

HOW ENTREPRENEURS' PERSONAL CHARACTERISTICS AFFECT SMES' GROWTH

Vpliv podjetnikovih osebnih lastnosti na rast MSP

1 Introduction

Many scholars ask, either implicitly or explicitly, why anyone should study entrepreneurship. Data are difficult to obtain, theory is underdeveloped, and many findings to date are the same as those obtained in other areas of business. There is a difference in legitimacy and value, as well as in the practical and theoretical importance of studying entrepreneurship. But since the publication of the Bolton Report in 1971, the contribution of small and medium-sized enterprises (SMEs) to economic growth, job creation, innovation and promotion of enterprises has been widely recognized (Jones and Tilley 2003).

Perhaps the largest obstacle to creating a conceptual framework for entrepreneurship as a discipline has been its definition. To date, most researchers have defined the field *solely* in terms of who the entrepreneur is and what he or she does (Venkantaraman 1997). The problem with this approach is that entrepreneurship involves the nexus of two phenomena: the presence of lucrative opportunities, and the presence of enterprising individuals (Venkantaraman 1997). For the purposes of our research we follow the definition of entrepreneurship by Shane and Venkataraman (Shane and Venkantaraman 2000), which says: *Entrepreneurship is an activity that involves discovery, evaluation, and exploitation of opportunities to introduce new goods and services, ways of organizing, markets, processes, and raw materials through organizing efforts that previously have not existed.*

While this is a useful conceptual definition of entrepreneurship, it is also very difficult to operationalize in empirical research. Our research concentrates on the personal characteristics of Slovenian entrepreneurs. This is an area that requires an interdisciplinary approach. The domains of psychology, sociology, and economics all seem to provide insight into a piece of the puzzle, but none seems to explain the phenomenon completely.

Many decisions in small firms depend on so-called human factors – the personal characteristics of the owner-entrepreneur. The recognition and exploitation of opportunities are neither self-evident phenomena nor matters of chance, but are a result of clear, positively motivated business intentions and actions on the part of the owner-entrepreneur, driven by the belief that (s)he can produce the desired outcomes (Gray 2000; Maki and Pukkinen 2000). A key distinguishing feature of a successful SME is a balanced alignment of the owner-entrepreneur's intention, her business abilities, and environmental opportunities. Crucially, each of the variable sets of intention, ability, and opportunity are linked intrinsically, and business growth is unlikely to be achieved should one be missing or unduly weak.

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Abstract

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This paper investigates differences in the personal characteristics of entrepreneurs and their impact on SMEs' growth. The concept of entrepreneurial individuals with distinguishing characteristics is central to entrepreneurial theory, according to which we operationalized entrepreneurs through a division based on psychological and non-psychological motivation factors. For each category of the model, we describe the findings of our study, especially exposing statistically significant factors affecting SMEs' growth. Reasonableness and the applicability of our research are legitimate for three target groups: society as a whole, policymakers and academics investigating entrepreneurial phenomena. We conclude the paper with recommendations for policy implications that stimulate growth and encourage companies' performance/growth.

Keywords: entrepreneurship, entrepreneurship theory, SME, entrepreneurs' personal characteristics, SME growth

Izvešček

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V prispevku proučujemo razlike v osebnih lastnostih podjetnikov in ugotovljamo, kakšen je njihov vpliv na rast MSP. V središču podjetniške teorije je koncept proučevanja podjetnikov in njihovih različnih značilnosti. V naši raziskavi smo jih proučevali s pomočjo delitve na osnovi psiholoških in nepsiholoških motivacijskih dejavnikov. Za vsako kategorijo obravnavanega modela opisujemo izsledke naše študije in pri tem izpostavljamo zlasti tiste ugotovitve, ki so se pokazale kot statistično značilni dejavniki vpliva na rast MSP. Izsledki raziskave so pomembni za tri ciljne skupine: družbo kot celoto, oblikovalce vladnih politik in znanstvenike, ki proučujejo fenomen podjetništva. Prispevek končujemo s priporočili oblikovalcem vladnih politik v smeri pospeševanja rasti in dviga uspešnosti slovenskih podjetij.

Ključne besede: podjetništvo, podjetniška teorija, MSP, osebne lastnosti podjetnikov, rast MSP

JEL: M13, M21

Firm growth is a key to economic development and to creation of wealth and employment. The recent research in entrepreneurship (Slovenian Entrepreneurship Observatory, and Global Entrepreneurship Monitor) stated that entrepreneurial potential is not fully utilized. Thus, increased understanding of this phenomenon is of utmost importance for at least three target groups. In a *societal perspective* there is a good reason, to seek more knowledge about the factors that promote and deter entrepreneurship in small firms. From a *theoretical perspective* such knowledge is needed for strengthening the empirical micro-level basis of theories of entrepreneurship and theories of the firm. From a *policy-making point of view*, it is helpful when making choices between support to large vs. small firms, active vs. passive support, general vs. selective support, to what extent new venture creation vs. development of existing firms should be promoted, and how such support should be tailored to yield a maximum return to society.

2 Theory background

The concept of entrepreneurial individuals with distinguishing characteristics is central to entrepreneurial theory. A division is based on psychological and non-psychological motivation factors that determine entrepreneurs' personal characteristics.

Psychological motivation factors

The need to achieve is the motive to do well and to achieve a goal to a set of standards. The inclusion of measures of achievement orientation within the framework of entrepreneurs' personal characteristics is consistent with research (e.g. Johnson 1994; Shanthakumar 1992; Solymossy 1998). Early research found that the need to achieve was the principal determinant of entrepreneurial behavioral orientation. Subsequent research has shown that it is related to independence orientation (Cooper 1986), risk-taking propensities (Sexton and Bowman 1986), and perception of control (Miller and Friesen 1982). The need to achieve reflects individuals' orientation, willingness, and drive for satisfaction or a sense of accomplishment. This is demonstrated by the exertion of intense, prolonged, and repeated efforts to accomplish something difficult, whether by skill, practice, or perseverance. This is accomplished by a future-oriented dedication to the task, involving prioritization of accomplishing the task and frequently sacrificing other activities and personal time.

Risk tolerance; Despite the popular "myth" that entrepreneurs are high risk takers (Shaver 1995), research has consistently shown that entrepreneurs are moderate risk takers (e.g. Shaver 1995; Brockhous and Horowitz 1986; Duchesneau and Gartner 1990; Birley and Norburn 1987). Furthermore, Kets de Vries (1977) demonstrated that risk tolerance is related to the individual's self-confidence and his or her perceptions of control. Rotter's (1966) locus of control theory maintains that those with an internal locus of control might be perceived as high risk takers by others; however, because of their (entrepreneurial) perception of

having control in a given situation, they do not consider their risk as great as others might. The inclusion of measures for risk taking is therefore consistent with entrepreneurship theory. Risk taking presents individuals' disposition towards how much they will subject themselves to potential personal or financial loss or damage when confronted with uncertain circumstances or conditions.

Need for autonomy/Independence; Numerous profiles of successful entrepreneurs portray self-determined, independent pioneers who expressed their creativity and explored their ideas without the approval of others, refusing to accept the status quo. Autonomy, or independent behavior, is central to the entrepreneurship concept (Kets de Vries 1977) and critical to the venture initiation process associated with entrepreneurship (Lumpkin and Dess 1996). Measures for autonomous behavior are beginning to be pursued within the entrepreneurship field (e.g. Davidsson 1997; Autio et al. 1997). An orientation towards independent behavior requires the ability and the will to be self-directed in the pursuit of opportunities (Autio et al. 1997). It is, therefore, related to opportunistic behavior, risk orientation, and innovative behavior. The need for autonomy reflects a tendency towards being free of the influence, authority, and control of others, whether in relation to authoritative organizational structures, personal dependency, or procedural constraints. The presence of autonomy is generally accompanied by an individual's willingness to accept the attendant risks and responsibilities resulting from one's action.

Self-esteem and self-efficacy; Within task-specific situations, self-esteem has been argued to be more influential upon entrepreneurial behavior than the need for achievement (Arkes and Garske 1982). Self-esteem has further been found to be task-specific and socially influenced (Korman 1970). Self-esteem and self-efficacy reveal individuals' disposition towards how much they will subject themselves to potential personal or financial loss or damage when confronted with uncertain circumstances or conditions.

Locus of control; Rotter's (1966) theories of control emphasize an individual's perception of the outcomes of events as being either within or beyond his or her control and understanding. Subsequent work has suggested that the perception of control is task specific (Boyd and Vozikis 1994). Previous research has demonstrated that locus of control, together with other attitudes, differentiate entrepreneurs from non-entrepreneurs (Shanthakumar 1992). Locus of control shows a person's tendency to believe that the outcome of events is within his or her ability to influence, resulting in the acceptance of personal responsibility for the outcomes of his or her abilities and expertise, rather than attributing the cause of events to serendipity, luck, or chance.

Vision; Company vision about future performance and desired marketplace position is the starting point for policy and strategy implication. As such, it presents the basis for company success. But even an outstanding vision, mission, goal setting, and strategy will not have the desired effects without employees sharing them.

Non-psychological motivation factors

Human capital will be operationalized in four categories: explicit knowledge, tacit knowledge and experience, age, and marital status. The measurements criteria are presented in paragraph 5.1. *Social capital* is going to be investigated according to Nahapiet and Ghoshal (1998). They elaborated three dimensions of an individual's social capital: structural capital – the structure of the overall network of relations; relational capital – the quality of an actor's personal relations; and cognitive capital – the degree to which an individual shares a common code and systems of meaning within a community.

Examining the *growth of business* is by its very nature heterogeneous. There are considerable differences between the criteria and indicators of growth in the studies, the differences in the measurement of corporate growth over a longer period of time, differences in the processes which lead to the growth of enterprises (eg. organic growth compared with the growth as a result of the merger), the differences in the companies characteristics themselves and the environment in which they operate. All this are important factors that cannot be overlooked in studying the phenomenon of entrepreneurial growth.

Past studies have shown that most small businesses do not grow, and that many of them are not interested in growth (Davidsson 1989; Delmar 1996, Gundry and Welsch 2001; Storey 1994). Fast-growing companies are also not present only in certain sectors of industry. On the contrary than expected, they can be found in a working-intensive as well as in science-intensive industries; in the manufacturing as well as in service sectors (Wiklund 1998). And not only that, the growth may also be an important aspect of performance, which may often be replaced with a desire for immediate profits (Zahra 1991). The study on early-stage Slovenian entrepreneurs has shown, that they have extremely high growth expectations in comparison with other GEM countries and also differ regarding their gender and age structure. High-expectation entrepreneurs in Slovenia are more likely to be older and also less educated (Tominc, Rebernik, 1006, 11).

Our paper investigates differences in the personal characteristics of entrepreneurs and their impact on SMEs' growth.

3 Hypotheses and the research model

Entrepreneurship is a complex phenomenon, involving the individual, the firm, and the environment within which it occurs (Solymossy 1998). While this is recognized, the nature of the relationship between these three elements is not understood (Solymossy 1998). In our paper we are investigating the difference between personal characteristics, which we are according to entrepreneurship theory dividing into psychological and non-psychological motivation factors.

Fundamental research questions are:

Why do some firms continue to create new employment and find innovative solutions to old problems (they grow) whereas others – the majority – remain small and behave in accordance with the traditions of their respective industry? Where do reasons lie for that kind of divergence; is it in business opportunities as such, personal characteristics of the entrepreneur that exploits them, or in environment (economic, political, socio-cultural) where the entrepreneur or the company operates in the given moment?

The paper presents the findings of just one part of this multidimensional phenomenon – the so called personal characteristics of Slovenian entrepreneurs and their impact on SMEs' growth.

The main research thesis of the paper is: Small firm growth depends on entrepreneurs' personal characteristics. The main research thesis is going to be partially tested through various hypotheses presented in *Table 1*.

First, a framework for an entrepreneurship conceptualization that incorporates measures of the personal characteristics has been developed. This involves a refinement of previously proposed, but inadequately tested theoretical constructs into an empirically testable framework. The second and closely related objective of this research is the

Table 1: *Hypothesis*

Hypothesis 1	Psychological motivation factors have influenced the growth of Slovenian companies.
Hypothesis 2	Human capital, represented by tacit and explicit knowledge and skills, is positively correlated with actual (past) growth of Slovenian companies.
Hypothesis 3a	Structural social capital is positively correlated with relational social capital.
Hypothesis 3b	Structural social capital is positively correlated with cognitive social capital.
Hypothesis 3c	Cognitive social capital is positively correlated with relational social capital.
Hypothesis 4	The bigger the structural dimension of social capital, the bigger the growth of companies.
Hypothesis 5	The bigger the cognitive dimension of social capital, the bigger the growth of companies.
Hypothesis 6	The bigger the relational dimension of social capital, the bigger the growth of companies.
Hypothesis 7	The level of entrepreneurial intensity is positively correlated with the actual growth of the company.
Hypothesis 8	Companies owned by entrepreneurs, who are ready to accept higher opportunity costs to fulfill their strategies, grow faster.

Source: Širec, 2007

development and testing of a valid and reliable survey instrument that lends itself to establishing this framework for future research, enabling an international comparison of a multi-dimensional conceptualization of entrepreneurship phenomena.

The frame of our analysis is presented in *Figure 1*.

4 Data

The statistical population of the research is Slovenian small and medium-sized companies (joint-stock companies, limited liability companies, non-limited liability companies) in all Standard Industry Classification (SIC) categories.

Quota sampling, as one of non-probability sampling, has been used. Obvious advantages of quota sampling are the speed with which information can be collected, the lower cost of doing so, and its convenience. In quota sampling, the population is first segmented into mutually exclusive sub-groups, just as in stratified sampling. Then judgment is used to select the subjects or units from each segment, based on a specified proportion (in our case company size, regional representation, SIC representation, and appropriate share of males and females in the sample (70:30)). The problem is that these samples may be biased because not everyone gets a chance of selection. This random element is its greatest weakness and quota versus probability has been a matter of

controversy for many years. In Table 2, we present sample (N = 201) characteristics according to company size.

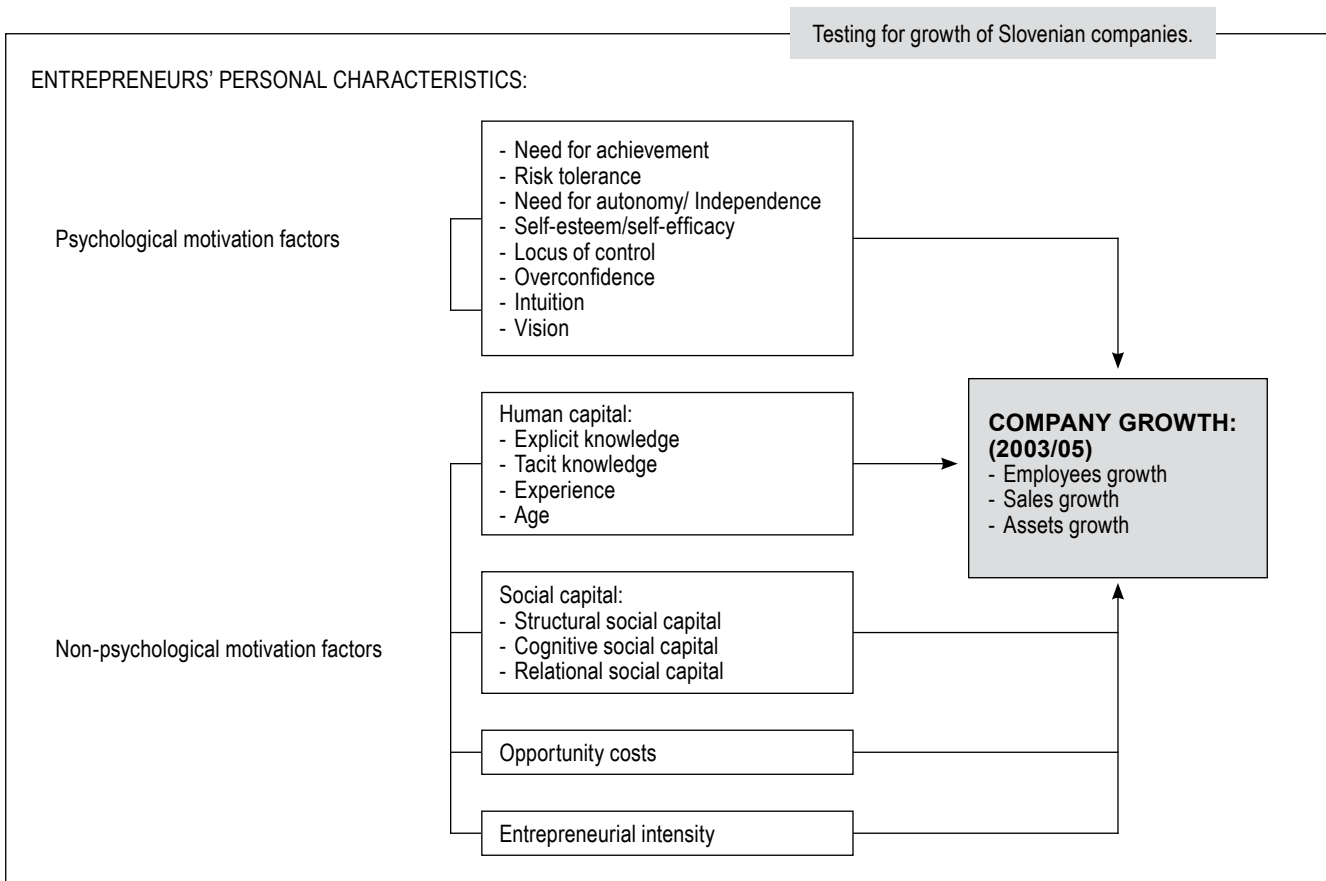
Table 2: *Companies' share according to size classes*

Number of Employees		
1 - 9	10 - 49	50 - 249
86.6%	10.9%	2.5%

Source: Širec, 2007

Questionnaires were used to gather data concerning company owners. A central difficulty with researches trying to accumulate primary data about companies' activities, particularly in our case, is the specialty of the information desired, which interferes with the very personal domain of psychological motivation factors, and how to ensure a satisfactory response rate. The preparation and realization of research have been subordinated to the need of assuring the highest possible response rate. Interviews were carried out through the Computer Assisted Telephone Interviewing (CATI) method. The response rate was 11.4%. Questions have been prepared according to the interviewing method and the desired response rate. No open questions have been used. We wanted to ensure simplicity in completing the questionnaire.

Figure 1: *Testing for SMEs' growth according to entrepreneurs' personal characteristics*



5 Variables and methods

The following paragraph describes measurements for all investigated categories. We have drawn these categories from existing research literature. The discussion will further review the testing, which culminated in the selection of measures for examining the elements of individual personal characteristics.

5.1 Variables

The concept of entrepreneurial individuals with distinguishing characteristics is central to entrepreneurial theory. In accordance with the theory, we operationalized these characteristics through division on psychological and non-psychological motivation factors. The measures of investigated categories are presented in Appendix. The respondents assessed described items on a Likert-type scale, which ranged from 1 = "completely unimportant" to 5 = "extremely important." In the theoretical sense, *psychological motivation factors* have been discussed in three separate groups: first is general entrepreneurial motivation, second is core self-evaluation, and third are entrepreneur's cognitive characteristics. From the first group (general entrepreneurial motivation) our model includes the need for achievement, risk taking, and the need for independence. We have excluded the element of extraversion, which undoubtedly belongs to general entrepreneurial motivation and derives from broad psychological theory (the Big Five). The reason was the need for extensive measurements. From the second group (core self-evaluation) we have investigated self-esteem, self-efficacy, and locus of control. And, finally, the third group comprises vision. We did not investigate the phenomena of overconfidence and intuition for the same reasons we excluded extraversion.

Non-psychological motivation factors have been discussed in the sense of human capital, social capital, entrepreneurial intensity, and opportunity costs. To measure human capital we examined four categories: explicit knowledge, tacit knowledge, and experience, age, and marital status.

The most common measure for general assessment of human capital is completed formal education (Becker 1993). Authors (e.g. Honig 1998; Manolova et al. 2002) measure it in five categories. In our research we added a sixth category – primary school. We have measured human capital with the following categories: primary school; vocational and secondary school; high school; university degree; specialization, MBA and master's degree; doctor's degree. We have also added the question as to whether or not the respondent is still in the process of acquiring formal education, and whether or not he or she is accumulating expert knowledge through other means, such as conferences, workshops and seminars, and foreign language courses.

We have measured tacit knowledge through years of working experience, possible previous managerial experi-

ence, and previous company ownership. Following research by Ruzzier (2004), we also included in the tacit knowledge investigation questions in which respondents evaluated their specific skills according to the five-point scale. From the GEM expert questionnaire, we also added the question about how a respondent estimates his or her own knowledge, skills, and abilities in the company's start-up phase.

In light of research by Reynolds and White (1997), which demonstrates the U shape of the relationship between an entrepreneur's age and a company's growth, we added a question about the respondent's age. Following the example of Davidsson and Honig (2003) we supplemented this with a question about marital status.

To measure the social capital components we followed the examples of Liao and Welsch (2003). They measured these components according to dimensions defined by Nahapiet and Ghoshal (1998), who divided social capital into three groups: structural, cognitive, and relational social capital. Structural social capital has been investigated through the entrepreneur's personal network (network of relatives, friends, mentors, etc.) To measure cognitive social capital, we combined expert questions from GEM research with research by Liao and Welsch (2003).

Entrepreneurial intensity reflects the degree to which entrepreneurs are willing to exert maximum motivation and efforts towards a company's success and growth. We measured it with questions adapted from the Entrepreneurial Profile Questionnaire (EPQ) that was successfully implemented in a variety of research sites in the United States (Gundry and Welsch 2001). Opportunity costs were operationalized as the extent to which entrepreneurs are willing to incur personal and professional sacrifices for the sake of the company.

5.2 Methodology

We have used quantitative business research methods. We have made extensive literature and empirical research review to depict the current stage of knowledge regarding the determinants of entrepreneurs' personal characteristics.

For quantitative approach we have performed the following steps:

- Selection of appropriate sample. (Sample (N = 201) has been randomly selected from a reviewed list of entrepreneurial small firms in Slovenia.)
- Defining measurements of psychological and non-psychological motivation factors
- Model structuring
Model including elements for the attitudinal orientation of the individual are going to be designed. Each element of the personal characteristics entrepreneurship framework is going to be reviewed for its theoretical and empirical research foundation, along with identifying the questions which have been used to provide measurement.)

- Preparation of questionnaire.
- Data processing.
(For the purpose of measuring the association or correlation between variables we are going to use; Pearson correlation for data in the form of measurements on quantitative variables and chi-square statistic χ^2 for nominal data together with phi coefficient Φ and Cramers's V. For the purpose of comparing averages between different groups, independent sample t-test for quantitative variables is going to be used. For data reduction we performed factor analysis in order to conclude our research with multiple regression analysis.)
- Research results (confirmation or rejection of hypothesis) and comments as well as suggestions for further research are going to be made.

6 Findings

We present a condensed overview of the most important empirical research findings. We operationalized entrepreneurs' personal characteristics according to theory with the help of psychological and non-psychological motivation factors. We have examined them closely and focus our interest on growth aspects.

Table 3 presents the results of the analysis, with confirmation, rejection, and partial confirmation of the tested hypotheses.

Hypothesis 1, which investigated the influence of growth according to psychological motivation factors, can be confirmed only partly. Such a result requires additional argumentation. The *first problem* addresses statements used in our questionnaire. Respondents needed to answer very personal, sensible questions. For more accurate results, we suggest further research, which could include personal interviews to achieve a higher rate of confidence. The *second problem* addresses a slightly lower rate of reliability scores (Cronbach alphas for psychological motivation factors scored 0.57). These results require guarded inter-

pretation. The *third imperfection* of the presented model addresses limited factors pertaining to the study. Because of the extensive measurement instrument, we left out the investigation of three important fields of psychological motivation factors, which are extraversion, overconfidence, and intuition. Therefore, the results recorded can undoubtedly be questioned and leave plenty of room for further empirical and theoretical investigation.

According to the results of the categories of human capital investigated, **Hypothesis 2** cannot be confirmed. While this result is contrary to previous expectations, it is in accordance with the findings of some authors.

Finally, we present the results of structural, cognitive, and relational social capital analyses, as well as the extent of entrepreneurial intensity and opportunity costs. Structural social capital has been measured by an assessment of the respondents' personal networks. We established that individuals whose marital partners ($\chi^2(1) = 7,059$, $p = 0,008$, $\Phi = \text{Cramer's } V = 0,187$) or parents ($\chi^2(1) = 7,480$, $p = 0,006$, $\Phi = \text{Cramer's } V = 0,193$) are entrepreneurs, decide more often on an entrepreneurial career. It must be emphasized that Slovenian entrepreneurs assess relational social capital substantially lower than cognitive social capital. An investigation of mutual connections of social capital categories confirmed the presupposed linkage between cognitive and relational dimensions (**Hypothesis 3c**). **Hypothesis 3a** and **3b**, which presuppose a positive connection between the structural and relational dimensions, as well as between the structural and cognitive dimensions of social capital, could be confirmed only partly. It was stated that the bigger the structural dimension of social capital (which is reflected by an entrepreneur's personal network), the bigger the impact on all three companies' growth components studied (**Hypothesis 4**). We found a statistically significant impact on the growth of the number of employees, which emphasizes that the presence of networks contributes to locating workers more easily, which is extremely important in the implementation of company strategy. **Hypothesis 5**, which

Table 3: An overview of confirmed, rejected, and partly confirmed research hypotheses

Hypothesis 1	Psychological motivation factors have influenced the growth of Slovenian companies.	partly confirmed
Hypothesis 2	Human capital, represented by tacit and explicit knowledge and skills, is positively correlated with actual (past) growth of Slovenian companies.	rejected
Hypothesis 3a	Structural social capital is positively correlated with relational social capital.	partly confirmed
Hypothesis 3b	Structural social capital is positively correlated with cognitive social capital.	partly confirmed
Hypothesis 3c	Cognitive social capital is positively correlated with relational social capital.	confirmed
Hypothesis 4	The bigger the structural dimension of social capital, the bigger the growth of companies.	confirmed
Hypothesis 5	The bigger the cognitive dimension of social capital, the bigger the growth of companies.	partly confirmed
Hypothesis 6	The bigger the relational dimension of social capital, the bigger the growth of companies.	partly confirmed
Hypothesis 7	The level of entrepreneurial intensity is positively correlated with the actual growth of the company.	confirmed
Hypothesis 8	Companies owned by entrepreneurs, who are ready to accept higher opportunity costs to fulfill their strategies, grow faster.	partly confirmed

Source, Širec 2007

refers to the cognitive dimension of social capital, was confirmed only partly. These findings are somehow specific compared to previous studies that found a strong connection between cognitive social capital and growth aspirations (Liao and Welsch 2003; Roberts 1991). Cognitive social capital reflects the degree to which individuals share representations, interpretations, and systems of meaning among parties. These are of course after past fifteen 15-year period of transition opinions over such shared attributes still differ in Slovenia. Because of historical conditions, cognitive capital, which is a reflection of society in a given period, is changing slowly in Slovenia. These findings are in accordance with recent GEM research statements. Our investigation of the relationship between relational dimensions of social capital and growth categories (**Hypothesis 6**) attests to similar results established by previous authors. The relational dimensions of social capital concerns the kinds of personal relationships people have developed through a history of interaction. It focuses on the particular relationships people have and incorporates such attributes as respect, trust, trustworthiness, and friendliness, all of which contribute to the acquisition of information and resources needed for the successful achievement of goals. According to an investigation of relational social capital impact, we found a statistically significant positive relationship with companies' assets growth and a negative connection with the number of employees and sales growth. Therefore, **Hypothesis 6** could be confirmed only partly. These results show that relational social capital is an important, but not a sufficient condition to ensure necessary growth resources.

Hypothesis 7, which assumes a positive relationship between the degree of entrepreneurial intensity and a company's growth (on all studied aspects), was entirely confirmed. The last investigated complex of non-psychological motivation factors presents the relation to opportunity costs, which measures the extent to which entrepreneurs are willing to incur personal and professional sacrifices for the company's sake. A positive connection between investigated growth components and entrepreneurs' relation to opportunity costs has been confirmed.

7 Conclusions and policy implications

This study is, in the first place, entrepreneurial, so it could be said that it incorporates a micro, as well as a macro, level of research. Our assumptions are derived from the predisposition that individual initiative presents the driving force in a general economic system. The focus of our interest is, therefore, the individual/entrepreneur with his personal characteristics and behavior. At the same time, the focus of our interest, as in other entrepreneurial research, is also value creation on a societal level. Growth studies are closely related to the growth of general entrepreneurial activity, which contributes to the growth of gross domestic product (GDP) and increased job creation. For these reasons, entrepreneurship researchers explicitly favor individual(s) as the unit of analysis (as we have).

Growth is a process that needs to be studied over time. Most studies on company growth (as also presented in this study) are survey-based. Survey data are more or less the only alternative if we want to have data on attitudes, perceptions, strategies, and resources from a large number of cases. Unfortunately, this leaves the researcher with several less-than-satisfactory alternatives.

One of them is the use of historical growth as the dependent variable in causal analysis. Explanatory variables are collected at the same time and measure the company's current situation. In other words, explanatory variables collected today are used to predict a past process, which departs from the principle that the cause must precede effect. The researcher may justify this by assuming the explanatory variables do not change during the period over which growth is studied. This is reasonable only when variables such as sex, age, and ethnicity are used for explaining growth.

In the introduction, we supported the choice of our topic with the findings of two recent research studies in entrepreneurship (the Slovenian Entrepreneurship Observatory and the Global Entrepreneurship Monitor), which stated that entrepreneurial potential in Slovenia is not fully utilized. Thus, reasonableness and the applicability of our research are legitimate for all three declared target groups. From a *societal perspective*, there is good reason to seek more knowledge about the factors that promote and deter entrepreneurship in small firms. From a *theoretical perspective*, the proposed model enriches empirical evidence on the micro level of entrepreneurship theories, as well as theories of the firm. From a *policy-making perspective*, the present study represents a helpful tool when making choices between providing support to large vs. small firms, active vs. passive support, general vs. selective support, to what extent new venture creation should be promoted vs. the development of existing firms, and how such support should be tailored to yield maximum returns to society.

The latter findings require some recommendations for policy implications. The fact is that Slovenian Government policy has been striving for a successful entrepreneurial society and SME growth for over a decade now. Our study did not investigate the direct effects of policy measures taken to stimulate growth and encourage performance, since the purpose was not to evaluate the effects of these. Based on the findings, however, two types of recommendations can be made. The first addresses the identification of company and individual entrepreneurial groups to which specific measures can be directed to achieve growth. The second is the need for diversified types of general measures being specifically addressed to particular groups.

For defining the first one, this study could be of utmost importance. We have, for instance, discovered that growth is the consequence of many influential factors, including a clear and positive decision by the entrepreneur to strive for growth. Depending on an entrepreneur's abilities, resources available, and his or her motivation for growth, we suggest

the following categorization of small companies: Companies that are actually growing and possess both the necessary abilities and resources, and the motivation for growth; companies with untapped potential that lack motivation for growth; companies striving for growth but lacking certain skills, capital, or other abilities and resources; and finally, companies with neither the motivation nor the abilities or resources for growth, which, consequently, have no prospect for growth.

In relation to the categories described, policy makers must be aware that there are different types of small firms with different needs. Growth opportunities can be affected by policy measures. Keeping in mind that the majority of small companies operate in the private service and retail sectors of the domestic market, measures aimed at increasing domestic consumer demand are likely to be most effective. This could involve measures to increase the purchasing power of consumers, for instance, by reducing income tax or VAT.

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APPENDIX

Need for achievement (adopted from Shanthakumar (1992) and Solymossy (1998))

- I push myself, and feel real satisfaction when my work is among the best there is.
- I judge my work by considering whether it meets the minimum requirements for the task.
- I am driven to ever-greater efforts by an unquenched ambition.
- I seldom get a sense of pride and accomplishment from my work.
- I spend more time thinking about my goals than my past accomplishments.
- My goals and ambitions are modest and easily achieved.
- Nothing that life can offer is a substitute for great achievement.

Risk tolerance (adopted from Shanthakumar (1992) and Solymossy (1998))

- I am willing to risk my personal and family's material well-being for the sake of business.
- I buy insurance every time I travel.
- I enjoy the uncertainty and risks of business since they energize me more than circumstances where there are predictable outcomes.
- I need to know that it's already been done before I'm willing to try it.
- I need to know the answer before I'll ask a question.

Need for autonomy/Independence (adopted from Shanthakumar (1992) and Solymossy (1998))

- I am quite independent of the opinions of others.
- I am uncomfortable when I have complete responsibility for deciding how and when to do my work.
- I find that I can think better when I have guidance and advice from others.
- I like a job in which I don't have to answer to anyone.
- I respect rules and established procedures because they guide me.

Self-esteem and self-efficacy (adopted from Shanthakumar (1992) and Solymossy (1998))

- Because I'm unsure of myself, I spend a lot of time looking for someone who can tell me how to solve all my business problems.
- I am confident of my abilities and feel good about myself.
- I feel self-conscious when I am with very successful business people.
- I frequently have doubts about myself or my abilities when making business proposals.
- I worry about what my business associates think of me.
- My "knack for dealing with people" has enabled me to create many of my business opportunities.

Locus of control (adopted from Solymossy (1998))

- I am in total control of my destiny.
- I am ultimately responsible for my own business success.
- I can control most situations in which I find myself.
- I frequently find myself in situations in which I am powerless to control the outcome.
- Most business circumstances happen because of luck, whether good or bad.
- What happens in my business is affected more by my abilities, control, and guidance than by external influences.

Vision (own development)

- Did you have a clearly defined and written vision of your future operation and position you wanted to achieve at the very beginning of your business operation?
- Have you worked out procedures and ways for communicating your vision and development goals with your employees?

Structural capital (Liao and Welsch (2003))

- Many of my friends have started new firm.
- Many of my family and kin have started new firm.

Cognitive capital (combination of expert questions from GEM research and Liao and Welsch research (2003))

- In Slovenia, most people consider becoming an entrepreneur as a desirable career choice.
- In Slovenia, successful entrepreneurs have a high level of status and respect.
- In Slovenia, stories in the public media about successful entrepreneurs are common.
- Slovenian entrepreneurs are competent and resourceful individuals.

Relational capital (combination of expert questions from GEM research and Liao and Welsch research (2003))

- In Slovenia, we encourage young people to be independent and create new companies.
- In Slovenia, the state and local governments ensure good support for those who create new companies.
- In Slovenia, banks and other investors are benevolent to individuals who create new companies.
- In Slovenia, individual social groups (e.g. family, neighbourhood, religious communities) support individuals who create new companies.

Entrepreneurial intensity (EPQ Entrepreneurial profile Questionnaire and Gundry and Welsch (2001))

- I do whatever it takes to establish my business.
- I will do whatever it takes to make my business a success.
- There is no limit to how long I would give a maximum effort to establish my business.
- My business is the most important activity in my life.

Opportunity costs (EPQ Entrepreneurial profile Questionnaire and Gundry and Welsch (2001))

- I would rather own my own business than earn a higher salary employed by someone else.
- I would rather own my own business than pursue another promising career.
- I am willing to make significant personal sacrifices in order to stay in business.
- I would work somewhere else only long enough to make another attempt to establish my firm.