not yet conclusively to neither a distinctive U-shape nor an alleviated L-shape. However the decline has stopped for all advanced countries, and some of those countries indeed have experienced a net-increase of entrepreneurship, albeit the evidence is small since there aren't that many countries within that higher echelon of development. Still a priori there are no theoretical reasons to assume that independent entrepreneurial rates will decline again.

What is also known is that the nature of entrepreneurship has changed for higher GDP countries: a rise in opportunity based entrepreneurship that is innovative in nature and a fall in necessity based entrepreneurship which is largely unproductive and does not contribute to an economy very much. Additionally Audretsch & Thurik (2000) notice in some regions in developed countries a shift from the managerial to the entrepreneurial economy, or in the terms of Schumpeter a shift from the Mark II to the Mark I regime. Whereas in the former regime there is a concentrated market structure where innovations (which are in the higher echelons of GDP a primary aspect) are being brought into the market by larger established firms, in the latter regime, innovations are generally being brought to the market by small and young firms. However, what Acs (2008) has found is that economic growth as translated as employment growth is not a monopoly of small and young firms. Rather, a high percentage of the small and young firms merely replace the old jobs formerly provided by larger established corporations thus leaving little difference in economic outcome by a shift of a few large corporations to varies differentiated smaller firms (note however that innovativeness does seem to proliferate in smaller and young firms).

The actual rise in GDP and subsequently a rise in employment along with a shift in the wealth curve are caused by a small cohort of younger firms that bring new revolutionary products to the market and tend to grow very quickly. Acs (2008) has defined them as 'High Impact Entrepreneurs', while Malecki (2009) calls them 'gazelles'. It is these types of firms that are an actual improvement of the old regime, and these types of firms are the primary cause of a rise in GDP and economic growth within a country or region. That is however not to say that other opportunity based firms are not without their merits: certainly imitations and incremental innovations along with market-followers serve the market and the economy well; Audretsch & Fritsch, 2002 empirically showed that a high start-up rate does have a positive impact on future economic growth.

3 The Institutional context of Entrepreneurship

Both Kangasharju (2000) and (Beugelsdijk & Noordhaven, 2002) argue that a culture that is prone to entrepreneurship (whether within a national or regional context) may have a higher entrepreneurial start-up rate. It is meaningful to link entrepreneurship to the institutional context since the economic agent links institutions on a micro level to economic outcomes at the macro level. It is therefore interesting to research the relation between cultural factors, institutional factors and the decision to become an entrepreneur. This chapter will explain the second partial research question: Q2 *What is the influence of the institutional context on entrepreneurship'*

3.1 Institutions, entrepreneurship and economic geography: an introduction

Human tribes have over the centuries used different languages and different mental models to explain the world around them. These mental models and languages were the informal constraints that defined the institutional framework. These were passed down from generation to generation as culture in the form of customs, myths and taboos, thereby providing a certain sense of path dependency (North, 1994a).

Scholars of social sciences have always had a substantial interest in the concept of institutions. In the course of time, the research of institutions has reinvented itself (as was the case with the new institutionalism), and found new applications to it such as in economics, public administration, political science, sociology and natural resource management (High et al., 2005). Especially in the case of economics has there been in notable change away from basic classic theories to 'getting the institutions right' in explaining economic differences between countries. For instance, regarding the revival of comparative economics, Djankov et al. (2003) note that institutions holds a central place in explaining the historic origin of the legal system of a country and consequently shedding light on the economic and social outcome of that, and explaining differences in country performance. Acemoglu & Robinson (2008) theorize the same: the main difference between country income levels are in fact institutional differences.

When looking at the causes of economic growth, we can go back as early as 1955 where Lewis found a distinction between proximate causes of economic growth and the underlying causes of those 'proximate causes' which were in fact institutions and beliefs. North & Thomas (1973) found that it is not innovation, education, economies of scale and such that are causes of economic growth; rather they are the manifestation of economic growth. The real causes were in their opinion the factors that determined the efficiency of economic organizations such as property rights and incentives; i.e. institutions.

Kirzner (1973) already pointed out that it is the entrepreneur who is alert to business opportunities not yet identified by other individuals. Opportunities are not objective, nor are they for anyone to grasp. The entrepreneurial process starts with the discovery or recognition of a business opportunity. But, as stated by Korsgaard (pp. 10, 2007) *'If the opportunity does not possess the objectivity entailed by existing prior to discovery but rather an exteriority produced by the entrepreneurial process, then the modernist scheme begins to crack, and we might ask what kind of subjectivity we are talking about in the entrepreneurial process'*.

Entrepreneurship is thus not only about individual attributes; such a psychological approach would fall rather short on the vastness of determinants. Instead treating the individual as a given, and focusing on the process of entrepreneurship -emergence of entrepreneurs, rate of new firm creation and firm growth and development- by taking an institutional approach promises a much better understanding, since it is the institutional environment that provides incentives to which the individual entrepreneur responds to (North , 1990).

Baumol (1990) argues that institutional arrangements and socio-cultural phenomena can both determine the quantity and allocation of entrepreneurship. Wennekers & Thurik (1999) find that cultural dimensions certainly have an impact on entrepreneurship and economic growth, but see this relation as not being straightforward. They do acknowledge the relevance of economic institutions for economic growth. In particular the incentives along with the competition rules are considered the most important factors. Lewis (1955) distinguishes within the institutional framework three factors of importance:

- The right to reward: involving incentive structures and property rights;
- Possibilities for trade and specialization: barriers imposed to the mobility of goods and productive factors;
- Economic freedom: profit possibilities, possibilities to go bankrupt, resource access through functioning capital and labor markets along with legal and cultural possibilities of vertical mobility.

In explaining growth performances institutional approaches have thus been receiving an increasing dominance (North, 1990).

Within the institutional economic geography research is mostly based on inductive case study that emphasizes the local 'uniqueness' of a certain place. In this school of taught economic behavior is rationally bounded and the actions of economic agents are guided in their decisions and actions by an institutional framework. These institutions are embedded in local practices with a distinct geographical scale, making the local level the relevant level of analysis (Boschma & Frenken, 2006). Firm behavior is not based on routines gathered in the past, but rather on durable institutions that effect inter-firm relations and industrial relations. It is theorized that agents and firms behave differently under influence of institutions, than they would without those same institutions (Voight, 2009).

The following paragraphs explain in detail what institutions are, how they work, and most importantly how they relate to entrepreneurship.

3.2 What are institutions?

It is increasingly acknowledged that much of human activity and interaction is structured in terms of explicit or implicit rules. One could define institutions as systems of established and prevalent social rules that structure social interactions. Institutions constitute for example of laws, metric systems, language, table manners and money (Hodgson, 2006). The fact that institutions can create stable expectations of human behavior enforces their durability. Older concepts such as those in the tradition of original institutional economist Thorstein Veblen picture institutions as social structures with the ability to change the purpose and preference of economic agents. Hodgson (2006) states that we can observe institutions through manifested behavior. This behavior is bounded or enacted

by certain (socially transmitted) rules which are potentially codifiable; members of a community have a certain explicit and tacit knowledge of these rules. The coding of these rules is an important aspect of institutions since it can act as enforcing the identity of the community by encompassing all whole shares and understands the involving rules, and lends itself to a quick identification of rule breaching. People obey laws however not only because of possible sanctions that follow, but also because of the possible moral legitimacy and moral support of others by those legal systems.

One problematic aspect within the discussion around institutions is the ambiguous and vague definition of the institutions themselves. Commonly it is referred to as a set of rules and norms as explained above. More often though, it is subject to the interpretation of the researcher who uses it, and therefore theoretical frameworks may be hard to compare. When referring to the institutional economic geography, Martin (2000) separates the institutional environment from the institutional arrangements. Whereas the former refers to a system of informal conventions, norms, customs and social routines, but also formal rules and regulations, the latter represented the organizational forms such as unions, firms and the welfare state. According to Martin (2000) the interaction between these two aspects of the institutional framework differs across space, and thus forms local economic development in different ways. Others differentiate between institutions as economic, political, social and educational organizations and institutions as a set of rules and regulations. In his motivation to understand the interaction between institutions and organizations North (2005) gives us a rather conceptual definition where institutions comprise all humanly devised constraints that define the motivational structures of both economies and societies. His focus is however too strongly on individual organizations, and there are no given boundaries for the terms society and economy (Rafiqui, 2009).

Veciana & Urbano (2008) define institutions as clusters of moral belief that designate authority, thereby referring mostly to the enforcing side of institutions. The definition given by Menard & Shirley (2005) is threefold: they view institutions as rules, laws and constitutions that govern society at large, written rules and agreements that govern corporate relations and contracts and unwritten norms, beliefs and codes of conduct, thereby adhering to the common approach of institutions as rules and norms. This is in line with the works of North (2005) who recognized within the institutional framework a: '*political structure that specifies the way political choices are developed and aggregated, a property rights structure that defines the formal economic incentives and the social structure of norms and conventions that define the informal incentives of the economy*' (in: Rafiqui, pp.337 , 2009). Scott (1995) states that institutions constitute of three main components:

- meanings systems and related behavior patterns, which contain
- symbolic elements: normative, representational and constitutive elements that are
- enforced by regulatory processes.

According to Scott (1995) institutions provide stability and meaning in social behavior, and they consist of normative, cognitive and regulative structures. Institutions are, as he explains further on, transported by carriers in the form of culture, structures and routines, and operate at multiple jurisdictional levels. The regulatory component consists of laws, regulation, government policies and rules which stimulate certain behaviors and impedes others. The accompanied processes consist of monitoring, rule-setting and sanctioning. The normative component reflects social knowledge and cognitive structures shared by individuals in a certain environment. Scott refers to it as culture. These systems define objectives and goals along with the social desirable way to pursue those. The

cognitive component is the reflection of the social knowledge and cognitive structures shared by the population of a region or country. In general though, the most commonly adhered point of view on institutions is that of North (pp. 360, 1994a) which the same as that of Scott is in essence:

'Institutions are the humanly devised constraints that structure human interaction. They are made up of formal constraints (rules, laws, constitutions), informal constraints (e.g. norms of behavior, conventions, self-imposed codes of conduct), and their enforcement characteristics. Together they define the incentive structure of societies and specifically economies'.

One key issue within the literature is the distinction between organizations and institutions something which is commonly confused. North (1990 and onward) and High et al. (2005) use institutions as the strategies, rules and norms that shape organizational and individual behavior. In this sense this definition both encompasses formal and informal institutions. In contrary, organizations are social structures that encompass economic agency. North (1990) describes the distinction as the 'rules of the game' and the 'players of the game'. North (1994a; 1994b; 2005) also states that it is the interaction between organizations (economic agents) and institutions that actually shape the institutional evolution of an economy.

According to Hodgson (2006) North (1994a) however does not imply that organizations are not institutions. Rather it is his focus that is solely on the functioning of an economic system, instead that the internal functioning of an individual organization. In this thesis the functioning of regional socio-economic systems in the light of entrepreneurship will be dealt with so the assumption that organizations too are institutions will not be made.

Another problem within North's definition of institutions lies within the duality between formal rules and informal constraints. One could interpret formal rules as either legal or explicit, while informal should then refer to illegal/non legal and tacit. Additionally, he uses the terms 'constraints' and 'rules', interchangeably, and usually reserves the term rule for formal institutions and refers to informal constraints. Even though he places great importance on informal and customary relations, his definition of institutions as rules, leads to the assumption that both institutions and rules are identified with formal regulation, thereby excluding other institutions that may very well also significantly form and constrain human behavior. Thereby, by emphasizing formal and legal aspects of institutions, one can overlook the reliance of formal rules of the legal system on informal rules and norms in society. It is therefore useful to define institutions as '*durable systems of established and embedded social rules that structure social interactions* (Hodgson, pp. 13, 2006). Institutions are thus social rule-systems and not just rules. To end further confusion with the terms 'formal' and 'informal', it is according to Hodgson again, better to speak of legal, non-legal and explicit (or tacit).

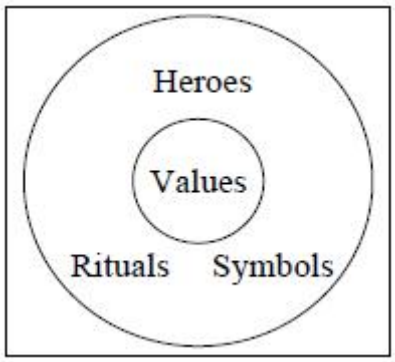
A question that was posed at the beginning of the chapter was how culture along with institutions affects entrepreneurship. It has come forward that in some of the definitions that were given, culture is used interchangeably with institutions, or at the least the two concepts are interwoven with each other. To explain further, the concept will be elaborated upon below.

<u>Culture</u>

Culture is a term that serves multiple explanations. According to Kroeber and Parson (1958) culture is defined as factors such as ideas, value patterns and other symbolic meaningful systems that shape human behavior. However in this thesis the definition as been proposed by Hofstede (1991) will be

used. He defines culture as the distinguishing of members of one group or category of people from another group or category caused by the collective programming of the mind. This definition is prone to a multilevel analysis that can serve to explain difference on both family level as well as the national level. Culture is both complex and largely unobservable and intangible. They constitute of deeply embedded values but also manifestations that are more on the surface and more observable. Therefore culture can best be studied through various verbal and nonverbal manifestations from which constructs are intervened (Hofstede, 1980). Following figure 3.1 shows these different manifestations of culture.

Figure 3.1 Manifestations of culture at different levels



Source: Hofstede (1991)

Rituals, heroes (role models) and symbols are outward directed manifestations while 'values' are the deeper embedded manifestations that could be considered as a 'tendency to prefer certain states of affairs over others' (Hofstede, pp. 18, 1980). Hofstede (1980) states that values are determined early in life leading to the fact that behavior patterns are consistent with the cultural context and are therefore persistent over time. Hofstede (2001) therefore considers values a stable element within a culture in the process of finding entrepreneurship determinants. In the light of this thesis it is interesting to note that within culture heroes or alternatively role models play such an important role. It could be hypothesized that modeling towards a role model/hero could alter the intrinsic values of an individual. In paragraph 3.3 the concept of role models will be further explained.

Some researchers (e.g. Wennekers & Thurik, 1999) find it useful to distinct culture from institutions. Verheul et al. (2001) note that culture is unobservable while institutions are observable manifestations. Culture can therefore be deduced from its manifestations: the institutions. In his theories North (1994a) however does not make this distinction, as does Scott (1995). It is thus difficult to make a clear distinction between institutional context and the cultural setting, since both are strongly interconnected, and institutions serve as a safeguard of cultural and societal norms and values (Hall & Soskice, 2001). Institutions follow mental programs and they adapt to local culture because of the way they function. One cannot understand institutions without considering culture, nor can we understand culture without a discernment of what institutions are (Hofstede, 2001). For sake of clarity this research will, according to North (1994a), Scott (1995) and (to a certain extent) Verheul et al. (2001), use the terms interchangeably and consider culture as part of the whole institutional framework.

3.2.1 Institutional evolution and the entrepreneur

North (1990) states that institutions are enacted to serve the interest of those in power positions, not because of their social efficiency. Therefore institutions can lead to a negative path-dependence and are still likely to pertain.

According to Hudson (2004) institutions have a certain degree of stability over the medium/long terms which are set in the particular mode of political-economic organization (which is capitalism within the Netherlands and Hungary). The economy as a whole can thus be thought of as a (relatively) stable social system of production, consumption and exchange but the institutions are not as stable since there are both forces that disrupt them as there are forces that reproduce them. The way institutions develop is mostly ascribed to path-dependency, but Hudson (pp. 451, 2004) describes them as: '*…path contingent with periodic cyclical crises along a given path and the potential for secular changes from one path to another*'. Institutions are thus path-dependent but can change course overall longer periods of time, be it very incremental.

North (1994b) makes a framework around institutional change and gives us five propositions:

- The reciprocity between economic agents and institutions in the setting of economic scarcity is fuelled by competition and leads to institutional change;
- Competition forces skill and knowledge investments, leading to a change in perceived opportunities and thus choices that will change institutions;
- The institutional framework provides incentives for the desired skills and knowledge to have perceived maximum profit or pay off;
- Perceptions are drawn from the mental constructs, cultural conditioning and limited feedback on the consequence of actions of economic agents;
- Economies of scope, network externalities and complementariness of an institutional matrix lead to the event of mostly incremental and path dependent institutional change.

The main premises here are the skills and knowledge of the economic agent and the change that it can cause. The main instigator of institutional evolution is thus the economic agent; i.e. entrepreneurs and decision makers within organizations. Indirectly this change is caused by the opportunities that are perceived by those agents. This opportunity recognition is (as is explained in an earlier chapter) dependent on the external environment along with the knowledge and skills of the economic agent. Most of the time, it is a mixture of both external and internal stimuli that lead to institutional change.

Firms will reflect the pay-off structure within an economy. The direction of the skill and knowledge investment by an entrepreneur will reflect the underlying incentive structure. In an institutional structure where the perceived highest rate of return comes from starting one's own business, it is expected that economic agents will invest in knowledge and skills that make them better entrepreneurs. This follows a path dependent structure of reciprocity between mental models and the institutional framework that causes incremental change (North, 1994b). The institutional history of a region is therefore important for determining the evolution of the institutions and the basis of where it evolves. North (1990) states that for extrapolating economic performance differences between regions, we must look at the reciprocity between institutions and organizations over longer periods of time. In fact it were North & Thomas (1973) who recognized the importance of historic past of a region in determining the path-dependent structure of that same region.

The million dollar question is thus for both researchers and politicians: how can the institutional approach explain emerging entrepreneurship and differences in entrepreneurship across regions? As shown above North, (1994b) states that it is the institutional framework that defines the opportunity set, and thus the kind of firm that comes into existence. According to Hall and Soskice (2001) it is the national level where the most important institutional structures (labor market regulations, social security systems, governance etc.) affecting firm behavior can be found. Persisting differences in national entrepreneurial entry rates could therefore be explained by different institutional barriers and possibilities to enter. This is in line with findings of the World Bank Group (2005) and Djankov et al. (2003) who focus on high entry barriers (such as administrative and regulatory burdens) that limit entrepreneurial entry. Van Stel et al. (2006) on the other hand focus on minimum capital requirements as in impediment for entry. Grilo and Thurik (2006) found in several countries that administrative complexities hinder both willingness to become an entrepreneur and the actual rate of business start-ups. Regarding institutional barriers, Blanchflower et al. (2001) pose that national differences will be larger than regional variations. As is show here, a lot of the institutional barriers are set at the national level, still regional differences at the intra-national level are persistent. It thus holds that there are more determinants that play a part in entrepreneurial activity and new firm formation than mere institutional barriers at the national level. Vaillant & Lafuente (2007) conclude that the 'informal' (non-legal) institutions are the backbone of entrepreneurial decision making. They conclude this because regions with similar legal institutions can react differently to those same institutions when they are equipped with a different set of non-legal institutions and policies. This relates to similar findings of Hofstede (2001) where he states that institutions work differently in different cultures. In fact, North (1995) states that legal institutions are subordinate to non-legal institutions since it is the cultural context that eventually determines the legal rules of the game. Very often these cultural characteristics can thus differ very much on a regional level.

Fornahl (2003) states that many (rural) areas lag in entrepreneurial qualities not because of physical disadvantages like weak infrastructure and the likes, but also unsuitable social-cultural traits in their institutional framework making it non-beneficial for effective entrepreneurial activity. Another study of the OECD (2003) shows that within rural areas there are several cultural barriers, limited networks and a lack of positive role models or entrepreneurial examples that influence entrepreneurship in both its extent and in its survival. Several studies such as Summers (2000), Beugelsdijk & Noordhaven (2002) and Tamásy (2006) show that the concept of normative entrepreneurial attitudes and culture exist on a regional level and affects entrepreneurial start-up rates and growth rates.

Institutions determine economic outcome of human behavior. Economic agents, and thus in our case entrepreneurs, invest in skills, knowledge and talents therefore revising their evaluation of opportunities. This in turn instigates altering of the rules or gradual amendment of non legal rules. Institutions determine the relative returns to entrepreneurial activity in terms of wealth, power, and prestige (Veciana & Urbano, 2008). Perceived skills and knowledge that have a high payoff, reflects the incentives within the institutional framework (North, 1990). Indirectly, due to political pressure, public investments will also go towards the knowledge and skills that have the highest pay-off (North, 1994b). Institutions determine economic opportunities, and organizations act upon those and take advantage of it. This reciprocity leads to path-dependence. Such a path-dependence however can result in a lock-in where institutions mainly serve the interest and purpose of existing organizations.

Important factors on the regional level are thus skill investments, ambition, opportunity perception and pay-off structure. Interestingly enough these could all be related to the concept of role models.

3.3 Role models

The main function and merit of institutions could be subscribed to the structuring of human interaction and behavior and therefore the reduction of uncertainty (Lafuente et al. 2007). It has been shown by Ajzen (1991) and later Akerlof & Kranton (2000) that individual behavior is often influenced by others; their identity demonstration and the example that they set. Among this influence is also the occupational choice for entrepreneurship. It will be argued here (and later in paragraph 3.4.2 & 3.4.3) that a significant determinant in the occurrence of nascent entrepreneurship is the availability of entrepreneurial role models.

These role models can serve as both an example and a valuable source of information for starting entrepreneurs thereby reducing to a certain extent uncertainty and thereby potentially influencing the socio-cultural context of the institutional framework.

3.3.1 An explanation of the concept of role models

A role model is a person who serves as a model in a particular behavioral or social role for another person to emulate. Van Auken et al. (pp. 326, 2006) state that: *'….role behaviour is learned through socialization. Socialization is concerned with the learning of behaviour at various stages of the life cycle. Role theories attempt to describe the processes that enter into learning role behaviour. Role models serve as someone whose life and activities contribute to learning role behaviour'.* Speizer (1981, pp. 693) on the other hand considers a role model: *'... a person who possesses skills and displays techniques which the actor lacks …. and from whom, by observation and comparison with his own performance the actor can learn'.* While Lafuente et al. (pp. 2, 2007) refer to *'positive entrepreneurial examples'.*

The presence of an entrepreneurial role model, whether this is in a rural or urban context, influences to a large extent the cognitive representation of economic agents and influences the decision to become an entrepreneur (Krueger, 1993). Role models have the ability to influence the motivation of an individual to search for opportunities, seize those opportunities and thereby start an enterprise (van Auken et al., 2006). The role model has to ability to alter the behaviour of the individual through direct advice, or through co-participation, which eventually could lead to a joint-learning experience. Entrepreneurial role models can also create certain expectations about starting an enterprise and even have the ability to improve the confidence and the drive of the individual, thereby increasing the intentions of becoming an entrepreneur (van Auken at al., 2006). In short, the researchers state that by setting an example or by giving valuable information about the act of running a business, role models ensure the coming into being of other entrepreneurs and enterprises (see also: Speizer, 1981).

Malecki (2009) too, acknowledges this; he states that new companies often arise at places where other new companies have previously been formed. This implicates the role of older entrepreneurs and enterprises as sources of support and information; role modelling. When talking about role models Malecki (2009, pp. 179) refers to '*positive regional entrepreneurial examples*' (see also Fornahl, 2003) which not only set examples, but also –conform the theory of van Auken et al. (2006)-

actively hand out advice and information to nascent entrepreneurs. Other researchers like Masten & Brown (1995) recognize this active process of information sharing, and thereby refer to role models as 'mentors'. By setting a positive example and sharing advice and information to nascent entrepreneurs, role models can create a process of cumulative causation in the growth of regional entrepreneurs. It is interesting that Malecki (2009) specifically refers to regional examples, which implies the specific scale level of the impact of role models (for more see also Tamásy, 2006 who talks about the regional relevance of role models). Mueller (2006) states that through the presence of other entrepreneurs (role models) nascent entrepreneurs have the ability to observe and meet them, thereby attaining information about input factors, financial resources, possible clients and suppliers, but also specific information about the troubleshooting concerning the actual start of an enterprise. Sternberg & Wagner (2004) conclude that nascent entrepreneurs with a role model have a larger probability to actually start an enterprise, than nascent entrepreneurs without such a role model.

Fornahl (2009) too, acknowledges the existence of such entrepreneurial role models. In his view, role models are chosen according to a subjective level of success of that role model (which is in strong contrast to what van Auken et al, 2006 suggest). Positive examples greatly influence the likelihood of discovering and acting on entrepreneurial opportunities since they act as previous successful and similar examples (Fornahl, 2003). Fornahl (2009) elaborates on this and theorizes that role models have certain specific mental models which influence the behaviour and development of starting entrepreneurs. Social-cognitive learning processes can change these mental models. One thing of great importance in this is proximity; the larger the social, geographical and cultural proximity, the larger the chance of altering the mental model. Though, it is possible that extra-regional entrepreneurs function as role models, especially when there is not a local or regional model available that has a certain cultural and social proximity to the nascent entrepreneur. Nevertheless, Fornahl (2009) stresses that regional role models are more eligible. This argument is threefold:

- First off, chances of having a certain geographical, social and cultural proximity are larger within the region than outside of it;
- Secondly, the diffusion of information will be better intra-regional than inter-regional;
- Finally, social regional networks are more important than networks outside of the regional scale level because of higher frequencies of interaction, communication and observation.

In this argumentation Fornahl stresses the proximity of the possible role model. Nascent entrepreneurs are more likely to identify, compare and adapt to a role model whose social background, education and regional background resembles that of them the most. In short, alike Malecki (2009), Fornahl speaks about the regional relevance of role models. Aside from this regional relevance, Fornahl finds that it is mostly the (young) starting entrepreneur of newly found enterprises that allow a nascent entrepreneur to identify him or herself with, and to seek direct contact with, thus functioning as a role model. Whether this company is large or small has no significance, though it is hard to say that the success of this role model has any influence to his status quo. Mueller (2006) comes to a similar conclusion: it is mostly the entrepreneurs of young and small businesses that function as role models and stimulate entrepreneurship. The only noteworthy difference here is the fact that Mueller explicitly refers to small companies, while Fornahl (2009) does not differentiate to company size.

The influence of a role model is noticeable in a multitude of processes. Fornahl (2003) shows two profound effects caused by these positive entrepreneurial examples:

- Through a role model it is easier to recognize entrepreneurial opportunities, and to react to it accordingly. When other entrepreneurs have successfully acted on similar opportunities nascent entrepreneurs can use this as a point of reference;
- Entrepreneurial examples could alter the allocation of cognitive attention to certain possibilities and business concepts and also increase the confidence of the nascent entrepreneur.

One thing that is not clear from Fornahls work (2003, 2009) is the influence of role models on starting entrepreneurs who actually already set up a business. Bygrave (1995) finds that role models both stimulate opportunity detection along with business idea generation by being simply innovative; which generally concurs with the findings of Fornahl. In regards to innovativeness and the role model effect, Bosma (2009) finds that being inspired by an entrepreneur (who often lives in the same region) is a significant indicator for the innovativeness of starting entrepreneurs.

Although the link between entrepreneurial intentions and role models is conceptually theorized in several studies, there is scare real empirical evidence on the effects. There is some factual empirical evidence for the existence, the importance and the effects and functions of entrepreneurial role models. Studies on parental role models (correlation between starting a business and having parents who were entrepreneurs) are quite numerous (see for example Chlosta et al., 2010; Fairlie & Robb, 2007). Bosma et al. (2008c) finds on the regional level in three Dutch regions that more than in half of the starting entrepreneurs, another entrepreneur or firm served as a role model in setting up their own firm. More than 70% of those role models worked in the same labour market area. Lafuente et al. (2007) find that the higher levels of entrepreneurial activity in rural Catalonia compared to other regions in Spain, could be ascribed to the presence of informal institutional factors, in this case namely the role model effect (note however that the role model effect was researched with a proxy and defined as 'personally knowing another entrepreneur'). Tamásy (2006) finds a particular strong role model effect for entrepreneurial attitudes. A more recent study by Bosma et al. (2011) gives several preliminary conclusions on the role model effect. They find that role models indeed do matter for entrepreneurial intentions; the results are quite strong, no less than 54% of the entrepreneurs in their study of 292 subjects made use of a role model during the pre-and/or post start-up phase. 81% of those entrepreneurs have a role model pre start-up, while 63% of those 54% have a role model post start-up in the first three years. Almost half of the 54% have a role model in both pre and post start-up phase. Previous percentages were in the study even higher when entrepreneurs were concerned that started their first business. As regards to the importance of the role model in (young) firms, Bosma et al. (2011) find that about one third of their respondents who had a role model would not have started their business without that same role model, while one fifth claimed not having continued their business without their post start-up role model. They conclude that from their data it follows that the role model effect is multitude; the dominant function of role models being learning from the example the role model sets. Additional perceived functions are direct support and the learning effect, increasing self-efficacy and motivation.

This suggests that the concept of a role model is very relevant and acts as a important variable in explaining the self-enforcing multiplier effect of entrepreneurship. Finally, within the social capital theory of Davidsson & Honig (2003) it is shown that bonding social capital (strong ties) is important for the pre-start-up phase of entrepreneurship (which would translate to family role models) while weak ties/bridging capital seem to be more important for the initial phases after the start-up.

Conclusively, it follows that within a socially narrow context, a higher amount of entrepreneurs leads to a higher propensity of other economic agents to become entrepreneurs themselves (Gibson, 2004). Once a certain threshold has past, a local institutional framework could evolve towards a new social cognitive perception that is highly beneficial for entrepreneurship. According to Fornahl (2003) little historic singularities could lead a region to develop alternating models of cognitive perception thereby influencing role model occurrence and indirectly the social embeddedness of entrepreneurial behavior.

3.4 Institutions & entrepreneurial opportunities

'Entrepreneurship is indispensable for economic progress, but entrepreneurial activity is possible only when profit opportunities are available to the entrepreneur' (Holcombe, pp. 1, 2003).

Throughout the literature there has been a rather diverse spectrum of approaches towards the concept of opportunity. Kirzner (1973) for one, suggests that opportunities are widespread, and to grasp to everyone who is alert enough to notice them, while Schumpeter (1934) on the contrary states that opportunities require large amounts of capital to exploit, and only the intelligent are able to grasp this. In this paragraph it will be argued that opportunities are not objective, and that the recognition of those opportunities is something which is affected by the institutional framework.

Within the entrepreneurial literature economic opportunities are often seen as a given. Audretsch et al. (2008) trace this back to Schumpeter. Though Schumpeter is interested in the concept of innovation, he seems rather uninterested in the source of this innovation: where does it come from? With his theory on creative destruction he theorizes innovation coming from new firms by exploiting exogenous available opportunities. But still he does not question where the entrepreneurs come from and how they create value. Today most literature focuses on the specific recognition of the opportunity rather than the creation of it. Stevenson & Jarillo (1990) even go as far to state that entrepreneurship is an orientation towards the recognition of opportunities.

Opposed to this is the strategic management literature which views firms as the actor in creating and making business opportunities. In this view, a key objective of the firm is to grow through new entry in markets and products. *'The quest for Ricardian rents, or returns that accrue due to scarcity of the resource causes firms to invest in the production of resources such as knowledge that may provide competitive advantage due to their uniqueness, imperfect mobility and lack of imitability'* (Audretsch et al., pp. 20, 2008). Main cause of sustained competitive advantage is the heterogeneity of firms. Recent theoretical advancement in this strategy literature (more precisely the knowledge based view of the firm) is the assumption that firm heterogeneity is an endogenous creation of economic actors (Audretsch et al., 2008). New ventures are created by the reciprocity between knowledge spillovers and entrepreneurial activity.

Reconciling both views leads to the assertion that in the first place strategic investments by existing firms and research institutions endogenously create entrepreneurial opportunities. Following that, is the question who and in which organizational context sees this opportunity and is able to take advantage of it. In the next part the origins of entrepreneurial opportunities will be explored: who discovers and exploits them and how are they created.

3.4.1 What is an entrepreneurial opportunity?

There is a scientific debate whether economic opportunities are subjective and/or socially constructed and therefore impossible to separate from the individual. Others contend that opportunities are indeed objective and visible to, or created by adjusted entrepreneurs who have certain knowledge (Acs, 2008). Shane (2003) and Shane & Venkataraman (2000) concede with both views and state that opportunities are real and objective, and exist even without the entrepreneur, but the perceiving of these opportunities is rather subjective. Nevertheless clear assumptions about opportunities are scarce in the literature and forming logically consistent prescriptions for both practice and policy is rather elusive since a theory that is not based on empirical results would be incomplete (Holcombe, 2003). Shane & Venkataraman (2000) define for instance entrepreneurial opportunities as situations in which services, raw materials, organizing methods and new goods can be introduced and sold at greater than their cost of production. In the view of Shane (2003) entrepreneurial opportunities are situations '*where new or future goods, inputs, resources, services and ways of organizing business can be introduced to the market and sold at prices above their cost of production or assembly*' (in: Plummer et al., pp. 3, 2007). Van Praag & van Ophem (1995) see an opportunity as a possibility to become self-employed. Casson (1982) defines it as projects that generate goods and services. In a more elaborate way he describes it as '*objective situations that entail the discovery of new means-ends relationships through which new goods, services, raw materials, and organizing methods can be introduced to produce economic value*' (in: McMullen et al., pp. 8, 2007). Likewise, McMullen et al., (2007) define it as an opportunity to engage in entrepreneurial action by profit seeking through the introduction of new goods or services. McMullen et al. (2007) elaborate further by stating that it takes a certain recombination of knowledge and a clear vision for an entrepreneur to utilize financial, material and human resources to develop an idea into a product or improvement (innovation).

Shane (2003) identifies three main types of opportunities, namely: technological, social & demographic and political & regulatory. Drucker (1985) also describes three main types of opportunities (within the product market): the exploitation of market inefficiencies which in turn are the result of information asymmetries across time and space, the invention of new technology/creation of new information, and the reaction to shifts in relative benefits and costs of alternative usage of resources. Eckhardt & Shane (2003) find that the economic literature identifies multiple origins of opportunity: exogenous (technological) shocks (from Schumpeter), information asymmetry (from Kirzner) along with supply and demand changes.

It is obvious though that the creation of new technologies has the highest possibility of creating new market demand and resulting in early firm growth.

3.4.2 The concept of opportunity

An interesting comparison can be made regarding entrepreneurial opportunities between the earlier mentioned economic schools (the Schumpeterian, and the Austrian school of Kirzner). Within the Schumpeterian method the entrepreneur pursues and discovers entrepreneurial opportunities that exist outside of the economic sphere, and are thus reflected by the current price system, whereas within the Austrian school the entrepreneur pursues and discovers economic opportunities that exist inside the economic sphere and are reflected within the pricing system. Note that within the Austrian school, opportunities are merely discovered, not created. This means that when the market is in disequilibrium, opportunities arise and entrepreneurs act on these opportunities thereby ensuring a further process towards equilibrium of the market. Subsequently, whenever the market is in equilibrium there aren't any above normal-profits to exploit, thus there cannot occur any entrepreneurial activities (McMullen et al., 2007; Holcombe, 2003). This equilibrium view of the market dates back to Keynes (1936) and was once widely accepted. However the biggest problem with this line of thinking is the overlooking of the fact that the economy is rather volatile and learning that occurs as a by-product of exploiting opportunities (Casson & Wadeson, 2007). The exploitation of opportunities by entrepreneurs with the prospect of profit is also vital for an economy to adapt to external shocks and changes. In the Schumpeterian view, some entrepreneurs may act as link between the economic world and other domains, such as science (this is what one could call R&D). Therefore they are able to introduce new knowledge and create demand which did not exist in the situation before the interference of the entrepreneur (McMullen et al., 2007).

A problem within the literature is the existence of unexploited opportunities. Some theorize that this implies that market-disequilibrium arises from (information) inefficiency. Casson & Wadeson (2007) propose otherwise: it is not the inefficiency but rather a discovery related cost discrepancy. 'Easier' opportunities are most likely already utilized so the marginal cost of a discovery increases; there are more resources needed for an additional discovery, which increases every time more people join the search. Moreover the chance of duplication of efforts increases with more people searching for discoveries and making the same discoveries. This competition decreases economic rents and therefore on the long run dissipates entrepreneurial ambitions among populations (Casson, 1994). In short there is a threshold where the opportunity costs of a new discovery are equal to the expected profit. Beyond this border lie the undiscovered opportunities (Casson & Wadeson, 2007).

Casson & Wadeson (2007) place the concept of the entrepreneurial opportunity within a larger economic framework; the economy is being portrayed as a system of interdependent projects which are linked together by material resources and flows of information. Projects may generate goods and/or services, depending on the complexity of the specific project. They continue with the assumption that material resources and information are scarce and the economic challenge for a society as a whole lies in selecting the optimal portfolio of projects realized by the interaction of individuals and the aggregation through market institutions. These decisions however are subject to uncertainty because of imperfect information – one can think of information in terms of demographic trends, lifestyle trends, natural resources, interest rates, prices, wages and etcetera. Subsequently the identification of the optimal set of opportunities is impossible. Some of these opportunities are however already being exploited, while others may not. Casson & Wadeson (2007) *conclude that an opportunity is part of the optimal set of projects for a given society but is not yet operational and these are the natural consequences of the economies volatility*. Within this model, the individual acts as a 'homo economicus': he chooses rationally for the optimal choice, however

limited by an information constraint; Simon (1983) explained this as bounded rationality in the way that the individual does not normally act upon full information. To deal with this constraint the individual economizes on its use; thus having uncertainty about the profitability of the opportunity and thus bearing a certain risk which is dependable on the amount of costs he wants to make by collecting information. There is thus a trade-off between the cost incurred by gathering additional information and the benefits of risk avoidance. This could lead to possible mistakes:

- missing out on a profitable opportunity;
- exploiting an unprofitable opportunity.

To Casson & Wadeson (2007) the specific comparative advantage of the entrepreneur lies in the ability to minimize the information costs in comparison to others by collecting and/or processing information in a far better and more efficient way. Examples of this could either be a good ability to proficiently recognize market opportunities, or having certain valuable technological information. They continue with the statement that in order to achieve entrepreneurial success one must recognize true opportunities and screen out false ones by having sufficient 'judgment' in addition to information. Although these assumptions about information costs may prove useful, terms like judgment are far to ambiguous to be researched in a valid way.

Casson & Wadeson (2007) continue with a two stage approach to the discovery process. The first stage involves the entrepreneur identifying a couple of fields to focus his search on. In the second stage the entrepreneur selects within those fields of focus a couple of projects where he or she evaluates the prospects in terms of a couple of observable characteristics that should indicate the underlying profitability.

3.4.3 Opportunity creation

Variables in determining opportunities are the (macro) economic environment, entrepreneurial ability and starting capital. The opportunity is largely dependent on the possession of a sufficient amount of capital (whether owned or loaned) since the amount of loaned capital correlates with perceived entrepreneurial ability (van Praag & van Ophem, 1995). They therefore conclude that this correlation implies that both variables are substitutes (or put differently skilled entrepreneurs need less capital) and that with a sum of both, the opportunity to start as an entrepreneur increases. Van Praag & van Ophem (1995) researched the determinants of becoming an entrepreneur and distinguished entrepreneurial opportunity and the willingness to choose for an entrepreneurial lifestyle. The outcome of the research in the US proved that the majority of the (young men) were willing to become self-employed, and when the opportunity was given this amount multiplied with a factor seven. This implies that within the decision process to eventually become an entrepreneur, opportunities are most important. On top of that, van Praag & Van Ophem (1995) determine that capital requirements and in turn real estate ownership are the most important factors for grasping an opportunity. Besides that, the regional unemployment rate and the entrepreneurial ability acquired through self-employment experience and age proved important. It seems that the older one gets, the less likely one is to set up a business which is consistent with other findings of Evans & Jovanovic (1989) and Miller (1984). A low unemployment rate on the other hand raises the opportunity to start a business significantly. Entrepreneurial ability is thus largely acquired through entrepreneurship experience and serves as a substitute for capital and therefore improves opportunity to start business. The question is thus, if an entrepreneurial role model is a good

substitute for previous personal entrepreneurial experience. Research from Bosma et al. (2011) shows that this is indeed the case.

Also, willingness was positively affected by number of job changes. Van Praag & van Ophem (1995) conclude with the statement that motivational factors do not appear to be major constraints in the individual supply of entrepreneurship. For stimulating opportunity recognition and thus entrepreneurship they advise better institutions geared towards easy borrowing of money along with entrepreneurial courses.

Harper (1996) proposes a close connection between advancement in knowledge and the production of entrepreneurial activity. Under the assumption that entrepreneurship poses an ability to be profitable, individuals have an incentive to invest in knowledge advancements leading to opportunities. Knowledge is according to Holcombe (2003) also directly linked to entrepreneurship. The peculiar thing about knowledge and/or information is that it is by itself not an entrepreneurial endeavor; such is seeking information, exploiting R&D activities, innovations, technological advancements and investing in human capital. However it does create a more beneficial environment for observing entrepreneurial opportunities and generating entrepreneurial endeavors (Harper, 1996; Holcombe, 1998, 2003). Holcombe (2003) continues by making a dichotomy of two types of opportunities:

- the innovative entrepreneurial opportunity, whereas a certain innovator (and potential entrepreneur) creates an opportunity for him alone;
- an opportunity that is open to anyone using generally available information. It is mostly derived from unexploited market information.

Holcombe (2003) considers that opportunities arise from three sources. The first possible source is market disequilibrium. This could be caused by numerous factors, naming, changes in wealth, relative prices, environment, preference etc. This changing economic environment and the adaption of the market to it, makes some economic opportunities viable, while others obsolete (Casson & Wadeson, 2007). The second possibility is through factors that are an enhancement of production possibilities. To a certain extent these factors may disrupt the market equilibrium, thus adhering to the formerly mentioned cause of opportunities. However, sometimes these factors are anticipated on. When anticipated on, entrepreneurial opportunities are created through the increases in inputs like (subtracted from the neo-classical production function) increasing quality of physical and human capital, or simply and increase in income, thereby allowing for a recombination of inputs.

However, the third and most important source of entrepreneurial opportunities is the activity of other entrepreneurs. Utilization of previously unnoticed profit opportunities creates new possibilities for other entrepreneurs. Holcombe (2003) argues that this is in fact the most common source of new entrepreneurial opportunities. This is quite in contrast to the believes of Kirzner (1973) who opted the equilibrating characteristics of the entrepreneur. With each entrepreneur discovering a set of opportunities the economy draws more towards the equilibrium thus decreasing the amount of unnoticed opportunities. Holcombe (2003) gives an example with the invention of the personal computer which caused a revolution of new opportunities like the mouse, or the windows operating system. Showing this cumulative effect, he concludes that within a stagnant economy opportunities are scarce, and so will entrepreneurial activity be since the risk of exploiting a rather non profitable opportunity is large. An increasing rate of entrepreneurship on the other hand creates opportunity

thus increasing the incentive of the population to be more entrepreneurial. Holcombe (1998; 2003) states that economic growth and entrepreneurial opportunities are intertwined and entrepreneurship is an integral part of economic growth. However there are certain differences; economic growth ensures new entrepreneurial opportunities by a change of demanded output and increasing possibilities for scale economies. Nevertheless, these are exogenous to the entrepreneurial process and do not create additional opportunities when utilized.

3.4.4 Recognition of entrepreneurial opportunities

Shane (2003) states that entrepreneurial opportunities are not often actively searched for, but are rather recognized. When entrepreneurial opportunities arise (for whichever reason) however not all will notice this opportunity. As already mentioned, Shane & Venkataraman (2000); Shane (2003) explain that the opportunity itself is objective, but recognizing is subjective, and dependent on the individual. It holds true that all individuals have, to a certain extent some specific knowledge in time and space that others do not have and is neither easily transferrable to other individuals. This specific knowledge may be either a (subtle) difference in quality of goods, recognizing a pattern in market behavior or just ways to determine the efficient allocation of resources. Since some of these qualities aren't always easily imitated by others, some individuals will have an easier access to certain entrepreneurial opportunities than others (Holcombe, 2003). Shane (2003) identifies two of these qualities: it could be that the entrepreneur has better information or is better able to handle and use a given set of information and use it more effectively. This information is thereby gathered by life experience, search processes and social networks. Kirzner (1973) calls this specific recognition of profit opportunity 'entrepreneurial insight' and differentiates it from sheer information. Likewise Schumpeter ascribed certain attributes to the entrepreneur that differentiated them, like for instance a desire to prove themselves, and a heroic imagination (Casson, 2005). Shane & Venkataraman (2000) disagree with this notion of pure entrepreneurial characteristics causing the recognition of opportunities. To them there is just a tendency among certain people to react to certain opportunity cues, but this does not imply that they possess a stable characteristic that differentiates them from other people. However as Shane (2003) points out, there are certain characteristics that amplify the efficient usage of the information they possess, namely: cognitive ability, intelligence and absorptive capacities.

Kihlstrom & Laffont (1979) find that people with a greater preference for risk tend more likely to become entrepreneurs and thus find entrepreneurial opportunities easier to notice. It has been earlier stated that entrepreneurship involves a great deal of risk and it is the tradeoff between risk and the possible pay-off that is of paramount importance in the process to start-up a business. The major problem that involves new economic opportunities and thus new business start-up is the inherent uncertainty about the possible outcomes especially when it involves the introducting of a new innovation (Bhide, 1994). While it is in this case rather hard to calculate risk and expected profits directly, there is always a perception of the risks, opportunity costs and opportunities for profit. It is this perception and in particular attitudes towards risks that has a cultural inclination; Hofstede (2001) called this the uncertainty avoidance of a culture. Wennekers et al. (2006) suggest an indirect negative effect of a high uncertainty avoidance index on the development of business ownership and impedes the exploitation of new economic opportunities. If one thus decreases risk perception the uncertainty level can thus be decreased and simultaneously improves the exploitation of new economic opportunities. Before an entrepreneurial opportunity to exploit new technology or simply

an unfulfilled demand is recognized, prior information is of a main influence (Shane, 2003). Furthermore (amongst others) Shane (2003) finds the importance of the social network for opportunity recognition. The acting on the perceived opportunity is among personal factors influenced by the non-legal institutional environment; i.e. society's norms and values. These normative beliefs of especially people close to the entrepreneur form an important factor. When taking the concept of role models into account, one can see several theoretical implications: especially within the context of a novelty exploration and a culture with a general higher uncertainty avoidance index a role model could alter the opportunity recognition by decreasing uncertainty by merely showing an alternative mental model on risk, but also improving entrepreneurial ability thus reducing capital requirements and the risk involved, providing useful information on local markets, entrepreneurship in general, and assessing the profitability of an innovation.

Knowing thus many other entrepreneurs will not only create opportunities and help recognizing the opportunity; it will also amplify the chances of the entrepreneur reacting on it.

3.5 Summary

It is self-explanatory that opportunity grasping, and especially recognizing true undiscovered opportunities is mandatory for opportunity based (high impact) entrepreneurship and of great importance. Since a high impact firm is by Acs (2008) defined as a leverage start-up that implements new technologies either produced by themselves or gathered through knowledge spillovers by other entrepreneurs, the social context and thereby role models could be extremely viable for especially high impact entrepreneurship, however not neglecting 'regular' opportunity based entrepreneurs.

In the previous paragraph it was shown that opportunities are indeed objective, but the recognition of it is subjective and depends on both the entrepreneur itself as on the environment. The individual aspects of the entrepreneur are worth mentioning, but in this case the most interesting part is the effect of the environment, most notably the social environment and thus role models, since according to Holcombe (2003) it are entrepreneurs themselves that are the main cause of new opportunities arising. Role models could prove useful in both altering the normative aspect of the entrepreneurial search for opportunities (for example decreasing risk avoidance), aiding in opportunity recognition as well as in aiding with the eventual implementation of the opportunity by creating a business. Moreover when high impact entrepreneurship is involved, technological know-how from a role model could prove useful too. That is not to say that role models are the only institutional environmental factor in improving opportunity recognition. Holcombe (2003) finds that opportunities are chosen because of possible future-profit possibilities. Legal institutional factors such as a high regulatory burden along with high taxes could very well influence the entrepreneur in a negative, and perhaps much more profound way.

However combining the literature on role models and the literature on opportunity creation and recognition, several theoretical questions and implications arise: according to Casson & Wadeson (2007) the specific comparative advantage of the entrepreneur lies in the ability to minimize the information costs in comparison to others. This is done through entrepreneurial skills: recognizing market opportunities, or having certain valuable technological information. It is theoretically possible that the role model provides this information or improves the ability though previous

entrepreneurial experience. Thus providing this information or increasing entrepreneurial skill the role model reduces risk, or better said the perception of risk.

In the case of high impact entrepreneurs, these are individuals who are often in need of more venture capital than 'regular' entrepreneurs and are therefore accordingly benefitted with more entrepreneurial ability or skill. As van Praag & van Ophem (1995) already discovered: entrepreneurial skill reduces starting capital needs and thus increases opportunity creation and recognition. Therefore a high impact entrepreneur who needs venture capital is theoretically more benefitted with a role model who increases skills and strategic planning than an 'average' entrepreneur would be.

3.6 Conclusion: Institutions, (high impact) opportunity based entrepreneurship and the role model effect

Apart from the obvious (theoretical) significance of the aforementioned variables, a multitude of possible other influences could be ascribed towards impeding or stimulating entrepreneurship. For instance, the influence of local or regional authorities with their ability to influence small and new firms by taxing and spending strategies. A study of Sutaria & Hicks (2004) shows regional differences in the supportiveness of local policy makers towards (small) business promotion. And in determining new firm success, capital is considered one of the key factors. Engel & Keilbach show that new firm performance is related to early-stage investments. Basu & Parker (2001) found that it is often the entrepreneur's own capital and assets that serve as the prime investment in the new business along with financing from family members. Additionally Reynolds et al. (2004) found that informal investment (entrepreneur's owned capital, loans from family members and friends, and other private capital) was the most important source of start-up capital. It thus follows that entrepreneurs' self-wealth, and family and friends' financing backing are the most important start-ups capital source for entrepreneurs to start new businesses.

If a more holistic (but still workable) interpretation of how entrepreneurship is affected by the regional institutional framework is to be used, certain variables that (could) affect entrepreneurship to a certain extent need to be incorporated. Off course it is not feasible to incorporate all potential institutions (or other factors for that matter). Therefore a couple of variables will be proposed that will be used as a basis for comparison and explanation:

- the most important factor being regional role models;
- national & local or regional taxing and spending strategies;
- local or regional financing;
- general attitude towards entrepreneurship (as a part of cultural barriers): is entrepreneurship a desirable professional option? But most importantly, opportunity recognition as a function of the institutional context.

Still there is one explanation lacking before the creation of a more refined holistic institutional approach. One can have all the right institutions, but if the proper economic opportunity is not present there won't be any economic activity.

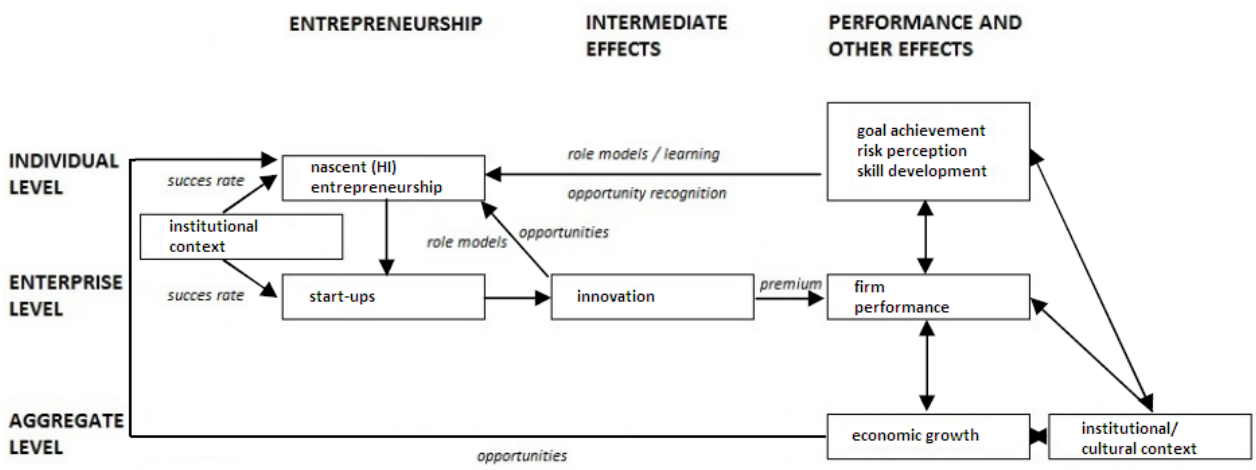
Before the conceptual model will be finalized, first a short summary of both chapter 1 and chapter 2 needs to be given to come to a more holistic understanding of the discussed theoretical findings. So

far from the literature presented it appears that entrepreneurship is indeed relevant and important in stimulating economic growth and development on both the national ánd regional level. This relationship is however u-shaped, whereas the higher echelons of economic development are accompanied by a rising entrepreneurial activity. Furthermore new entrepreneurship shakes business institutions, and in the long-run ensures a healthy competitive environment. New and small firms often improve innovative activity and innovative change. Evidence hints that a high start-up rate could be correlated with a high growth performance. This is however to be put into a certain context since the most relevant type of entrepreneurship is the so-called high impact entrepreneur; a type of opportunity based entrepreneurial endeavor that uses leverage which shifts the wealth curve at the industry and individual level. This holds that the entrepreneur is concerned with developing, implementing, and commercializing innovative breakthroughs. Several empirical studies have shown that a only a certain small cohort of entrepreneurs produces a staggering % of employment growth. An economy is thus most benefited with a high rate of high impact start-ups even though regular start-ups have their merits too by simply spreading and imitating new innovative ideas.

Entrepreneurship is a social endeavor. (Therefore) Entrepreneurship is according to several researchers best explained by the non-legal (informal) institutional framework. The most crucial factor in entrepreneurship is the opportunity itself. Subsequently the search, recognition and implementation of this opportunity is highly dependent on the institutional framework, and this will be the central theme of this research, particularly the non-legal institutional framework. Role models provide a central part in this since they can both alter the attitudes of individuals, and stimulate innovative ideas by providing sheer examples of entrepreneurial success, or by giving detailed information. With this information they can also alter risk-aversion thereby making higher risk opportunities more attractive and altering the recognition of profitable opportunities. Limiting and stimulating factors could however also be found in the legal institutional framework in the form of legislative barriers, tax spending strategies and employment protection. Nevertheless role models hold a central role in the assumptions made at the end of chapter 3.

At the end of chapter 2, a new congregated model (model 3: regional entrepreneurship and its feedback mechanisms) was explained:

Figure 3.2 The institutional effects on nascent entrepreneurship (Model 3)

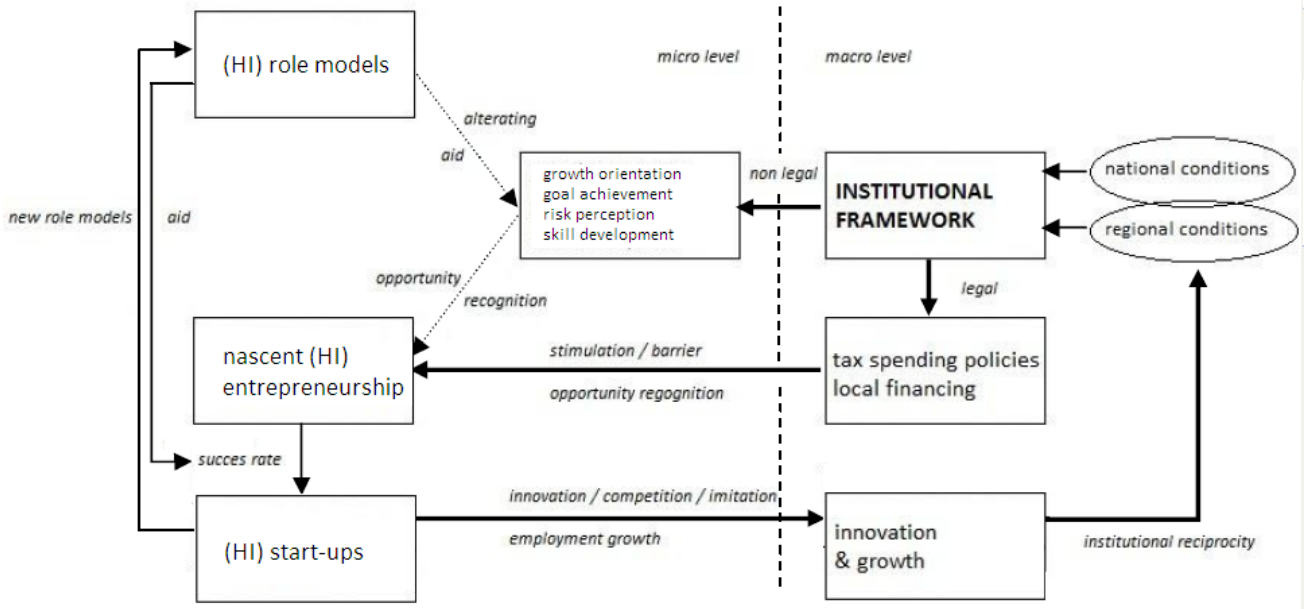


From here a final workable institutional model will be made with a holistic approach towards the role model effect. In here the concept of role models and the non-legal framework poses a central position although the influences of the legal institutions are certainly not neglected. This model will be referred as model 4.

There is one thing that needs to be added first and is of primary importance: the factors causing the success and occurrence of a high impact entrepreneur are still not known. Two firms could both have a marvelous innovative idea, but it is very possible that only one of those firms grows out as a fast growing company with a big revenue while the other is only an 'average' firm in terms of success. The term High Impact (HI) in the conceptual model is thus being put within marks since the model could also be applied to average opportunity based innovative firms. In here it is merely theorized that high impact entrepreneurs experience more, or in some case less effect of some of the presented variables. The main premise here is that the role model effect could alter these effects in a positive way so that the occurrence of new innovative opportunity based start-ups will increase. A high impact role model can in theory have even a bigger effect. To test this role model effect however, it needs to be done on 'regular' entrepreneurs.

On the right side of model 4 are the macro-economic factors that come into play. One can see that both regional and national elements are found in the institutional framework that influences the micro level by determining the outcome of human behavior. The economic agent invests in skills, knowledge and talents that revise his or hers opportunity evaluation. Also, North, (1994b) states that it is the institutional framework that defines the opportunity set, and thus the kind of firm that comes into existence, assuming that high growth and innovativeness is largely influenced by the institutional framework.

Figure 3.3 A holistic approach towards the role model effect (model 4)



This institutional framework works in two ways: on a legal level and on a non-legal level. The legal institutions constitute of mostly policies that impede or stimulate entrepreneurship. Grilo and Thurik (2006) found in several countries that administrative complexities hinder both willingness to become an entrepreneur and the actual rate of business start-ups

The non-legal side of the institutional framework works more on individual population characteristics. So from here we enter the micro level influence of the model. As we see the influence of the non-legal institutional framework in this context is limited by four factors:

- growth orientation: running a business purely for income substitution, or wanting the business to actually grow and expand has different outcomes in the way the business will develop. In short this is the same as the term previously employed as ambitious entrepreneurship. Though the association between this ambition and realized growth is not unambiguous, it is assumed here that without growth motivation and expectations, factual growth will likely not occur;
- goal achievement: simply put the desire to grow in society. It must be no surprise that running a successful business requires a different mentality than a simple 9 to 5 job;
- risk perception: As Szerb (2004) has already theorized: high impact entrepreneurship is characterized by a high degree of risk taking. Fear of failure and the social stigma that failure brings, being partial to the uncertainty of an unstable income are all influences from the institutional environment that affect this risk perception;
- skill development: as been explained earlier on, firms will reflect the pay-off structure within an economy. If having a steady job is perceived to yield the highest rate of return, people will favor that and invest their knowledge and skills to become a superior employee. This process thus follows a path dependent structure of reciprocity between mental models and the institutional framework. It is therefore theorized here, that in some cases a career as an employee is perceived to have the highest pay-off and may be much more beneficial. This could simply reflect a cultural inclinations towards or away from entrepreneurship, rather than

Directly these factors influence the (static) rate of high impact nascent entrepreneurship. However the influence of an entrepreneurial role model can gravely change this. The influence of role models in opportunity creation and recognition follows that of the dichotomy of Holcombe (2003): either an opportunity is created for the entrepreneur himself, or it is derived from unexploited market information. A role model can thus help in creating a new opportunity, or merely pointing out an already existing opportunity, possibly created by the role model himself. In short this mostly falls under the innovative process of the new firm. Besides that the role model can also financially aid the economic agent.

The alteration process by the role model is something that is partly specific for high impact entrepreneurs. Normally high impact entrepreneurs are highly educated and more educated than other entrepreneurs. However if the perceived pay-off of being a high impact entrepreneur in society is small, a career as an high profile employee can be favored. Skills will be invested in accordingly. Especially risk is also particularly high in high impact firms. Therefore the pay-off for these high profile employees for choosing an entrepreneurial endeavor is particularly low. The entrepreneurial (high impact) role model can thus be specifically important for risk avoidance by stimulating:

- opportunity creation and/or opportunity recognition;
- motivation to be an entrepreneur.

In general nascent entrepreneurship lies at the start of the entrepreneurial process but it is however not the same. Empirical studies have shown that only a small segment of the total nascent entrepreneurs that are in the evaluation and discovery process will make it into the creation of an

actual start-up. Low quality start-ups along with a lack of assets from the founder correlate also with a high failure rate (Mueller, 2007). The role model effect can possibly be a 'solution' for this: a role model greatly increases the assets of the nascent entrepreneur by providing skills, cooperation and possibly venture capital which greatly increases the success-rate of nascent entrepreneurship to actual start-ups. Thus, the skill is providing being an indirect effect, and the aid being a direct effect to the success rate of nascent to start-ups.

Consequently the effects of these high impact start-ups are notable on the whole performance of the economy; an improved competitiveness, new innovations, market followers, new firms and thus new employment growth. The consequence of this is institutional reciprocity; institutional change because of the noted effects on the economy. The reciprocity between economic agents and institutions in the setting of economic scarcity is fuelled by competition and leads to institutional change. Competition forces skill and knowledge investments, leading to a change in perceived opportunities and thus choices that will change institutions. Perceived maximum profit can be altered because high impact entrepreneurship seems to pay off in the economy. Consequently incrementally the economic and cultural structure will reflect this, thus providing a feedback loop.

From here the conceptual model needs to be applied to the case study of Baranya and Twente. However the national institutional context of Hungary needs to be taken into account first. To place current economic developments and changes in the right context, it is best to take a closer look to the economic history from where the present follows. The belief-system of economic players shapes the evolution of institutions and consequently economics. All institutions are in fact rules to create certainty in an uncertain economic landscape and therefore have a certain sense of path-dependency. However when Hudson (pp. 451, 2004) is quoted: *'…path contingent with periodic cyclical crises along a given path and the potential for secular changes from one path to another'*, we see that there are certainly turning points in this path-dependency. In the light of Hungary with its huge political and economical transition from a state-planned to a free-market economy it is not only interesting but maybe essential to look at the history and how it has shaped contemporary economics and society institutions regarding economics, and in this case: entrepreneurship. In a legal sense institutions may have kept up pretty easily with free-market thinking, in a non-legal cultural sense it may have not and can therefore still influence entrepreneurship to this day. Studying economic history is not an empirical science and just therefore not be regarded as definitive, however it adds an explorative and contextual framework around more empirical or qualitative research.

Next chapter will investigate Hungary's institutional past and the present state of entrepreneurship. From there on the conceptual model will be linked to these findings and a hypothesis will be made along with the actual questionnaire and consequently the empirical findings will be presented.

4 Entrepreneurship in Hungary

Chapter 4 describes the entrepreneurial historical context of Hungary in two parts. The first part gives a brief overview on a significant factor in the current economic climate of Hungary: goulash communism. The second part of chapter 4 goes more into detail on the detrimental effects of goulash communism, and especially the effects on entrepreneurship in Hungary in general. This chapter will answer the third partial research question:

Q3 How does Hungary's communist history influence entrepreneurship to this day?

Part I: An historical analysis

North & Thomas (1973) stated that economic growth is heavily influenced by history since institutions are path-dependent. Therefore, it only makes sense to view the current situation from a historical perspective first. In the case of Hungary the historic events that possibly lead to this current situation will be researched to provide a framework for current processes.

4.1 Hungary a global economic outline

The former kingdom of Hungary founded by the Asian nomad Magyars around the year 1000, is located in Central Europe, in the Carpathian Basin surrounded by the Carpathians, the Alps and the Dinaric Mountains. Its population was in 2009 estimated at 10.031208 with its population slowly declining. However ethnically there are many Hungarians residing outside of the Hungarian border, mainly in Romania, Serbia, Croatia and Slovakia. Ethnically the country is rather homogenous with more than 95% of its population being Hungarian. Its capital and by far the most populous city is Budapest with almost 2 million inhabitants. The official language of the country is Hungarian: a language that is rather alien to Europe (except for Finnish) since it is of Finno-Ugric origin. Hungary is considered a multi-party republic with a constitution that was made in 1949 and altered in 1989. Head of the state is the president, though no great political power is attributed to him since it is more of a ceremonial function. Actual political head of the state is thus the prime-minister.

Hungary is considered currently considered an efficiency driven economy in transition to becoming an innovation driven economy. This holds that within the framework of e.g. Audretsch & Thurik (2000) they are still a managerial economy and their comparative advantage is based on production efficiency attained by economies of scale. Economic policy within the country is aimed at building a prosperous innovation based economy within the near future.

Hungary has long been under the influence of the communistic ideology and the Soviet-Union. An influence that, as will be argued, is still noticeable up to this day. Following part of this thesis will be divided in two parts: an (historic) overview of communism in Hungary and the transition period and the consecutive post transition period were the focus will be on exploring the institutional cultural context.

Within Europe the current economic statistics are below average. Especially since the economic crisis of the last two years, the country has suffered quite severe. In the figures shown in table 4.1 and 4.2, quick overviews of some key economic figures are shown.

Table 4.1 Global economic contemporary outline of Hungary 2009

	EU 27	Hungary
GDP per capita PPS	100	62,9
Real GDP growth rate %	-0,10%	-0,30%
Labor productivity per person	100	74,4
Unemployment %	7,00%	7,80%
Real unit labor cost growth %	0,90%	0,70%

Source: Eurostat (2009)

Note however, that the GDP growth rate may be somewhat skewed since figures are of the time of the large financial crisis, which may have struck Hungary more severe than other countries.

Table 4.2 Education in Hungary 2009

	EU 27	Hungary
Private expenditure on education as % of GDP	0,67%	0,54%
% of population aged 20-24 with secondary education	78,50%	83,60%

Source: Eurostat (2009)

In 2006 agriculture accounted for 4,2%, manufacturing for 22,6%, construction for 4,8% and services for 65,6% of the national GDP (OECD, 2007). Within the largest sector, the service sector, the most important sub-sectors where wholesale and retail, real estate & business activities and public services.

The interesting part is how did this nation 'evolve' from its communist past, and how could it influence entrepreneurship today?

4.2 Hungary and its communist historic past

To correctly interpret the current situation of Hungary's economy in the light of entrepreneurship, the historical context of its communist past should be explained. As will be seen in the following chapter, this communist past has had its significant influence on the economy of the country even up till today. Following paragraph will give a general outline of Hungary's economy at the communist era, and the transition period afterwards.

Kornai (1980) describes the communist economy as one where there was chronic excess demand on both commodity and labour markets. He goes on calling it an economy of shortage. Hungary had its first contact with the communistic ideology after the occupation of the country by the Soviet army in 1945. By distributing the estates of aristocrats the Russians hoped to achieve a large support among the population for the communist party that partook in the first free democratic election in the late 1945. However the actions proved to be far from fruitful since the Hungarian Communist party lost the election. Nevertheless the Soviet commander of Hungary obliged the winning party to form a

coalition with the Communist party. In 1946 Hungary was declared a republic country. From 1947 on the Communist party began taking over the government by threatening other party members and counterfeiting the elections. Meanwhile more and more the government tried to implement a totalitarian Stalinistic regime which resulted in mass executions and imprisonment of 'enemies of the state'. By the year 1950 most of the economy was already in hands of the government. By the year 1956 Rakosi had become the absolute leader of Hungary which was not far from politically stabile. Intern power struggling within the government made sure however that the rule of Rakosi was not long lived and he was replaced. October 23 1956 was the day that fuelled the now famous Hungarian revolution of 1956. A student protest for more political freedom resulted in great turmoil after the police started shooting at the protesting mob. It is interesting to note that Hungary was the only country within the socialist bloc that led an armed resistance against Soviet power (Kornai, 1996). Directly after the riots of 1956 strong reprisals followed by the regime. However Hungary eventually set in a newer more democratic course.

Although the country was part of the Soviet power bloc, behind the iron curtain till the late 1980's and had a planned economy; the country still had its relative economic freedom and was able to set its own course compared to other communist countries in the region. Politically Hungary's course could be divided in several periods (Kornai, 1996): the pre-revolution period, the post-revolution period with strong reprisals which prolonged until 1963 where after Hungary entered a time of the softening of the strong authoritarian regime. After 1989 there was a change towards a multi-party system, and after 1990 Hungary became a parliamentary democracy. Grossly said, the period extending 1963-1989 is considered the reform socialist phase. After the strong reprisals of 1956, in 1963 amnesty was declared to a large amount of political prisoners and a softening of the dictatorship set in. During the communist period, and even the period after 1990 the government frantically tried to avoid new riots by becoming on good terms with the masses. Therefore negotiations and compromises between civilians and the state were common ground.

This specific reform phase that started around 1963 was unique to other Soviet satellite states and led to the popular term to phrase Hungary's way of communism as '*goulash communism*'. This uniqueness resulted from a multiple of factors, namely;

- Pro-consumption: the state tried to (sometimes irrationally) ensure the material welfare and living standards of its population, even at the cost of high debts. In fact the main economic policy was aimed towards a maximization of short-term consumption, which according to Kornai (1996) even blossomed in the period 1966-1975 shown by an annual household consumption growth rate of 5,3% as is seen in table 4.3.

Table 4.3 National economic figures over time (1961-1993)

Period	GDP	Consumption		Gross investments	
		Total	Total household consumption	Total	Accumulation fixed assets
1961-65	4,4%	3,7%	3,4%	5,2%	5,1%
1966-75	6,3%	5,3%	5,3%	8,5%	9,1%
1975-87	2,7%	2,3%	2,2%	0,1%	0,8%
1988-91	-4,0%	-2,5%	-2,9%	-7,3%	-5,1%
1988-93	-3,3%	-0,7%	-1,7%	-4,1%	-3,7%

Source: Kornai (1996)

However after this period, investments began to fall steadily and so did production and consumption to a certain extent. This was because the Hungarians came to associate reform measures with increased welfare and consumerism, and the state did everything to assure this on the short term. This policy prolonged until eventually the country became in a serious downward spiral in the early 90's (as will be shown later on). A way to sustain this economy was (heavy) borrowing from Western countries. This caused a certain financial, economic and technological dependence on the West which in turn improved relations with these countries and facilitated political and economic gradualism (Kozminski, 1992);

- Welfare state: Hungary created a strong paternalist welfare state that could rival with the welfare states of most Scandinavian countries. In the light of a much lower GDP and per capita production of Hungary compared to the Scandinavian countries, the amount of social spending was highly unique even among other socialist countries in the region. As shown by table 2, the household steadily falls over the years, and social income gathered by state and social security redistribution quickly rises which was basically the result of the earlier mentioned policy of up keeping high standards of living. Eventually social income almost made half of the total household income. Needless to say that the social cost for this were immense. In the eyes of Kornai, Hungary in that period could therefore be defined as a *premature welfare state*;

Table 4.4 Household income by source

Period	Income from work	Social income	Income from other sources
1960	80,4%	18,4%	1,2%
1970	76,1%	22,6%	1,3%
1975	71,5%	27,2%	1,3%
1980	68,0%	32,0%	0,1%
1985	65,6%	34,0%	0,4%
1990	58,1%	39,2%	2,7%
1992	52,8%	41,4%	5,8%

Source: Kornai (1996)

- In retrospect, Kornai (1996) states that it is maybe not so much the pro-consumption policy that thrived in communist Hungary, but more the determination of giving population social-economic security as opposed to the uncertainty of the capitalist society, but also the uncertainty inherent to the communist system. Medgyesi (2002) goes on explaining that in order to handle the uncertainties that resulted from delayed performance of suppliers and changing plan objectives and regulations, socialist companies offered secured jobs within their enterprise securing employment for everyone. Therefore there was officially no unemployment;
- Gradualism: the transformation process towards a free market economy was not a sudden change of status quo such as Russia or Eastern-Germany experienced; instead it gradually extended over several decades starting from the 1960's which can only be matched by the gradual transformation in Slovenia. This was mainly done because the revolution of 1956 already caused some economic change (see also Adam, 1995). However a large part of it was political short term thinking due to a form of populism, incompetence and a lack of risk taking;

- Political stability: Hungary knew a relative political stability compared to other former Communist countries within Europe. In the decades that Hungary was under the influence of the Soviet Union, it hardly knew any strikes or street demonstrations (apart from the revolt of 1956). The ruling politicians always chose for consensus rather than to enact strong measures that could provoke a strong opposition and thus political instability (Kornai, 1996).

4.2.1 Economic change

In 1968 the classical planned communist economy ended in Hungary and a new hybrid form took its place. One of the measures taken was within state-owned enterprises the transfer of control from government officials to the managers, and the freedom of economic actors was increased (Medgyesi, 2002). This did not mean that the state had no power at all; it still influenced these enterprises through indirect ways (Kornai, 1996). Alike some other communist countries in the region (like for instance Poland) Hungary had a rather unusual mix -or as Kozminski (1992) calls it: impossible compromise- of plan economy and market economy; on the one hand economic efficiency and on the other hand a communist ideology. The governing elite wanted to have some sort of market coordination and property relation on a small scale while maintaining political and military alliance with the Soviet Union, an one party political system (the communist party), state ownership of enterprises and a dominance of the state in controlling the economy: in short, in a combination of a realisation of the need for political change and a certain unwillingness to give up their power the ruling elite resorted to hypocrisy. This lost in faith of the pure form of communism ensured a slow digression of old the system (Kornai, 1996).

This slow transition however did lead to an early exposure to the West and their market economy and it expanded the role of the 'second economy' (Medgyesi, 2002). First it was the absolute elite who looked for ways to combine western market efficiency with the eastern political system. Later it were the 'intelligentsia' who saw ways to increase their wealth by operating in the semi-legal second economy by employing themselves and selling their services and/or products. However the average man also took part in this second economy: the main fields of activity were (small-scale) agricultural production, small-scale industry, retail trading and repair, construction activities. Note however that this was not the grey or illegal economy. The incentive was not to avoid tax burdens or regulation, but rather by acting on the shortage in commodity markets and a financial need for more household income. To give an illustration of the scope of these actions, in the 1980's the Hungarian private sector attributed around 17% of the GDP. A large part of the former communist party members at prominent positions had either their own private endeavours or a large extensive (unofficial) business network with other entrepreneurs who were often 'coincidentally' family-members. If not already, this former communist nomenclature and other elites became very often entrepreneurs after the transition. Though it may have been morally unacceptable this process did speed up the transition from planned economy to market economy. But not only in the higher strata of society was there a transition, the working class also began to change their behaviour and subsequently careers towards a more entrepreneurial and capitalist lifestyle and economy.

All these factors surely paved to way to a smooth transition in the 1990's towards the market economy since many reforms that were needed were already partly implemented and many people within the labour force already had their share of experience with some form of market economy be it in state-owned enterprises, the (small) private sector, the grey economy and even from studying or international experience.

4.2.2 The second economy in communist Hungary

As been told earlier, there was a noticeable 'second economy' and grey-economy which allowed individuals to explore capitalist endeavours. It holds that Hungary had a considerable amount of private enterprises long before the political transition of 1990. Though Hungary was certainly not alone in this aspect (Yugoslavia, Poland and East-Germany all had their private sector) it certainly had the most advanced and well developed private sector for that time; for instance no less than 17% of the nations GDP in the 1980's could be attributed to the private sector. This private sector was developed by both legal activities and illegal activities. From 1982 on, conditions for self-employment became more favourable and it was allowed to found various forms of private companies (Kornai, 1996). There was also a liberalization of licensing and a liberalization of leasing catering and retail units to individuals (Medgyesi, 2002). The most popular form of private enterprising was the enterprise business work partnerships. In these units, there was a contract between an enterprise and several workers stating that they would by renting the equipment of the enterprise produce a certain quality and quantity of commodities and services after official working hours. This meant that 'entrepreneurs' within this business unit were both employees of a company and subcontractors. This kind of agreement had advantages for both workers and the initial enterprise. The workers had the ability to work extra hours, and earn extra money, while the enterprise could counter wage-legislation by paying over-time hours as well as stimulating their best workers by financial incentives. Another characteristic of the second economy within Hungary were family strategies. In the agricultural sector for instance, technological innovations within small firms were dependent on the extra help of household members and the role of women was rather large in this. But also in the rest of the second economy, the role of women cannot be neglected.

Table 4.5 Size of the 'second economy' in thousands

	Self-employed	Family members assisting	Employees	Total	% of active earners
1981	118,2	61,8	0,3	180,3	3,6
1989	218,4	81	48	347,4	7,2
1992	466	97,4	144	707,4	16,7
1994				805,1	21,7

Source: Kornai (1996)

As can be seen, after the legislation changes of 1990 the private sector grew at a rapid rate. According to Galasi & Szirácz ki (1985), the number of people working in the legal second economy in 1981 to 1982 even grew by a spectacular amount of 20%.

Table 4.6 Size of the second economy divided by gender in 1984

	Men		Women	
	Absolute	Relative %	Absolute	Relative %
Active population	2.745.700	100,00%	2.172.900	100,00%
Active population with extra work:	425.850	15,%1%	200.000	9,20%
In workshop associations	72.350	2,64%	19.800	0,91%
In working groups in cooperatives	4.850	0,18%	2.500	0,12%
In economic associations in other working groups	10.700	0,39%	2.050	0,09%
In other working groups	4.150	0,15%	1.300	0,06
Secondary or subsidiary job	54.700	1,99%	239.500	1,10%
Self-employed	30.050	1,09%	4.350	0,20%
Household plots in agriculture	234.050	8,52%	138.600	6,38%
Other sources of extra income	14.300	0,52%	6.650	0,31%

Source: Medgyesi (2002)

Alternatively in illegal and semi-legal hemisphere private businesses were also set up. By advocates of the market-economy these endeavours were viewed rather kindly. In fact this was actually a form of civil-disobedience towards the bureaucratic constraints the system imposed on its people. However after the fall of communism this kind of activity could not be condoned since now it was actually a neglecting and evading of civil duties by avoiding taxes and social insurance contributions (Kornai, 1996).

Table 4.7 Private/public ownership balance as contribution to total GDP%

	Contribution to total GDP %					
Ownership	1980	1985	1989	1990	1991	1992
Public	83%	79%	74%	70%	63%	50%
Private ownership of which:	17%	21%	26%	30%	37%	50%
- domestic	17%	21%	26%	29%	34%	42%
- foreign	0%	0%	0%	1%	3%	8%
Total	100%	100%	100%	100%	100%	100%

*Note: This is both the legal and illegal economy.

Source: Kornai (1996)

As shown above, the private sector was a substantial part of the economy of Hungary. It must be stressed though, that for the majority of the workers this second economy was only an extra income and not their fulltime job (Medgyesi, 2002).

4.3 Formal change and paying the bill for goulash communism

In the year 1989 political heavyweights declared that the dominance of the communist party could no longer be sustained. It followed that the one-party political system was to be abolished and a multi-party system was introduced along with a new constitution. In 1990 for the first in 43 years an independent election was held. After the elections, both the ruling parties as the opposition saw a common interest in developing private ownership, freedom of contracts and a market economy.

With this liberalization a lot of changes followed (Kornai, 1996; see also Kozminksi, 1992, for info on Hungary). Table below gives a short summary of the economic constitution changes in Hungary compared to Poland and Czechoslovakia.

Table 4.8 Comparison of reform measures in three former communist countries

	Country		
Reform measure	Hungary	Poland	Czechoslovakia
Abolotion of compulsory delivery	1956	1971	1960
Abolition of mandatory plans	1968	1982	1990
Abolition of central quotas	1968	1991	1990
First steps in price liberalization	1968	1957/1975	1991
Uniform exchange rates	1981	1990	1991
Entry into IMF and World Bank	1982	1986	1990
Reasonable freedom for starting enterprises	1982	X	1991
Bankruptcy legislation	1986	1983	1991
Two-tier banking system	1987	1988	1990
Personal income tax system	1988	1992	1993
Value-added tax system	1988	1993	1991
Legislation on incorporated companies	1989	1990	1991
Liberalization of trade	1989	1990	1991
System of unemployment	1989	1990	1991

Source: Kornai (1996)

As can be seen, some of these measures in Hungary already had been taken way before the dominance of communism officially ended. And compared to the other two countries, change came relatively fast. Hungary now had to cope with the legacy of 'goulash communism' which held, as I will explain, both negative as positive aspects.

Kozminski (1992) judges the 'goulash communism' of Hungary and the following transition period rather positive especially compared to the other two countries (which refers to Poland, Czechoslovakia): after the political transformation the country didn't really had to adept to a entirely new situation, rather it could just continue the political reform course set in before 1990, and the recession that struck Hungary was far less worse than in Poland. Adam (1995) and Kornai (1996) were less positive about the goulash communism and the subsequent gradualist transformation period since it could not avoid a deep recession in the country. However this recession was still less grave to the standard of living than the ones in Poland and Czechoslovakia (Adam, 1995).

The 'goulash communism' applied in Hungary had its toll. The first and foremost negative legacy of decennia of goulash communism was the grotesque state-debt. The debt of Hungary was mainly caused by the ill managed economic programs of the Kadar-regime. Due to government policy to rigidly upkeep relatively high living standards and material welfare, even in economic unfavourable times, caused the Fekete regime to borrow heavily in Western financial markets in the 1980's. To aggravate the problem, a large part of the Hungarian hard currency assets was placed in dollars which value sank tremendously at the time. All these factors made Hungary's state-debt increase substantially over the years (Bartlett, 1997). As is shown in the table below, its situation in 1989 was one of the worst in the world with an enormous debt per capita (Kornai, 1996). Among the central European countries Hungary was by far the country with the highest debt per capita (Zwass, 1995).

The IMF always stressed the importance of quickly repaying this debt which as I will show later on, caused unwanted negative effects.

Table 4.9 Comparison of debt of middle income countries in 1990

	Gross debt	Debt service	Debt/GDP%	Debt service/ Export %	`Debt/per capita
Hungary	20.391	3.455	71,30%	40,60%	1.939
Mexico	97.417	12.601	48,50%	35,10%	996
Chile	18.863	2.811	74,70%	29,20%	1.117

Source: Bartlett (1997)

Furthermore, pricing liberalization, import/export liberalization and subsidies were altered only gradually which ensured an ever expanding budget deficit which reached in 1991 a record high of 78,8 billion Hungarian forint; almost 50% of the nations GDP (though still being lower than for instance the deficit of Poland in that time) (Kozminski, 1992; Svejnar, 2002). But while Poland did manage to arrange a renegotiation of their debt with the IMF, Hungary serviced its debt in full, causing to mitigate a heavy fiscal burden (Svejnar, 2002). Another problem arose from the excessive social spending in the Hungarian welfare state. A study of Lindbeck (1990) showed the proportion of employed with a market income to ones who lived of a state income (unemployed, disabled, pensioners etc.) in Sweden. He warned for a dangerous trend where this ratio becomes too high. In Sweden he found a ratio of 1:1,32. If one would compare this to the figure of 1:1,65 in Hungary in 1993 one would agree with the notion that social spending was of an incredible size, labour force participation was low and the country was far from a efficient functioning market economy (Kornai, 1996).

The final major problem caused by decennia of communism was the huge price-inflation. In fact, the National bank called the inflation the single biggest threat to market reform and stabilization. Table below shows the incredible inflation over the first 4 transition years. It is rather self-explanatory what these inflation figures will do to the stability of an economy.

Table 4.10 Inflation in Hungary in the post transition period

	1990	1991	1992	1993	1994
Consumer price inflation %	28,9%	35,0%	23,0%	22,5%	18,%
Change in nominal exchange rate%	6,9%	18,2%	5,8%	16,5%	14,3%

Source: Bartlett (1997)

4.3.1 Liberalization and transformation

As been said above, Hungary had a huge state debt and budget deficit that it had to service in full. Hungary therefore followed a program that promised to successfully transform the economy in a short amount of time. One of the measures in the program was accepting a heavy fiscal burden, strongly curbing demand, numerous policies and a revenue oriented form of large-scale privatization (Adam, 1995; Svejnar, 2002).

The official transformation program for Hungary was called the Kupa program which objectives resembled those of the Polish and Czechoslovakian reform program, except for a gradual fashion of

implementation on the Hungarian side (Adams, 1995). Svejnar (2002) actually made a theoretic framework on this dichotomy, where he describes the two types of transformations applied in the former Soviet States.

- The type I transformation focuses on price liberalization, macro stabilization and dismantling communist institutions. On a macroeconomic level this results in wage controls, restrictive monetary and fiscal policies and very often fixed exchange rates. On a micro economic level price liberalization is applied to most goods and services though mostly energy and housing prices along with basic consumption goods are excluded from this and get controlled by the government along with wages to ensure a certain level of living standards and purchasing power. Moreover one can find an opening up of the borders, thus inducing international trade, removing of the barriers of new firm creation, small scale privatization and the creation of new and independent banks. In general the type I reform can be seen as sustainable and very capable of improving economic situations;
- The type II reforms instead focuses not so much on direct economic effects, but more on developing and enforcing new laws, regulations and institutions that facilitate the transition towards a market-oriented economy. Instead of privatizing small scale firms, it focuses on medium and large sized enterprises. It establishes and enforces a market-oriented legal system and institutions; '*further in-depth development of a viable commercial banking sector and the appropriate regulatory infrastructure; labor market regulations and institutions related to public unemployment and retirement systems'* (Svejnar, pp. 3, 2002).

The main difference is actually the type of governance; whereas type I is more a liberal type of governance that tries to minimize state-influence by cutting off subsidies and reduce central planned regulations, type II governance uses its ability to collect taxes as to fund public programs. Instead of merely eliminating the omnipresent dictatorial state, it tries to build a stable reliable state free of corruption with a certain amount of resources which enables it to overrule some negative aspects of the market-economy. Within this framework Hungary's program would fall under the type II transformation process with some elements of type I. As will be seen in this paragraph the program did actually successfully transform the economy into a market economy of private ownership but as both Bartlett (1997) and Adam (1995) plea this came with a very high social cost.

For the program monetary and fiscal measures were considered the core of the transformation process. The main objective here was to balance the state budget and fight inflation. Measures taken were twofold: on the one hand increasing taxes, and on the other hand reducing subsidies and government investments. The monetary policy in Hungary was however not that restricted as in Poland and Czechoslovakia mainly due to good relations with the IMF (Kozminksi, 1992; Adam, 1995). According to Kornai (1993) the first real step towards the transition was taken when the budget constraints for enterprises were getting more severe. Because of this, state funding for enterprises as a percentage of GDP fell from 12,3% in 1987 to 2,3% in 1991. At the same time (or better put as a result) the number of bankruptcy cases rose incredibly (Medgyesi, 2002). Another measure taken was the stimulate borrowing for enterprises. However as a result of macro-economic events, the real interest rate rose substantially leading in 1993 to a high cost of capital borrowing for companies.

In the old regime, the point of gravity in taxation lied in the enterprises taxing which was relatively high. As a fiscal measure, overall the taxes rose, but not on enterprises. Besides introducing the value

added tax in 1988, the government now introduced the income tax; thereby shifting the burden of taxations on households. Whereas taxation of the population made up 26,6% of the state revenue in 1987, in 1992 this figure already rose to 39,3% (Bartlett, 1997; Adam, 1995).

On top of the transformation process along with the large budget deficit, Hungary fell into a deep recession. Due to falling demand and production, enterprise profit fell as did government revenue from enterprises, making the private share in state budget rather small.

To stimulate economic efficiency, as well as battling the large inflation, Hungary chose for a wage regulation policy. Wage growth was limited at a fine of paying tax. However soon this policy was left behind and in 1993 there was no more wage control. This was mainly because of the high unemployment currently sweeping the country (Adam, 1995). Hungary also tried to counteract this heavy inflation by the real appreciation of the monetary unit (Bartlett, 1997).

The start of liberalization of imports already happened in 1989 with free importing of engineering products. This process was completed in 1992 with all tariffs abolished. To achieve currency convertibility Hungary choose (again) for a gradual approach. Hungary therefore adjusted the exchange rate slowly and moderately. Though it prevented inflation from further fuelling it stagnated capital exchange.

It did however successfully commercialize and privatize the banking system. The banking system was in 1990 virtually completely privatized and in hands of Western Banks, with hardly any local bank left (Svejnar, 2002).

Hungary was rather efficient in privatizing individual state-owned enterprises by selling them to outside owners with clear property rights to its new owners, something that was not always the case in other former Soviet states. Not only did it quickly and effectively privatize large amount of companies, this method provided managerial skills and external investment funds in the newly privatized firms, along with the accompanied extra government revenue and effective corporate governance (Svejnar, 2002). Those larger firms were almost exclusively sold to foreign investors. Small firms on the other hand, were often handed to former owners or employees, mostly through leasing projects or partnerships (Zwass, 1995).

4.3.2 The recession

The transformation program still could not avoid a recession of the economy in the early 90's. According to Adam (1995) the most important cause for the emergence of a recession was the collapse of the trade with former Soviet States, in particular Russia. The most important blow to the international competitiveness of Hungary was probably that their access to cheap energy and raw materials through Russia got lost. This was also an important factor (though not the sole) that the industrial production in Hungary made a huge decline. State-owned enterprises decreases employment causing a more than 20% fall in industrial employment in Hungary, which was the highest of all former Soviet states.

In reaction to the communist government that strictly controlled micro-management within firms, the government of the new regime countered that with an almost indifferent approach which actually resulted in dwindling enterprise performance. One great problem was the fact that internal structures within enterprises were inefficient and no effective management evaluation system

existed. Furthermore the government failed to recognize the need for the quick abolishment of monopolistic enterprises and the need for certainty about privatization (now it was unclear which firms would and would not be privatized) which had a negative effect on investments. In some cases there even arose disinvestments decreasing production capacity (Adam, 1995). As table 4.3 shows a decline in capital accumulation of 3,7% in period 1988-1993. Furthermore Brada et al. (1997) argued in an extensive study on firm efficiency in Hungary and Czechoslovakia in 1990 that Hungarian firms were far from operating efficiently; which is of utter importance for competition in the capitalist efficiency driven economy and could very well have influenced exports.

In the communist era the old enterprise were always indebted, which was never a great problem. However in the transition period, due to several reasons, this indebtedness skyrocketed. This first problem was the fear for price increases. Many enterprises therefore increased their inventories without taking into consideration the impact of these large inventories, including inflation, on demand. Decreasing sales along with the constant stockpiling and the reluctance of dismissing workers caused even greater insolvency and indebtedness. These debts were almost all in the portfolios of commercial banks which naturally caused a great increase in the cost of borrowing especially compared to deposit rates. This along with the difficulty for many indebted enterprises to access credit had detrimental effects on the economy as a whole. In fact this was one of the greater problems of the Hungarian economy (Adam, 1995).

Table 4.11 Trade balance unemployment

	1990	1991	1992	1993
Trade balance	101,2	89,3	96,0	70,5
Unemployment	1,7%	8,5%	12,3%	12,1%

Source: Adam (1995)

There were a lot of things wrong with the transformation program, and the demands imposed by the IMF. The view of the IMF was mainly that economic growth would follow market forces generated by privatization and proper legislation, Kornai (1994) for instance strongly disagrees, and argues that such a policy could only lead to a low level equilibrium trap (as capita income rises along with GDP, population growth will also rise, thus yield a negative spiral of per capita income and lower GDP growth). Kornai (1994) continues that an important reason for the recession was the disruptions in coordination. Though communist Hungary certainly had its experience of a degree of market-economy and the accompanied coordination, in nowhere was this process complete since experience, knowledge and time is needed for complex linkages between institutions and efficient market coordination mechanisms to develop. Therefore the macro-economic policies were not nearly as effective nor had the desirable output as they could have had.

Another great problem of the program was its total disregard of former values that could prove useful within enterprise culture and how it could influence manager and worker behavior. Though many employees disliked the old system, they could certainly identify with the social programs like full employment and equal distribution of income. The sudden recession with the accompanied fall in living standards and unemployment rise made the cultural transition towards the market economy and internalization of the market rather difficult. This in its turn had a negative effect on economic performance (Adam, 1995). Bartlett (1997) too argues that the program was flawed and showed the negative effects on labour culture. In his opinion it was not this gradualist approach that caused

Hungary's ability to pursue democratization and a free market economy. Au contraire, Bartlett shows in his book that the socioeconomic costs of Hungary's market reform approximates but sometimes even surpassed the so-called 'shock therapies' of other former communist countries. One of the gravest problems that the transition in Hungary caused was the destruction of an institutional connection between central planners on the one hand and factory-level agents on the other. Whereas previously this connection allowed the softening of the impact of economic adjustments on vulnerable actors, now with this connection lost and a lack of intermediate organisations or close ties to political parties, workers and enterprise managers found themselves in a worse position than before 1989. The political logic of market building was now transformed by democratization. Whereas in the old ways actors could draw on the support of their benefactors in Communist Party institutions and branch ministries to counterbalance the effects of already enacted reform policies. Now their influence was mainly in altering the initiation phase. '*The result was a policy-making process that afforded the losers of market reform few opportunities for ex post compensation: a privatisation program relying on sales of state enterprises to Western investors via closed-tender birds, a bankruptcy law incorporating automatic triggering mechanisms, a foreign trade strategy combining radical import liberalization and real currency appreciation, and other measures that reinforced the exclusion of the economy's most vulnerable agents*' (Bartlett, pp. 7, 1997). This could to some extent certainly explain the formerly mentioned study of Lindbeck (1990) which showed increase in social spending in Hungary to a degree that is highly concerning.

The rapid large scale privatization also contributed to the recession, since privatization, though certainly beneficial, will on the short term generate a curbing demand and unemployment (Kornai, 1994).

Besides that a huge effect on the recession was the earlier mentioned incredibly large debt and its negative effect of state budget and balance of payments. Around 1992 the exports were low resulting in a continued state of large hard currency debt breaching the limits specified in the IMF stabilization agreement, thereby sharpening IMF policy (Bartlett, 1997). Unlike other countries Hungary did not get debt-relief from the IMF. Furthermore the IMF putted great importance on a diminishing of state debt, not thinking about the social and political tensions that would accompany that as a result of budget cuts (Adam, 1995). Sachs (1994) criticized this by stating that a small budget deficit does not necessarily imply a low inflation rate.

A further major (negative) impact on the economy was the way the agriculture sector was handled in the transformation program. Hungary always had an advanced agricultural sector which flourished under communist regime. In 1989 Hungary's agricultural output was almost twice that of 1938, had relatively advanced technological equipment, average income for farmers was not that different of industrial laborers, export was high and domestic demand was well met. The transformation process deeply affected this flourishing sector though: output in 1993 was 43% less than in 1989, which was far worse than other socialist countries, unemployment was high and wages were low. The cause of this was two-fold: a sharp decline in domestic demand and bad policy that did not compensate properly for land taken from collective farms and privatization (among other bad policy measures); which caused many privatized farms to change their occupation, an impediment on large scale farming, and a strong sense of uncertainty for reorganized collective farms which lead to a decline in cattle, arable land and lower economic efficiency. Additionally, the government decided to significantly reduce subsidies on agricultural products in a time when prices were low, leading to a

lower demand. What hit the national economy so hard, especially compared to other former Soviet states, was the fact that the agricultural sector was such a noticeable share of the economy as a whole and exports.

A new strict bankruptcy act approved in 1992 caused a tremendous amount of bankrupt firms. Arguably in the long term beneficial, the short term effects were only fuelling the already dwindling economy with harsh effects, among many, a rising unemployment. Mizsei (1993) called it the most important cause of a 3-5% fall in GDP in 1992. It is interesting to note that this measure was far from the adopted gradualist principle.

To combat the inflation the government chose to revaluate exchange rates (unlike Czech and Polish governments who devaluated their exchange rates). However this measure caused a sharp decline in the export aggravating the balance of trade, and thus GDP and unemployment. Though it must be added that there were other causes too: large scale bankruptcy, dwindling agriculture sector, import barriers, and growing imports caused by increased demand in consumer goods (though socialist Hungary already had its share of domestic consumer goods, the variety and selection lagged behind the West). All these problems lead eventually to bad governance: a patronizing relationship between the state and inefficient enterprises, the abuse of the monopolistic position of large state-owned enterprises, and an inefficient functioning banking system that lend money out too easily to companies with often bad credit-worthiness (Kozminski, 1992).

Table 4.12 Key economic index figures of Hungary in the period 1988-1994

	GDP	*Per capita consumption*	*Per capita real income*	*Real wages per earner*
1988	*100*	*100*	*99*	*95*
1989	*101*	*106*	*102*	*96*
1990	*97*	*100*	*101*	*92*
1991	*85*	*91*	*99*	*86*
1992	*83*	*91*	*95*	*85*
1993	*82*	*93*	*91*	*81*
1994	*85*		*95*	*87*

*1987 = 100

Source: Kornai (1996)

A way to combat the grave economic problems by maintaining net capital inflow and increase hard currency reserves was attracting large amounts of foreign direct investment. Hungary did this rather well, thanks to the institutional and legal groundwork formerly established by the Communist dominance. Excluding the GDR, Hungary of all other ex-communist countries did best in attracting FDI; both in absolute numbers as in relative numbers (per capita). Svejnar (2002) accounts this Hungarian dominance to their relatively hospitable environment for FDI, along with clear rules and regulations.

Table 4.13 Comparison of FDI investments in several former communist countries

Country	*Cumulative totals(USD)*			
	1990	*1992*	*1994*	*FDI per capita income*
Croatia	*X*	*16*	*104*	*22*
Czech Republic	*436*	*1951*	*3319*	*319*
Hungary	*526*	*3456*	*6941*	*670*
Poland	*94*	*495*	*1602*	*42*
Slovakia	*28*	*210*	*434*	*102*
Slovenia	*7*	*183*	*374*	*185*

Source: Kornai (1996)

However the large gap narrowed down by 1994, doubting the future/continuing dominance of Hungary as main attractor of FDI in Central Eastern Europe, thereby doubting the policy of strongly depending on this FDI.

4.3.3 End of the transition period

Kornai (1999) states that the end of a transition is when communist parties have lost the dictatorial or monopoly power in politics, the market predominantly coordinates economy activity and the private sector accounts for the majority of GDP. Svejnar (2002) claims that when central planning is replaced by a functioning market system which is able to generate sustainable and rapid economic growth as to interact with advanced economies without major forms of protectionist measures, a country has passes the transition stage. In Kornai's view Hungary has passed this transformation period in the second half of the 1990's. According to Svejnar's, Hungary passed the period when it first entered the European Union.

4.4 Summary

After the occupation of the Soviet army in 1945, Hungary became quickly and steadily under the influence of the communist ideology. Until the riots of 1956 the communistic regime had a steady grip on the population. After the riots, according to Kozminski (1992), it is safe to say that the communist system was morally completely discredited and delegitimized in Hungary and hardly knew any idealistically motivated supporters.

Since 1968 Hungary had a large share of competent and western-minded civil servants who in the light of political stability were able to implement long ranging policies that ensured more and more market-freedom within Hungary. The large welfare state along with the (excessive) consumptive behavior its population enjoyed made Hungary prone to a large foreign debt which exceeded hard currency export capacity. This debt to Western countries made links with the West relatively intensive due to technological, economic and financial dependence. In fact this dependence ensured to a certain extent softening and transforming of the communist regime. However the weak government was not able to comply with the IMF program to relieve debt. Austerity measures could therefore not be taken fully leading to an increasing budget deficit and state debt. High inflation caused severe trouble, especially since IMF programs made sure only a certain % of the inflation was corrected in wages and retirement and social security payments therefore leading to drastic decline in purchasing power. Kornai (1996) summarizes that the main policy of Hungary was the survival of

the economic elite, short term consumption maximization and avoidance of conflicts. In short goulash communism is a two sided coin: it had its (material) benefits in the communist era, certainly compared to other communist countries in Eastern-Europe which led to mass support for this governance. However the price that Hungary had to pay for it during the post-transition period was rather high.

The communistic system within Hungary after the reform was one of pro consumption, and in fact the main economic policy was aimed towards a maximization of short-term consumption. Two other characterizations of the economic policy at that timeframe were a huge welfare state that could compete with Western countries (at some point social income made up 50% of household income) and the ensuring of socio-economic security and thus minimizing uncertainty, something which is inherent within capitalist societies. When these facts are related and to entrepreneurship and being put in the contemporary context, a multitude of concerns arise. First of all, as will be shown later on, Hungarian entrepreneurs are on average after short-term profit and consume the majority of their income instead of re-investing it in their company. This may very well be attributed to the historical institutional context of the pro-consumption communistic policies. What could also be a factor of importance is that the first semi-capitalistic endeavours within the grey-economy of the communistic system were workers renting capital and working extra hours as subcontractors and thus earning an additional income. Although in essence harmless and beneficial within an communistic setting where extra income is well needed, it could provide a detrimental and skewed vision on what entrepreneurship is since this form of 'communistic-entrepreneurship' involves no risk taking, no strategic planning, market analysis, nor investments, but is rather focused on increasing consumption alone within a stable job setting. To top this, Hungary faced after the transition a failing banking system and a rather skewed patronizing relation between the state and inefficient firms. Moreover economic policy was very much focused upon FDI, something which especially in the short term, crowds out domestic firms and discourages entry, something which is well documented by de Backer & Sleuwaegen (2002).

Part II: Making up the balance and towards a possible understanding of contemporary entrepreneurial attitudes.

Svjenar (2002) concludes that the reform that was of greatest importance within all former Soviet states were the creation of a legal framework and corporate governance of firms, like Hungary did (Kornai 1999). Svejnar (2002) also notes that Hungary had a clear set of rules and regulations (legal institutions) right from the beginning of the capitalist system. The non legal institutions and peoples attitude towards the transition was however far from ideal. The transition phase was described by Lengyel (2007) as encompassing three phases:

- Time of Economic & Political change – 1995: Certain laws and statutes passed and the institutions of a market economy had been established;
- 1995 – 2004: The time of the last budgetary shock until the accession to the EU;
- 2004 – present: Since Hungary has become a part of the European market a new phase has been set in.

In this part the partial research question *Q3 How does Hungary's communist history influence entrepreneurship to this day?, w*ill be completely answered.

4.5 Social cost

The socio-economic cost was according to Bartlett (1997) very high, and sometimes higher than in other neighboring countries. Especially the cultural transition in enterprises was very difficult for most employees to cope with and adapt to. Employment was not guaranteed, and income was far from being equally distributed.

Though the transformation did bring much freedom, most of those freedoms were non-existing in communist times, the importance attributed to this freedom was mostly overemphasized by a small segment in the population; the elite (Antal, 1994). The ordinary people were actually worse off than before the transition. Though not to the same extent as Czechoslovakia and Poland, Hungary had a decline in its standard of living after the transformation. Moreover due to the ever increasing budget deficit, healthcare, the social security system and the education system was negatively affected. In all fairness, to credit of the communist regime, reform measures taking previously under Communist rule later alleviated price distortions and domestic shortages (Bartlett, 1997).

The public consensus towards the new system is also not uniformly positive. Svejnar (2002), shows in his article the results of a questionnaire taken in 1999 on the opinion of Hungarians (and Poles and Czech Republic) about the transition. When posed with the question whether the respondents thought it was worthwhile to change the economic and political system, 46% of the Hungarians replied yes, and 40% replied no (as opposed to 55% and 32% for the Czechs, and 67% and 24% for the Poles). This ambivalent opinion is rather interesting especially when put in the light against the overall more positive opinion of the Polish respondents. The most interesting answer was given on the following question: '*Have the changes taking place in your country since 1989 brought people more losses than gains?*' While the answers of the Czech respondents were rather ambivalent, the Hungarians were overall negative towards the merits of the transition. Especially compared to the

pre-transition period a large majority of the Hungarians had worse (perceived) material conditions of living, and almost half of the respondents state that overall their life was worse than before.

Csath (2004) writes in her article that the general attitude of the Hungarian people towards the transition towards capitalism is one of skepticism, pessimism and frustration. The general thought about the system change is that those who were once communist transformed into neo-liberal capitalist who kept all the capital for themselves. For a lot of people on the lower socio-economic strata, change implied job loss, unemployment, lack of opportunities, poverty and increasing polarization between the rich and the poor. The economic situation is not too positive, with corruption being a major problem within the economy: in 2004 Hungary was more corrupt than countries such as Botswana, Bahrain and Oman. Dudley (1998) also remarks this cultural shift: after the transition 'cheating' in business was common, the grey economy was large and corruption within government agencies was widespread. Csath (2004) typifies the economic shift as one from '…*A few large socialist enterprises subsidized by the government at the expense of the population',* to a situation where now, 'a *few huge global companies subsidized by the government at the expense of the population*' (Csath, pp. 1, 2004). To attract FDI, the government frantically tries to palm the foreign enterprises by tax holidays, low wages artificially kept low so that it impediments new enterprise development and cheap land. Another way the government tries to please foreign enterprises are by devaluating the national currency under the banner of increased competitiveness. Instead this only leads to a favorable export price. It is not surprising that 80% of the exports come from a few large foreign enterprises.

Hungary's economy can be described as a dysfunctioning market economy with a few large monopolistic enterprises that receive large subsidies, thereby distorting fair competition. Thereby a majority of the foreign enterprises are low value added assembly sites, adding little to the human capital of the Hungarian labor force. More than half of the labor force works in this kind of assembly site and have little to no opportunity for creating new ideas and/or starting a new business for their own (Csath, 2004). Apparently this is one of the main reasons why the knowledge base of the economy is dwindling. Hungarians graduate in science and engineering are not sufficient either to supply the knowledge economy and thus promote the desirable innovations. If Hungary ever wants to progress to the 'first economy' this is essential. Another great problem is the value added tax of 25% imposed on training, non-accredited training and education, thereby tremendously increasing costs and decreasing likelihood of people participating in extra training and thereby increasing human capital and thus entrepreneurial endeavors.

It is interesting to note that Lester Thurow, a leading MIT economics professor, at the start of the transformation process wrote that Hungary was in a perfect position to adapt to the capitalist economy and be a 'world player' if it would focus its strategy on knowledge and the entrepreneurial nature of its people, thereby using the strong educational and R&D institutions to develop worldwide competitive services and products. The irony is that a rather different path was chosen: competing by exploiting cheap labor, cheap resources and attracting large amounts of FDI by offering favorable business environments and generous subsidies.

The current labor market situation is not well. A study by Ékes (2007) shows that the employment levels have been stagnating since the transition, and labor participation rate is only 53,7% which is much lower than the European average. Long-term unemployment is as high as 50%, much higher

than the European norm. Although unemployment has not risen significantly and is considered relatively low, this gives a skewed image since the amount of persons entitled to unemployment benefits has dropped significantly. Moreover, according to Ékes (2007) many unemployed people do not bother with unemployment registration since they either do not have any faith in finding a job with help of these agencies, or they have found employment in the grey economy.

Real wages are low in Hungary. Whereas the GDP is around 60% of the European average, the real wages are stuck behind with only 40% of the European average, in 2007 these real wages fell dramatically around 7% compared to 2006. Moreover the way these figures of real wages are calculated differ from Western standards: Hungarian real wages are actually a national average which includes higher managerial positions along with incomes earned in foreign owned companies which are usually higher than domestic earned companies and which all crank up the average real wage. Western standards calculate the wages of blue collar manufacturing workers.

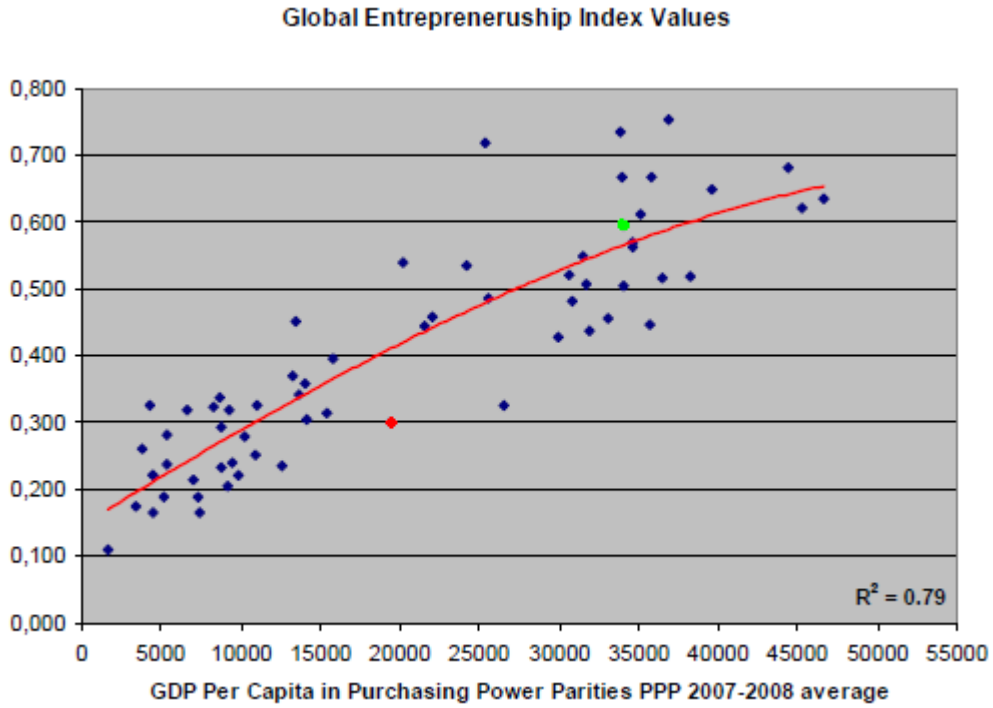
The above can explain to a certain extent that a lot of people may chose for an entrepreneurial career out of push-factors, since these factors are correlated with high unemployment and a revolving door regime where there is both a high entry rate, and a high exit rate with a low amount of sustainable firms, low growth potential and no real technological advantage as the basis of firm competitiveness. It is related to necessity based entrepreneurship that is connected with low per capita income levels, a low level of national or regional economic development, and a low level of innovative capacity. These types of entrepreneurs are in general starting entrepreneurial endeavors to supplement their (low) income. Although push-factors are not part of the environment, they certainly influence the way the individual *perceives* the environment; rather than looking for the best opportunity, they perceive any possible opportunity for a little profit as acceptable.

A good example of push-factors being the predominant reason for starting an enterprise is a study performed by Kovács & Basci (2000). They showed by a survey under local entrepreneurs that in rural areas of southern western Hungary (among it some villages within the Baranya region) the main reasons for entrepreneurship were income related; either a lack of income, or the desire for a higher or additional income, suggesting a lack of proper alternative income opportunities.

4.6 Current situation of Entrepreneurship in Hungary

Hungary has known a relatively short history of SME development but data shows that the size and importance of the SME sector is comparable to other European countries, though Hungary falls below the trend line of entrepreneurial activity when GDP is taken into account (Szerb, 2008a; Acs & Szerb, 2009). Acs & Szerb (2009) developed an global entrepreneurial index based on several variables and measures entrepreneurial activity, attitudes and aspirations for 64 countries plotted against GDP. The result is a S-Shaped curve showing the transition stages of economic development between managed and knowledge economy. Shown in red (Figure 4.1) is Hungary in the middle and shown in green is the Netherlands on the upper curve. It exemplifies Hungary being below the expected trend while the Netherlands is slightly above this line.

Figure 4.1 Global Entrepreneurship Index 2007-2008



Source: based on Acs & Szerb (2009)

When taking into account the qualitative nature of Hungary's entrepreneurial sector: facts show that in 2003 70% of the workforces in the private sector were employed in firms that were small and medium sized. 53% of the value added was generated by SME's (Román, 2006). However in terms of economic performance and thereby competitiveness the SME sector in Hungary is about 5-10 times smaller than the EU average (Szerb, 2008b). There is also a problem regarding the nature of this entrepreneurship; a lot of the entrepreneurship in Hungary is necessity based and has low innovativeness. In the Eurobarometer of 2008 it shows that from all 25 EU member states Hungary has the highest share of necessity driven entrepreneurs and consequently the lowest share of opportunity driven entrepreneurs though the overall business activity rate is higher than the EU average (Eurobarometer, 2008).

According to a 2009 study on SME's by the Hungarian Ministry for National Development and Economy the Hungarian SME sector is peculiar in several ways (SME, 2009). Since 2000 the SME sector has been largely left unchanged while still performing manly labor intensive and low capital demanding activities and therefore their performance and competitiveness lags behind those of similar SME's in developed nations. A positive signal (for the SME sector) however is that the large enterprises have stopped gaining ground within Hungary and SME's have been gaining ground in terms of employment and is slowly creating more added value.

However future prospects regarding entrepreneurship within the whole of Hungary are rather dramatic. A recent GEM 2009 report showed that only 3% of the population perceived good opportunities for starting a business. On a global level this is the lowest figure respondents have given. Only 42% of the respondents thought of entrepreneurship as a good career choice. Among

efficiency-driven economies Hungary has the second lowest high growth expectation entrepreneurship and lowest in nascent innovative entrepreneurship.

The Hungarian economy is still in development and it misses adequate financial resources, low risk investments a good supportive cultural environment, inefficient market economies and proper institutions in the form of unfavorable rules and regulations (Szerb et al., 2007b). Especially the financial sector seems to be a major problem. In general smaller companies have less access to external financing than bigger companies and this is especially so in transition countries such as Hungary. Research shows that the growth potential of SME businesses is limited because of a lack long term financial resources, trade credit and outside equity. Bygrave & Hunt (2005) state that for start-ups informal investments are often the most important form of investing. A negative development is that the growth rate of lending has slowed down in the last couple of years (SME, 2009). Finally Szalavetz (2007) finds that in Hungary it are especially knowledge based firms that are in need of more financial capital.

The supply of equity capital for start-ups and small firms depends thus on the efficiency of the informal venture capital market but in Hungary there are very few informal investors and after Brazil they are on the second last spot in the world regarding total informal investments as a % of GDP (Szerb et al., 2007b). Because of this lack of financing there are insufficient funds for aspiring entrepreneurs who may cause them to delay or abort their plans to start a business, or alternatively start a business based on inadequate financing with the accompanied undercapitalization liquidity constraints and limited growth.

Tominic & Rebernik (2007) find in a comparison of the entrepreneurial culture within three post-socialist countries; Slovenia, Hungary and Croatia, that the cultural embeddedness of entrepreneurship is low and much lower in Hungary than in the other post-socialist countries. One big concern for Hungary is the fact that the Hungarian population themselves state that there is a lack of entrepreneurial climate in the sense of low business opportunities, lack of finance and unfavorable rules and regulations. In the GEM 2008 (GEM, 2009) report, a lot of concerning facts are visible about the state of entrepreneurship within Hungary. First of all, because of the financial crisis of 2008 there is a strong fall in perceived opportunities by the Hungarian population. Coupled with some other countries Hungarian holds the last spot in this aspect with a 30-50% worsening compared to the year before. The general attitude of the Hungarian population concerning entrepreneurship is relatively bad: only 26% sees good opportunities to start a company, 47% states that the fear of failure is too big to start a company of their own, and only 26% knows another entrepreneur that recently (within the last 2 years) started another company. 43% see themselves having the required skills and knowledge to start a new business, but only 6% visualizes themselves starting within the next 3 years. 48% of the population thinks that an entrepreneurial career is a worthy career option, 19% sees a lot of media-attention for entrepreneurs. It is striking that in the ranks of other similar countries Hungary scores very low in almost all categories.

According to older and new research, the problem with the majority of Hungarian SME's is their low growth potential. Not only are they not growth oriented, they are both unable and unwilling to grow past the so-called infancy stage; the actual product is already being sold, but there is no market expansion, no professional management and the main form of financing lays not in the capital of third (professional) parties (Aldizes, 2004). Most firms adopt a (deeply) cultural rooted socialist

attitude of taking the profit out of the small, often family managed, firms thereby non-reinvesting leading to low firm growth rates (Czako et al., 1995; Laky, 1998; Laki, 1998; Major, 2003). The cultural factor is thus strong in the lack of growth potential. In the light of a previous chapter about the communist era in Hungary this is rather interesting, since in respect to other communist countries, the socialist labour population had quite the entrepreneurial spirit, which showed itself in the relatively large second (semi-legal) economy. In this sense, according to Szalavetz (2007), the socialist entrepreneurs in Hungary resembled the ideal Schumpeterian entrepreneur: they had a sense of market-understanding, a sense of risk-taking and autonomous decision-making and were able to adjust, learn and innovate. A large difference between the 'ideal' entrepreneur on the one hand, and the socialist entrepreneur on the other, was the mentality. This was because the socialist entrepreneur already had a stable job, besides his own endeavors in the second economy. Moreover he merely exploited resources and assets that were the property of the company they were working for, thereby exempting them of a large part of the initial risk taking in entrepreneurship. Besides, these entrepreneurs were only filling the huge gap between initial demand and production that was lagging. There were therefore no demand constraints, nor did these entrepreneurs face heavy competition. And because of the socialist ethic of restricting expansion by heavy regulation (since entrepreneurship was actually contradictive of the socialist ideals), they were actually almost encouraged to increase private consumption by using the income gathered from entrepreneurial endeavors. Now, almost 20 years after this fall of the socialistic imperial, this mentality of increasing consumption rather than investing in one's company is still deeply rooted in the collective mind of the entrepreneurial spirit within Hungary (Szalavetz, 2007).

Along with the reluctance of Hungarian SME's towards growth: a lack of dynamism in terms of productivity growth, employment growth and sales growth, they also operate below the minimum efficiency size mainly because of the lack of market acquiring deficiencies and capital market imperfections. Besides, they are unable to reinvest and accumulate intangible assets, but most of all they are not innovative, something which is essential for a knowledge economy (or in this respect, aspiring future knowledge economy). Szerb & Ulbert (2006) find that in general the Hungarian SME sector has a weak innovation activity. The majority of the small firms introduce only marginally introduce new products or technology. Thereby the majority of these innovations are merely improvements of existing products or technologies and aren't sufficient to neither remain competitive nor induce growth. Moreover Szerb & Ulbert (2006) finds that there is a lack of future strategic focus among some SME: they only innovate when their growth begins to decline and they are unable to maintain their sales level. Additionally Szerb (2008a) found that Hungarian firms perform in comparison to other post-socialist countries rather bad on company strategy: few firms have a product innovation and many offer the same product, use old technologies, have low growth and are not internationally orientated. He marks this as the most important factor in stimulating entrepreneurship within Hungary. What is noteworthy though is that the fear of failure is fairly low and self reported start-up skills are high, but this is accompanied with low opportunity perception and bad networking skills.

Szalavetz (2007) comes to the conclusion that the average Hungarian firm is very dissimilar from a knowledge based firm. Whereas a knowledge based firm's most import asset is knowledge, which often translates itself in an above-average-education of firm founders and a above-average R&D input and output, Hungarian domestic firms have a poor innovation performance, and very little engagement in any kind of R&D activity which is confirmed in hard figures: more that 99% of the

Hungarian firms do not partake in any R&D endeavor at all. In terms of profit and growth, these knowledge based companies belong to the so-called 'gazelles', as we have debated earlier, a large part of the Hungarian domestic firms neither grow nor make large amount of profits. These knowledge based firms also tend to internationalize early on in their life-cycle, and are among pioneer companies with outward foreign direct investments.

Szalavetz (2007) found through performing qualitative interviews with founders of these KBF's, that they all share certain characteristics that are not common in other firms in Hungary, or other countries in transition for that matter. They all had a strong personal drive towards business; i.e. a strong entrepreneurial drive, but most of all they were talented and highly educated people. Furthermore, they were risk-taking and visionary and were therefore able to identify trends and capitalize on emerging opportunities. In short they were able to share two qualities: both creative (technological) knowledge and business/managerial skills.

Through their new knowledge-intensive products and services, KBF's usually target (unexplored) niche markets. Because of often large margins in terms of profit in these niche-markets, KBF's are able to capitalize on that which offers them high growth opportunities. Furthermore, because of their great flexibility they are able to diversify on their products and services, thereby sustaining growth.

Szalavetz (2007) concludes with stating that policies should obviously be based on those knowledge based firms. However KBF's, and especially firms that are University spin-offs, should undergo a transition towards more business oriented and more commercialized, instead of primarily living of research grants and other subsidies. One additional problem he finds in this is the (earlier mentioned) inability of financial institutions to support high growth KBF's who are in need of financial capital. Linking back to earlier research of Szalavetz (2007) and Szerb et al. (2007b) we can see that clearly undercapitalization is a big constraint in the forming of businesses and especially knowledge based and high growth businesses.

4.7 Conclusion

What has been tried to shown is an overview of the problematic contemporary situation as caused by a troubled economic historic past. In this chapter enough material has been gathered to answer the following partial research question: Q3 *How does Hungary's communist history influence entrepreneurship to this day?*

It is visible now that apart from a unfavorable legal institutions mainly in the form of the banking system for enterprises, Hungary lacks what one could call an entrepreneurial climate, and quite some entrepreneurs are merely trying to supplement their (low) income in where they could perceive any possible opportunity for as little profit as acceptable. The majorities of the entrepreneurs in Hungary are consequently low growth oriented (something that may be caused by a lack of adequate financial resources and low risk investments) not innovative and are merely trying to receive a short term income instead of investing in the company and having a long term planning. Moreover there is a lack of a good supportive social environment; the social environment is very negative towards entrepreneurship in general and it is by half of the population not even viewed as a worthy profession. There are bad institutions that cause unfavorable rules & regulations and an inefficient market economy.

It might be too pretentious to state that all of these factors are solely caused by the goulash communism professed in Hungary for over 40 years. However it is suffice to say that within the light of a large welfare state, a pro-consumption and low investment mentality, great socio-economic security as opposed to uncertainty within capitalist societies, a great FDI influx that might obscure new domestic firm entry and an especially bumpy transition period where legal institutions developed, the dwindling and poorly performing contemporary entrepreneurial sector of Hungary is put within a more transparent perspective.

A substantial part of these aforementioned unfavorable characteristics will be dealt with in the empirical research in chapter 7. Especially the unfavorable rules and regulations, an unfavorable social environment and a poorly functioning capital market are subjects that will be directly investigated.

5 A case study of Twente & Baranya: Coming towards a research approach

In this chapter the two regions that are subject to the research will be shortly covered, the research problem further explained along with the research plan and the hypotheses. The first region that will be covered is the Baranya region, a peripheral region within the post-communist state of Hungary that performs relatively bad when economic development and entrepreneurship is taken into consideration.

5.1 The Baranya region

'*Regional data clearly show that in Hungary there are great and constantly existing territorial differences among the regions, and only one region, Central Hungary has continuous and fast growth*' (Lengyel, pp. 594, 2007).

Baranya County is a region in the South Western, South Danubian region of Hungary and borders Croatia to its South. Its population is little over 400000 inhabitants with the capital of Pécs harboring over 150000 inhabitants, which makes it the 5th largest Hungarian city. The region finds itself in a relatively stagnating position regarding economic growth (along with entrepreneurship and innovativeness); the unemployment is above the national average, while the GDP per capita is below this national average (Inzelt & Szerb, 2006). On top of this, FDI is for a large part absent; only two percent of the country's foreign capital is invested in Baranya, and this is 20% of the national average. Considering the fact that Hungary's wealth is for a large part ascribed to these foreign investments after the communist transition period, this is a serious obstacle for the economic development of the region (Inzelt & Serb, 2006).

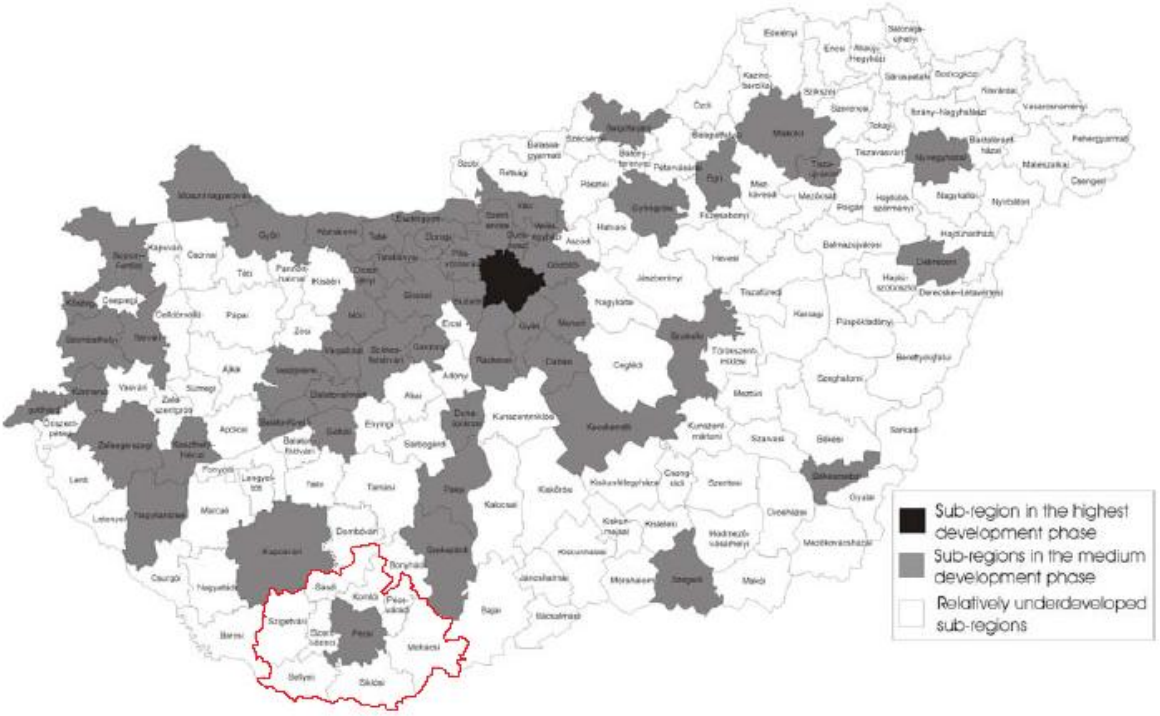
The economic outlook of the Baranya region has been heavily influenced by its natural features. The soil of the region along with the mineral resources and its climate make it very favorable for agriculture, the building industry and mining. In the 19th century there was therefore already a large mining industry along with a food processing industry (meat, dairy, grain, beer and wine; which was caused by a productive Agricultural sector), glove manufacturing, leather making, ceramics, wood industry and the making of musical instruments. However during the post war communist period mining came to be the most dominant sector within the regional economy and investments were mostly accumulated in this sector with detrimental consequences for the traditional light industry branches.

Eventually had its in the late 1980's and early 1990's the structure of the regional economy would change to a large extent: the whole heavy industrial structure (among that the mining sector, building industry, gas production, coal processing and electricity generation) which was a central part in the Baranya economic structure for the past 40 years went into a deep crisis and declined steadily along with the light industry which lost its markets in the east and agriculture and the building industry had severe problems also. Additionally, the war in the Balkans caused another problem where markets would be inaccessible along with opportunities for cooperation and the bad state of technological development in Hungary as a whole caused difficulties to access Western markets.
With this loss of the heavy industry, especially uranium mining and deep coal mining, the processing industry became somewhat more dominant. However in 2002 Baranya had the lowest manufacturing

production output in the whole country (Inzelt & Szerb, 2006). So far the service sector came out as the most dominant sector with almost 60% of all employment, and most new start-up businesses are being made within this sector (in general since the 1990's the rate of business start-up has been steadily increasing). The region's capital Pécs has around 75% of its workforce employed in the tertiary sector. Though Inzelt & Szerb (2006) certainly suggest that there clearly is a significant amount of innovative business within Baranya, GEM report of 2009 and Bosma (2009) show that overall in the South Danubian region (including Baranya) the image is far from pleasant; although the typical South-entrepreneur has a low fear of failure and the established rate of ownership and early stage entrepreneurial activity is fair, the average South Danubian entrepreneur has also low-ambitions, low-innovativeness and is mostly necessity based. Moreover they perceive few opportunities for business and the region has a low untapped entrepreneurial potential.

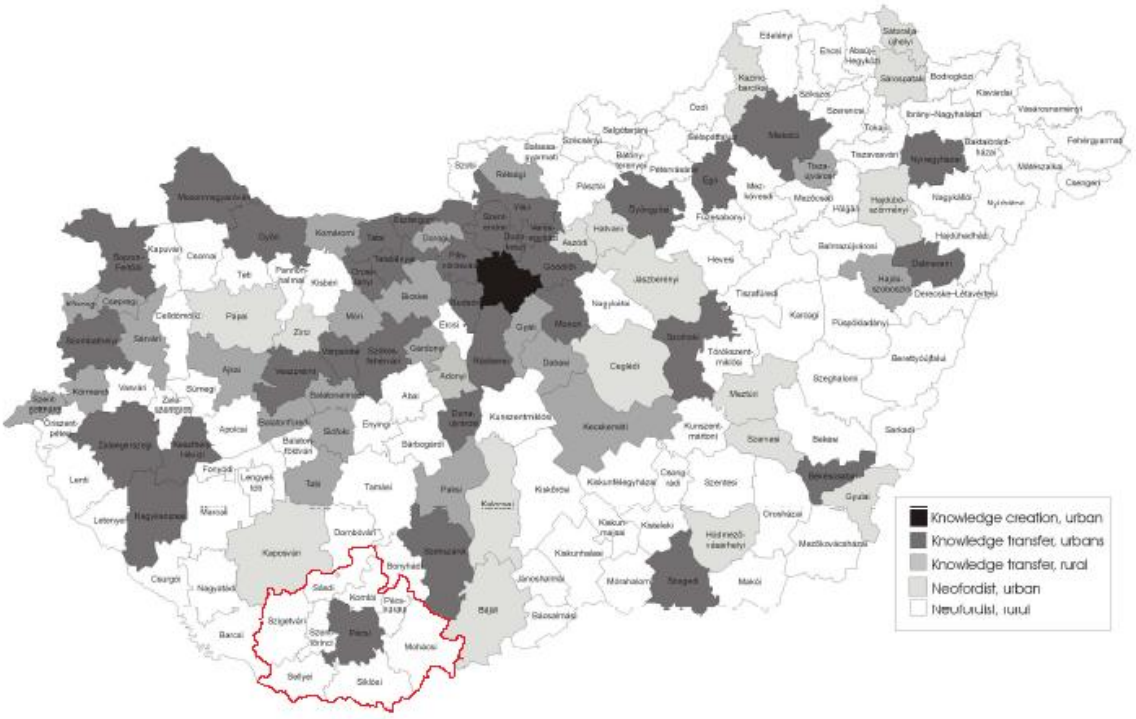
Finally, Lengyel (2007) and Kovács & Lukovics (2006) show in a geographical representation the economic development (figure 5.1) and the knowledge creation (figure 5.2) across Hungarian regions. Marked in red is the Baranya region. Further exploration of figure 5.1 shows that the Baranya region is relatively underdeveloped and still very rural, expect for the urban Pécs region. As for the rest of Hungary it shows that there is a clear case of urban primacy of the capital Budapest and the surrounding central regions of Hungary. Figure 5.2 shows a similar picture but now related to competitiveness. Budapest is still the most important city of the country, along with its surrounding regions. Baranya is still a rather rural region except for the urban Pécs region which is in fact competitive on a national level.

Figure 5.1 Economic development in Hungarian sub regions



Source: Kovács & Lukovics (2006)

Figure 5.2 Hungarian Sub-regions by competitiveness types



Source: Lengyel (2007)

Lengyel (2007) continues by explaining there are major differences in the competitiveness of Hungarian regions; whereas three regions improved their competitiveness continuously by a growth of employment and labor productivity, the other four regions of Hungary seem to be stagnating. These three regions have actually become an integral part of international trade, while at the same time the other regions have relatively low levels of export.

5.2 Twente Region

A region that contrasts with Baranya, is the Twente region, a region located within the highly developed knowledge economy of the Netherlands. It too is a peripheral region but unlike Baranya it is catching up with the national economy, and its actually ahead in terms of innovative entrepreneurship.

Twente is a region is the east of the Netherlands in the Dutch province of Overijssel. It borders Germany to the east, and is part of a bigger 'EUregion'. The majority of the 600000 inhabitants live in the urban areas of Enschede, Hengelo or Almelo. Besides these urban centres, the region also has a significant rural part (Benneworth & Hospers, 2007). Although it belongs to the larger Overijssel Province and it thus administratively not recognized as a region, informally it can be considered a real region in the sense of clear territorial borders, institutions, symbols as well as the local sense of real distinct regional identity (Hospers, 2004b).

The economy of Twente could be characterized as a peripheral one. However, it is not in the same peripheral position as regions like Groningen and Drenthe within the Netherlands. Through entrepreneurship and innovation the region is creating a distinct position within the national economy for itself. The strong regional identity and its current economic situation is however heavily colored by the historical economic past (Garlick et al., 2006; Benneworth & Hospers, 2007). Because

of its turbulent history with the dominating textile-industry and the machinery industry, the regional economy lagged behind the national average in terms of economic development for the past decades. Unemployment is slightly above average and the region suffers fierce competition from other surrounding regions and struggles with poor accessibility (Bosma, 2009).

Up until the 19th century, Twente was a mostly rural area with a large trade and farming population. This relative undeveloped situation compared to the rest of the Netherlands stemmed from the fact that during the Golden Age of the Netherlands, Twente was too remote from the main trade routes to benefit from this economic growth impulse (Benneworth & Hospers, 2007). Because of the poor soil of the region, farmers were unable to work the land all year round and therefore picked up on spinning and weaving during winter times. This proto-industry formed the cradle of the regional clothing industry. Since after the Belgium revolt of 1830 the Dutch kingdom lost its key textile cities (Bruges and Ghent) and the king sought a new location to establish a new national textile industry to produce finished cotton goods for overseas Dutch colonies. Because of the strong labor mentality and the local weaving knowledge, the population persuaded the king to establish this industry in Twente (van Stuijvenberg, 1979). Consequently large textile factories were built in Enschede, Borne and Almelo, while the city of Hengelo specialized in related industries: machinery, metal and eventually electronics. This cluster grew steadily in the 19th and first half of the 20th century by providing mass products along with metal/electronic equipment, synthetic fibers and specialized clothing. In the second half of the 20th century this sector stagnated and entered a period of decline because of fierce competition of low-wage countries, loss of cotton colonies, increasing technological efficiency and a lack of entrepreneurial spirit causing a job 12000 job loss between 1965 and 1970 (Lambooy, 1995). For a significant number of years experts remained positive about the outcome and foresaw a decline in this historic industry. The result of all of this was an economy which was heavily manufactured oriented, which in turns was further enforced by the regional development agency that first relied their revitalizing strategy on big (multinational) inward investments attracted by a low-cost area (Garlick et al., 2006).

However during the late 1970's the economic crisis within the textile sector was of such magnitude that employment fell with 75% compared to what it was in 1955 (Lambooy, 1995). To battle this heavy loss to the regional economy a foundation was created that promoted the creation of a University for the east of the Netherlands to fill in the void that the declining textile industries left behind. The plan succeeded and in 1964 the Technological high school of Twente was created which offered degrees in many technological branches. From the 1980's on this approach seemed to be successful: there was recovery and innovation in the older sectors of chemicals, food and metal/electronics. It is notable to state also that in this period the textiles industry was surpassed as the largest industrial sector in the region in terms of employment (currently the machinery sector is still around 10% of all regional employment compared to only 1,5% for the textile sector) (Garlick et al., 2006; Benneworth & Hospers, 2007).

Moreover a new high-tech sector was created around R&D, engineering services and transport & logistics along with a growth in innovative public services. As of current this University of Utrecht upholds still a key function within the region. Its strength specifically lies within its strong position in a set of academic economies along with its status as an economic development institution (Benneworth & Hospers, 2007). It has created quite an excellent reputation is regards to science, innovative entrepreneurship and technology creation. Especially the link between science and

entrepreneurship seems to work well in this region and around the University there is a R&D cluster that mainly revolves around new technologies such as biomedical technologies, ICT and nano-electronics (Hulsink et al., 2004; Benneworth & Hospers, 2007). Because of its stable position in these economies of academic knowledge it is able to make way for experimentation with commercialization of this knowledge (Benneworth & Hospers, 2007). It currently holds the 4th position in the national list of R&D investments and a national 4th position in business intensity in 2004 (Regio Twente, 2006).

As been said before, the nature of the entrepreneurship in Twente tends to be one of innovativeness. This and more is concurred by research from Bosma (2009) where Twente was compared to Amsterdam and East-Groningen regarding entrepreneurship variables. It showed that entrepreneurs in Twente were relatively more innovative than the other regions. This makes it a rather interesting region to investigate since it is mostly opportunity innovation oriented entrepreneurs that stimulate the regional economy.

5.3 Problem statement and introducing the case study

Regional variance regarding competitiveness and entrepreneurship shows great disparities within Hungary. When looking at the regional level of Baranya, research by Bosma (2009) shows that the perceived regional opportunities in the Baranya region have been very low. The established business ownership rates along with the early stage entrepreneurship rate is promising within both a European and Hungarian context but it is mostly constituted of firms with low growth ambitions, and very few firms with a high growth ambition along with few firms with innovative ambitions.

Twente on the other hand has a fairly different perspective. Research by Bosma (2009) shows us that quite a number of people recognize good business opportunities within the region, the most interesting however about the region is that 14% of the early stage entrepreneurs is ambitious, and a very high percentage utilizes new technologies or developed a new technology. Also quite a number of entrepreneurs know another entrepreneur personally that has affected them in starting their own business.

Bosma (2009) distinguishes two extreme regimes of high rates of established entrepreneurship:

- The first regime has institutions that provide guidance for people setting up a firm leading to high rates of established businesses within a competitive environment; regimes with high opportunity costs to entrepreneurship;
- The second regime has little competition causing a high rate of low potential but high sustaining firms; regimes with low opportunity costs to entrepreneurship.

One could expect from the first regime that high establishment rates go hand in hand with high degree of new product-market combinations. For the second regime a high establishment rate goes along with low degrees of ambitious entrepreneurial activity. In general, Hungarian regions but also in particular Baranya would fall under the second regime. And herein lies the problem: with a considerable lack of (future prospects on) FDI the stagnating economy of Baranya relies on their intrinsic endeavors to propel economic prosperity. Previous chapters have shown that a competitive entrepreneurial climate can facilitate this, granted that it concerns mostly opportunity based and innovative new small businesses.

The Twente region and the Baranya region show quite some similarities: relatively peripheral counties, one large dominating University, and a economic situation that is formed by its heavy industrial past. The difference lies in the fact that Twente does seem to have created a competitive climate with strong innovative new firms (the first regime of Bosma, 2009), while the Baranya region falls short in this prospect (second regime of Bosma, 2009). The case is that there are two regions within two countries that are complementary: the Baranya region lacks both opportunities and high ambitious and innovative entrepreneurship and in general unfavorable institutions, while the Twente region does have those same valuable characteristics. Therefore an institutional approach will be followed to research the forces that lie at work at causing this institutional difference and consequently the lack of beneficial entrepreneurship within the Baranya region.

A few assumptions can be made in advanced on Baranya:

- It is mostly the non-legal institutional framework that accounts for the difference in risk perception and entrepreneurial ambitions, and in particular role models;
- Consequently the difference between opportunity recognition lies within the presence of those same entrepreneurial role models;
- There is a lack of supportive legal institutions causing the ambitions to be even lower;
- There is a lack of proper role models in the sense that they can alter the existing perception on opportunities and the way of doing entrepreneurship in general: innovativeness and growth ambitions;
- There is a negative social perception of entrepreneurship and this translates itself in a negative supportive social climate.

In short, on basis of the given literature, there is a general occurrence of:

- a supportive social environment for entrepreneurship in the Twente region but not in Baranya;
- a demotivating social environment for entrepreneurship in the Baranya region but not in Twente.

The underlying behavior comes down to risk-avoidance: in an unfavorable region such as Baranya this risk for entrepreneurship is high; the perception of risk on innovative and ambitious entrepreneurship is even higher. There is however a lack of proper role models to mitigate this risk perception.

This is where the high impact entrepreneur comes into play. Stimulating high impact entrepreneurial role models creates more innovative and ambitious entrepreneurship. It is thought however that with high impact entrepreneurship the risk is even higher. Therefore hindering institutions have to be rid off. Foremost it is unknown what drives or creates a high impact entrepreneur. This will be dealt in the qualitative research part. For now this thesis will follow the assumption that what is good for a common opportunity based entrepreneur should also be good for a high impact entrepreneur. This follows simply that increasing the amount of opportunity based entrepreneurship increases the possibility of a high impact entrepreneurship arising out of the total entrepreneurial population.

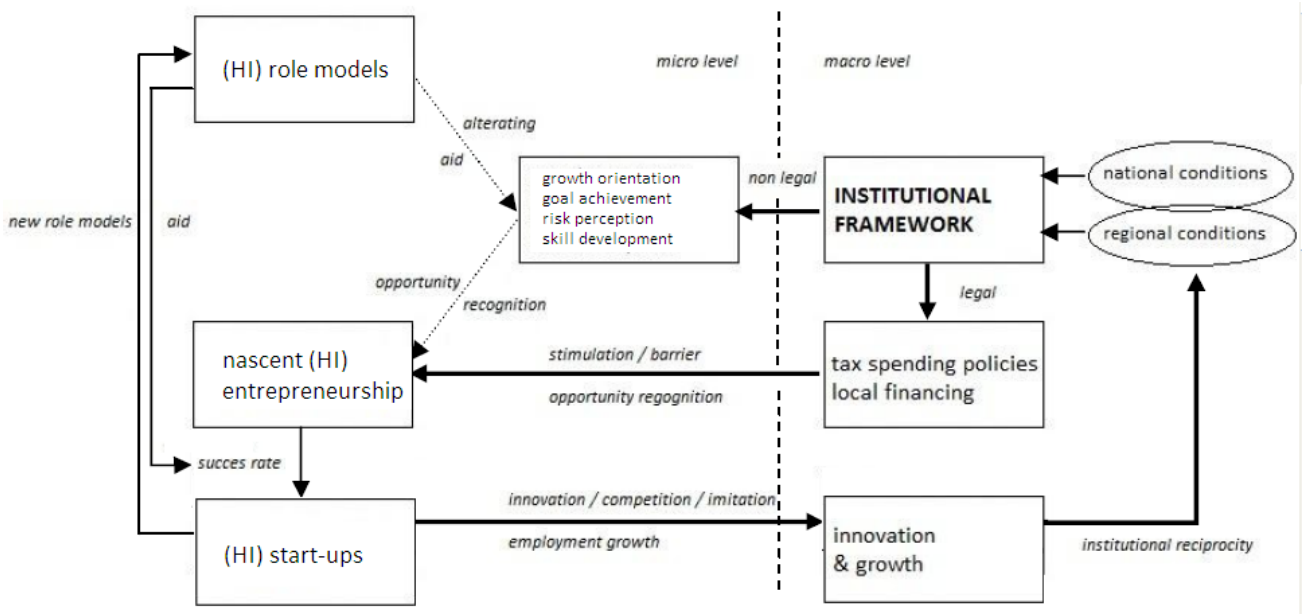
The region Twente is used as an example of a favorable region for entrepreneurship. Through the literature and focus on the concept of role models it is further theorized that this beneficial environment for entrepreneurship is for a part caused by the presence of entrepreneurial role models. Consequently, it is likely that in Baranya this is not the case: presumably there are rather

uninspiring role models caused by the social institutional context. On the basis of the previously discussed literature and the conceptual model certain hypotheses can be deduced pertaining to our empirical application dealing with the regions of Baranya and Twente:

- Hypothesis 1: In Twente an entrepreneurial role model is stronger associated with opportunity recognition than in Baranya;
- Hypothesis 2: In Twente an entrepreneurial role model stronger is associated with ambitious entrepreneurship than in Baranya;
- Hypothesis 3: In Baranya a lack of financial capital is stronger associated with an impediment on opportunity recognition, less ambitious entrepreneurship and less innovative entrepreneurship than in Twente;
- Hypothesis 4: In Twente an entrepreneurial role model is stronger associated with innovative entrepreneurship than in Baranya;

These hypotheses are deduced from model 4. Central in the model is the institutional framework, and in specific the non legal institutional effects. The main premise is that it is specifically these non-legal institutional effects that are detrimental for innovative opportunity based entrepreneurship within Baranya. Proper role models mitigate these effects in a favorable way. It is thus hypothesized that the basic non legal institutions are unfavorable in Baranya which causes start-up levels to increase, but the region especially lacks these proper role models that cause ambitious innovative opportunity based entrepreneurship. However since capital requirements and the general socio-cultural environment are within the literature also regarded as important, especially in Hungary, they are incorporated as controlling hypotheses. Finally it is assumed in this thesis and in the conceptual model 4 that the role model effect is something significantly different from the regular social environment and social capital. Therefore it will be controlled whether social capital is a factor of importance in explaining opportunity recognition, growth ambition and innovativeness in both regions.

Model 4 A holistic approach towards the role model effect



6 Data & Methodology

In this chapter the research will be made more concrete and important decisions will be explained. The first part will explain the decisions made in the quantitative part of the research. The second part will discuss the qualitative research part.

6.1 Quantitative research

6.1.1 Reliability and validity of the study

Unfortunately, there had to be made a couple of research decisions that may have affected the reliability and the validity of the quantitative study. Due to time and money constraints but most of all limitations in the available data and response, there could not be complied with the guidelines of randomization. Data and therefore conclusions cannot be generalized to the whole population but could serve as an indicator of a possible tendency, while still bare the necessity to be properly tested on a large scale research.

6.1.2 Research Population

The population of this research consists of entrepreneurs located in the Twente region and the Baranya region. Time and money limitations caused certain selections of research locations within both regions. It was not manageable to manually make a selection of all companies within the Twente region and the Baranya region (accounting for the sectors) and randomly select on that; as been said there were time and money constraints (it is too lengthy to single handedly make a list of all possible companies in all municipalities along with the problem of a too narrow research population when taken economic sectors into account. Therefore three municipalities were selected to represent the whole region of Twente. The first choice was Enschede since this is the region's largest and most important city. It is expected that the most companies within innovative sectors reside here. Similarly Hengelo was selected for the same reasons. Finally the municipality of Borne was selected to represent the more rural part of Twente.

In the Baranya region there were even more constraints: contact information for firms is not freely available; there is not clear (free) database list with direct available phone numbers of companies. Therefore all companies regardless of the municipality were accepted. However in reality this meant that the great majority of the interviewed firms were based within Pécs.

Additionally it was decided to put an age limit on the research population: this was done because of the question in the questionnaire regarding ambition level. It is theorized that older firms are further on in their life-cycle and will therefore be less inclined to have further growth ambitions within the next 5 years. Companies within the Twente region were selected on the date of start-up; companies older than 10 years were secluded from the list and the selection criteria were as follows: 29-6-2000 until 29-6-2010.

Mostly this was not possible in Baranya although in some cases it actually was still possible to manually select for this age threshold. Still in reality very few companies were much older than 10 years.

This was done because it is to be investigated whether there is a role model effect for opportunity recognition, innovativeness and ambition. To have enough innovative, ambitious and opportunity driven entrepreneurs, the aforementioned sectors were selected since within the Netherlands these sectors have a high rate of innovation (De Jong & Muizer, 2005). To have enough respondents and to make a somewhat more accurate description of the whole innovative opportunity driven part of the regional economies there was chosen for a variation of the selected sectors instead of just one sector. Within Baranya a similar approach was chosen, however there were some circumstances which caused the sectors to have a bit more variation, and to be a bit different. The sectors within Hungary were information technology, software production, biotechnology, research, architecture and civil engineering.

As regarding the selection criteria of the entrepreneur: this was a difficult choice. First of all there was a need for enough opportunity based and ambitious entrepreneurs to properly test hypotheses. To accomplish this, entrepreneurs who were marginally active in their business were excluded. This was hard to measure in working hours, since this variable tends to fluctuate for most businesses. But if the entrepreneur was a pensioner, or had a full-time job and had an entrepreneurial endeavor on the side, they were excluded. This is mainly because of the fact that people in general are risk-avoidant. Being an entrepreneur is an endeavor with a lot of risk, especially in societies where being an employee is more the norm. Having an enterprise while being a pensioner or only marginally exploiting the opportunities for profit and business is not considered taking this risk, nor 'true' entrepreneurial behavior. However part-time employees and part-time entrepreneurs did match the criteria.

6.1.3 Data collection

The method of data collection was mixed and driven by circumstances. First of all it appeared to be difficult gathering data within Hungary due to language barriers and several warnings regarding low response rate. Therefore it was tried to gather as much data as possible. Initially there was chosen to gather data over the email. The downside to this however is the low response rate along with an inability to chose which companies are selected. The questionnaire was send to a list of University of Pécs affiliated entrepreneurs, along with a large mailing list of companies registered at the Pécs chamber of commerce and industry. Additionally it was tried to physically visit the selected companies and thus take the questionnaire. Unfortunately a translator had to come along for that along with the obvious mundane task of visiting every company by public transportation. Additionally data gathering over the telephone was chosen. This is done because it is more direct, allows for explanation of the answers thus decreasing non-filled in questions, extra contextual information and the response rate is in general higher. However there are several websites where telephone numbers of companies are provided and these are scattered over the internet along with the possibility of companies not being active anymore and the phone numbers being false.

In the end the questionnaire was send over the email to 12 University of Pécs affiliated companies, and to a couple of hundred chamber of commerce affiliated companies. Additionally a telephone list was made of 213 companies. Within the Twente region a uniform method was chosen: the telephone questionnaire. Companies were selected from the website from the Dutch chamber of commerce. A total of 134 firms were listed within Enschede, Hengelo and Borne. Companies older than 10 years were secluded from the list and the selection criteria were as follows: 29-6-2000 until 29-6-2010. There was chosen for the more innovative technological sectors of technical

design/architecture, telecommunication, research and software production. Finally, the firm had to be the main source of income.

To evaluate the response and non-response, table 6.1 was made. It is visible here that the total response in Baranya was 48 and 63 in Twente. In Baranya the response / non-response rate was 29,62%, however this is somewhat skewed since it does not take into account the non-response from the companies that were approached over the email through University contacts and the chamber of commerce. Correspondently, in Twente the response / non-response rate relatively high: 62,4%.

Table 6.1 Response and non-response in Baranya & Twente

Baranya	Amount	Amount	Percentage
Initial Sample	214		100,00
- Wrong number		36	16,82
- Not valid		14	6,54
Corrected research population	164		100,00
- No cooperation		72	43,90
- No response		44	26,48
- Response	48		29,62

Twente	Amount	Amount	Percentage
Initial Sample	134		100,00
- Wrong number		5	3,74
- Not valid		28	20,89
Corrected research population	101		100,00
- No cooperation		20	19,80
- No response		118	17,82
- Response	63		62,40

6.1.4 Explaining the questionnaire

To test the hypotheses but also gather new data a total of 14 questions were asked within a questionnaire. The survey method is used because it can easily provide large quantities of data in relatively little time. This questionnaire was divided within 5 parts (See Appendix for the full questionnaires in different languages).

1st part

The first part consisted of only one question. It was used to determine the reason for starting a company and thus defines the key characteristic of the type of entrepreneur. Opportunity or necessity entrepreneurship is within the GEM distinguished between push-factors and pull factors. Basically this is deduced by answering the following question: '*Are you involved in this start-up to take advantage of a business opportunity or because you have no better choices for work?*'

Within this questionnaire the question was chosen to be an open ended, because the dichotomy between necessity and opportunity as thus in the GEM survey is too narrow and does not leave room for any intermediate answers. Push-factors can be deduced to unemployment or lack of other financial alternatives, while pull factors could be mere independence, or less obligations which in essence do not encompass a true entrepreneurial spirit in the 'Schumpeterian' sense. These entrepreneurs are not necessity based, but neither do they represent the true entrepreneurial spirit by acting on a real economic opportunity by utilizing their potential and talent to the full extent. Rather they go for the luxury of being independent. The closest thing that comes to this definition would be Malecki's (2009) lifestyle entrepreneur.

The main purpose of this question was however to be a proxy for dealing with the concept of opportunity recognition. It is difficult to measure something as recognizing a good opportunity. The question was asked in such a way that both traditionally necessity entrepreneurs and opportunity entrepreneurs could recognize a good opportunity. Entrepreneurs can still face unemployment but if they recognize a good profitable opportunity there is nothing inherently detrimental about such entrepreneurship.

2nd part

The second part of the questionnaire constituted three questions. The first two questions were more or less general question to gather a bulk of data to determine the barriers for starting a company and running a company within the regions. The possible answers were a combination of legal and non-legal institutional barriers. The third question regarded an open ended question regarding beneficial factors of the home region.

Both questions thus revolved around the business environment in general and its limiting effects, the answer categories were mostly based around an earlier 2008 study: The state of small and medium sized businesses in Hungary (2008). In this questionnaire a couple of answers were given on the most limiting variables to the growth of a business. The first major impediment was high taxes and social contributions. Second was the unpredictability of economic regulations along with strong competition, unfair competition lack of capital and a few others. Added to this were a couple of additional frequent problems with start-ups and managing which are normally not asked: such as the skill of the entrepreneur himself.

3rd part

The third part was used to measure the socio-cultural environment regarding entrepreneurship through two questions aimed at discerning stimulating types of social capital and demotivating types of social capital.

4th part

The fourth part concerned the availability of an entrepreneurial role model and its possible effects and thus direct help, along with another question that considers the help of the social environment but also another possible entrepreneur that is not directly perceived by the respondent as a role model but in essence could be an unconscious role model. From here two definitions of role models can be empirically tested, the narrow definition and the wide definition. The narrow role model is a conscious mentioned entrepreneurial example that may or may not provide direct help during the business start-up phase, while the wide role model is an unconscious entrepreneurial example that is

not explicitly mentioned as being an entrepreneurial example, but has provided direct help during the business start-up phase.

5th part

Finally in the fifth part of the questionnaire the aspirational nature of the firm was investigated. In two questions it was asked whether the firm was ambitious and whether it was innovative, and who helped with the innovation.

6.2 Qualitative research

In the literature so far, relatively little qualitative research has been done on high impact entrepreneurship (as opposed to empirical research by for example Acs et al., 2008) Therefore qualitative semi-structured interviews were set up for mostly explorative research purpose

6.2.1 Definition of a high impact entrepreneur and the research population

A great difficulty is the exact definition of what constitutes a high impact entrepreneur and on a more operational level the relatively small occurrence of those firms in the total entrepreneurial population. First of all it is rather difficult and time consuming to apply the definition of a high impact company to a large list of firms. Acs et al. (2008) find that the average high impact firm is 25 years old (very few firms are within the first 5 years of their start-up phase), and they account for 2% - 3% of the total firm population. Furthermore they are found within all industries, and not just the high technology industries. He defines them as firms that have doubled their sales over the most recent four year period, and a doubling of the amount of employees. What we are looking for here is a shortcut to a list of high growing innovative companies. Therefore the technology fast 50 list from Deloitte with the 50 fastest growing firms of the year was used to look for fast growing firms in both regions. The definition applied by Deloitte is a company older than 5 years who had their growth measured over a four year span with minimal revenue at the starting point and consequently minimal revenue at the end of the four year period. For the Twente region each year a lot of firms from Twente are in the Benelux fast 50 list which makes it easy to select respondents. The list for 2008, 2009 and 2010 were used to identify all firms from the Twente region that made the list. A total of 10 firms were found. There is a similar list for Central European firms, and there are a couple of Hungarian firms in the list, but all of them resided in the Budapest region and not the Baranya region. High impact firms thus had to be looked for in a different way. Furthermore the number of existing high impact firms in the area is low: the area's population size is rather small, making it extremely difficult to interview a large amount of such entrepreneurs. As has been said earlier, the language barrier makes it hard to interview entrepreneurs face to face without translators.

Within Twente the total of potential qualitative high impact entrepreneurs were ten companies, based on the Deloitte fast50 lists of 2008, 2009 and 2010. Contact with a local Professor from the University of Twente confirmed one extra potential company. From this list three entrepreneurs were interviewed.

Within Hungary this figure was even lower since there is a lot less occurrence of such companies (especially home-based and not companies based on foreign direct investments). Potential candidates were sought through the University of Pécs but it was hard to make contact with them.

Two entrepreneurs were willing, but unfortunately one entrepreneur was not eligible since this business was not originally founded by him. The other entrepreneur was indeed eligible.

Therefore because of a lack of potential 'true' high impact respondents in Baranya there had to be relied on another somewhat related research population. Thus the focus was now more on young innovative firms, firms that had made an innovation and that were considered 'ambitious'. This was done through matters of a social network of the researcher. One founder of a new service based company was willing. Because of the language barrier though, it was very difficult to find entrepreneurs to interview without translators. Two other appointments were made, however these were cancelled later unfortunately. Other endeavors to increase the amount of respondents were unfortunately also without success.

6.2.2 Reliability and validity of the study

Qualitative research has merits and drawbacks. For one it is very difficult to measure the reliability and validity of the findings. The outcomes could very well be influenced by both the subject and the researcher influencing validity, and results based on these few cases are simultaneously not that reliable.

As been said before: qualitative research is good for theory building, as opposed to quantitative research that is particularly appropriate for theory testing. What has been tried is to find out a deeper understanding of the lack of high impact entrepreneurship in unfavorable regions by asking about and referring to familiar concepts and possible explanations that were available at forehand, but also trying to have an open mind and gather as much information about the spatial environment influencing entrepreneurship.

Regarding external validity; since the investigated cases represent a smaller (sub) population generalization does not pose a major problem. The internal validity however is good, since the kind of research chosen is perfectly suited for identifying and understanding causal mechanisms.

To check for consistency roughly the same questions were asked to the respondents. This pattern followed a sort of evolution: after the first interview it was possible to identify common problems or strong points within these entrepreneurs, and the rough guidelines considering the questions were changed towards a semi-structured interview, that obviously left room for additional questions. On average the interviews were about forty minutes long. These same guidelines were applied to the interview with the young innovative entrepreneur.

7 Results

In this chapter the results of the research in both Twente and Baranya will be shown and explained upon. The first paragraph will test the first five hypotheses by analyzing the data from the questionnaire. The second paragraph will give a more qualitative view on both regions by elaborating upon the qualitative research with innovative and high impact entrepreneurs, a government official and the contextual responses given within the quantitative questionnaire.

In this chapter, in conjunction with the previously discussed literature, the following four partial research questions will be answered:

Q4 How is the general institutional context for entrepreneurship within Baranya?

Q5 Why is the perception of entrepreneurial opportunities within the Baranya region so low?

Q6 How does the presence of entrepreneurial role models influence the two regions?

Q7 How does the high impact firm differ from their less successful counterparts?

7.1 Quantitative data analysis

To investigate the hypotheses about the role model effect on entrepreneurship, the results will be shown here and dealt with accordingly. However some contextual data was gathered along which will first be presented and interpreted.

7.1.1 The regional environment

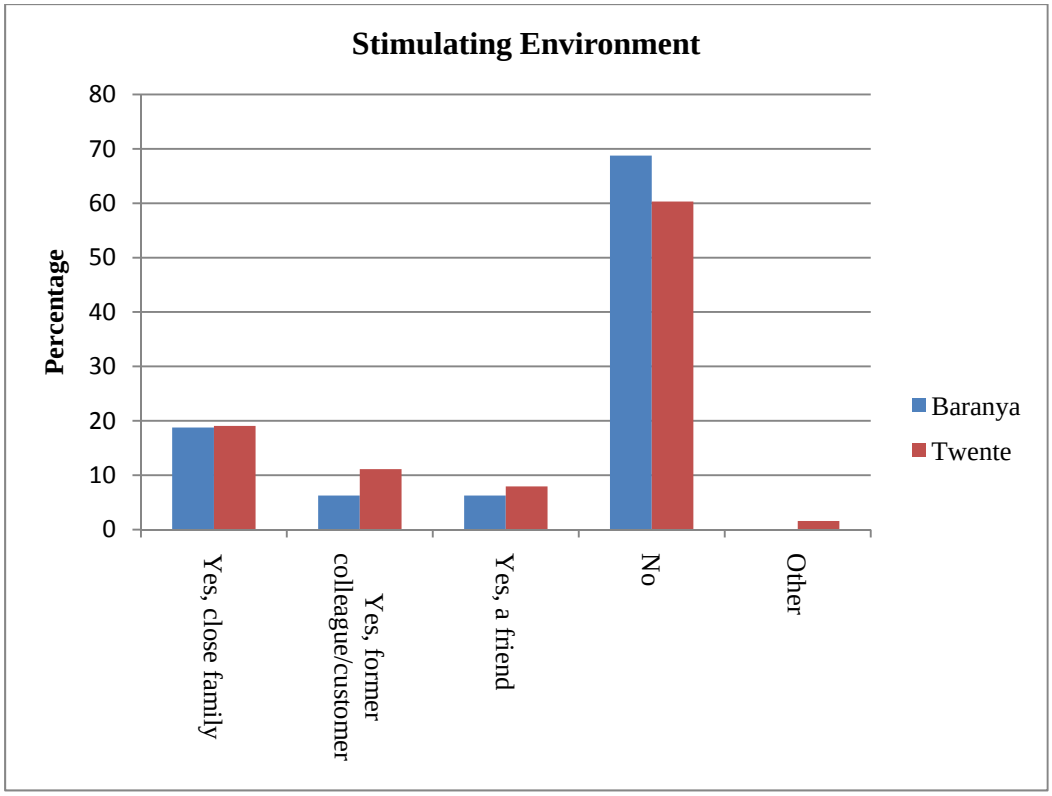
Before the actual research was done, based on the literature a couple of assumptions were made in chapter 5:

- Assumption 1: There is a general occurrence of a supportive social environment for entrepreneurship in the Twente region but not in Baranya;
- Assumption 2: There is a general occurrence of a demotivating social environment for entrepreneurship in the Baranya region but not in Twente.

Here these assumptions will first be tested whether they are in accordance with the data from the questionnaire and whether there is a true significant difference between these two environments.

To analyze the first assumptions about the supportive social environment, a descriptive graph is shown of both Twente and Baranya in figure 7.1.

Figure 7.1 Stimulating social environment within Baranya and Twente



Looking at the percentages, it does not seem as if the Twente region has a reasonable predisposition towards a stimulating social environment for entrepreneurship (though it is difficult to make absolute statements about this, since comparable data isn't available); a total of almost 40% of the respondents in Twente found their social environment to be supportive of their career. In Baranya this was over 30%. As regards to the distribution of these supportive individuals, it seems close family members are in general the most supportive in both regions. To test whether these two environments significantly differ from each other a Chi-square test is executed. The dependent variable was simplified by being either supportive or not.

Table 7.1 Difference in supportive environment in Twente and Baranya

	Twente	Baranya
% Identifying supportive environment	39,7%	30,6%
number of cases	25	15
Chi-Squared (sign.)	0,988 (P=0,320)	
Phi statistic (sign.)	-	

-Phi statistic was not significant
** P > 0,10*

The results in table 7.1 show that there is no reason to assume that there is any significant difference in the two environments as regards to being socially supportive to entrepreneurship. The first assumption is thus regarded as incorrect.

To test for the second assumption we look at a demotivating environment for entrepreneurship, shown below in figure 7.2. In both Twente and Baranya we do see some slight differences in this

regard: in Twente 82,54% did not have anyone demotivating them in ensuring their entrepreneurial endeavor while this figure is 72,92% in Baranya, a difference of almost 10%. It is striking that a few of the respondents within Baranya stated that practically everyone around them demotivated them while no such thing was found within Twente.

To test whether these two environments significantly differ from each other, a Chi-square test is executed. The dependent variable was simplified by being either impeding or not. The results are shown in table 7.2. Again no significant difference was found between the two regions, and the second assumption is alike the first one not correct. It could therefore be safely concluded that socio-cultural speaking, Baranya is not a particular unfavorable environment for entrepreneurship when compared to a region that could be considered as favorable to innovative entrepreneurship.

Figure 7.2 Impeding social environment within Baranya and Twente

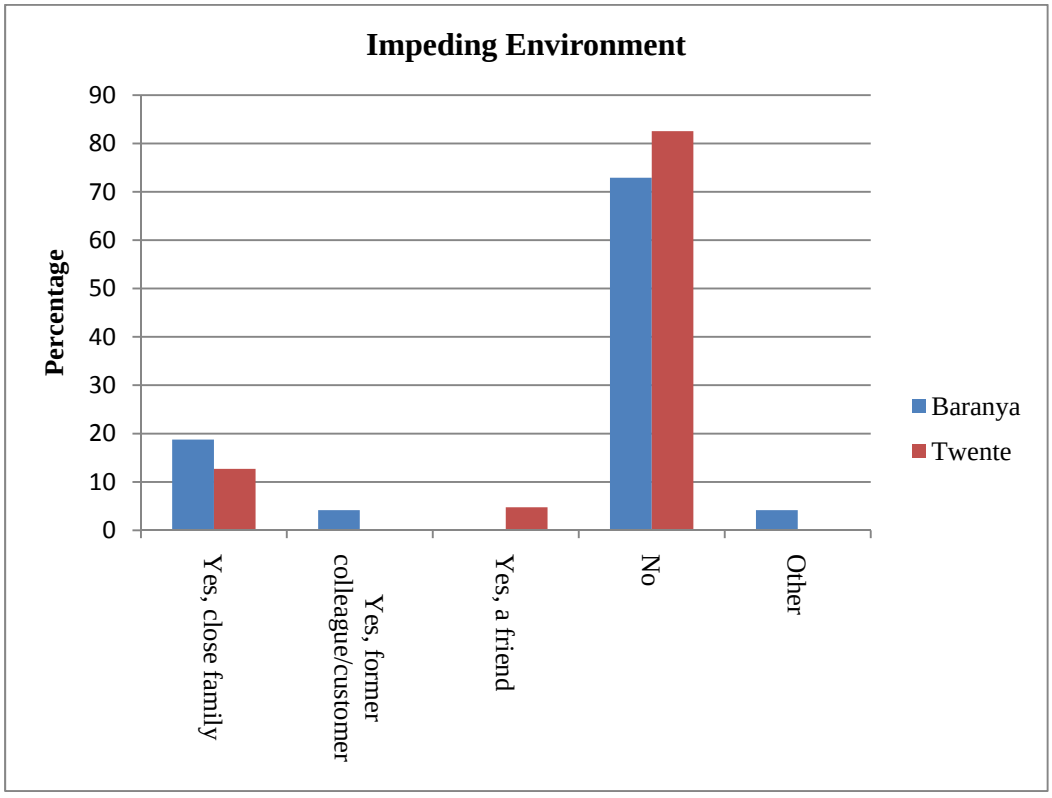


Table 7.2 Difference in impeding environment in Twente and Baranya

	Twente	Baranya
% Identifying impeding environment	17,5%	26,5%
number of cases	11	13
Chi-Squared (sign.)	1,347 (P=0,246)	
Phi statistic (sign.)	-	

-Phi statistic was not significant

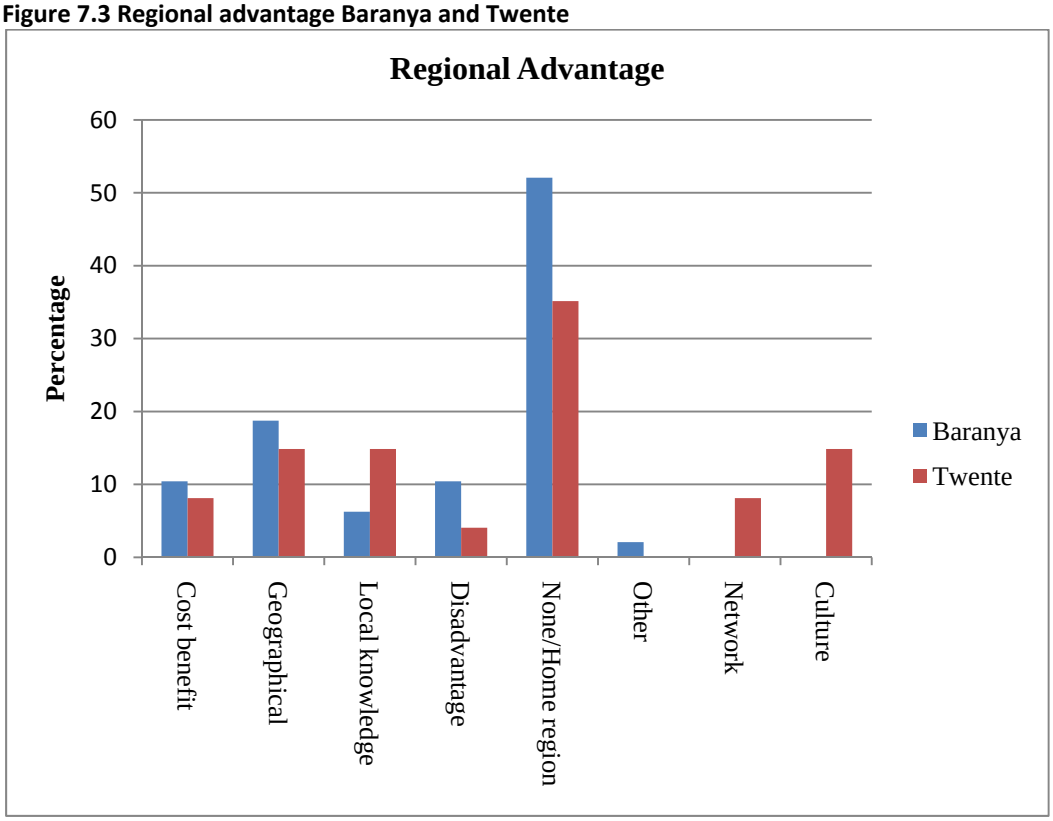
** P > 0,10*

Related to this favorable or unfavorable social environment is the general advantage of the region itself, exemplified graphically in figure 7.3. In the questionnaire it was asked whether entrepreneurs found any major advantage within their region compared to other regions within the country. Here

there are notable differences between the two regions, a majority of the respondents from Baranya share that the region holds no specific advantage and even over 10% replied it is actually a disadvantage to live in Baranya. Besides that, Twente holds a lot more advantages regarding local knowledge (which is often considered beneficial for innovative firms) and a favorable entrepreneurial culture, something which is not even mentioned within Baranya. Quite some Twente entrepreneurs referred to the region as having a favorable culture for entrepreneurship. Not only was the culture stimulating for entrepreneurship, also the way business is done differed in their opinion favorably when compared to the 'Randstad' region. '*People tend to stick to their words, and doing business is considered more honest and fair*'. '*But most of all loyalty is a big factor here: instead of looking at the cheapest price, people do business with each other because of quality but most of all because of more informal matters like loyalty or simply previous transactions*'. '*Entrepreneurs confer other entrepreneurs they know or have worked with in the past, certain deals or jobs and therefore also a certain amount of success. They do not just run off to the cheapest company, there is a sense of loyalty here which eventually works in our favor*'.

What was mentioned relatively often (but not directly deducible from the data) was the favorable presence of the University of Twente. Especially firms that were innovative had ties to the University or had the ability to make use of certain facilities at the University. Within Baranya this importance of the local knowledge cluster and the University was not found to the same extent as it was within Twente. Also a considerable amount of respondents find no particular advantage of the region (over 52%), while this same figure in Twente is much lower (over 35%). Although the figure in Baranya is slightly higher than in Twente (10% versus 4%), there is no particular disadvantage of the region. In fact quite the amount of respondents find that there is a specific geographical advantage of the region; mostly these answers relate to the relative large size of the city of Pécs and its urbanization economies (e.g. larger markets, market proximity infrastructure), but also the proximity of Croatia. This figure is in fact higher for Baranya than it is for Twente, but this does not necessarily mean anything, since Hungary has a much lower population density, worse infrastructure and fewer larger cities making the impact of urbanization economies perhaps much more profound or noticeable than it would be considered within the Netherlands.

Figure 7.3 Regional advantage Baranya and Twente



To test whether there is a significant difference between the relative advantages of the regions a Chi-square test, shown in table 7.3, was performed. Answer categories were simplified between either advantageous or not advantageous. The answers 'disadvantage' and 'none' were lumped under the new category 'not advantageous', the other answer categories were consequently lumped under 'advantageous'. From table 7.3 it appears that there is indeed a significant difference between the two regions concerning perceived regional advantages, albeit this association is not particularly strong; the Phi is 0,234. The entrepreneurs in Twente thus slightly perceive their region to have more advantages than the entrepreneurs in Baranya.

Table 7.3 Perception of the regional advantages in Twente and Baranya

	Twente	Baranya
% identifying regional advantage	60,3%	36,7%
number of cases	38	18
Chi-Squared (sign.)	6,132 (P=0,013)	
Phi statistic (sign.)	0,234 (P=0,013)	

** P < 0,05*

The above data gives an ambiguous story which makes it difficult to make a sound conclusion about. It seems that in general there is no significant difference between the supportiveness and disencouraging of both regions. However when the (perceived) general regional advantages are taken into account there does seem to be a slight but significant difference between the regions: Twente having a more favorable general environment (note however that this is relative to other regions within the country). But is it all in all safe to assume the social environment to be roughly equal in both regions based on this data? Probably not, since data from previous studies (some of

them presented in chapter four) already show a clear negative socio-cultural environment for entrepreneurship within Hungary, which negates the lack of associations found in this study. The difference was not found based on these variables, but could be found with a different questionnaire, or with slightly different variables that are less direct in measuring supportiveness or disencouragement such as asking whether the entrepreneurs relatives find an entrepreneurial career as admirable as a career as an employee?

The question is however if the above is enough to explain the poor performance of the Baranya region? Therefore the four hypotheses need to be tested.

7.1.2 The role model effect

If the existence of the role model effect can be proven, we can try to directly deduce the answers of two partial research questions earlier mentioned at the beginning of the chapter:

Q5 Why is the perception of entrepreneurial opportunities within the Baranya region so low?

Q6 How does the presence of entrepreneurial role models influence the two regions?

- Hypothesis 1: In Twente an entrepreneurial role model is stronger associated with opportunity recognition than in Baranya;
- Hypothesis 2: In Twente an entrepreneurial role model stronger is associated with ambitious entrepreneurship than in Baranya;
- Hypothesis 3: In Baranya a lack of financial capital is stronger associated with an impediment on opportunity recognition, less ambitious entrepreneurship and less innovative entrepreneurship than in Twente;
- Hypothesis 4: In Twente an entrepreneurial role model is stronger associated with innovative entrepreneurship than in Baranya.

<u>Hypothesis 1: In Twente an entrepreneurial role model is stronger associated with opportunity recognition than in Baranya;</u>

The first hypothesis suggests an association between role models and general opportunity recognition. The test is done with two definitions of role models; a narrow definition where the variable of entrepreneurial examples were directly chosen by the respondent, and a wide definition where a more entailing variable was chosen where both direct and indirect role models were present. This indirect role model was defined as an entrepreneur that helped the entrepreneur with setting up the firm, but the respondent did not explicitly mention this entrepreneur to be a role model. The latter wider definition of role models may, or may not overlap with the 'regular' social capital, but it is the author's opinion that entrepreneurial examples are perhaps not identified explicitly as such. Still this conceptualization requires some degree of conservatism in the conclusions about the effects. And the most important findings are that of the narrow defined role model effect. Accordingly the results from the test on the wider definition will be briefly mentioned but not shown explicitly.

The results of the test in both Baranya and Twente are presented below in table 7.4.

Table 7.4 Narrow definition role model & Opportunity recognition in Baranya and Twente

	Baranya		Twente	
	Opportunity	*Non-opportunity*	*Opportunity*	*Non-opportunity*
% Narrow definition role model	45,8%	20,8%	34,1%	50,0%
number of cases	11	5	14	11
Chi-Squared (sign.)	3.375 (P=0,066)		1,503 (P=0,220)	
Phi statistic (sign.)	0,265 (P=0,066)		-	

-Phi statistic found in Twente was not significant
**Baranya P < 0,10, Twente P > 0,10*

Unlike the expectancy, table 7.4 here shows that there is a significant (90% confidence interval) association between opportunity recognition and the presence of entrepreneurial role models within the Baranya region. This relationship seems to be weakly moderate according to the association measurements; the Phi coefficient (along with the Cramer's V and Contingency coefficient) is 0,265. Similarly for the wider definition of role models and the association between opportunity recognition within Baranya the effect is even more profound: the association between role models and opportunity recognition in Baranya is significantly (95% confidence interval) even stronger; 0,344. This has to be put into perspective however: the difference is caused by merely two extra role models.

Looking at the narrow role model effect on the Twente region and the opportunity recognition it shows that rather remarkably, this effect is not noticeable within the Twente region. The results indicate no significant (below the 90% confidence interval) role model effect within the Twente region. Extending this to the wide definition of role models the outcome is the same, even with the wider definition of role models no influence on opportunity recognition in the Twente region is noticeable. Although one has to be conservative when interpreting such results, especially since the effect is not particularly strong within Baranya, it may be argued that the role model effect mitigates for an otherwise unfavorable institutional environment. When the risks for entrepreneurship are thus high because of an unfavorable institutional environment for entrepreneurship, and the opportunity costs for being an entrepreneur are equally high, a role model decreases such risks and changes the perception of otherwise unfavorable opportunities.

However, when a certain threshold of proper institutional effects are there, the role model effect wanes off as visible within Twente. Alternative explanations are the possible different function of role models in more favorable societies for entrepreneurship. Rather than reducing risk perception, a role model can be more of a source of advice; 'learning by support' instead of 'learning by doing' and have a more mentoring function. This could likely not show itself directly in better opportunity perception, but rather in direct company output such as business revenue or knowledge creation. It could be argued that in an unfavorable institutional context one has more of a need for 'learning by example' resulting in a change of perception, and within favorable environments, the perception of the environment is in general already adequate, but skill becomes more of a factor. Additionally it is possible that a larger part of the respondents in Twente had previous experience in entrepreneurship (something which was not accounted for in this research), something which according to Bosma et al. (2011) translates into a lesser likelihood of having a role model. This is possible since entrepreneurial

experience creates entrepreneurial skill, as van Praag & van Ophem (2007) already argued, thereby making the necessity for an entrepreneurial role model obsolete. Even if that might be, it is not likely that it will completely explain the differences. With this data the first hypothesis can thus be rejected.

Hypothesis 2: In Twente an entrepreneurial role model stronger is associated with ambitious entrepreneurship than in Baranya;

To investigate the second hypothesis a chi-square test was performed on two variables: ambitions to grow within the next 5 years and the presence of an entrepreneurial role model. Table 7.5 compares those results of both regions.

Table 7.5 Narrow definition role model & Growth ambitions in Baranya and Twente

	Baranya		Twente	
	Ambitious	*Not ambitious*	*Ambitious*	*Not ambitious*
% Narrow definition role model	48,5%	0,00%	48,7%	25,0%
number of cases	16	0	19	6
Chi-Squared (sign.)	10,909 (P=0,001)		3,492 (P=0,062)	
Phi statistic (sign.)	0,477 (P=0,001)		0,235 (P=0,062)	

**Baranya P < 0,05, Twente P < 0,10*

Table 7.5 shows that in line with the analysis on opportunity perception, growth ambitions are interestingly enough also associated with the role model effect in the 'unfavorable' region Baranya. This effect is significant (99% confidence level) and relatively strong with a Phi of 0,477. What is especially striking about these results is the absolute lack of ambitious entrepreneurs without a role model. The application of the wider role model definition does not add much value to the previous findings and gives only a slighter stronger Phi of 0,522 with again a confidence level below 99%.

The results clearly show that in Baranya this role model effect is again stronger than in Twente. While the Twente region has a relatively weak relationship for the narrow definition of the role model; a Phi of 0,235 with a 90% confidence interval, this is much stronger within Baranya (a Phi of 0,477 with a 99% confidence interval). The application of the wider definition of the role model does not alter this association to a great deal in Twente; a Phi of 0,249 with a 95% confidence interval. With these result the second hypothesis can be rejected; although there certainly is a role model effect within Twente, there is a much stronger effect within Baranya.

Hypothesis 3: In Baranya a lack of financial capital is stronger associated with an impediment on opportunity recognition, less ambitious entrepreneurship and less innovative entrepreneurship than in Twente;

The third hypothesis was created based on the common problem of undercapitalization of Hungarian firms (Szalavetz, 2007, Szerb et al., 2007b). It is tested for Baranya whether this has a severe influence on opportunity perception, growth ambition and innovativeness.

Table 7.6 Lack of financial capital & Opportunity recognition, Growth ambition and Innovativeness in Baranya

	Opportunity	Non-opportunity	Ambitious	Not ambitious	Innovative	Not innovative
% Lack of financial capital	58,3%	75,0%	66,7%	66,7%	78,6%	61,8%
number of cases	14	18	22	10	11	21
Chi-Squared (sign.)	1,500 (P=0,221)		0,000 (P=1,000)		1,261 (P=0,262)	
Phi statistic (sign)	-		-		-	

-Phi statistic found was not significant

** Opportunity recognition P > 0,10, Growth ambition P > 0,10, Innovativeness P > 0,10*

In the case of Baranya, data from table 7.6 clearly shows that there is no significant association between capital and growth ambitions, nor innovativeness of the firms, nór opportunity recognition. In spite of previous research by for instance Szerb et al. (2007b) and Szalavetz (2007) undercapitalization may form a problem within Hungary but it does not affect growth ambitions, innovativeness or the perception of opportunities in this data-set. This is rather strange, since capital is often necessary to find a good opportunity. It could be however that since there is a role model effect within Baranya, that this role model effect increases entrepreneurial skills and therefore decreases capital requirements as van Praag & van Ophem already argued. The role model effect obsoletes the association between the lack of financial capital and firm determinants. Similarly the same associations were tested the Twente region.

Table 7.7 Lack of financial capital & Opportunity recognition, Growth ambition and Innovativeness in Twente

	Opportunity	Non-opportunity	Ambitious	Not ambitious	Innovative	Not innovative
% Lack of financial capital	22,0%	18,2 %	23,1%	16,7%	26,7%	15,2%
number of cases	9	4	9	4	8	5
Chi-Squared (sign.)	0,124 (P=0,725)		0,373 (P=0,541)		1,272 (P=0,259)	
Phi statistic (sign)	-		-		-	

-Phi statistic found was not significant

** Opportunity recognition P > 0,10, Growth ambition P > 0,10, Innovativeness P > 0,10*

Since capital was expected to be less of a problem within Twente than in Baranya, the results from table 7.7 accordingly show no association between capital and opportunity recognition, innovativeness and growth ambitions. Although in line with the hypothesis, the hypothesis can still be rejected since capital does not have a direct influence on entrepreneurship within the Baranya region.

Hypothesis 4: <u>In Twente an entrepreneurial role model is stronger associated with innovative entrepreneurship than in Baranya;</u>

The fourth hypothesis tries to find an explanation for the relatively large occurrence of innovative entrepreneurship within Twente. It is hypothesized thus that the role model effect is (partly) a cause for this. The table below shows the effect of the role model on the innovativeness of the firm in Baranya.

Table 7.8 Narrow definition role model & Innovativeness in Baranya and Twente

	Baranya		Twente	
	Innovative	*Not innovative*	*Innovative*	*Not innovative*
% Narrow definition role model	57,1%	23,5%	46,7%	33,3%
number of cases	8	8	14	11
Chi-Squared (sign.)	5.042 (P=0,025)		1,167 (P=0,280)	
Phi statistic (sign.)	0,324 (P=0,025)		-	

-Phi statistic found was not significant

**Baranya P < 0,05, Twente P > 0,10*

Once again, the table 7.8 shows that there is a significant role model effect on the unfavorable region for entrepreneurship; Baranya. In this case however, the narrow definition shows with a higher confidence interval (95%) a stronger association (Phi is 0,324) than when the wide definition is applied (with a confidence interval of 90% the Phi is 0,260). This is caused by a slight increase in the amount of respondents without an innovation but with a role model.

While it was hypothesized that this effect is more noticeable among entrepreneurs from Twente, alike the previous tests on the role model effect, table 7.8 shows that within Twente there is no significant association found between the role models and firm innovativeness. Even when the wider definition of the role model is take into account (P=0,102) no significant association follows.

Finally, since socio-cultural factors are often closely related, it is important to investigate whether it is not merely the regular social environment, or better put, the social capital that is the most important factor for a region in terms of entrepreneurial start-ups. Therefore in the below tables it is shown whether there is a significant association between social capital and opportunity recognition, ambitiousness and innovativeness. This is first tested within Baranya. Since the role model effect is already profound within the region, it is expected that social capital has practically no influence.

Table 7.9 Social capital & Opportunity recognition, Growth ambition and Innovativeness in Baranya

	Opportunity	Non-opportunity	Ambitious	Not ambitious	Innovative	Not innovative
% Social capital	41,7%	54,2%	54,5%	33,3%	50,0%	47,1%
number of cases	10	13	18	5	7	16
Chi-Squared (sign.)	0,034 (P=0,386)		1,859 (P=0,173)		0,034 (P=0,853)	
Phi statistic (sign)	-		-		-	

-Phi statistic found was not significant

** Opportunity recognition P > 0,10, Growth ambition P > 0,10, Innovativeness P > 0,10*

Table 7.9 clearly shows that there indeed is no association between social capital and the three most important firm determinants in this thesis. All chi-square outcomes are not significant. We can therefore conclude that the role model effect indeed measures something different that the social capital theory and that in the case of Baranya the role model effect is of importance while social capital is not. The same test was done on the data of Twente, results shown in table 7.10.

Table 7.10 Social capital & Opportunity recognition, Growth ambition and Innovativeness in Twente

	Opportunity	Non-opportunity	Ambitious	Not ambitious	Innovative	Not innovative
% Social capital	31,7%	31,8%	38,5%	20,8%	50,0%	47,1%
number of cases	13	7			14	6
Chi-Squared (sign.)	0,000 (P=0,993)		2,131 (P=0,144)		5,884 (P=0,015)	
Phi statistic (sign)	-		-		0,306 (P=0,015)	

-Phi statistic found was not significant

** Opportunity recognition P > 0,10, Growth ambition P > 0,10, Innovativeness P < 0,05*

When viewing the results from Twente in table 7.10 we can see quite a strong association between the social capital and firm innovativeness, with a Phi of 0,306. It thus seems that there is an association in Twente between the social capital and firm innovativeness. This is rather remarkable since so far there has no association been found for two of the role model tests within Twente, and the association found between role models and ambitiousness was rather weak. Given the fact that Twente harbors quite some innovative firms this supportive social capital can perhaps for a small part explain this. Looking at the test results on social capital and firm innovativeness, it seems that social capital is important in Twente, but in Baranya the role model effect is more important. This could be caused by the fact that a role model is perhaps sought after to function as a replacement for a lack of social capital within Baranya, something which is already present in Twente and thus there is no need for a role model. Still this result creates more questions than that it answers them.

It is rather difficult to give an explanation for the fact that these role model effects are stronger within the more unfavorable region. This could perhaps be attributed to the fact that within Baranya and consequently Hungary there are so many detrimental institutions that there is much more room left for improvement, so that after a certain 'threshold' of a proper institutional settings the role model effect does not contribute very much since perhaps role models are less needed to overcome the initial perception of risk. Nevertheless this effect in transition countries could still prove to be ever so interesting and valuable.

An important question is why and how the role model effect works. Within the questionnaire it was asked if the role model provided some specific help (both the narrow as the wide definition). Below tables 7.11 and 7.12 show these results; although due to the very small data size explanations should not way be generalized to the overall entrepreneurial population within both regions. Moreover, respondents could choose multiple answers, something which should be taken into account. From the results it is interesting to note that the help of role models is notably larger within the financial sphere in Baranya than it is within Twente while at the same time role models within Twente tend to be more helpful with overcoming formalities. The most important help that is given to entrepreneurs within Baranya is help regarding the managerial qualities and running a business in itself; business model and strategies. It is possible that this indirectly helps overcome problems regarding starting capital (the financial help is of course a direct effect), which is conform findings of van Praag & van Ophem (1995), who conclude that skilled entrepreneurs need less capital, i.e. role model provide the necessary skills needed to deal with undercapitalization.

Another striking difference, especially when the narrow definition is applied, is that a large part of the respondents in Twente did not receive any tangible direct support (36%) while this figure is much

lower in Baranya (11%). Furthermore, a large part of the entrepreneurial role models in Twente provide help to overcome formalities (25% with the narrow definition) while this is 5% and thus much lower in Baranya (again keep in mind that multiple answers were possible so the results do not reflect the absolute amount of role models). It seems thus that the qualitative nature or the function of the role model is different in both regions. Earlier in the paragraph it was suggested that in Baranya the function of role models gravitate more to 'learning by example' and thereby altering perceptions, while it was suggested that within favorable regions for entrepreneurship entrepreneurial skills are more important and the role model effect is described as 'learning by doing'. The below tables show that this is rather the other way around: entrepreneurs in unfavorable regions are more in need of direct support, and less so in the form of formalities and more in the form of help which is relevant for the way in which they do business.

This remarkable characteristic of the role model effect will be further elaborated upon in combination with other contextual information in the next paragraph.

Table 7.11 Narrow definition role model + help Twente and Baranya

Help and knowledge	Twente		Baranya	
	Count	%	Count	%
Financial help	1	3,57	3	15,79
Formalities	7	25,00	1	5,26
Managerial knowledge	2	7,14	6	31,58
Product knowledge	3	10,71	5	26,32
Marketing	4	14,29	1	5,26
None	10	35,71	2	10,53
All the above	1	3,57	1	5,26

Table 7.12 Wide definition role model + help Twente and Baranya

Help and knowledge	Twente		Baranya	
	Count	%	Count	%
Financial help	3	6,66	6	24,00
Formalities	13	28,89	2	8,00
Managerial knowledge	6	13,33	8	32,00
Product knowledge	4	8,89	5	20,00
Marketing	6	13,33	1	4,00
None	10	22,22	2	8,00
All the above	3	6,66	1	4,00

7.2 Qualitative research and contextual approach

In this paragraph the qualitative data will be discussed. First the interviews with the high impact entrepreneurs will be analyzed and an additional hypothesis will be answered. Second, there will be given a more contextual descriptive approach of the quantitative data which is combined with findings from the qualitative interviews.

7.2.1 Semi-structured interviews with high impact entrepreneurs

Interviews with high impact entrepreneurs are structured around a couple of main themes:

- The founding principles of the firm: innovation, role models,
- The relationship with the environment/region;
- The success of the firm.

Qualitative research is difficult to analyze in such a way that it is constructive and to the point since it produces a wide array and rich variety of data. Therefore the research method of analytical induction is being used here: the preliminary theoretical framework on high impact entrepreneurs will be tested in a more general unspecified way. Results in the interviews will be tested if they are accordingly with the premade assumption. If not the assumption should be changed. Due to the small sample size and the nature of analytical induction it is not possible to make hard theory, rather, theoretical concepts are being induced that may indicate certain trends that serve possible future research.

Although there is limited qualitative knowledge on high impact entrepreneurship, a fifth hypothesis is formulated at forehand. The main hypothesis tested here is that:

Hypothesis 5: High impact firms serve as a rule as role models for starting enterprises and they stimulate knowledge in other new firms by spread-effects.

With the information gathered from the data it will be evaluated whether this hypothesis is relevant or not.

7.2.2 Interviews with Dutch high impact entrepreneurs in Twente

The first interview was with the founder of a large software company that works within the internet economy. The company started when the founder as a freelance employee came across an innovation while working at a larger multinational company within the Netherlands. There he found an innovation and opportunity and he came up with the idea to further elaborate on that innovation and exploit the opportunity. He explains: *'The innovation came into being by closely listening to customer wishes and developing a product upon these wishes. I basically used my experience and grabbed my chances'*. With the support of that company and another company where he also worked as a freelancer he was able to set up a new company of his own. '*I still have close relations with these companies and they let me use some of their facilities*'. He attests the growth and success of the company as caused by lifting on the internet and software hype, accurate and proper marketing and a good long term planning and strategy. This strategy and planning constituted of quickly reacting to market desires and direct customer feedback. The company also keeps on innovating by exchanging knowledge within its business network which also explains its success. A notable remark was his mentioning of the importance of the University of Twente in his success. Because of his connection with the University he was able to receive a adequate starting capital, location for his company and good network meetings to meet customers and other affiliated companies. However the Twente region itself was not of any influence in his success although it is apparently easier to start a company there, however the more he grew, the more he realized that there aren't too many customers for his product in the region. Before starting the company the founder doubted where to start his company but he specifically chose Twente because of the

University and the benefits its vicinity offered (mostly the financial benefits of the easy starting capital). '*It is easy to find good employees since the overall workforce here is well educated*'.

The entrepreneur always had a drive of starting something of his own, but for a long while he worked as a manager in a big multinational company. He found out however that this was not in his own best interest and became a freelancer. In his family there were a lot of entrepreneurs and he acknowledges the fact that they have been some sort of example to him. Apart from that he didn't have one specific role model. As stated previously he was stimulated to exploit his innovation by two companies he worked for, plus some family members helped him with the formalities of the company.

As stated before the influence of the University of Twente on his company is quite extensive, and so is the relation between the two parties. He is also a member of the TOPPER organization (see the footnote on page 111): an organization which grants funds to new starting promising entrepreneurs. Through the University he also directly helps other entrepreneurs (he also states that he is in contact with other small businesses not necessarily affiliated with the University). He considers himself thus a role model for other companies. Apart from the close ties with the University the company has ties with the ICT office and regional investment companies.

Lastly the risks of becoming an entrepreneur were being discussed, especially regarding the development of the software-innovation and the implementation into a business strategy, to which the entrepreneur stated: '*Most certainly without the help of my former employers and the University of Twente I am quite certain that the risks were too great to start the company. Now the risks are still great but I have less of a sense of being alone in this*'.

Here we see a good example of the risks of entrepreneurship (or rather the perception of risk) being initially too high for the entrepreneur to be. This risk perception was however decreased by other helping parties. In this case a conducive business environment that stimulates spin-offs, and a University that directly stimulates knowledge based firms. A parallel can be drawn to the use of a role model here; a role model providing the initial idea, or support that decreases risk perception.

The second interview was with a high growth company in the software sector in Twente. The interview was with one of the two original founders. While he was a student at the University he and the other founder decided to set up a small company to get some extra cash and real life work experience, but at that point it was more something of a hobby. '*The reality and practice of setting up a company turned out to be fun, so from there on everything grew naturally and organically*'. The location was in this case not a point of issue: they simply started the company where they lived and where they studied. The founder was stimulated by the other founder in starting a company. But aside from him he was not actively helped or motivated by somebody else. However when the company existed a couple of years the founders met 2 other entrepreneurs who stimulated them, and eventually they decided to join forces. Initially the company was not based around an innovation, rather it provided at first standard software services. Later internally (and sometimes with the help of external sources) some software solutions that were provided were innovative. The founder however stressed: '*everything happened in a natural way, we were not actively pursuing to be as innovative as possible or to develop a market changing product*'. They were however ambitious, especially since they came right out of University and they were not really realistic. Though,

everything grew organically, and they never thought in terms of a final goal or a place they needed to be with their company after ten years.

As an explanation to the company's success the founder gives a rather remarkable answer, according to him: '*The company's success was caused by random occurrence, mostly luck that made the company into what it is today*'. They didn't make any large investments so there was not any real risk for becoming an entrepreneur. The only advantage they had as a company was their size: they stayed small which gave a cost advantage and made them extra flexible. In their success the location was not of any importance, their customers are outside of the Twente region. However it is not in their best interest to move elsewhere since the investments are too big, they have good personnel and their technical development centre is here. Still there is no specific bond with the location, and the recruitment from the University is negligible although there is some contact with the University. But they did specifically chose not to be part of the TOP-arrangement[1] in order to avoid that the company got too much of a 'student' reputation. Apart from the University there is some sporadic cooperation with local companies but nothing long term.

Lastly it was asked whether the entrepreneur considered himself as a role model for other starting entrepreneurs, to which he responded positively. He gives students and student entrepreneur sometimes advice and stimulates them in the form of little work related tasks, internships. However he does not have a specific mentor-role for a set number of companies, but he does come into contact with these people through the University. He describes this contact as more informal than formal.

The third Dutch interview was a serial-entrepreneur: an entrepreneur who had had multiple businesses before he started his high growth enterprise. At the time of the interview, he already sold the business and started a new innovative concept, but he was the original founder of the firm and made it grow into what it is today. The start of his company was a long process and it grew naturally instead of a clear cut concept of a specific business. At first the entrepreneur started with a relatively simple investment: '*I simply bought an internet domain name and a digital printing press*'. This digital printing press was at the time a relative new concept and these initial investments gave him access to the internet and therefore various business options. At first he focused on printing educational material, but later he set the company up differently and based it on photo graphics. 'I *foresaw that the contemporary analogue photo market was about to crash so I tried to renew the original service*'. His first plan was to provide one service and then organically let the company grow and provide more services. He based the company on the concept of a small profit margin and an innovative way of doing business. His strength lied in making a reasonable profit with a very low price. He did this through minimizing production costs and overhead costs along with trying to do as much as possible within his own company; in short, he tried to avoid outsourcing parts of the production process to other companies. '*My philosophy is that you have to keep up a high production volume and keep on producing along with keeping the price as low as possible*'. So the innovation in the beginning was

[1] The TOP-arrangement is a program set up under supervision of the University of Twente, Saxion Colleges and Science park Twente. It was set up to stimulate innovative knowledge based entrepreneurship in the region of Eastern Netherland. To achieve this several supporting services are included in the TOP-arrangement such as financial support and guidance without interest, legal guidance, office space, knowledge guidance and free use of equipment, access to business networks, a communication coach, access to additional financial networks, a free business scan that makes a SWOT analyses of the business, a 'sparringpartner' and a study coach that helps the entrepreneur with achieving a possible educational diploma.

more or less the business model of doing business over the internet in a sector was that was not common at all. Later on, the entrepreneur hired many computer software experts, and the innovations were done in the software creation for the company.

The philosophy of this ambitious man is very 'typical' for the high growth entrepreneur in the sense that: '*To be successful you want to be a market leader and not a market follower*'. It is of a prime importance to him that he goes along with new methods and technologies and does not try to resist them. '*When people tell you not to exploit an idea, that is the reason and the time to do it'. 'You should think ahead: where do I want to go in 3 years?*' And this illustrates according to him also the difference between him and his company and other 'regular' less successful companies: not wanting to innovate or exploit new and risk full opportunities along with a lack of vision. An entrepreneur has to plan ahead and think ahead instead of following others. Relating this to his own company he states that: *'I always had a certain ambition, a drive, a vision which I connected to strategy and action and I've never parted from that'*. He did however let everything grow organically: it is impossible to start with nothing and suddenly expect to become a market leader. Rather one should envision the company's future on the shorter term and with a good strategy and from there decide and look further for other (growth) possibilities.

In starting his company he was stimulated by somebody else but not in the traditional sense, rather he speaks of a negative role model. His father had a small shop when he grew up, and this was for him the perfect example how not to run a company. He learned from it that you have to think ahead and plan. In the light of the empirical research on parental role models (see for example Chlosta et al., 2010; Fairlie & Robb, 2007) this result provides an interesting discernment. Apparently parental role models can be negative too. Apart from that he was not explicitly stimulated by another person to pursue entrepreneurial opportunities, it was his intrinsic motivation. However there were more entrepreneurs in his direct family besides his father, so probably without knowing it he did receive some valuable lessons in his upbringing.

For his location he was relatively footloose: internet companies are known for their low commitment and attachment to their environment. However he did look for good employment markets, good infrastructure and a nice and quiet environment. Therefore the Twente region was sufficient for him because it was the region he grew up in. Even though he had a couple of demands for the region he started his company in, he does not believe Twente has affected the company its success in a positive nor a negative way. Since it is an internet company that is relatively footloose, he didn't have any specific ties with local institutions or other companies, '*I always wanted to be as independent as possible'.*

Despite the fact that he is well known in the region and despite his great success he does not notice that he serves as a role model for other entrepreneurs. He especially noticed people wanting to lift of his success rather than starting entrepreneurs coming to him for advice or help. He feels starting entrepreneurs are too self-centered and too hard-headed. He often meets these people and tells them to contact him because he has the experience and the knowledge, but rarely do they also call or make an appointment with him, although it does happen.

General considerations Twente high impact entrepreneurs

The three interviewed entrepreneurs were all interesting cases since they all differed from each other in multiple ways. First of all, they differed in the way how they came to be an entrepreneur with such a high profile high growing business. One entrepreneur had multiple businesses before his high growth business and eventually sold this business to start another (successful) one. One entrepreneur started his business straight out of school without any prior work experience nor experience with starting a company. And the other entrepreneur had a high profile job but switched it eventually to work for his own and exploit his talents more freely. Unlike what the literature says about high impact businesses not all companies thrived on an initial groundbreaking starting innovation (although after a while they all had innovative parts within them). The company of the third entrepreneur was not based on a specific radical innovation; rather the innovation was the premature use of internet in a time where this was not common, small software adoptions, and little innovations in the production process, but most of all innovation that lead to large cost reductions.

The success of the companies was difficult to pinpoint for all. The answers varied from luck to reacting accordingly and inventive, to a good profit margin at a minimal cost while the first entrepreneur defined his success-story as the natural outcome of properly reacting to customer wishes and market knowledge.

The environment was of a variable influence. For two entrepreneurs their choice of location was their home region and mostly socially inspired and out of convenience rather than pure professionally. The other entrepreneur consciously and specifically chose Twente as his region because of favorable start-up conditions for highly innovative companies.

Lastly it is safe to say that all entrepreneurs already had a strong intrinsic motivation to become an entrepreneur which was either regardless of the regional environment nor the social environment. In one case the regional environment (University Twente) was certainly favorable for the start-up phase of the company, but it did not have any specific noticeable effect on the further company success. However whether they would have been able to develop their company so profoundly had the environment be less conducive for entrepreneurship is a point of discussion. Our previous empirical results show that Baranya has slightly less advantages than Twente has to offer when 'regular' entrepreneurship is involved. For this kind of entrepreneurship Baranya is perhaps much more detrimental and prove a serious impediment on company growth for these high impact entrepreneurs. Finally another point of interest is the effect of two of those companies on the region itself: through cooperation, innovation and guidance this effect is certainly profound.

7.2.3 Interviews with Hungarian high impact entrepreneurs

The only interview with a high impact entrepreneur within Baranya was with an entrepreneur who had founded his company within the biotechnical industry. He originally came up with the idea for his company while residing in America. There he met a professor with whom he set up a company. '*This professor I met in the US can be regarded as major influence and role model*'. After coming back to Hungary he had a friend with a company of his own so he started up a project within that company in the East of Hungary. However he got offered a function at the University of Pécs and therefore decided to split his company of from the company of his friend and move his business to Pécs as well. This friend certainly was a role model for him.

'*The company was based upon an innovation within the bioscience field*'. Further innovations are founded within the company, but there is a lot of valuable input from contacts with University groups and other institutions. While running his company he speaks of several role models; he admires the business models and the way of doing business of several companies, but not so much the person and founder behind those companies. He has contact with several of those businesses and their founders.

The success of the company can be explained by several factors. First of all they are a small company serving a niche market. Therefore they have no problems with demand. '*Secondly our business model is quite excellent and well thought out and our strong point is the general management led by my brother*'. '*Because of our size we are simply too small for worldwide marketing, and therefore we sell and market our product through larger multinational organizations to reach and serve the global market'*. The company also has a good network with a good flow of valuable up-to-date sector specific information that would otherwise be hard to get. What sets his company apart from the majority of other Hungarian companies is the fact that they plan their activities much better by knowing the market they serve properly and plan their actions and growth strategy accordingly. Aside from that their organizational structure is well thought out and effective and their international network relations are extensive and essential to have. '*The environment certainly had a notable impact on the success of the firm, especially the University has been important for the innovations done within the company* (because of his function within the University the ties are close with this institution) *along with participating with innovation processes with several companies in the innovation cluster within the region*'.

The interesting part about this entrepreneur and his venture is that he never thought about having his own company, in fact he didn't even want a company in the first place. He was mostly motivated by his friend and previous business partner to start a company. He would do the scientific and research part of the company while his partner would be concerned with management, marketing and the running of the business itself. Circumstances however caused him to take up the running of the business on his own. So rather than an intrinsic entrepreneurial spirit, he has become an entrepreneur by accident and he leads his company more as a professional than as a businessman: his primary focus is the innovation, the new scientific knowledge, publications and not the market share nor the amount of money the company earns.

Apart from the employment effects high impact firms can have, other possible effects are present too. In this case the entrepreneur noted that his business model has been copied by other starting firms and he has some role-model effect within the region: he gets invited to speak at regional conferences, events and meetings many times, and quite some young starting entrepreneurs come to him for information on their business. While doing his business he certainly found some negative aspects about Hungary and the Baranya region. '*The economic regulations change all the time and the banking sector is too expensive'* (loans are too costly). Moreover the grant-system is overcomplicated and the country suffers from the negative collective psyche from its communist past. According to him: '*It is thought that only the elite, the bourgeois and the rich can be entrepreneurs, because in communism only the elite had wealth and own corporations. Therefore stemming from communist culture it is thought that successful entrepreneurship and wealth is linked with the illegal sector. Being successful has a negative connotation and this could be a explaining factor about why there is a general low ambition level among Hungarian entrepreneurs'*.

Lastly the risks of being an entrepreneur were being discussed. Especially with high impact entrepreneurship there is a high risk for the entrepreneur often because of the high investment costs but also other factors. The interviewed entrepreneur admitted that without his friend and former business partner who stimulated him and ran the business while he focused on the innovations and research, but most of all his scientific grant he would not have started a company of his own because of those risks. He had a high need of a large amount of capital, and with a 'simple' state loan on good conditions and his scientific grant he had won earlier; he could start his business with a relatively low risk.

The second interview was with one of the founders and owners of a relatively young company (1,5 years old). The company was set up to serve as an intermediate and distributor between knowledge creation by companies or individuals and the market. They also search for possible partners for the creation of these new technologies. This service is within the Baranya region and throughout Hungary relatively new; few competitors provide the same service. The company was set-up by four persons, 1 whom already owned a business and 2 who were University of Pécs affiliates.

This person chose to be an entrepreneur because he thought he possessed certain skills and could therefore exploit an opportunity which was needed in the economy of the region and Hungary in general to benefit other firms but also the people in general. '*I was in fact stimulated by one of the founders to start a company'*.

The company sells their service throughout the whole of Hungary but also occasionally throughout the world. However to spread knowledge and extend connections throughout Hungary is apparently not easy. The bureaucratic laws are very unfavorable for that since each region and each municipality has its own rules and regulations, and the company has to deal with and therefore constantly make agreements with national, regional and local government institutions which is a draining process. The company wants to expand big within a couple of years certainly in terms of revenue (certainly more than a doubling), however employment will stick somewhat behind that since the service is not very labor intensive. However there are some problems regarding growth: '*the changing of economic policy and tax laws makes it very difficult to make short and long term plans and assess risks, which may prove a problem for expanding in the future'*.

With the start of their company the only problem: '*it is certainly hard to find venture capital, which may certainly influence the rate of which new technologies can be developed and exploited in a negative sense'.*

Local government institutions are helpful to them and they have some contacts there along with helpful national institutions, namely the ITD (Hungarian investment agency). They used to cooperate also with the University of Pécs and in the future further cooperation will be likely.

He is not located in Budapest because of certain factors:

- *'My connections are very important to me, and physical proximity is necessarily to maintain a good relationship with these connections and relations';*
- *'I was born here and my family and friends all live here'.*

Nevertheless Budapest has according to him multiple advantages over other regions within Hungary. He calls Budapest '*a country within a country*' to underline the difference between this region and the rest of the country. This comparative advantage is multitude:

- there is an abundance of money capital which is very useful for starting companies;
- The most important factor however is the fact that national decisive policy makers and institutions are located within Budapest. According to him important information is not evenly spread around the country. Geographical proximity to this information source is paramount to anticipate on and thus very helpful for managing your business;
- There is a regional cultural natural inclination to business competitiveness among managers, employees and even customers. The way of doing business and working in general is just better;
- It is easier in Budapest to get a network of people and businesses.

Hungary as a country has several problems regarding doing business. First of all in his opinion '*the country's economy is small and relatively vulnerable, but most of all highly susceptive by the influence of other countries and big (multinational) companies. Furthermore it is very difficult to find capital in Hungary as a new company, especially venture capital*'.

Lastly, this holds for Baranya, there is a lack of highly educated people. This could certainly pose problems for high innovative high technology firms wanting to expand. Nevertheless there are certain factors in Baranya that are noteworthy all however revolving around Pécs the local hub in the region. He names the University as of prime importance, the local open mindedness and the abundance of local knowledge. There is however one major obstacle to all of this, which is also his biggest concern and that, is the brain-drain away from Baranya towards Budapest.

<u>General considerations Hungarian innovative entrepreneurs</u>

There were two entrepreneurs interviewed: one high impact entrepreneur, and one starting innovative entrepreneur. The high impact entrepreneur clearly was majorly influenced by multiple role models while the other entrepreneur interestingly enough was influenced by his business companion. What is striking about both entrepreneurs is that they both had similar limitations confronted to them that were typical of Hungary: difficulty receiving capital, changing economic rules and regulation affecting growth and a general unfavorable culture regarding entrepreneurship (although not in Budapest). Nevertheless both were stimulated by other entrepreneurs again showing that an environment with a low entrepreneurial climate certainly uses the mechanism of entrepreneurial role models.

7.2.4 The value of high impact entrepreneurs

There were several companies interviewed in both Hungary as in the Netherlands. There were no real notable differences between these entrepreneurs (which is also quite impossible) except for the fact that there are no real negative institutional forces at play within the Netherlands while they most certainly are within Hungary. Especially capital related problems and changing rules and regulations may affect firm strategy and growth prospects. Also almost all firms had some sort of ties with the Universities, hinting towards the possible beneficial effect the presence of a University has on innovative entrepreneurship.

Additionally the initial hypothesis can be backed up by the statements given:

Hypothesis 5: High Impact Firms serve as a rule as role models for starting enterprises and they stimulate knowledge in other new firms by spread-effects.

For some entrepreneurs this effect was more profound than in others, but they most definitely influence other entrepreneurs and sometimes even have rather close ties with them. In general however the region does not really seem to influence the entrepreneurs themselves, or the company's success. Consciously their success is mostly based upon their growth strategy, professionalism and planning. Unconsciously, something which the entrepreneur is not aware off, are effects such as education that can benefit the entrepreneur. Large scale empirical research can make sound conclusions about this, for now let us elaborates on the former explanatory factors.

The most interesting part of the high impact entrepreneur lies in two things: it might be hinted that the malleable part with these sorts of enterprises lies not so much in the creation of them (rather they are most likely to be created by chance) but rather eliminating possible limiting factors that could limit ANY kind of entrepreneurship. The second part of this is the full realization of the potential benefits the high impact entrepreneur has to offer. If success can be explained by a successful business model this model can easily be copied if the entrepreneur is regarded as a role model. This could certainly be accomplished by linking or creating stronger ties between for instance University institutions and these high impact enterprises in the form of students receiving internships at these companies, giving active counseling for University related starting companies, or in general exploiting strong potential role model effects of these entrepreneurs and their companies. Aside from that, intensifying the bond these companies have with the region seems a valuable decision since the high impact entrepreneur is not too confined to its home region.

7.2.5 Contextual information of the questionnaires

From an interview with Mr. Károly Oszvald from the Pécs chamber of commerce a couple of specific facts can be learned about Baranya. He stated that Baranya is a mediocre to bad region regarding established business ownership with currently 26000 firms within the whole region and the majority of those firms are necessity based. However the overall number of firms is decreasing along with the amount of necessity based entrepreneurs and this is mainly caused by the economic recession the world was in. Many necessities, low ambitious and low innovative firms have been filtered out by this. '*As a cause of that, the traditional 'Hungarian' entrepreneur of low growth orientation and innovativeness are becoming more and more a minority and the firms that do stay keep on becoming more professional. In terms of growth ambition and opportunity based entrepreneurship Baranya is considered mid-range average within the national level.* The majority of the firms still are orientated towards the regional level or the southern parts of Hungary. However the ones with innovative products are becoming more and more internationally orientated, specifically towards neighboring countries like Croatia.

Hungary and consequently Baranya has no specific culture that is inclined towards entrepreneurship nor is the population specifically ambitious. He finds nothing specific within Baranya that could lead to hindering business start-ups and thus the fact that the region is performing so poorly. *'Good economic opportunities are certainly present within the region but very few people dare to take those opportunities. And if they do take those opportunities they exploit them improperly'.*

The chamber of commerce within Baranya provides many opportunities for entrepreneurs*. 'However very few entrepreneurs take those opportunities since membership is not mandatory. The chamber of commerce has only 1700 members. Still it provides many opportunities for (young) entrepreneurs with different symposia and trainings where entrepreneurs can communicate with their more successful entrepreneurial counterparts. These meetings are mostly free and everyone can join: however very few entrepreneurs take those opportunities even though these evenings are considered very useful and rewarding'.*

Quite possibly this interview hints towards certain 'sore spots'; it is that there are perhaps indeed enough opportunities to grasp but not anyone can properly do so because of individual perceptions that may or may not have been influenced by the social environment. Moreover it shows that entrepreneurs within Baranya lack maybe a certain sense of professionalism (although these statements are very risky off course). The question in the previous paragraph could be answered by this: it is possible that the role model effect works not because of specific help but rather an (unconscious) improvement in professionalism and the adaption of a working business model instead of specific guided help? This is congruent with earlier interviews with high impact entrepreneurs stating that they succeed because of their business model, attitudes and professionalism and they value these same aspects within their own role models, and with the data from the questionnaire where entrepreneurial role model from Baranya were more likely to provide help with specifically running a business. The problematic part about this is that within Baranya the opportunities that are given to meet successful entrepreneurs are only taken by very few thus limiting a possible carryover.

One particular problem within Hungary and consequently Baranya which was also addressed in a questionnaire from the Hungarian state of Small and Medium Sized Business (2008) was the constant change in economic rules and regulations. One entrepreneur addresses it as the 'political game'. '*As an entrepreneur within Hungary you are constantly challenged by these abrupt changes on which you have to adapt to'*. For larger firms with a lot of capital this is not a real challenge, however smaller firms are weeded out this way something that hurts competition of firm diversity. If we look at the results from the questionnaire in tables 7.4 and 7.5 we see the same problem a large majority of the entrepreneurs in Baranya have problems with national economical and fiscal policies along with undercapitalization. Lack of start-up knowledge (here we see a possible function for the role model based on previous results here) and unfair competition are major problems too. When looking at Twente the problems are of a more 'developed' nature: how to expand and maintain a business network, and how does one attract good and qualified personnel? Also it seems that Twente has considerably less start-up barriers with almost half of the respondents (46%) commenting on the lack of any problems with starting their venture, while at the same time none of the entrepreneurs within Baranya state similar.

Figure 7.4 Problems while starting company in Twente and Baranya

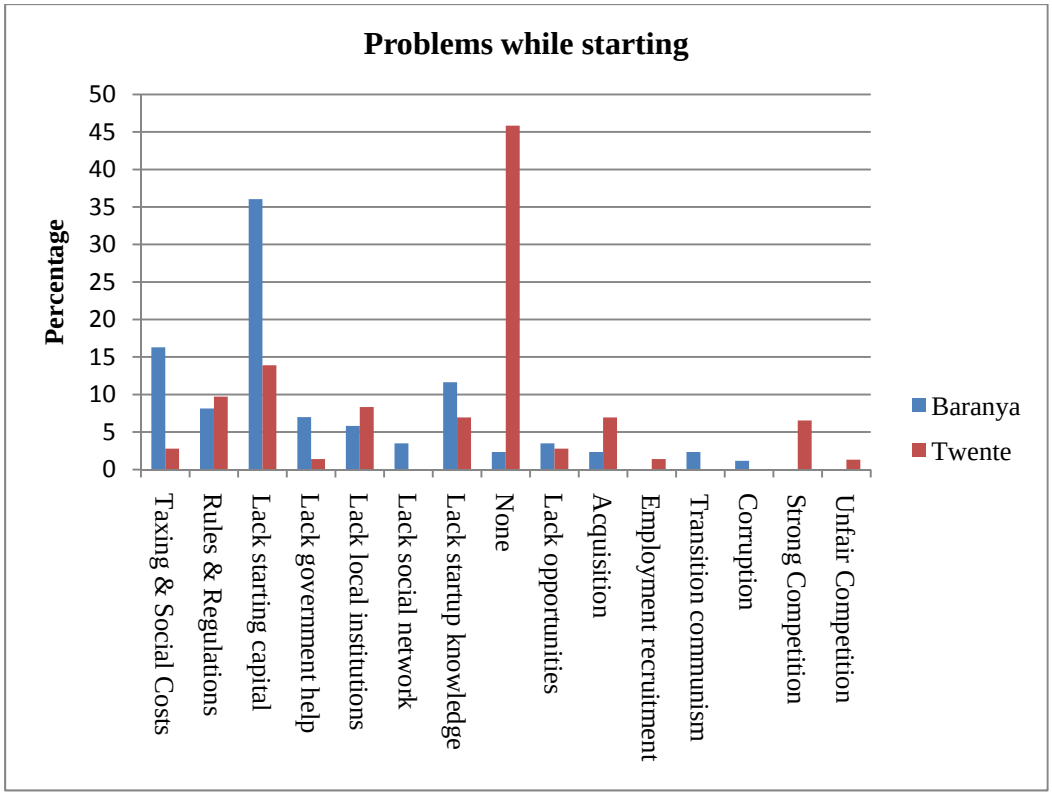
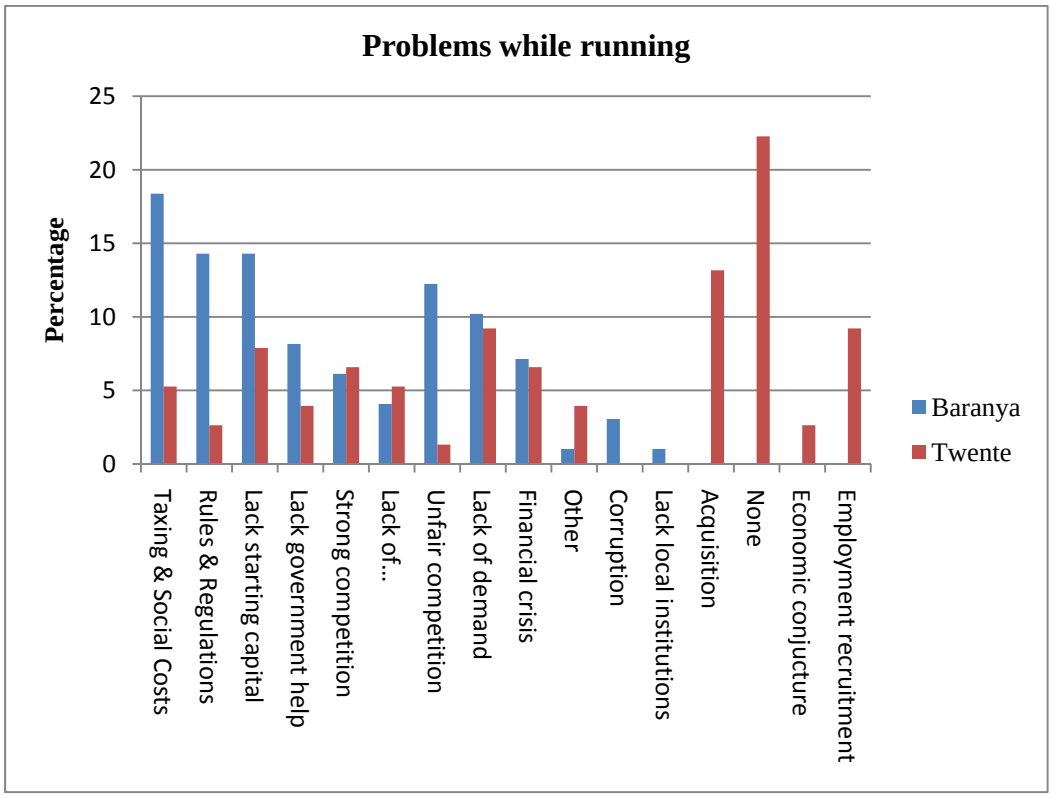
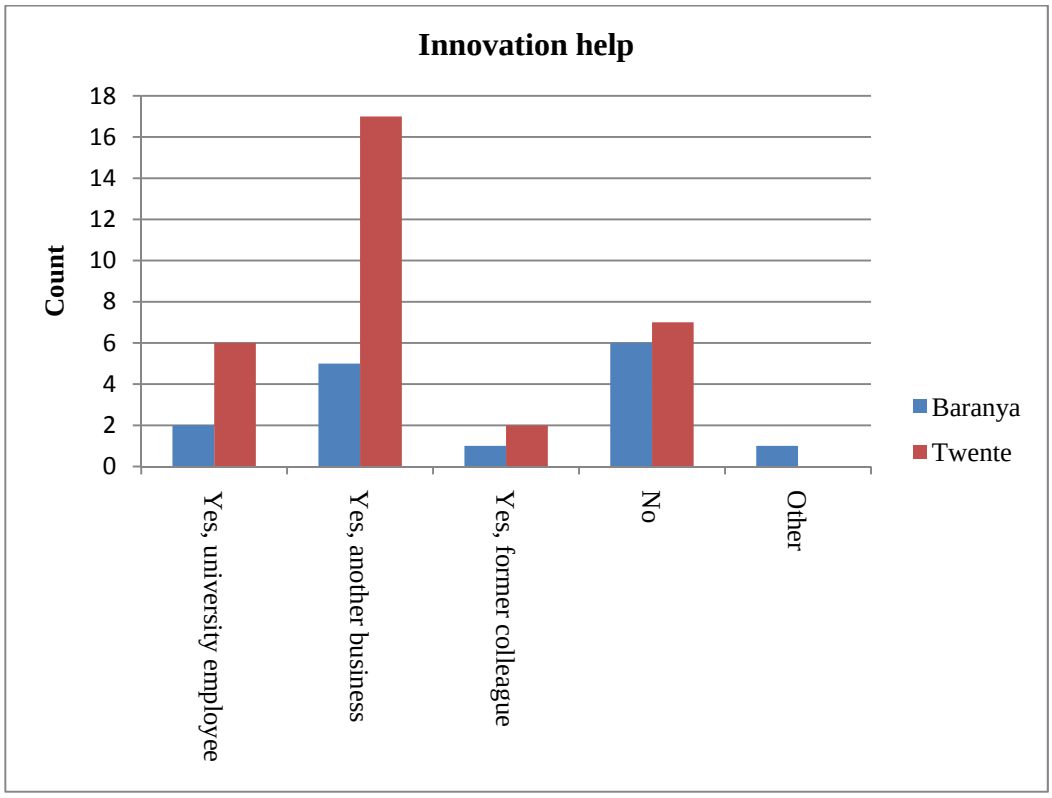


Figure 7.5 Problems while running company in Twente and Baranya



In both cities quite the amount of entrepreneurs that were considered innovative companies were in some way related to the University, however this effects seems stronger within the Twente region. It seems that at least in Twente the University had a certain central role within the region. Some entrepreneurs were also employees at the University, or former researchers that commercialized a new innovation directly created at the University of Twente. All said that the facilities at the University were quite outstanding and the University was very helpful with the start of the company and sometimes the running of the company. What is especially striking is that in some cases it was mostly the role model who created the innovation and encouraged the entrepreneur to exploit that opportunity. These role models who created innovations for entrepreneurs were all University professors. Something that was related to this statement was the fact that some entrepreneurs specifically named the knowledge cluster that is present within the region. Such a thing is not only beneficial for inter-regional competition, but also for publicity and the possible new start-ups that will follow this cluster. Figures below show the help that these innovative entrepreneurs received within both regions.

Figure 7.6 Help with company innovations in Twente and Baranya



It shows that there is more of a supportive business environment within Twente that help each other with making innovations. Although not stated formally, most of these businesses are related to the University too. Nevertheless these figures are too small to make any decent conclusive statements that can be generalized towards the whole population.

A striking observation among the Hungarian respondents was the relative large occurrence of pre-communist entrepreneurs: entrepreneurs who set up a business right after the fall of the communist regime. Mostly they were workers that in the old regime could earn some extra money in the grey economy by hiring their labor for extra production after working hours. After the transition they

continued to do so while having a regular job on the side. Over time, the company became more important and eventually turned in the major source of income.

All of these entrepreneurs note that they felt that they had to invent the wheel again. The country was unprepared for capitalism and thus step by step and with a lot of mistakes and bad institutions the transition was made. This obviously harmed entrepreneurship. Notable were the remarks about corruption and unfair competition within the country: something that is, actually unimaginable within the Netherlands. One entrepreneur noted that because of the entrance of Hungary within the European Union, this corruption has actually increased.

7.4 Conclusion

Chapter 7 has provided the quantitative and qualitative analysis for the conceptual framework of this thesis. From this several interesting results have emerged, and the most important ones that relate to high impact entrepreneurship and role models will be discussed. Moreover the four partial research questions proposed at the beginning of the chapter can now be answered completely (in no specific order).

Q7 How does the high impact firm differ from their less successful counterparts:

A better understanding of the high impact entrepreneur has been brought forth; the high impact entrepreneur has the potential (and often does) to serve as a role model for other (starting) entrepreneurs. Most important however is what separates them from other entrepreneurs, which is according to them mostly a certain sense of professionalism, capitalizing on market trends and long term planning. Not similarly, but somewhat comparable to this are the findings of Szalavetz (2007) on KBF's in Hungary which show that these entrepreneurs too are creative long term planners that are able to correctly identify market trends, and Jones (2008) who puts that the high impact entrepreneur goes against trends, and sets their own trends. Unlike what Szerb (2004) theorized, high impact entrepreneurship does not necessarily involve great risk taking. Two interviewed high impact entrepreneurs, one from Baranya and one from Twente indeed perceived great risks and feared for those risks during the initial firm set up, but the other two firms did not experience that much risk. Furthermore Acs (2008) typically identified the high impact firm as a leverage start-up that implements new technologies that are either created by themselves or are knowledge spillovers from other firms. This was roughly to case for almost all firms, either they used knowledge spillovers and new technologies created by others, or they used new innovations by themselves to gather leverage and stay ahead of the competition either before the start-up phase, or developed during the running of the company. These are still preliminary findings that are based on a very limited sample size, and so far little other qualitative research has been done on this subject. Therefore it is not possible to confirm these statements with other data and the findings cannot be generalized to a large population.

Q5 Why is the perception of entrepreneurial opportunities within the Baranya region so low?

Q6 How does the presence of entrepreneurial role models influence the two regions?

The conclusions that can be drawn from the quantitative research is the fact that the role model effect is only significant in the unfavorable region for entrepreneurship, which is quite on the contrary from what was hypothesized. Van Stel et al. (2006) find that minimal capital requirements are a major impediment on new business creation. However van Praag & van Ophem (1995) found that opportunity recognition is for a large part found through capital, but that a lack of capital is compensated through entrepreneurial skill. It was earlier in this thesis brought forward that the role model effect can alleviate starting capital requirements through improving this entrepreneurial skill. So far it seems that within Baranya, even though a large part of the entrepreneurs report a lack of capital, they still find good opportunities for business through these role models possibly because of the entrepreneurial skills they receive through contact with these role models; data shows that there is a certain discrepancy in the information role models provide between Baranya and Twente, in Baranya the information is more firm specific, while in Twente the information given is mostly based on overcoming formalities. In retrospect the association between opportunity recognition and the role model effect in unfavorable regions can partly be explained. Furthermore risk perception is largely influenced by the social environment, a role model that decreases this risk perception consequently increases potentially interesting opportunities, unfortunately there was no direct variable created for risk perception within the questionnaire. Holcombe (2003) created a dichotomy of opportunity creation, where opportunities are either created by the entrepreneurs themselves, or they are derived out of unexploited market opportunities. This is difficult to measure and perhaps not fully covered by the questionnaire, but from the data at least three cases have emerged were the role model indeed created the initial innovation (often with the entrepreneur together) and thereby created the opportunity. In this case the role model effect fits within this dichotomy of opportunity creation. To answer thus Q5 is still rather hard. It was expected that a lack of role models in Baranya and a lack of financial capital caused a low opportunity perception. Fact of the matter is that because of the role model effect there are entrepreneurs who still perceive good opportunities. This in turn could have affected the effect of the financial constraints on opportunity perception within the questionnaire. Regardless of that, the institutional environment within Baranya is still relatively not conducive for entrepreneurship, which probably affects the opportunity perception in a negative way. Still this is too preliminary to correctly answer the research question.

Regarding growth ambition or orientation, we can find that in Hungary the average firm is mostly after income substitution (Szalavetz, 2007; Szerb, 2008a) and is often unwilling to reinvest in their firm and thus make it grow. It perhaps therefore logically follows that a role model can alter firm strategy and consequently this growth orientation. Szerb (2008a) and Szalavetz (2007) also find that innovativeness is poor in Hungarian firms; most firms use old technologies and create similar products as their competitors. Again from this point it can be argued that the firm strategy of a role model that deviates from the norm can alter this. This can perhaps explain the association between role models and firm innovativeness in Baranya. However there is an association between social capital and innovativeness in Twente. Seeing that innovativeness is common amongst Twente entrepreneurs, it could be argued that innovativeness is actually the norm and there is no need for a role model, but rather direct social support to cope with the risks. Related to this social capital is the social environment that can be either stimulating or impeding. It was argued that in Baranya the

social environment was mostly impeding and in Twente it was mostly stimulating, data however shows no significant difference between the two regions. The only thing that differed was the perception of the regional advantages.

The major problem here is however: what is it specifically that creates the role model effect? Do they need to provide any specific help? What has come forth from the data and what can be hypothesized is that role models provide a more general sense of doing business; they are possibly able to change the individual's perception of how to do business and how to run a business and create a good business model with long term growth strategy. This is perhaps reflected in the fact that the majority of the help that was provided to entrepreneurs in Baranya concerned managerial knowledge and knowledge that was specific to running a business rather than help with formalities, something which was the most important help within Twente.

Q4 How is the general institutional context for entrepreneurship within Baranya?

The fourth partial research question can be answered now in conjunction with namely chapter 4 and 5. From the fifth chapter we've learned that goulash communism has had a lot of negative impact on the Hungarian entrepreneurial sector. There is a rather negative institutional environment for entrepreneurship within the whole of Hungary, and although the negative social environment has not been affirmed within this questionnaire, the institutional environment is still not particularly favorable for entrepreneurship.

8 Conclusions and implications

Stam (2003) wrote that in a quickly changing economy with a premium on innovation, the degree to which the economy is composed of new, rapidly growing firms is said to be indicative of innovative capacity. Economic literature on entrepreneurship has shown that entrepreneurship is in general considered beneficial for regional economic development and competitiveness. There is some evidence to assume that in more developed countries there is a higher amount of opportunity based entrepreneurship and innovativeness is concentrated in smaller firms. Moreover it seems that in general it is, but a few rapidly growing relatively young firms that have the premium on economic growth. These firms are commonly referred to as gazelles or high impact firms, and in general they constitute between 2% to 3% of the total entrepreneurial population. So far the emphasis in most literature and consequently most economic policies on entrepreneurship has not been directed towards this high impact entrepreneur. Although the existence of such firms has been empirically proven, little qualitative research has been done on the subject where start-up motivations and stimulating factors for such firms have been explored. Consequently no explanatory framework exists for high impact firm occurrence. Rather than assuming that there are special factors that explain high impact entrepreneurship, we took a different approach. We identified here that it is mostly the institutional framework that ultimately explains what kind of firm comes into existence. Moreover we identified that in essence high impact firms are opportunity based, ambitious innovative firms like many other firms but possibly the entrepreneurial skill, or basic fortune causes the company to grow rapidly. It was therefore assumed in this thesis that ambitious, opportunity based and innovative entrepreneurship is most beneficial for economic development in lagging regions. The main objective throughout this thesis was to improve the general understanding of an unfavorable environment for entrepreneurship, commensurate it to a comparable region that is favorable and thereby trying to pinpoint certain factors that can be altered on a (sub) regional level to facilitate entrepreneurship. The main research question in this thesis was:

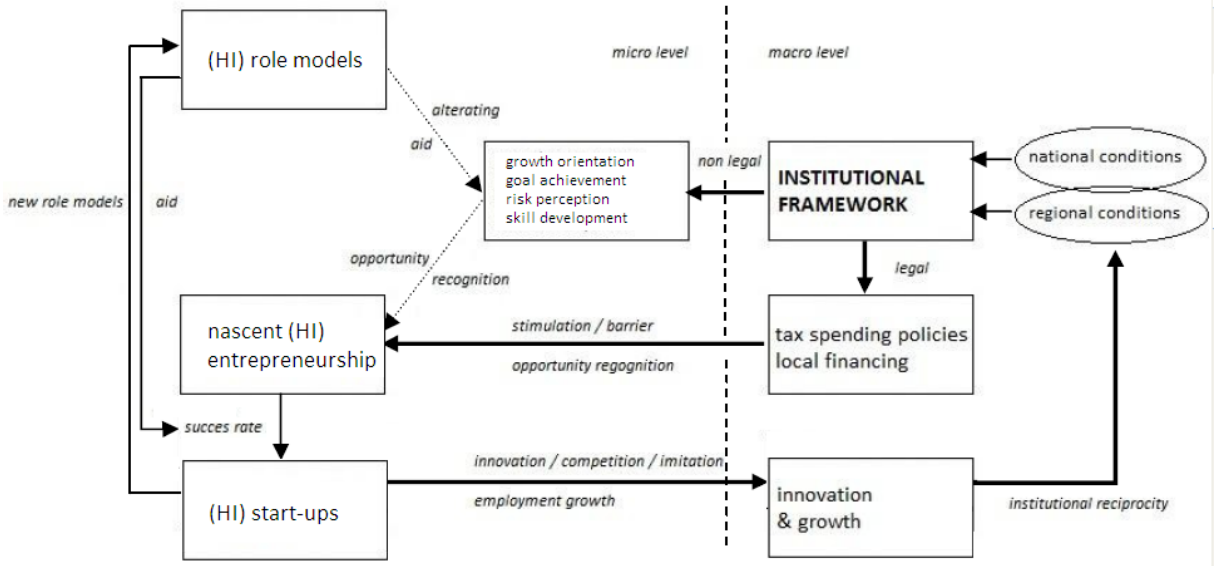
Why is entrepreneurship lagging in post-communist peripheral regions and what is the relationship between the institutional context, entrepreneurial opportunities and the presence of entrepreneurial role models in an unfavorable environment for entrepreneurship?'

It was identified here that the former heavy industrialized and now dwindling Baranya region within Hungary is such an unfavorable region with few opportunities for entrepreneurship while Twente could be seen as a favorable region where previously it was considered an economically unfavorable region for decades with also a stagnating and declining industrial complex based on the textile industry.

We identified that at the basis of every 'productive' entrepreneurial endeavor lies a good exploitable economic opportunity (or better said, the perception of a good opportunity). Related to this productive entrepreneurship and the economic opportunity are growth ambitions and innovativeness. It is the innovation that either creates the opportunity or improves the likelihood of perceiving a good opportunity, while growth ambitions stimulate the correct exploitation of that opportunity into a flourishing business that creates economic growth.

In this final chapter the answer to the research question will be summarized recognizing the limitations and scope of this study. It will highlight the main conclusions, evaluates the relevance of our approach, and provides suggestions for future research. With more available resources the framework that was derived in Chapter 2 and presented again below (model 4) may prove to be useful for analyzing the relations between high impact entrepreneurship, role model mechanisms and regional development in more detail. Some suggestions for this will be given. The chapter concludes by discussing potential policy implications.

Model 4: A holistic approach towards the role model effect



8.1 The cost of communism and the Baranya entrepreneur

From the literature it has emerged that Hungary has been struggling with its economic past of goulash communism. Kornai (1996) summarizes that the main policy of Hungary was the survival of the economic elite, short term consumption maximization and avoidance of conflicts. In short, goulash communism is a two sided coin: it had its (material) benefits in the communist era, certainly compared to other communist countries in Eastern-Europe which led to mass support for this governance. However the price that Hungary had to pay for it during the post-transition period was very high. Hungarian entrepreneurs are on average after short-term profit and consume the majority of their income instead of re-investing it in their company, which may be attributed to the historical institutional context of the pro-consumption communistic policies along with the historical context in how entrepreneurship was initially stimulated under communism: through semi-capitalistic endeavours within the grey-economy where workers renting capital and working extra hours as subcontractors and thus earning an additional income, entrepreneurship thus being perhaps viewed as mere income substitution. This kind of 'entrepreneurship involves no risk taking, no strategic planning, market analysis, nor investments, but is rather focused on increasing consumption alone within a stable job setting. Furthermore Hungary faced after the transition a failing banking system and a rather skewed patronizing relation between the state and inefficient firms. Economic policy was very much focused upon FDI, something which according to de Backer & Sleuwaegen (2002) crowds out domestic firms and discourages entry.

Csath (2004) writes in her article that currently the general attitude of the Hungarian people towards the transition towards capitalism is one of skepticism, pessimism and frustration. The general thought about the system change is that those who were once communist transformed into neo-liberal capitalist who kept all the capital for themselves. For a lot of people on the lower socio-economic strata, change implied job loss, unemployment, lack of opportunities, poverty and increasing polarization between the rich and the poor. The economic situation is not too bright: corruption is a major problem within the economy: in 2004 Hungary was more corrupt than countries such as Botswana, Bahrain and Oman. Dudley (1998) also remarks this cultural shift, after the transition 'cheating' in business was common, the grey economy was large and corruption within government agencies was widespread. Csath (2004) typifies the economic shift as one from '*…A few large socialist enterprises subsidized by the government at the expense of the population',* to a situation where now, 'a *few huge global companies subsidized by the government at the expense of the population*' (Csath, pp. 1, 2004). To attract FDI, the government frantically tries to palm the foreign enterprises by tax holidays, low wages artificially kept low so that it impediments new enterprise development and cheap land. Another way the government tries to please foreign enterprises are by devaluating the national currency under the banner of increased competitiveness. Instead this only leads to a favorable export price. It is not surprising that 80% of the exports come from a few large foreign enterprises. This is adequately reflected within the research result: a lot of entrepreneurs within Baranya (more than 12%) state that they are faced with unfair competition.

The Hungarian economy is still in development and it misses adequate financial resources, low risk investments, a good supportive cultural environment, inefficient market economies and proper institutions in the form of unfavorable rules and regulations (Szerb et al., 2007). This also is clearly visible within the results from the Baranya region: almost 19%, and thereby the majority of the Hungarian respondents answer that high taxing and social costs are the prime impediment on running their business. Additionally there is a severe case of undercapitalization of the businesses from the data it results that it is the prime cause of starting problems (36%) and a major problem while running the company (14%), (see for literature on this subject: Szerb 2007b; Szalavetz, 2007). Being a major problem as it is, it shows no significant association with opportunity perception, growth ambitions and innovativeness. That still does not imply this restriction is any less severe; it can surely constrict entrepreneurs from even considering starting a business at all. Additionally Szerb (2008a) found that Hungarian firms perform in comparison to other post-socialist countries rather bad on company strategy: few firms have a product innovation and many offer the same product, use old technologies, have low growth and are not internationally orientated. This strategy or rather the improvement of this strategy he notes as the most important factor in stimulating entrepreneurship within Hungary.

Data furthermore indicates that Baranya has less regional advantages than Twente has, albeit the difference being small, though significant. This does not necessarily imply a restriction on business start-ups, rather less advantages while running the business, something which is not detrimental and can be easily overcome.

Communism has had its effect on the perception of entrepreneurship in general as well. It is not generally valued as a respectable career choice, and excelling in your job, along with trying to be the best are values that are perhaps associated with an 'elitist' lifestyle, something that has a rather negative connotation. This is visible in the average Hungarian entrepreneur who is mostly in an

entrepreneurial endeavor for financial reasons, has low growth ambitions and is not geared towards innovativeness.

The final aspect of this is the question whether Baranya is an exceptionally bad region in terms of entrepreneurship compared to the rest of Hungary because of regional legal institutional factors, or the region is subject to bad national legal and non-legal institutional factors common for post-communist countries just as the rest of Hungary and other similar countries. This question is hard to answer but literature (see: Hall & Soskice, 2001; who state that the national legal institutional level is the most relevant level that affects behavior; World Bank Group, 2005; Djankov et al. 2003, who focus on high regulatory and administrative entry barriers; Szerb, 2007b, who underlines undercapitalization for Hungarian firms) and data hints to the fact that it is a rather unfavorable institutional setting on the national level which causes entrepreneurship to be underdeveloped (with Budapest as a notable exception). Rather the regional differences can be caused by mere individual population characteristics and a low GDP since the main impeding characteristics that limits entrepreneurs in Baranya are those that are governed on the national level and thus not a specifically bad non-legal institutional context compared to the rest of the country. Compared to Twente, the data analysis does not confirm that Baranya harbors a specifically significant negative socio-cultural demotivating setting for business start-ups. Off course in light of the historical institutional context investigated in chapter 4, it could be argued that the non legal institutional framework that works on the individual level (growth ambitions, opportunity perception, innovativeness, overall firm strategy) is lacking throughout the whole country as a result of goulash communism. However, Baranya probably holds no specific negative setting over other Hungarian regions (again excluding Budapest). The explanation therefore should be sought in individual population characteristics, rather than an unfavorable specific regional institutional setting.

8.2 Role models and the high impact entrepreneur

The central subject on which the conceptual model developed here revolves around is the role model effect. It is hypothesized that the role model effect is a prime explanatory factor in regional difference regarding opportunity based, ambitious and innovative entrepreneurship; i.e. some regions perform rather well due to proper incentives from entrepreneurial role models. The most explicit conclusion that can be drawn from this thesis is that there is indeed an influence of role models on entrepreneurship. Initially it was hypothesized that the role model effect is a possible cause for explaining part of the differences between low ambitious, low opportunity and low innovative entrepreneurial regions and their more competitive counterparts. Our data analysis however gives a more ironic explanation: the role model effect in our results appeared to be (stronger) present among regions with an unfavorable institutional context. In this case of Baranya there was a significant effect of role models on opportunity recognition, growth ambitions and innovativeness of the firm, while this effect was hardly noticeable within Twente. What did influence firm innovativeness in Twente however was social capital. This provides us with several possible explanations.

It could be therefore theorized that role models alleviate bad institutions upon a certain threshold, or act as a substitute for good institutions, so that the detrimental effects to business start-ups are less severe. A possible explanation for the stronger association between role models, opportunity perception, growth ambition and innovativeness in Baranya than in Twente is the earlier discussed

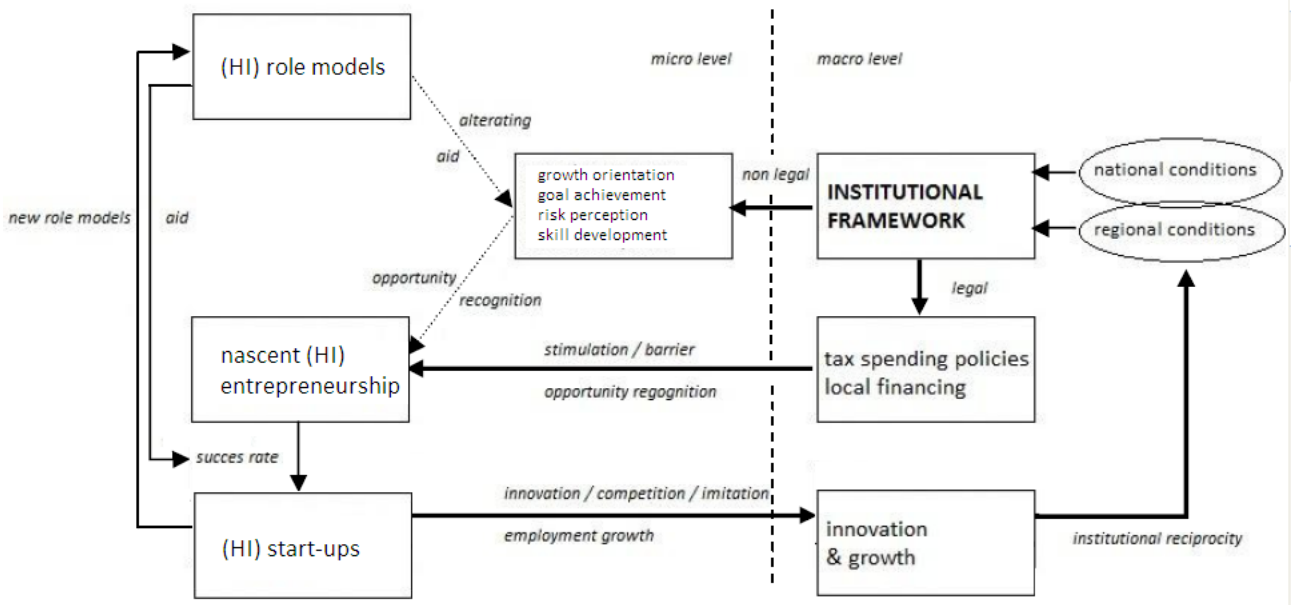
uncertainty avoidance. It is plausible that an unfavorable environment for entrepreneurship increases entrepreneurial risk significantly. It was earlier hypothesized that having a role model decreases uncertainty therefore being a important factor for individuals choosing an entrepreneurial career regardless of the otherwise more risk full environment for entrepreneurship when compared to favorable regions. When the institutional factors of uncertainty diminish the need for an entrepreneurial role model reducing this risk diminishes accordingly. What we thus see is that, at least for innovativeness, social capital is more important within the favorable region. This holds two consequences: the function of role models is differently in favorable regions (since after all, there still is a presence of entrepreneurial role models) and it also may substitute a lack of social capital within unfavorable regions.

The nature of this role model effect is difficult, however, evidence from both qualitative as quantitative data hints towards the fact that role models provide a more general sense of doing business; they are possibly able to change the individual's perception of how to do business and how to run a business and create a good business model with long term growth strategy. In short they can improve entrepreneurial skills. In the light of capital requirements, something which is a problem within Baranya because of undercapitalization, this provides interesting possibilities since this entrepreneurial skill could function as a substitute for capital. In this the high impact entrepreneur provides an excellent entrepreneurial example and is often also seen as such by its less successful and aspiring counterparts. From the qualitative data it has come forward that the scope of the role model effect of the high impact entrepreneur is often quite extensive. As been said, our results suggest that the nature of the role model effect can be different depending on the region. One can distinguish either the 'learning by doing' effect, or the 'learning by example'. Our empirical evidence suggest a 'learning by doing function' for role models in unfavorable regions, and a 'learning by example' effect in favorable regions for entrepreneurship. This is based on the fact that a large part of the role models in Twente provide no tangible direct support (36%) while this figure is much lower in Baranya (11%). Additionally a large part of the entrepreneurial role models in Twente provide help to overcome formalities (25%) while this is (5%) much lower in Baranya. It seems thus that the qualitative nature or the function of the role model is different in both regions. Entrepreneurs in unfavorable regions are more in need of direct support from role models, and less so in the form of formalities and more in the form of help which is relevant for the way in which they do business. Entrepreneurs in countries favorable for entrepreneurship have a less direct need for role models since institutions are already favorable, risk is relatively low (or the perception of risk) and social capital is already present to stimulate innovativeness. The function of role models in favorable countries is however still subject to further research.

North, (1994b) states that it is the institutional framework that defines the opportunity set, and thus the kind of firm that comes into existence. We can therefore assume that high growth and innovativeness is largely influenced by the institutional framework. If the 'basic' institutional framework is thus not 'right', one can automatically expect naturally few high growth innovative ambitious firms. When looking back at our final conceptual model we can notice what effect institutional reciprocity can have on the regional (and national) conditions and thereby eventually the whole institutional framework. North (1994b) finds that institutional reciprocity is for a part fuelled by competition, and eventually the innovation and growth of (high impact) opportunity based entrepreneurs either forces, or in the case of role models stimulates aspiring entrepreneurs to invest skills and knowledge accordingly and alter the opportunity perception.

Firms will reflect the pay-off structure within an economy. The direction of the skill and knowledge investment by an entrepreneur will reflect the underlying incentive structure. In an institutional structure where the perceived highest rate of return comes from starting one's own business, it is expected that economic agents will invest in knowledge and skills that make them better entrepreneurs. This follows a path dependent structure of reciprocity between mental models and the institutional framework that causes incremental change (North, 1994b).

Model 4: A holistic approach towards the role model effect



The role model effect can, based on our results here, cause at first sight a short-term 'fix' for the problems in Baranya since it alters the perception of otherwise 'average' entrepreneurs, (exemplified in the framework by the upper left part: role models, nascent entrepreneurship and growth orientation, goal achievement, risk perception and skill development). Whether focusing on role models as a long term strategy to change the institutional framework 'bottom up' as North proposes with his concept of institutional reciprocity, is however subject to speculation. It is very much possible that the use of the role model effect can cause a cumulative causation effect where slowly but gradually growth orientation, firm strategy, opportunity perceptions are altered for the general (aspiring entrepreneurial) population, but also the general incentive structure is altered, where entrepreneurship in general is a more attractive career option for the total population. North (1995) already stated that since it is the cultural context that eventually determines the rules of the game and thus the legal institutions, altering the socio-cultural context first makes sense. It is the author's opinion however, that entry barriers such as administrative burdens and most of all the availability of capital should be certainly lifted and alleviated, for especially the high impact entrepreneurs reported a lack of venture capital and the difficulty finding that, and within Hungary venture capital is still a major problem. Hypothetically speaking, eventually policy makers will catch up to the needs of the growing entrepreneurial population, but identifying impeding legal institutional factors at forehand provides a much quicker institutional change in combination with the non-legal change that could be made.

From the data it is now clear that the presented conceptual model seems to hold potential for giving an explanatory framework for the institutional setting of opportunity based, ambitious, innovative

entrepreneurship & (high impact) role models within an unfavorable regional environment, but not a favorable environment for entrepreneurship.

Finally, a focus of this thesis and consequently a recurring important concept within the conceptual framework was the high impact entrepreneur. Our qualitative data on high impact entrepreneurs hints to the fact that, as was assumed, these entrepreneurs possibly differ from regular opportunity based ambitious innovative entrepreneurs only very slightly. Through self-assessment, these entrepreneurs noted that they excelled in terms of business strategy, long term planning and correctly reacting to market demands. We define these qualities as 'entrepreneurial skill'.

When looking at the high impact entrepreneur as a role model several interesting possibilities follow. Our data shows that high impact entrepreneurs are very often a source of support and advice for multiple nascent entrepreneurs in the region. Due to their importance in the region and their larger potential sphere of influence, we can carefully label the high impact role model as a 'super' role model.

Unfortunately due to the small scale of the study no hard conclusions can be drawn about what makes a high impact start-up significantly different from other ambitious innovative opportunity based nascent firms, nor about how high impact entrepreneurship can be specifically stimulated. It is therefore still assumed that increasing the occurrence of ambitious, innovative opportunity based firms automatically increases the number of high impact firms. But, as stated, the qualitative research hints that the high impact entrepreneur possibly differs from other entrepreneurs in terms of 'entrepreneurial skill'. And it is this aspect that is, although less tangible, hypothetically very well suited for the role model effect. Entrepreneurial skill can perhaps be learned from the high impact role model. It follows thus that potentially, 'super' role models not only have a profound effect due to their larger sphere of influence, thereby affecting multiple entrepreneurs, given the right circumstances they can transfer their 'skill' to entrepreneurs thereby creating other high impact firms.

8.3 Entrepreneurship in entrepreneurial unfriendly regions: answering the main question

With this data it is now possible to give an answer on the main research question: *'Why is entrepreneurship lagging and what is the relationship between the institutional context, entrepreneurial opportunities and the presence of entrepreneurial role models in the Baranya region?'*

It thus seems that entrepreneurship within Baranya is lagging mostly because of institutional factors, both legal and non-legal on the national level. Our empirical evidence suggests that the role model effect is a possible alleviation for this. Opportunity based innovative and ambitious entrepreneurs within Baranya share these characteristics partly because of those role models, **regardless** of a bad legal institutional framework.

8.3.1 Policy implications

From this thesis it has been made clear that institutions still matter very much. On the basic level, institutions are perhaps still more important than role model effects since it are firm entry barriers that impede basic entrepreneurship in the first place, and hinder further firm growth and business management. The first advice would thus be to get the institutions 'right'. In Hungary this is mostly

done on the national level: it has been shown that especially the rules and regulations change too often for entrepreneurs to cope with and additionally makes it difficult to provide themselves with a good growth strategy. This is just plain bad economic policy that could be easily dealt with. Secondly the financial system for grants and loans needs to be seriously revised: especially for innovative entrepreneurs it is of the upmost importance that they get enough (venture) capital to realize their innovation properly. And although it has no direct effect on opportunity perception, ambitions and innovativeness, it could have effect on the potential population in the sense that this may scare off potential entrepreneurs in realizing their entrepreneurial ambitions.

Furthermore, and this is a problem that is already know within Hungary, is the effect of the capital Budapest on the country. There is a clear case of urban economic primacy of Budapest, where it attracts all economic potential and leaves the rest of the country underdeveloped and economically more or less one-sided and uniform. It is therefore not unimaginable to think that Universities in rural regions such as Pécs serve merely as a place where talent is created but not used since there is a major brain-drain from these regions to Budapest. Institutions determine economic outcome of human behavior. Economic agents, and thus in our case entrepreneurs, invest in skills, knowledge and talents therefore revising their evaluation of opportunities. This in turn instigates altering of the rules or gradual amendment of non legal rules. Institutions determine the relative returns to entrepreneurial activity in terms of wealth, power, and prestige (Veciana & Urbano, 2008). Perceived skills and knowledge that have a high payoff reflect the incentives within the institutional framework (North, 1990). So far it seems that for higher educated people, the incentive structure is thus that skills are invested in becoming mostly an employee within the Budapest region.

This is very problematic since it is especially these higher educated people that often serve as more opportunity based innovative entrepreneurs. It would therefore be wise to link the local entrepreneurial businesses and business climate in general with the University: make it easier for students to come into contact with successful entrepreneurs, make it easier to find internships within these companies. And here is where the role model effect is relevant, especially high impact role models that can alter the incentive structure by providing a good example for an alternative one where beneficial entrepreneurship proves to be a worthy career option with a high perceived return on skill investment. It serves as a great investment since it shows from this thesis that role models indeed can change the perception of the individual. Therefore it could be accomplished through the role model effect that Baranya, and consequently other rural regions within Hungary, are not merely training centre's for great potential that flocks to Budapest to work as employee's but rather as centre's where new and innovative businesses are being set up by those same student who now see business opportunities in those regions rather than only in Budapest. Not only is this useful within Hungary, the same could be applied to any country or region where there is one specific economic primacy.

It would also prove useful to focus regional policy more specific on binding the high impact entrepreneur more to the region. Naturally high impact entrepreneurs are more internationally or nationally orientated and from the data it seems that this is true. Given the fact that these entrepreneurs could provide a good role model, and given the fact that within Twente a lot of innovations are made together with other entrepreneurs, bringing the local business more in contact with the high impact entrepreneur is sensible.

What is proposed here is a bottom's up approach of the role model effect. Following North (1995), who states that eventually the socio-cultural context is the most important part of the institutional framework and eventually legal rules will reflect this context, it makes sense to use the cumulative causational force of the role model to alter the non legal context of the institutional framework first thereby indirectly altering the legal institutions. It should be warned however that the role model effect is not to be used as some sort of magic cure: the effect is significant but not uniformly strong.

Lastly, it could prove useful to make membership of the chamber of commerce within Hungary mandatory for all entrepreneurs so that entrepreneurship could be more organized on a national level. Furthermore it makes sense to oblige every entrepreneur to follow at least one course on entrepreneurship every year, or make it mandatory to follow some courses on entrepreneurship before starting a business. This way one can come into contact with other entrepreneurs thus providing network opportunities, but most of all, one can into contact with successful entrepreneurs who can provide direct knowledge on basic firm strategy.

Although it is an old adagio, the most important policy measure would at first be a good cooperation between regional policy makers, regional business environment and the University.

8.3.2 Future research

This thesis has provided some possible hints towards the role model effect within unfavorable and favorable regions for entrepreneurship. However, it certainly has its limitations due to the size problems and problems of the two populations being comparable in terms of economic sectors and age (in Hungary it was much more difficult to select for this than in Twente). Therefore, the first and foremost advise for future research would be to professionalize and try to reproduce the same data but on a larger scale to provide better statistical relationships or associations between role model effects and entrepreneurship. Secondly, it is interesting to exactly investigate what it is that makes the role model effect so beneficial, what do role models specifically do to stimulate entrepreneurs and overcome institutional barriers? Thirdly, it is wise to further elaborate on the subject of the high impact entrepreneur and provide a better more structural framework for researching this topic with a larger population.

Fourthly, in this thesis it is assumed that intra regional differences regarding entrepreneurship within Hungary are more or less caused by individual population characteristics rather than an unfavorable non-legal institutional setting that is specific for Baranya. Whether this is true on the regional level within Hungary is subject to future research.

Fifthly, this research took mostly conscious role models into account. Given the previous literature on parental role models and their importance, it is possible that due to their close daily contact, parental role models are not perceived to be such consciously, but are rather 'silent' influences on the entrepreneur. One interesting fact that has come forward from the qualitative research is the parental role model being an influence on how not to run a business.

Finally, one thing that was striking for both Hungarian as well as Dutch entrepreneurs but was sadly overlooked upon in the questionnaire was the influence of an entrepreneurial companion. Quite a few entrepreneurs were not inspired by just someone in their social network, rather it was found that often the companion (or plural) they created and owned the company with, was the one that

stimulated them or motivated them or complemented their knowledge about enterprises with their own. Although in this study it was not taken in account for, but it could be possible for future hypotheses and researches that the simple joint venture could be the centre of attention. It could be looked upon that a joint start-up is possibly more beneficial in terms of risk taking, ambition, innovation, capital and ultimately success.

Reference List

Acemoglu, D. & J.A. Robinson (2008), The Role of Institutions in Growth and Development. Commission on Growth and Development Working Paper No. 10.

Acs, Z.J. & D.B. Audretsch (1990), Innovation and Small Firms. MIT Press Books, The MIT Press: Cambridge.

Acs, Z.J. & D.B. Audretsch (1993), Small Firms and Entrepreneurship: An East-West Perspective. Cambridge University Press: Cambridge.

Acs, Z.J., Audretsch, D.B. & D.S. Evans (1994), Why Does the Self-Employment Rate Vary Across Countries and Over Time? In: Discussion Paper No. 871. CEPR: London.

Acs, Z.J. (2008), Foundations of high impact entrepreneurship. In: Foundations and Trends in Entrepreneurship, Vol. 4, 535–620.

Acs, Z.J. & P. Mueller (2008), Employment effects of business dynamics: Mice, gazelles and elephants. In: Small Business Economics, Vol. 30, pp. 85–100.

Acs, Z.J., Parsons, W. & Tracy, S. (2008). High impact firms: Gazelles revisited. In: Small Business Research Summary, Vol. 328, p 91.

Acs, Z.J., Braunerhjelm, P., Audretsch, D.B. & B. Carlsson (2009), The knowledge spillover theory of entrepreneurship. In: Small Business Economics, Vol. 31, pp. 15-30.

Acs, Z.J. & L. Szerb (2009), The global entrepreneurship index (GEINDEX). Jena Economic Research Papers 2009-028. Friedrich-Schiller-University Jena, Max-Planck-Institute of Economics: Jena.

Adam, J. (1995), The transition to a market economy in Hungary. In: Europe-Asia Studies, Vol. 47, pp. 989-1006.

Adizes, I. (2004), Managing Corporate Lifecycles: Founding Principles in the Management of the Arts. Adizes Institute: Carpinteha.

Ajzen, I. (1991). The theory of planned behavior. In: Organizational Behavior and Human Decision Processes, Vol. 50, pp. 179-211.

Akerlof, G.A. & R.E. Kranton (2000), Economics and Identity. In: Quarterly Journal of Economics, Vol. 105, pp. 715-753.

Andorka, R. (1991), The importance and the role of the second economy for the Hungarian economy and society. In: Tóth, A. & L. Gabor (eds.), Research Review on Hungarian Social Sciences Granted by the Government: Beyond the Great Transformation. Budapest University press: Budapest.

Antal, L. (1994), The legacy. The Situation of the Economy and the Tasks. In: Társadalmi Szemle, Vol. 49, pp. 12-21.

Armington, C. & Z.J. Acs (2002), The determinants of regional variation in new firm variation. In: Regional Studies, Vol. 36, pp. 33-45.

Audretsch, D.B. & M.P. Feldman (1996), Knowledge spillovers and the geography of innovation. In: The American Economic Review, Vol. 86, pp. 630-640.

Audretsch, D.B. & P.E. Stephan (1996), Company-scientist links: the case of biotechnology. In: The American Economic Review, Vol. 86, pp. 631-640

Audretsch, D.B. & A.R. Thurik (1997), Sources of Growth: the Entrepreneurial versus the Managed Economy. Discussion paper TI97-109/3. Tinbergen Institute, Erasmus University Rotterdam: Rotterdam.

Audretsch, D.B. & A.R. Thurik (1998), The Knowledge Society, Entrepreneurship and Unemployment. Papers 9801/e. Neuhuys: Zoetermeer.

Audretsch, D.B. & A.R. Thurik (2000), Capitalism and democracy in the 21st Century: from the managed to the entrepreneurial economy. In: Journal of Evolutionary Economics, Vol. 10, pp. 17-34.

Audretsch, D.B. & A.R. Thurik (2001), What's new about the new economy? From the managed to the entrepreneurial economy. In: Industrial and Corporate Change. Vol. 10, pp. 267-315.

Audretsch, D.B. & M. Fritsch (2002), Growth Regimes over Time and Space. In: Regional Studies, Vol. 36, pp. 113-124.

Audretsch, D.B. & A.R. Thurik (2004), A model of the entrepreneurial economy. In: International Journal of Entrepreneurship Education. Vol. 2, pp. 143-166.

Audretsch, D.B. & M. Keilbach (2004), Entrepreneurship capital and economic performance. In: Regional Studies, Vol. 38, pp. 99-959.

Auken, H. van, Stephens, P., Fry, F.L. & J. Silva (2006), Role model influences on entrepreneurial intentions: A comparison between USA and Mexico. In: International Entrepreneurship and Management Journal, Vol. 2, pp. 325–336.

Autio, E. (2006), GEM: 2005 Report on High-Expectation Entrepreneurship. GEM.

Autio, E. (2007), GEM: 2007 Global Report on High-Growth Entrepreneurship. GEM.

Backer, K. de. & L. Sleuwaegen (2003), Does Foregin Direct Investment Crowd Out Domestic Entrepreneurship? In: Review of Industrial Organizaton, Vol. 22, pp. 67-84.

Backhaus, J.G (2003), Joshep Alois Schumpeter: Entrepreneurship, Style and Vision. Kluwer Academic Publishers: Boston.

Basu, A. & S.C Parker, (2001), Family Finance and New Business Start-Ups. In: Oxford Bulletin of Economics and Statistics, Vol. 63, pp. 333-358.

Bathelt, H. (2006), Geographies of production: growth regimes in spatial perspective 3 – toward a relational view of economic action and policy. In: Progress in Human Geography, Vol. 30, pp. 223-236.

Bartlett, D.J. (1997), The political economy of dual transformations: Market reform and democratization in Hungary. University of Michigan Press: Ann Arbor.

Baumol, W.J. (1968), Entrepreneurship in Economic Theory. In: American Economic Review, Vol. 58, pp. 64–71.

Baumol, W.J. (1990), Entrepreneurship: Productive, unproductive, and destructive. In: Journal of Political Economy, Vol. 98, pp. 893-921.

Baumol, W.J. (2002), The Free-Market Innovation Machine: Analyzing the Growth. Miracle of Capitalism. Princeton: Princeton University Press.

Benneworth, P. & G.J. Hospers (2007), The new economic geography of old industrial regions: universities as global local pipelines. In: Environment and Planning C: Government and Policy 2007, Vol. 25, pp. 779-802.

Berman, E., Bound, J. & S. Machin (1997), Implications of skill-biased technological change: international evidence. Working paper 6166. National Bureau of Economic research: Cambridge.

Beugelsdijk. S. & N. Noorderhaven (2002), Entrepreneurial attitude and economic growth; A cross-section of 54 regions. Tilburg University: Tilburg.

Bhide, A. (1994), How entrepreneurs craft strategies that work. In: Harvard Business Review, Vol. 72, pp. 150-161.

Birch, D.L. (1979), The Job Generation Process. MIT Program on Neighborhood and Regional Change: Cambridge.

Birch, D.L. & J. Medoff (1994), Gazelles. In: L. C. Solmon & A. R. Levenson (eds.), Labor markets, employment policy and job creation, pp. 159–167. Westview press: Boulder.

Birch, D.L., Haggerty, A. & W. Parsons (1997), Who's Creating Jobs? Cognetics: Cambridge.

Birley, S. (1985), The role of networks in the entrepreneurial process. In: Journal of Business Venturing, Vol. 1, pp. 107-117.

Blanchflower, D.G., Oswald, A. & A. Stutzer (2001), Latent entrepreneurship across nations. In: European Economic Review, Vol. 45, pp. 680-691.

Blau, D. (1987), A time-series analysis of self-employment in the United States. In: Journal of Political Economy, Vol. 9, pp. 445-467.

Boschma, R. & J. Lambooy, (1999), Why do old industrial regions decline? An exploration of potential adjustment strategies. ERSA conference papers ersa99pa061, Vienna.

Boschma, R. & K. Frenken (2006), Applications of Evolutionary Economic Geography. DRUID Working Papers 06-26, Copenhagen Business School, Department of Industrial Economics and Strategy/Aalborg University, Department of Business Studies.

Bosma, N.S., Stel, A.J. van & K. Suddle (2008a), The geography of new firm formation: Evidence from independent start-ups and new subsidiaries in the Netherlands. In: International Entrepreneurship and Management Journal, Vol. 4, pp. 129-146.

Bosma, N.S, Jones, K., Autio, E. & J. Levie (2008b), GEM 2007 Executive Report. GEM.

Bosma, N.S., Schutjens, V.A.J.M. SChutjens & K. Sudde (2008c), Whither a flat landscape ? Regional differences in entrepreneurship in the Netherlands. EIM Scales Research Reports H200805. EIM : Zoetermeer.

Bosma, N.S (2009), The Geography of Entrepreneurial Activity and Regional Economic Development: Multilevel analyses for Dutch and European regions. A-D Druk b.v.: Zeist.

Bosma, N.S, Acs, Z.J., Autio, E., Coduras, A. & J. Levie (2009), GEM 2008 Executive Report. GEM.

Bosma, N.S., Hessels, S.J.A., Schutjens, V.A.J.M., van Praag, C.M. & I. Verheul (2011), Entrepreneurship and Role Models. In: Journal of Economic Psychology, in press.

Brada, J.C., King, A.E. & C.Y. Ma (1997), Industrial economics of the transition: Determinants of enterprise efficiency in Czechoslovakia and Hungary. In: Oxford Economic Papers, Vol. 49, pp. 104-127.

Brock, W.A. & D.S. Evans (1989), Small business economics. In: Small Business Economics, Vol. 1, pp.7-20.

Brown, C., Hamilton, J. & J. Medoff (1990), Employers large and small. Harvard University Press: London.

Brush, C., Carter, N., Greene, P., Gatewood, E. & M. Hart (2001), An investigation of women-led firms and venture capital investment. Report prepared for the U.S. Small Business Administration Office of Advocacy and the National Women's Business Council: Washington.

Busstra, T.J. & L.H.J. Verhoef (1993), Starten op z'n best; slaag- en faalfactoren van jonge ondernemingen. Amsterdamse Academie voor Bank en Financiën: Amsterdam.

Bygrave, W.D. (1995), Theory building in the entrepreneurship paradigm. In: Bull, I., Thomas H. & G. Willard, (eds.), Entrepreneurship Perspectives on Theory Building, pp. 129–158. Elsevier: Oxford.

Carree, M.A. & A.R. Thurik (1998), Small firms and economic growth in Europe. In: Atlantic Economic Journal, Vol. 26, pp. 137-146.

Carree, M.A. & A.R. Thurik (1999), Industrial structure and economic growth. In: D.B. Audretsch & A. R. Thurik (eds.), Innovation, Industry Evolution and Employment. Cambridge University Press: Cambridge.

Casson, M. (2005), The Individual – Opportunity Nexus: A Review of Scott Shane: A General Theory of Entrepreneurship. In: Small Business Economics, Vol. 24, pp. 423-430.

Carree, M.A., Stel, A.J. van, Thurik, A.R. & A.R.M. Wennekers (2002), Economic development and Business Ownership: An Analysis Using Data of 23 OECD Countries in the Period 1976-1996. In: Small Business Economics, Vol. 19, pp. 271-290.

Carree, M.A. & A.R. Thurik (2003), The impact of entrepreneurship on economic growth. In: Audretsch, D.B. & Z.J. Acs (eds.), Handbook of Entrepreneurship Research, pp. 437-471. Kluwer Academic Publishers: Boston/Dordrecht.

Carree, M.A., Stel, A.J. van, Thurik, A.R. & A.R.M. Wennekers (2007), The relationship between economic development and business ownership revisited. In: Entrepreneurship and Regional Development, Vol. 19, pp. 281-291.

Carlsson, B. (1992), The rise of small business; causes and consequences. In: W.J. Adams (eds.), Singular Europe, economy and policy of the European Community after, pp. 145-169. University of Michigan Press: Ann Arbor.

Carlsson, B. (1999), Small business, entrepreneurship, and industrial dynamics. In: Z. Acs (eds.), Are Small Firms Important?, pp. 99-110. Kluwer Academic Publishers: Dordrecht/Boston.

Casson, M.C. (1982), The Entrepreneur: An Economic Theory. Martin Robertson: Oxford.

Casson, M.C. (1994), Cultural Factors in Innovation. In: Shionoya, Y. & M. Perlman (eds.), Innovation, Technology, Industries and Institutions. Studies in Schumpeterian Perspectives. University of Michigan Press: Ann Arbor.

Casson M. & N. Wadeson (2007), The Discovery of Opportunities: Extending the Economic Theory of the Entrepreneur. In: Small Business Economics, Vol. 28, pp. 285-300.

CBS (2006), Kennis en economie. Voorburg: CBS.

Chlosta, S., Patzelt, H., Klein, S.B. & C. Dormann (2010), Parental role models and the decision to become self-employed: The moderating effect of personality. In: Small Business Economics, published online 6 march 2010. DOI: 10.1007/s11187-010-9270-y.

Ciccone, A. & R. Hall (1996), Productivity and the Density of Economic Activity. In: American Economic Review, Vol. 86, pp. 54-70.

Cooke, P. (1996), The new wave of regional innovation networks: analysis, characteristics and strategy. In: Small Business Economics, Vol. 8, pp. 159-171.

Cromie, S. (2000), Assessing entrepreneurial inclination: Some approaches and empirical evidence. In: European Journal of Work and Organizational Psychology, Vol. 9, pp. 7-30.

Csath, M. (2004), Hungary's Turbulent Transformation to Capitalism. Corruption, mismanagement exemplify 'new' Europe's challenges. In: The Futurist, September-October, 2004.

Czako, A., Kuczi, T., Lengyel, Gy. & A. Vajda (1995), A kisvallalkozasok nehany jellemzoje a kilencvenes evek elejen. In: Kozgazdasagi Szemle, Vol. 42, pp. 399-419.

Davidsson, P. (1991), Continued entrepreneurship: Ability, need, and opportunity as determinants of small firm growth. In: Journal of Business Venturing, Vol. 6, pp. 405-429.

Davidsson, P. & B. Honig (2003). The role of social and human capital among nascent entrepreneurs. In: Journal of Bussiness Venturing. Vol. 18, pp. 301-331.

Davis, S.J., Haltiwanger, J. & S. Schuh (1993), Small Business and Job Creation: Dissecting the Myth and Reassessing the Facts. In: Small business economics, Vol. 8, pp. 297-315.

Dean, J., Holmes, S. & S. Smith (1996), Business Networks: Growth Options Manufacturing and Service Sector Comparisons. In: Gibson, B., Newby, R. & R. Morris (eds.), Proceedings of the Joint SEAANZ and IIE Small Enterprise Conference, pp. 57-69. IIE University of Newcastle: Newcastle.

Dewey, J. (1922), Human nature and conduct. Henry Holt & Co: New York.

Djankov, S., La Porta, R., Lopez de Silanes, F. & A. Shleifer (2003), Appropriate institutions. In: Annual World Bank Conference on Development Economics, 2003. The World Bank.

Dubini, P. (1989), The influence of motivations and environment on business start-ups: some hints for public policies. In: Journal of business Venturing, Vol. 4, pp. 243-255.

Dudley, N. (1998), Hungary at the crossroads. In: Business Source Premier, Vol. 51.

Drucker, P.F. (1985), Innovation and Entrepreneurship; Practice and Principles. Harper and Row: New York.

Earle, J., Frydman, R., Rapaczynski, A. & J. Turkewitz (1994), Small Privatisation: The Transformation of Retail Trade and Consumer Services in the Czech Republic, Hungary and Poland. Central European University Press: Budapest.

Eckhardt, J. & S. Shane (2003), Opportunities and Entrepreneurship. In: Journal of Management, Vol. 29, pp. 333–349.

EIM (2000), The State of Small Business in the Netherlands 1997/1998. EIM: Zoetermeer.

Ékes, I. (2007), The Hungarian economy and labour market. ECOSTAT: Budapest.

Engel, D. & M. Keilbach (2007), Firm-level implications of early stage venture capital investment — An empirical investigation. In: Journal of Empirical Finance, Vol. 14, pp. 150-167.

Etzkowitz, H. & L. Leydesdorff (2000), The dynamics of innovation: from national systems and "Mode 2" to a Triple Helix of University-industry-government relations. In: Research Policy, Vol. 29, pp. 109-123.

Eurobarometer (2008), Entrepreneurship Survey of the EU25: Secondary analysis. Flash EB Series #192. The Gallup Organization.

Eurostat (2009). [Cited: September 2009]. Available on the World Wide Web: < http:// *ec.europa.eu/eurostat* >.

Fairlie, R. & A. Robb (2007), Families, human capital and small business: Evidence from the characteristics of business owner survey. In: Industrial and Labor Relations Review, Vol. 60, pp. 225-245.

Feldman, M.P. (2001), The entrepreneurial event revisited: firm formation in a regional context. In: Industrial and Corporate Change, Vol. 10, pp. 861-891.

Florida, R. (2002), The Rise of the Creative Class: And How It's Transforming Work, Leisure, Community and Everyday Life. Basic Books: New York.

Fornahl, D. (2003), Entrepreneurial Activities in a Regional Context. In: D. Fornahl and T. Brenner (eds.), Cooperation, Networks and Institutions in Regional Innovation Systems, pp. 38-57. Edward Elgar: Cheltenham.

Fornahl, D. (2009), Changes in Regional Firm Founding: Activities A theoretical explanation and empirical evidence. Routledge: London.

Frank, H., Lueger, M. & C. Korunka (2007), The significance of personality in business start-up intentions, start-up realization and business success. In: Entrepreneurship and Regional Development, Vol. 19, 227-251

Fritsch, M., & P. Mueller (2004), Effects of new business formation on regional development over time. In: Regional Studies, Vol. 38, 961–975.

Fritsch, M. & P. Mueller (2006), The evolution of regional entrepreneurship and growth regimes. In: Fritsch, M. & J. Schmude (eds.), Entrepreneurship in the Region. International Studies in Entrepreneurship, Vol. 14. Springer Science: New York.

Fritsch, M. & F. Noseleit (2009), Investigating the Anatomy of the Employment Effects of New Business Formation. Jena Economic Research Papers in Economics 2009-001. Friedrich-Schiller-University Jena, Max-Planck-Institute of Economics: Jena.

Galasi, P. & G. Sziráczki (1985), Labour market and second economy in Hungary. Campus: Budapest.

Garlick, S., Benneworth, P., Puukka J. & P. Vaessen (2006), Supporting the Contribution of Higher Education Institutions to Regional Development. Peer Review Report: Twente in the Netherlands. Organisation for Economic Co-operation and Development, Directorate for Education, Education Management and Infrastructure Division, Programma on Institutional Management of Higher Education (IMHE).

Garnsey, E. (1998). A Theory of the Early Growth of the Firm. In: Industrial and corporate change, Vol. 7, pp. 523-555.

Gibson, D. (2004), Role models in career development: new directions for theory and research. In: Journal of Vocational Behavior, Vol. 65, pp. 134–156.

Gort, M. & S. Klepper (1982), Time Paths in the Diffusion of Product Innovations. In: The Economic Journal, Vol. 92, pp. 630-53.

Grilo, I & R. Thurik (2006), Latent and actual entrepreneurship in Europe and the US: some recent developments. EIM Scales-Paper N200514. EIM: Zoetermeer.

Hall, P.A. & D. Soskice (2001), Varieties of Capitalism. The Institutional Foundations of Comparative Advantage. Oxford University Press: Oxford.

Hall, J.C. & R.S. Sobel (2008), Institutions, Entrepreneurship, and Regional Differences in Economic Growth. In: Southern Journal of Entrepreneurship, Vol. 1, pp. 69-96.

Harrison, B. (1994), The Myth of Small Firms as the Predominant Job Generators. In: Economic Development Quarterly, Vol. 8, pp. 3-18.

Hart, M. & E. Hanvey (1994), Job Generation and New and Small Firms: Some Evidence from the Late 1980's. In: Small Business Economics, Vol. 7, pp. 97-109.

Hébert, R.F. & A.N. Link (1989), In search of the meaning of entrepreneurship. In: Small Business Economics, Vol. 1, pp. 39-49.

Henrekson, M. (2005), Entrepreneurship: a weak link in the welfare state? In: Industrial and Corporate Change, Vol. 14, pp. 437-467.

Henrekson, M. & D. Johansson (2009), Gazelles as job creators: a survey and interpretation of the evidence. In: Small Business Economics, Vol. 35, pp. 227-244.

High, C., Pelling, M. & G. Nemes (2005), Understanding informal institutions: Networks and communities in rural development. In: Hungarian Academy of Sciences: Budapest.

Hofstede, G., (1980), Culture's Consequences: International Differences in Work-Related Values. Sage: Beverly Hills.

Hofstede, G. (1991), Cultures and Organizations: Software of the Mind. McGraw-Hill: London.

Holcombe, R. G. (1998), Entrepreneurship and Economic Growth. In: Quarterly Review of Austrian Economics, Vol. 1, pp. 45–62.

Holcome, R.G. (2003), The Origins of Entrepreneurial Opportunities. In: the Review of Austrian Economics, Vol. 16, pp. 25-43.

Huck, P., Rhine, S.L.W., Bond, P. & R. Townsend (1999), Small business finance in two Chicago minority neighborhoods. In: Economic Perspective, Vol. Q II, pp. 46-62.

Hudson, R., (2004), Conceptualizing economies and their geographies: spaces, flows and circuits. In: Progress in Human Geography, Vol. 28, pp. 447-471.

Hulsink, W., Manuel, D. & E. Stam (2004), Ondernmen in Netwerken. Nieuwe en groeiende bedrijven in de informatiesamenleving. Van Gorcum : Assen.

Inzelt, A. & L. Szerb (2006), The innovation activity in a stagnating county of Hungary. In: Acta Oeconomica, Vol. 56, pp. 279-299.

Iyigun, M.F. & A.L. Owen (1998), Risk, Entrepreneurship and Human Capital Accumulation. In: American Economic Review, Vol. 88, pp. 454-457.

Jones, P.A. (2008), Recognizing the difference between small business and high-impact entrepreneurs. WEBWTN News [online]. [Cited: September 2009]. Available on the World Wide Web: < http://wistechnology.com/articles/5035/>.

Jong, J.P.J. de & A.P. Muizer (2005), De meest innovatieve sector van Nederland: Ranglijst van 58 sectoren. EIM: Zoetermeer.

Kangasharju, A. (2000), Regional variation in firm formation: Panel and cross-section data evidence from Finland.In: Papers in Regional Science, Vol. 79, pp. 355-373.

Karlsson, C., Lindmark, L. & C. Olofsson (1993), Regional characteristics, Business Dynamics and Economic Development. In: Karlsson, C., Johannisson, B. & D. Storey (eds.), Small Business Dynamics: International, National and regional Perspectives. Routledge: New York.

Keasy, K. & R. Watson (1991), The state of the art of small business failure prediction: achievements and prognosis. In: International Small Business Journal 4, Vol. 9, pp. 11–29.

Keynes, J.M. (1936), The General Theory Of Employment Interest And Money. Macmillan: London.

Kihlstrom, R. & J.J. Laffont (1979), A General Equilibrium Entrepreneurship Theory of the Firm Based on Risk Aversion. In: Journal of Political Economy, Vol. 87, pp. 719-48.

Kirzner, I. M. (1973), Competition and entrepreneurship. The University of Chicago Press: Chicago.

Kolvereid, L. (1992), Growth aspirations among Norwegian entrepreneurs. In: Journal of Business Venturing, Vol. 7, pp. 209-222.

Korsgaard, S. (2007), Rewriting the opportunity theory. RENT XXI conference: Cardiff.

Kortum, S. & J. Lerner (1997), Stronger protection of technological revolution: what is behind the recent surge in patenting? Working paper 6204. National Bureau of Economic Research: Cambridge.

Kornai, J. (1980), The Dilemmas of a Socialist Economy: The Hungarian Experience. In: Cambridge Journal of Economics, Vol. 4, pp. 147-157.

Kornai, J. (1993), Transformational Recession; A General Phenomenon Examined Through the Example of Hungary's Development. Harvard Institute of Economic Research Working Papers 1648. Institute of Economic Research: Harvard.

Kornai, J. (1994), Transformational Recession: The Main Causes. In: Journal of Comparative Economics. In: Elsevier, Vol. 19, pp. 39-63.

Kornai, J. (1996), Paying the Bill for Goulash Communism: Hungarian Development and Macro Stabilization in a Political Economy Perspective. In: Social Research, Vol. 63, pp. 943-1040.

Kovács, E. & Z. Bacsi (2000), Small business in south and western Hungary in the nineties – results of a sociological survey. In: Journal of Central European Agriculture, Vol. 1, pp. 41-58.

Kovács, P. & M. Lukovics (2006), Classifying Hungarian Sub-regions by their Competitiveness. In: Globalization Impact on Regional and Urban Statistics. SCORUS 25th Conference on Urban and Regional Statistics and Research. Wroclaw, Poland.

Kozminski, A.K. (1992), Transition from Planned to Market Economy: Hungary and Poland Compared. In: Studies in Comparative Communism, Vol. 25, pp. 315 -333.

Kroeber, A.L. & T. Parsons (1958), The concept of culture and of social system. In: American Sociological Review, Vol. 23, pp. 582-583.

Krueger, N. (1993), Impact of prior entrepreneurial exposure on perceptions of new venture feasibility and desirability. In: Entrepreneurship Theory and Practice, Vol. 18, pp. 5-21.

Lafuente, E., Vaillant, Y. & J. Rialp (2007), Regional Differences in the Influence of Role Models: Comparing the Entrepreneurial Process of Rural Catalonia. In: Regional Studies. Vol. 41, pp. 779 – 796.

Laki, M. (1998), Kisvallalkozas a szocializmus utan. Kozgazdasagi Szemle Alapitvany: Budapest

Laky, T. (1998), A kisvallalkozasok novekedesenek korlatai. In: Szociologiai Szemle, Vol 1, pp. 23-40.

Lambooy, J. (1995). Regionale economische dynamiek: een inleiding in de economische geografie. Bussum: Countinho.

Lengyel, I. (2007), Economic growth and competitiveness of Hungarian regions (Economic development strategies for different types of regions). Second Central European Conference in Regional Science – CERS. pp. 587 – 608.

Lewis, W.A. (1955), Theory of Economic Growth. George Allen & Unwin: London.

Liebenstein, H. (1968), Entrepreneurship and Development. In: American Economic Review, Vol. 58, pp. 72-75.

Lindbeck, A. (1990), The Swedish Experience. In: Institute for International Economic Studies, Seminar Paper, Vol. 482.

Lipset, S.M. (2000), Values and Entrepreneurship in the Americas. In: Richard Swedberg (eds.), Entrepreneurship: The Social Science View. Oxford University Press: Oxford.

Low, S., Henderson K. & S. Weiler (2005), Gauging a Region's Entrepreneurial Potential. In: Economic Review, Vol. QIII, pp. 61-89.

Loveman, G. & W. Sengerberger (1991), The re-emergence of small-scale production; an international comparison. In: Small Business Economics, Vol. 3, pp. 1-37.

Lundvall, B. & P. Maskell (2000), Nation states and economic development: From national systems of production to national systems of knowledge creation and learning. In: Clark, G.L., Feldmann, M.P., Gertler, M.S. (eds.), The Oxford Handbook of Economic Geograhpy Oxford, pp. 353-372. Oxford University Press: Oxford.

Major, I. (2003), What makes Hungarian SMEs perform poorly? In: Acta Oeconomica, Vol. 53, pp. 109-143.

Malecki, E. (2009), Geographical environments for entrepreneurship. In: International Journal of Entrepreneurship and Small Business. Vol. 7, pp. 175-190.

Masten, J. & S. Brown (1995), Problems facing business associations in emerging countries: the case of Ghana. In: International small business journal, Vol. 13, pp. 91-96.

Massey, D. & J. Allen (1984), Geography Matters!: A Reader. Cambridge University Press: Cambridge.

McMullen, J.S., Plummer, L.A. & Z.J. Acs (2007), What is an Entrepreneurial Opportunity? In: Small Business Economics, Vol. 28, pp. 273-283.

Medgyesi, M. (2002), Literature Review Hungary. In: C. Wallace (eds.), HWF research report 1: Critical review of Literature an Discourses about Flexibility, pp. 137-154. HWF Research Consortium, Institute for Advanced Studies: Vienna.

Menárd, C. & M. Shirley (2005), Handbook of New Institutional Economics. Edwar Elgar: Cheltenham.

Miller, R.A. (1984), Job matching and occupational choice. In: Journal of Political Economy, Vol. 92, pp. 1086-1120.

Miller, J. (1990), Survival and Growth of Independent Firms and Corporate Affiliates in Metro and Non-metro America. In: Rural Development Research Report No. 74. Department of Agriculture/Economic Research Service: Washington DC.

Mizsei, K. (1993), Bankruptcy and the post-communist economies of east central Europe. Institute for East West Studies: New York.

Mueller, P. (2006), Entrepreneurship in the Region: Breeding Ground for Nascent Entrepreneurs? In: Small Business Economics, Vol. 27, pp. 41–58.
Mueller, P. (2007), Exploiting Entrepreneurial Opportunities: The Impact of Entrepreneurship on Growth. In: Small Business Economics, Vol. 28, pp. 355-362.

Nooteboom, B. (2003), Stages of discovery and entrepreneurship. ERIM Report ERS-2003-028-ORG. Erasmus University Rotterdam: Rotterdam.

North, D.C. & R.P. Thomas (1973), The Rise of the Western World: A New Economic History. Cambridge University Press: Cambridge.

North, D.C. (1990), Institutions, institutional change and economic performance. Cambridge University Press: Cambridge.

North, D.C. (1994a), Economic performance through time. In: The American Economic Review, Vol. 84, pp. 359-368.

North, D.C. (1994b), Institutional Change A Framework Of Analysis. Washington University: Washington.

North, D. C. (1994c). Institutions and credible commitment. Washington University: St. Louis.

North, D.C. (2005), Understanding the process of economic change. University Press: Princeton.

OECD (1985), Employment Outlook 1985, OECD Publishing.

OECD (2003), Employment outlook 2003. OECD Publishing.

Pagano, P. & F. Schivardi (2003), Firm Size Distribution and Growth. In: Scandinavian Journal of Economics, Vol. 105, pp. 255-274.

Penrose, E. T. (1959), The Theory of the Growth of the Firm. John Wiley: New York.

Praag, C.M. van & H. van Ophem (1995), Determinants of Willingsness and Opportunity to Start as an Entrepreneur. In: Kyklos, Vol. 48, pp. 513-540.

Praag, C.M. van (1999), Some classic views on entrepreneurship. In: De Economist, Vol. 147, pp. 311-335.

Praag, C.M. van & P.H. Versloot (2007), What is the Value of Entrepreneurship? A review of Recent Research. In: Small Business Economics, Vol. 29, pp. 351-389

Picot, G., & Dupuy, R. (1998). Job creation by company size class: The magnitude, concentration and persistence of job gains and losses in Canada. Small Business Economics, 10(2), 117–139.

Porter, M.E. (1990), The Competitive Advantage of Nations. Free Press: New York.

Porter, M.E., Stern, S. & J.L. Furman (2002), The determinants of national innovative capacity. In: Research Policy, Vol. 31, pp. 899–933.

Rafiqui, P.S. (2009), Evolving economic landscapes: why new institutional economics matters for economic geography. In: Journal of Economic Geography, Vol. 9 pp. 329-353.

Regio Twente (2006). [online] [Cited: Oktober 2010]. Available on the World Wide Web: < http://www.regiotwente.nl/ >

Reynolds, P.D., Storey, D.J. & P. Westhead (1994), Cross-National Comparisons of the Variation in New Firm Formation Rates. In: Regional Studies, Vol. 28, pp. 443–456.

Reynolds, P.D., Miller, B. & W.Maki (1995), Explaining Regional Variation in Business Births and Deaths: U.S. 1976–88. In: Small Business Economics, Vol. 7, pp. 389–407.

Reynolds, P.D., Hay, M. & S.M. Camp (1999), Global Entrepreneurship Monitor: 1999 Executive Report. GEM

Reynolds, P.D., Hay, M., Bygrave, W.D., Camp, S.M. & E. Autio (2000), Global Entrepreneurship Monitor: 2000 Executive Report. GEM

Reynolds, P.D., Bygrave, W.D. & E. Autio (2004), Global Entrepreneurship Monitor 2003. GEM

Reynolds, P.D., Bosma, N., Autio, E., Hunt, S., de Bono, N., Servais, L., Lopez-Garcia, P. & N. Chin (2005), Global Entrepreneurship Monitor; Data Collection and Implementation 1998-2003. In Small Business Economics, Vol. 24, pp. 205-231.

Román, Z. (2006), A kis- és középvállalatok és a vállalkozási készség. Központi Statisztikai Hivatal: Budapest.

Romanelli, E. & C. B. Schoonhoven (2001), The local origins of new firms. In: C. B. Schoonhoven & E. Romanelli (eds.), The Entrepreneurship Dynamic: Origins of Entrepreneurship and the Evolution of Industries. Stanford University Press: Stanford.

Rostow, W.W. (1960), The Stages of Economic Growth: A Non-Communistic Manifesto. Cambridge University Press: Cambridge.

Santarelli, E. & E. Pesciarelli (1990), The emergence of a vision: the development of Schumpeter's theory of entrepreneurship. In: History of Political Economy, Vol. 22, pp. 677-696.

Santarelli, E. & M. Vivarelli (2007), Entrepreneurship and the process of firms' entry, survival and growth. In: Industrial and Corporate Change, Vol. 16, pp. 455-488.

Schutjens, V.A.J.M. & E. Wever (2000), Determinants of new firm success. In: Papers in Regional Science, Vol. 79, pp. 135-159.

Schutjens, V. (2007), Benchmark Gemeentelijk Ondernemersklimaat (BGO): Reflectie vanuit het wetenschappelijk onderzoek. Powerpoint presentation: BGO-tussenmeting GSB III, 8 november 2007, Den Haag.

Scott, W. R. (1995), Institutions and organizations. Sage: Beverly Hills.

Schumpeter, J.A. (1911), Theorie der wirtschaftlichen Entwicklung. Duncker & Humblot: Leipzig.

Schumpeter, J.A. (1934), The theory of economic development. Oxford University Press: London.

Schumpeter, J.A. (1942), Capitalism, socialism and democracy. Harper & Row: New York.

Shane, S. & S. Venkataraman, (2000), The promise of entrepreneurship as a field of research. In: Academy of Management Review, Vol. 25, pp. 217- 226.

Shane, S. (2003), A general theory of entrepreneurship: The individual-opportunity nexus. Edgar Elgar: Cheltenhalm.

Sik, E. (1992), From the second to the informal economy. In: Journal of Public Policy, Vol. 12, pp. 153-175.

Simon, H.A. (1983), Reason in Human Affairs. Stanford University Press: Stanford.

Speizer, J. (1981). Role models, mentors, and sponsors: The elusive concepts. In: Signs: Journal of Women in Culture and Society, Vol. 6, pp. 692–712.

Stam, E. (2003). Why butterflies don't leave: Locational behavior of new firms. Urban and Regional Research Centre Utrecht. Utrecht.

Stam, E. (2005), The geography of gazelles in the Netherlands. In: Journal for Economic and Social Geography, Vol. 96, pp. 121-127.

Stam, E., Sudlle, K., Hessels, J. & A. van Stel (2007), Hgih growth entrepreneurs, public policies and economic growth. Jena Economic Research Papers 2007 – 019. Max Planck Institute of Economics: Jena.

Stam, E. (2008), Entrepreneurship and Innovation Policy. Centre for Technology Management, University of Cambridge: Cambridge.

Stel, A.J. van, Carree, M.A. & A.R. Thurik (2005), The Effect of Entrepreneurial Activity on National Economic Growth. In: Small Business Economics, Vol. 24, pp. 311-321.

Stel, A.J. van, Storey, D. & A.R. Thurik, (2006), The Effect of Business Regulations on Nascent and Actual Entrepreneurship. Discussion Papers on Entrepreneurship, Growth and Public Policy no. 0406, Max Planck Institute of Economics.

Stel, A.J. van & K. Suddle (2008), The impact of new firm formation on regional development in the Netherlands. In: Small Business Economics, Vol. 30, pp. 31-47.

Sternberg, R. (1996), Regional Growth Theories and High-Tech Regions. In: International Journal of Urban and Regional Research, Vol. 20, pp. 518-538.

Sternberg, R. & J. Wagner (2004), Start-up activities, individual characteristics, and the regional milieu: Lessons for entrepreneurship support policies from German micro data. In: The Annals of Regional Science, Vol. 38, pp. 219-240.

Sternberg, R. (2009), Regional dimensions of entrepreneurship. In: Foundations and Trends in Entrepreneurship, Vol. 5, p 144.

Stevenson, H.H. & J.C. Jarillo (1990), A Paradigm of Entrepreneurship. In: Entrepreneurial Management. Strategic Management Journal, Vol. 11, pp. 17-27.

Storey, D.J. and Johnson, S. (1987), Job Generation and Labour Market Change. MacMillan Press: London.

Stuijvenberg, J.H. van (1979), Traditionele en modern economische gescheidenis. In: Geurts, P.A.M. & F.A.M. Messing (red.), Theoretische en methodologische aspecten van de economische en sociale geschiedenis, pp. 293-319. Den Haag.

Summers, D.F. (2000), The Formation of Entrepreneurial Intensions. Garland: New York.

Sutaria, V. & D. Hicks (2004), New firm formation: Dynamics and determinants. In: The Annals of Regional Science, Vol. 38, pp. 241-262.

Svejnar, J. (2002), Transition Economies: Performance and Challenges. In: Journal of Economic Perspectives, Vol. 16, pp. 3-28.

Syrguin, M. (1988), Patterns of Structural Change. In: Chenery, H.B. & T.N. Srinivasan (eds.), Handbook of Development Economics, Vol. 1, pp. 203-273. Elsevier Science Publishers B.V: Stanford.

Szalavetz, A. (2007), Knowledge-Based Entrepreneurship in Hungary. In: Romanian Economic and Business Review, Vol. 2, pp. 64-74.

Szelenyi, I. (1988), Socialist Entrepreneurs: Embourgeoisiement in Rural Hungary. Polity Press: Oxford.

Szerb L. (2004), A vállalkozás és vállalkozói aktivitás mérése. In: Statisztikai Szemle, Vol. 82, pp. 545-566.

Szerb, L., Acs, Z.J., O'Gorman, C. & S. Terjesen (2007a), Could the Irish Miracle be Repeated in Hungary? In: Small Business Economics, Vol. 28, pp. 123-142.

Szerb, L., Rappai, G., Makra, Z. & S. Terjesen (2007b), Informal Investment in Transition Economies: Individual Characteristics and Clusters. In: Small Business Economics, Vol. 28, pp. 257-271.

Szerb, L. (2008a), The Examination of the Level of Entrepreneurship in Eight Central Eastern European Countries. In: 6th International Conference on Management, Enterprise and Benchmarking MEB 2008-Proceedings.

Szerb, L. (2008b), The connection between innovation and business growth in the Hungarian SME sector. Paper presented to the Rencontres de St-Gall conference.

Tamásy, C. (2006), Determinants of Regional Entrepreneurship Dynamics in Contemporary Germany: A Conceptual and Empirical Analysis. In: Regional Studies, Vol. 40, pp. 365-384.

Tambunan, T.T.H. (1994), The Role of Small-Scale Industries in Rural Economic Development. Thesis Publishers: Amsterdam

Thurik, A.R. (1996), Small firms, entrepreneurship and economic growth. In: P.H. Admiraal (eds.), Small Business in the Modern Economy, De Vries Lectures in Economics. Blackwell Publishers: Oxford.

Thurik, A.R. (2008), The 'managed' and the 'entrepreneurial' economy. Erasmus University Rotterdam, EIM/Panteia Zoetermeer, Max Planck Institute of Economics, Jena, Free University Amsterdam.

Tominc, P. & M. Rebernik (2007), Growth Aspirations and Cultural Support for Entrepreneurship: A Comparison of Post-Socialist Countries. In: Small Business Economics, Vol. 28, pp. 239-255.

Vaillant, Y. & E. Lafuente (2007), Do different institutional framework condition the influence of local fear of failure and entrepreneurial examples over entrepreneurial activity? In: Entrepreneurship and Regional Development, Vol. 19, pp. 3131-337.

Veciana, J.M. & D. Urbano (2008), The institutional approach to entrepreneurship research. Introduction. In: International Entrepreneurship and Management Journal, Vol. 4, pp. 365-379.

Verheul, I., Wennekers, S., Audretsch D.B. & R. Thurik (2001), An Eclectic Theory of Entrepreneurship: Policies, Institutions and Culture. Tinbergen Institute: Tinbergen Institute.

Vernon, R. (1966). International investment and international trade in the product life cycle. In: Quarterly Journal of Economics, Vol. 80, pp. 190-207.

Vivarelli, M. & D.B. Audretsch (1998), The link between the entry decision and post-entry performance: evidence from Italy. In: Industrial and Corporate Change, Vol. 7, pp. 485-500.

Voight, S. (2009) How not to Measure Institutions. Marburg Center for Institutional Economics: Marburg.

Wagner, J. & R. Sternberg (2002), The Role of the Regional Milieu for the Decision to Start a New Firm: Emperical Evidence for Germany. IZA Discussion Paper, No. 494. Institute for the Study of Labor: Bonn.

Wennekers, S. & R. Thurik (1999), Linking entrepreneurship and economic growth. In: Small Business Economics, Vol. 27, pp. 27-55.

Wennekers, S., Stel, A.J. van, Thurik, A.R. & P. Reynolds (2005), Nascent entrepreneurship and the level of economic development. In: Small Business Economics, Vol. 24, pp. 27-55.

Wennekers, S. (2006), Entrepreneurship at Country level; Economic and Non-Economic Determinants. ERIM: Rotterdam.

Wennekers, S., Thurik, R., Stel, A. van & N. Noorderhaven (2006), Uncertainty avoidace and the rate of business ownership across 21 OECD countries, 1976-2004. Scales Research Reports H200605, EIM: Zoetermeer.

Wicker A.W. & J.C. King (1989), Employment, ownership and survival in microbusiness: a study of new retail and service establishments. In: Small Business Economics, Vol. 1, pp. 137–152.

Winter, S.G. (1984), Schumpeterian competition in alternative technological regimes. In: Journal of Economic Behavior and Organization, Vol. 5, pp. 287-320.

Wong, ., Ho, Y. & E. Autio (2005), Entrepreneurship, Innovation and Economic Growth: Evidence from GEM data. In: Small Business Economics, Vol. 24, pp. 335-350.

World Bank Group (2005), Doing Business in 2005: Removing Obstacles to Growth. World Bank, International Finance Corporation and Oxford University Press: Washington.

Zwass, A. (1995), From Failed Communism to Underdeveloped Capitalism. M. E. Sharpe INC: New York.

Appendix

Dear Sir / Madame, my name is Miklós Beems, and I am a master student economic geography at the University of Utrecht. I am currently running a research on SME's in the region of Twente within the Netherlands and the Hungarian region of Baranya. I am specifically interested in the influence of the local and national environment on your company ; in what way did this environment influence your start-up motivations and how does it influence your company up till this day. With this questionnaire I am trying to find out if there is a certain trend noticeable within these two regions which affects new business entry (be it positively or negatively). Filling in the questionnaire will take about 5 minutes, and not only would you help me, it would serve economic scientific knowledge in general. Answering this questionnaire is entirely anonymous and the given information will be dealt with strictly confidential. I want to stress that i do not wish to sell anything, nor am I connected with any organization other than the University : this questionnaire serves scientific knowledge and scientific knowledge alone. After filling in this questionnaire you won't receive any additional emails. However, if you happen to be interested, you can write down your email address at the bottom of the questionnaire and I will send to you the most important results from this research.

Thanks in advance,

Miklós Beems

1. What was your motivation to start a business of your own?

……
……
……

2. What was the biggest problem encountered while starting up your business *(multiple answers possible)*

a) unfavorable taxing and high social costs
b) unpredictable economic regulation
c) trouble gathering start-up capital
d) lack of help from the national government
e) lack of help from local governmental institutions
f) lack of help from informal network
g) lack of start-up skills and knowledge
h) lack of profitable opportunities for starting a business
i) other (please elaborate upon)…….

3. What is the biggest problem you encounter while running your business? *(multiple answers possible)*

a) unfavorable taxing and high social costs

b) unpredictable economic regulation
c) lack of capital
d) lack of help from the national government
e) lack of help from local governmental institutions
f) lack of help from informal network
g) lack of managerial skills and/or lack of general knowledge about running a company
h) unfair competition
i) lack of demand
i) other (please elaborate
upon)…….

4. What is the biggest advantage of your region?
……
……

5. Was there in your direct environment a person that stimulated you or advised you to start a company of your own? What was your connection to this person? In what way where you stimulated or advised?
a)yes;……
……
b) no

6. Was there in your direct environment a person that stimulated you or advised you <u>NOT</u> to start a company of your own? What was your connection to this person? In what way where you disencouraged or advised?
a)yes;……
……
b) no

7. During the start-up of your business, was there a person or a company which you considered to set an example for the way you wanted to build your company?
a) yes, a company
b) yes, a person
c) no --> (go to question 9)

8. If you answered positively to the previous question: did this person or company supply you of any specific help with the start of your company? (<u>multiple answers possible</u>**)**
a) yes; financial help
b) yes; overcoming formalities during company start-up
c) yes; giving specific knowledge for improving managerial skills
d) yes; giving specific product or service knowledge
e) other;……..

9. Was there someone else that helped you during the start-up phase of your company? What was your connection to this person?

a) close relative
b) distant relative
c) friend or acquintance
d) former collegue
e) other;……..
f) *no* --> (go to question 12)

10. Was this person an experienced entrepreneur?

a) yes
b) no

11. In what way did this person provide you of help? (multiple answers possible)

a) yes; financial help
b) yes; overcoming formalities during company start-up
c) yes; giving specific knowledge for improving managerial skills
d) yes; giving specific product or service knowledge
e) other;……..

12. Are you planning to expand your company within the next 5 years?

a) yes
b) no

13. Is the product or service you provide based on a novel idea, or is it a repition of an existing idea?

a) a novel idea, namely;……
……..
b) a repitition of an existing idea --> (end of this questionaire)

14. If you answerd a) to the previous question, was there someone involved with the development of this novel idea?

a) yes, namely;……
……
b) no

N.B. If you are interested in the curtailed results of this reseach please write down your email address.

……

I thank you kindly for your cooperation,

Miklós Beems

Questionaire in Dutch: Enquete

Geachte Heer of Mevrouw, mijn naam is Miklós Beems en ik ben een master student economische geografie aan de Universiteit van Utrecht. Momenteel voer ik een onderzoek uit naar het midden en klein bedrijf in de regio Twente alsmede de Baranya regio in Hongarije. Waar ik met name in ben geïnteresseerd is de invloed van de locale en nationale omgeving op uw bedrijf; hoe beïnvloedde deze uw beslissing om in eerste instantie een bedrijf te beginnen en hoe het op dit moment van invloed is op uw bedrijf. Met deze enquête probeer ik erachter te komen of er een bepaalde trend waarneembaar is in de regio Twente (en tevens in Baranya) welke de creatie van nieuwe (kleine) bedrijven stimuleert of juist tegen werkt. De enquête zal ongeveer 5 minuten in beslag nemen, en niet alleen zou u mij er enorm mee helpen, uw hulp is ook een bijdrage aan de wetenschappelijke economische kennis in het algemeen. Het beantwoorden van deze enquête geschied anoniem en er wordt vertrouwelijk en zorgvuldig met uw antwoorden en gegevens omgegaan. Ik wil benadrukken dat ik niets probeer te verkopen; deze enquête is puur voor wetenschappelijk onderzoek. U zult daarom ook geen additionele enquêtes of e-mails toegestuurd krijgen. Desondanks, mocht u interesse hebben, dan kan u uw e-mailadres onder aan de enquête noteren en ik zal dan vervolgens beknopt de uiteindelijke onderzoeksresultaten naar u toesturen.

Bij voorbaat dank,

Miklós Beems

1. Wat was voor u de reden om een ondernemer te worden?

……
……
……

2. Wat was het grootste probleem waar u op stuitte tijdens het starten van uw bedrijf? *(meerdere antwoorden mogelijk)*

a) ongunstig belastingklimaat en hoge sociale lasten
b) onvoorspelbare economische regelgeving
c) moeilijkheden met het verkrijgen van startkapitaal
d) gebrek aan adequate hulp vanuit de nationale overheid
e) gebrek aan adequate hulp vanuit locale instanties (kamer van koophandel, instanties voor bedrijfsontwikkeling etc.)
f) gebrek aan adequate hulp van vrienden en bekenden
g) gebrek aan adequate kennis over het starten van een onderneming
h) gebrek aan goede winstgevende mogelijkheden om een bedrijf te starten
i) anders (verklaar nader)……

3. Wat is het grootste probleem waar u momenteel op stuit tijdens het runnen van uw bedrijf? *(meerdere antwoorden mogelijk)*

a) ongunstig belastingklimaat en hoge sociale lasten
b) onvoorspelbare economische regelgeving
c) gebrek aan kapitaal
d) gebrek aan adequate hulp vanuit de nationale overheid
e) gebrek aan adequate hulp vanuit de lokale overheid

f) sterke concurrentie
g) gebrek aan managersvaardigheden en/of gebrek aan kennis over het runnen van een bedrijf
h) oneerlijke concurrentie
i) gebrek aan vraag naar uw product of dienst
j) anders (verklaar nader)……

4. Wat is het grootste voordeel van gevestigd zijn in de regio Twente?
……
……

5. Was er in uw directe omgeving een persoon die u stimuleerde of adviseerde om uw eigen bedrijf te starten? Wat was uw relatie tot deze persoon? En op wat voor manier stimuleerde of adviseerde deze persoon u?
a) ja;……
……
b) nee

6. Was er iemand in uw directe omgeving die u adviseerde om juist <u>NIET</u> een eigen bedrijf te starten? Wat was uw relatie tot deze persoon? En op wat voor manier raadde deze persoon u af om zelf een bedrijf te starten?
a) ja;……
……
b) nee

7. Was er een persoon of bedrijf die een voorbeeldfunctie innam tijdens het starten van uw bedrijf?
a) ja, een bedrijf
b) ja, een persoon
c) nee --> (ga naar vraag 9)

8. Indien u positief op de vorige vraag heeft geantwoord: voorzag deze persoon of dit bedrijf u van specifieke hulp met het starten van uw bedrijf? (<u>meerdere antwoorden mogelijk</u>**)**
a) ja; financiële hulp
b) ja; het helpen met het overkomen van formaliteiten omtrent het opstarten van het bedrijf
c) ja; het geven van specifieke kennis omtrent managersvaardigheden
d) ja; het geven van specifieke kennis omtrent uw dienst of product
e) anders;……..

9. Was er eventueel nog een andere persoon die u geholpen heeft met het starten van uw bedrijf? En wat was uw relatie tot deze persoon?
a) naaste familielid
b) verre familie lid
c) vriend of kennis
d)voormalig collega

e) anders;……..
f) *nee* --> (ga naar vraag 12)

10. Was deze persoon een ervaren ondernemer?
a) ja
b) nee

11. Van wat voor soort hulp voorzag deze persoon u? (meerdere antwoorden mogelijk**)**
a) financiële hulp
b) helpen met het overkomen van formaliteiten omtrent het opstarten van het bedrijf
c) specifieke kennis omtrent managersvaardigheden
d) specifieke kennis omtrent uw dienst of product
e) anders;……

12. Bent u van plan binnen 5 jaar uw bedrijf uit te breiden?
a) ja
b) nee

13. Is het product of dienst die u aanbiedt gebaseerd op een nieuw idee, of is het een repetitie van een al bestaand idee?
a) een nieuw idee, namelijk;……
……..
b) een herhaling van een al bestaand idee --> (einde van deze enquête)

14. Indien u a) geantwoord heeft op de vorige vraag, was er iemand anders bij de ontwikkeling van dit nieuwe idee betrokken?
a) ja, namelijk;……
……
b) nee

N.B. Als u geïnteresseerd bent in de beknopte resultaten van dit onderzoek, dan kunt u hieronder uw email adres noteren
……

IK DANK U HARTELIJK VOOR UW MEDEWERKING,

Miklós Beems

Questionnaire in Hungarian: Kérdőív

Tisztelt Hölgyem/Uram! Miklós Beems vagyok, a holland University of Utrecht egyetem végzős, gazdaságföldrajz szakos hallgatója. Jelenleg a Pécs környéki kis - és középvállalkozásokról végzek kutatást. Kiváltképpen a helyi és országos környezet vállalkozásokra gyakorolt hatása érdekel; milyen befolyással volt vállalkozása elindításában, és milyen hatással van rá most. Ezzel a kérdőívvel arra próbálok fényt deríteni, hogy van-e Pécs környékén egyféle tendencia, ami akár elősegíti, vagy hátráltatja a környék vállalkozásainak gyarapodását. A kérdőív kitöltése nagyjából 5 percet vesz igénybe, és kitöltésével nem csak nekem tesz nagy szívességet, de segít a gazdálkodástudomány fejlődésében is. A kérdőív kitöltése név nélkül történik. Szeretném hangsúlyozni, hogy a szerzett adatok kizárólag a kutatás célját szolgálják, nem fogok visszaélni a megszerzett információval semmilyen módon. Következésképp a továbbiakban Önt nem fogom e-mailekkel, vagy újabb kérdőívekkel sem megkeresni. Mindazonáltal ha érdeklődik a kutatás iránt a kérdőív végén megadhatja e-mail címét és elküldöm Önnek kutatásom eredményét.

Köszönöm az együttműködést,

Miklós Beems

1. Mi volt az ok, amiért úgy döntött vállalkozó lesz?

……
……
……..

2. Mi volt a legnagyobb nehézség, amivel szembe kellett néznie vállalkozása elindításakor? (<u>*Egy vagy több helyes válasz is lehet*</u>**)**

a) magas adóterhek és járulékok
b) gazdasági szabályzatok állandó változása
c) kezdőtőke hiánya
d) elégtelen támogatás az államtól
e) elégtelen támogatás a helyi szervezetektől (vállalkozásfejlesztési szervezetek)
f) elégtelen támogatás a barátoktól, rokonoktól
g) tapasztalat és tudás hiánya egy vállalkozás elindításáról
h) jó üzleti lehetőség hiánya
i) egyéb
(kérem részletezze)……

3. Mi a legnagyobb nehézség, amivel szembe kell néznie most, hogy vállalkozása már elindult? (<u>*Egy vagy több helyes válasz is lehet*</u>**)**

a) magas adóterhek és járulékokb) gazdasági szabályzatok állandó változása
b) gazdasági szabályzatok állandó változása
c) tőkehiány
d) elégtelen támogatás az államtól
e) elégtelen támogatás az önkormányzattól
f) erős gazdasági verseny
g) menedzseri képességek és egy vállalkozás üzemeltetésével kapcsolatos tudás hiánya

h) tisztességtelen gazdasági verseny
i) kereslet hiánya
j) egyéb
(kérem részletezze)……

4. Mi a legfőbb előnye a Pécsett való vállalkozásnak?
……
……

5. Volt valaki közvetlen környezetében, aki arra ösztökélte, vagy azt tanácsolta, hogy indítsa el saját vállalkozását? Ha igen, milyen kapcsolatban állt Önnel? Hogyan bátorította Önt?
a) igen;……
b) nem

6. Volt valaki közvetlen környezetében, aki azt tanácsolta, hogy NE indítsa el saját vállalkozását? Ha igen, milyen kapcsolatban állt Önnel? Hogyan próbálta lebeszélni Önt vállalkozása elindításáról?
a) igen;……
b) nem

7. Volt olyan személy, vagy vállalat akire vagy amire példaként tekintett saját vállalkozása elindításában? Ha igen, ki vagy milyen vállalat volt az?
a) igen, egy személy
b) igen, egy vállalat
c) nem --> (válasz esetén folytasd a 9-es kérdéssel)

8. Amennyiben az előző kérdésre igennel válaszolt: segítette-e a fentebb említett személy, vagy vállalat valamilyen módon? (<u>*Egy vagy több helyes válasz is lehet*</u>**)**
a) igen; anyagi segítséget nyújtottb) igen; a kezdeti adminisztrációs teendőkben segített
b) igen; segitséget kaptam az indulás formalitásainak intézéséhez
c) igen; menedzseri tanácsokkal látott el
d) igen; tanácsokkal látott el bizonyos termékeket vagy szolgáltatásokat illetően
e) egyéb;……

9. Volt valaki más, aki segítette vállalkozásának elindításában? Ha igen, milyen kapcsolatban állt Önnel?
a) közeli családtag
b) távoli családtag
c) barát vagy ismerős
d) régi munkatárs
e) egyéb;……
f) nem -->(válasz esetén folytasd a 12-es kérdéssel)

10. Az előző kérdésben említett személy tapasztalt vállalkozó volt?

a) igen

b) nem

11. Milyen segítséget nyújtott vállalkozásának elindításában az előző kérdésekben említett személy? (<u>*Egy vagy több helyes válasz is lehet*</u>**)**

a) anyagi segítséget nyújtott

b) a kezdet adminisztrációs teendőkben segített

c) menedzseri tanácsokkal látott el

d) tanácsokkal látott el bizonyos termékeket vagy szolgáltatásokat illetően

12. Szeretné-e bővíteni vállalkozását az elkövetkezendő 5 évben?

a) igen

b) nem

13. A termék vagy szolgáltatás, amivel vállalkozása foglalkozik, újdonság a maga nemében, vagy egy már korábban is meglévő ötlet egy változata?

a) újdonság,

mégpedig:.....

.....

.....

b) már korábban meglévő ötlet változata --> (válasz esetén a kérdőív véget ért)

14. Amennyiben az előző kérdésre <u>**a**</u> **választ adott, részt vett-e valaki más is ennek az újdonságnak a kitalálásában?**

a)igen, mégpedig:.....

.....

.....

b) nem

Amennyiben érdeklődik a kutatás eredménye iránt, kérem adja meg e-mail címét:

……

Még egyszer köszönöm együttműködését,

Miklós Beems

Interview Oszvald Károly

1) Could you shortly introduce yourself: who are you and what do you do, in what for organization do you work and what does your organization do?

His name is Oszvald Karoly and he works for the Hungarian chamber of commerce and industry for the region baranya in Pécs. His department is the department for trade development along with bigger European projects summed up under the name of enterprise Europe network. His function is the consultation of traditional trade development along with providing information for entrepreneurs, organizing events and project management.

2) How would you describe the current situation in the Baranya – Pécs region regarding entrepreneurship? Is it flourishing? Is there a lot of entrepreneurial activity?

The current situation of the entrepreneurial activity in Baranya is not good: there are about 26000 businesses but this figure is slowly decreasing because of the financial crisis. Within Hungary it is a mediocre to bad region regarding established business ownership.

3) What is the nature of this entrepreneurial activity? Is it mostly necessity based entrepreneurship, or more opportunity based entrepreneurship? How is the innovativeness and the ambition level/growth orientation of the average Baranya firm?

The nature of the entrepreneurial activity is mostly necessity based, however these numbers are decreasing because of the crisis which filters out the low ambitious more amateur entrepreneurs. The ones that do stay tend to become more professional. In general we can observer that the traditional firms are low growth oriented and have a low innovativeness, however these are not the majority anymore within the region. In terms of growth ambition and opportunity based entrepreneurship the region is considered average within Hungary.

4) How is the entrepreneurial 'spirit' (if there is one) of the Baranya region different from other regions within Hungary? Is the culture more inclined towards entrepreneurship? Is the entrepreneurial population ambitious?

Within Hungary there is no specific cultural inclination towards entrepreneurship nor is the population specifically ambitious.

5) Could you name something that is lacking in this region which may negatively influence entrepreneurial start-up rates?

There is nothing that is really lacking within the region that could negatively influence the start-up rate of new enterprises.

6) Do entrepreneurs in general make us of the services your organization provides?

First of all the membership is not mandatory, so there are a lot less member entrepreneurs than one should expect. Currently there are only around 1700 members and this is mainly because most entrepreneurs do not want to pay the membership fee since they see no benefits in being a member and they do not think the chamber can help them. This could be attributed towards the fact that most people in Hungary are still rather suspicious towards governmental organizations.

7) Are there some platforms in the region where entrepreneurs can meet each other? Is there a platform where (starting) entrepreneurs can meet successful entrepreneurs?
Yes, there are a lot of events, symposiums and trainings where entrepreneurs can communicate with their more successful counterparts. These meetings are mostly free and everyone can join: however these events aren't heavily visited even though the people who do show up label these events as very rewarding and useful.

8) Do high ambitious entrepreneurs have enough opportunities to grow and expand in this region? Do they have enough opportunities to develop their innovations? Or are they being limited by certain factors?
There are opportunities for everyone, however not a lot of them take those opportunities or they do it wrongly.

9) How is the market orientation of the average Baranya entrepreneur? Is it mostly regionally, mostly within the southern western part of Hungary? Nationally, or possibly internationally?
It is slowly becoming noticeable that more and more entrepreneurs try to become more internationally orientated, especially in the neighbouring countries, which is Croatia for Baranya. These are however mostly entrepreneurs with innovative products. The majority of the Baranya entrepreneurs are oriented towards the region itself or the southern part of Hungary and it are mostly the bigger (mutltinational) firms that go nationally or internationally.