

Means of Knowledge Acquisition of Entrepreneurs and Their Success

Barbara Hvalič Erzetič

The goal of this paper is to analyze different approaches to acquiring new knowledge. We analyze what means of knowledge acquisition are used by entrepreneurs, such as formal education process, one and more day professional development workshops, professional counselors, professional literature and information on the world wide web. When making a decision on what means to use in order to increase one's knowledge, entrepreneurs employ different assessment criteria: time and money investment as well as pedagogical techniques used. Time shortage is the most frequently cited reason that entrepreneurs do not invest more personal resources into knowledge acquisition processes. The main hypothesis we test, postulates that entrepreneurs who invest more time and money into knowledge acquisition processes are more successful. Success is measured with an average annual degree of growth of sale, profits and number of employees in the last four years and with entrepreneur's opinion concerning success of the company's business. Finally, we develop the implication for public policy and educational institutions on the means that need to be employed so that entrepreneurs would invest more resources in knowledge acquisition processes.

Key Words: entrepreneur, knowledge, success

JEL Classification: D, I, M

Introduction

Entrepreneurship and management education are important in developing knowledge and skills of entrepreneurs. In the era of globalization and continuously changing business environments, the need for continuing education and training is becoming ever increasing. Knowledge acquisition and learning have been well emphasized as important factors to successful entrepreneurship over the last decades. Learning involves acquisition, distribution, storage and interpretation of information (Huber 1991). A qualitative study by Sexton et al. (1997) revealed that entrepreneurs decide what they want to learn, where they want to learn and

Barbara Hvalič Erzetič is an Assistant at the Faculty of Maritime Studies and Transportation, University of Ljubljana, Slovenia

Managing Global Transitions 6 (2): 157–175

how they want to learn. When learning, entrepreneurs are content – not process – oriented and search for specific knowledge rather than general information. In addition, they search for information that solves their immediate needs while allowing them to plan for the success of an organization and upcoming problems (Sexton et al. 1997). Failure to acquire new knowledge and learn can cause a firm to be unable to keep up with technological progress in an industry and to anticipate shifts in customer requirements since it may be incapable of producing technology standards (Sullivan 2000). In all, several studies demonstrated that education of entrepreneurs is a key factor of a new venture success (Postigo, Iacobucci, and Tamborini 2003). Entrepreneurship education can be defined as structured, formal conveyance of entrepreneurial knowledge; entrepreneurial knowledge meaning the concepts, skills, and mentality individual business owners use during the course of starting and developing their growth-oriented businesses; and entrepreneurial learning meaning the active and cognitive processes individuals employ as they acquire, retain and use entrepreneurial knowledge (Young 1997). Entrepreneurs need to learn continuously through self-directed learning, as well as through formal education and training to be able to secure the business performance of their ventures. How are decisions on knowledge acquisition process made? When thinking about gathering new knowledge, entrepreneurs most probably consider the following factors: satisfaction with prior knowledge development processes experience, quality perception of prior learning and training experiences (Antončič and Hvalič Erzetič 2004) and miscellaneous factors such as expected benefits of learning, price and time investment into learning, geographical premises, preliminary knowledge, institutional references and alike. Although structural ways of knowledge acquisition processes have been clearly given salience, evidence shows that entrepreneurs mostly tend to rely on self-directed learning, in comparison to pre-entrepreneurs that engage in entrepreneurial education and training. Reasons for their apparent avoidance of formal education and training might be: ‘perceived immediate need for required knowledge, lack of availability of the precise class or workshop that meets their needs, lack of time to engage in a formal learning program, the desire to structure the learning effort as they like, the desire to keep the learning styles they use flexible, the desire to take advantage of their own learning styles’ (Young 1997).

What is the situation like in Slovenia? Slovenian firms were not prepared to invest enough in education in the past decade, only one fifth of

companies invested in research and development in year 1997. The problem was not in lack of means, but in no interest of management to invest in knowledge. From the point of view of demand of the economy regarding knowledge, we must mention the period of socialism up till 1990, when the demand was for unskilled labour. After 1991 the demand for knowledge dropped, because there was a tendency of management to reduce the value of companies and to legally gain property in the company. Decrease in knowledge was not visible or at least not in such measure, only in explicitly export guided companies and small companies, which were managed by their owners. A negative attitude to knowledge in the entire society appeared because of such circumstances, especially the attitude to learning among young people (Ostan and Hvalič Erzetič 2006). In the last years Slovenia has been quite comparable with European countries in primary and secondary school education, but we can not say this for adult education, where also entrepreneurship education and training are placed. In Slovenia only 31% of adults educate themselves, whereas this proportion is, for example, higher in Finland, Denmark, Sweden, and Norway (50%), as well as in Great Britain, Switzerland, and the Netherlands (40%), and lower in accession countries such as Hungary (19%) and Poland (14%) (Gaber 2000). Also Sočan is warning against this problem when he says that, although Slovenia has been placed among developed countries from 2000 on, it invests in complete knowledge (education, research and development and various shapes of training employees, unemployed and business functions of companies and institutions) only 8.5% GNP (education – 6%, research and development – 1.5% and various shapes of training employees, unemployed and business functions of companies and institutions – 1%). If Slovenia wants to be compared with Germany, Sočan thinks that it has to increase investment into training adults and business functions (+300%), research and development (+67%) and education (from +8 to 17%) (Ostan and Hvalič Erzetič 2006). Success of companies and society is connected with investment into education and training. Birch (1993) alleges 5 factors for increasing the development of dynamic companies: in the first place there is education infrastructure, quality of employees (it is connected with education and training), quality of government, telecommunication and quality of life.

In summary, the development of learning in its various guises of individual, team and organizational learning has been recognized by many as being a critical factor for our economic prosperity (Sullivan 2000).

The hypotheses were formed on the supposition that one of the characteristics of the successful entrepreneur is eagerness to learn (Wickham in Olsen 2002). Learning and knowledge, which must be gained continuously (Antončič et al. 2002; Penrose 1995; Timmons 1999; Solymossy and Penna 2001), is an important factor of success (Gartner 1988; Ripsas 1998). Knowledge, gained by formal education, is connected with success (Coleman 1988; Davisson and Honig 2003; Kubr 2002; quoted in Ravasi and Turati 2005). A positive link between formal education and success was confirmed also by Stuart and Alberti 1990, Brush and Hisrich 1991, Dyke, Fischer and Reuber 1992, Kolvereid 1992, Box, White and Barr 1993, Dolinsky 1993, and Reid and Smith 2000 (quoted in Drnovšek 2002). The positive link between training and superior firm performance was established by different researchers (Olsen 2002; Bharadwaj, Falcone, and Osborn 2004). Cosh, Duncan, and Huges 1998 (quoted in Kotey and Folker 2007) believe that training is a powerful agent for the development capabilities and for the growth and profitability of the firm, it should greatly improve SME survival and performance (English 2001, Lattimore et al. 1998, Jennings and Beaver 1995 quoted in Kotey and Folker 2007). Reid and Harris (2002) noted that the most successful SMEs provide more employee training than average. When we formed our hypotheses we did not find any researches which would establish a link between learning by reading the professional literature and by browsing the world wide web, but Mandel (2004) argued that the success of US entrepreneurs is in converting ideas to products during the Internet boom in the 1990s, and the use of networks was a feature of achieving success (McKeon, Johnston, and Henry 2004). Kubr (2002) also thinks that today knowledge is easily accessible for all entrepreneurs through IT and the World Wide Web.

We do not engage in the content and quality of enterprise programmes at this point, but if we draw conclusions on learning in entrepreneurship from the existing literature we propose the following relationships:

- H1 *Entrepreneurs who invest more time and money into formal education degree knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance.*
- H2 *Entrepreneurs who invest more time and money into professional workshop acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance.*
- H3 *Entrepreneurs who invest more time and money into one-day semi-*

nar knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance.

- H4 *Entrepreneurs who invest more time and money into professional literature knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance.*
- H5 *Entrepreneurs who invest more time and money into world wide web knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance.*

The aim of this research, which was done among micro and small companies in Slovenia (98,440 companies were registered in Slovenia in the year 2006, 91,306 (93%) of them were micro (0–9 employees) and 5,597 (6%) were small (10–49 employees)), is to analyze what approaches small entrepreneurs use in knowledge acquisition processes, what importance they ascribe to different types of knowledge acquisition processes, and how this affects their ventures' performance.

We expect that such empirical findings will provide helpful evidence for public policy as well as institutions in the business of entrepreneurship education and provision of training programs.

The Empirical Study

In this section, the methodology (data collection, sample and analysis) is presented.

DATA COLLECTION

The data for the empirical study were compiled in fall 2006 by a cross sectional, mailed, self-administered questionnaire to the sample of micro and small (less than 50 employees) privately owned Slovenian firms. We chose Dillman's (1978) Total Design Method (TDM) as the foundation of the survey instrument design and mail implementation.

SAMPLE

The final sample included 303 entrepreneurs from Slovenia (sample characteristics are summarized in table 1 and table 2).

Responding entrepreneurs are between 30 to 50 years old: most of them (35%) are from 30 to 40 years old. 73% of respondents are male,

TABLE 1 Sample characteristics: entrepreneurs

Age	30–40 years old 35%, 40–50 years old 33%, 50–60 years old 19%, 20–30 years old 11%.
Gender	Male 73%, female 27%.
Civil status	Married 67%, single 19%, divorced or widowed 14%.
Education	Secondary school 62%, high school or professional 20%, university 15%, post-graduate 2%.

67% of them are married, 62% of respondents have a secondary school certificate.

Firms included in the sample are engaged in different industries, but their business activity is predominantly in trade and services. 60% of respondents classified their companies as low-tech companies and the majority of respondents (52%) have had their private businesses for more than 10 (up to 20) years. The organization form of 51% of companies is limited liability, 44% sole proprietorship; other respondents classified their companies under the organization format as 'other'. The size of the responding companies is relatively small: 28% have 3–5 employees.

Success is measured by the average annual degree of sale growth, profits and number of employees in the last four years and with by entrepreneur's opinion concerning the business success of the company. Most (25%) of the responding entrepreneurs have an average annual growth rate of sales between 5 to 10% in the last four years, 31% of respondents have an average annual growth rate of profits of up to 5% in the last four years, 40% of respondents have an average annual rate of increase in number of employees of up to 5% during the last four years.

Altogether 54% of respondents spend approximately less than 10% of their sales on future growth and development and most of the respond-

TABLE 2 Sample characteristics: entrepreneur's company

Business activity	Wholesale trade 47%, business services 22%, construction 16%, personal services 13%, transportation 8%.
Technical classification	Low-tech 60%, medium-high-tech 33%, high-tech 7%.
Age of activity	0–3 years 11%, 3–5 years 9%, 5–10 years 18%, 10–20 years 52%, more than 20 years 10%.
Organization form	Limited liability 51%, sole proprietorship 44%, 'other' 5%.
Number of employees	1 17%, 2 14%, 3–5 28%, 6–9 12%, 10–25 14%, more than 25 12%.

TABLE 3 Sample characteristics: successfulness*

Average annual rate of growth of sales (in %) in the last four years	Negative 11%, 0-5 23%, 5-10 25%, 10-15 13%, 15-20 9%, 20-30 9%, 30-40 3%, more than 40 7%.
Average annual rate of growth of profits (in %) in last four years	Negative 12%, 0-5 31%, 5-10 26%, 10-15 12%, 15-20 10%, 20-30 4%, 30-40 1%, more than 40 4%.
Average annual rate of increase in number of employees (in %) during last four years	Negative 30%, 0-5 40%, 5-10 9%, 10-15 6%, 15-20 4%, 20-30 6%, 30-40 2%, more than 40 3%.
Percentage of sales invested for future growth and development	Not invest 33%, 0-10 54%, 11-25 11%, more than 26 2%.
Annual sales (in 000 €)	0-120 44%, 120-200 10%, 200-400 8%, 400-800 11%, 800-2,000 10%, more than 2,000 11%.

NOTE *The rate and the portion represented by the rate (in %).

ing ventures are relatively small: 44% of entrepreneurs reported under 120,000€ of annual sales (sample characteristics are summarized in table 3). When assessing subjective indicators of venture performance, we found the most important perceived indicators of success were the quality of products and services (mean = 4.43; min = 1; max = 5), followed by autonomy and independence (mean = 3.92), followed by self-realization and control over one's future (mean = 3.58).

ANALYSIS

In order to assess knowledge acquisition processes we used measures that included types of knowledge acquisition that the entrepreneurs used, such as formal education process, short professional development workshops, relying on advice of professional counselors, professional and industry specific literature and information on the world wide web. We also measured time spent and money invested in the knowledge acquisition processes and reasons for not investing more time and money in the different manners of obtaining knowledge.

To analyze the benefits of investment into the knowledge acquisition process we also measured venture performance results. We assessed venture performance with the following indicators: annual degree of sales growth; profits and increase in number of employees over the last four years, perceived quality of products and services and a potential for future growth. We also included subjective measures of performance from the entrepreneur's viewpoint: autonomy and independence, a potential for offering employment to family members and control over one's fu-

ture on a Likert-type scale following previous entrepreneurship research practice (Welter 2001; Wiklund 2001).

The empirical data were analyzed using SPSS 13.0 software, employing univariate and bivariate data analysis and cross-tabulation. We executed several of Spearman's tests to study relationships between variables and test significance of statistical relationships between pairs of variables.

The Results

In the following issues we sequentially report the results from our empirical study: knowledge acquisition process by type of institution; time invested into the knowledge acquisition process; financial resources invested into the knowledge acquisition process; reasons that guide entrepreneurs in assessing the time and finance needed to obtain new knowledge, and contingency of relationship between resources invested into the knowledge acquisition process and venture performance.

In order to analyze contingencies, we first assessed current growth characteristics of responding entrepreneurs and their ventures. 18% of entrepreneurs gain new knowledge through a degree type of education (high school, college and university education process), 39% of them gain new knowledge through short (2–3 days) professional development workshops, 72% participate in one-day seminars, 40% of respondents visit professional counselors, 79% educate themselves by reading professional literature and 69% of respondents gain new information by browsing the world wide web. Respondents were able to choose several answers. The most common knowledge acquisition process seems to be through one-day seminars.

In our sample, 9% of respondents correspondingly achieved a one degree higher education during the time they were starting their company.

What is the intensity of the knowledge acquisition process? Entrepreneurs who participate in degree type education processes spend more than 30 days per year doing so (17%). Those who participate in short professional workshops (24%), spend from 1 to 5 days per year for such purposes; 51% of respondents who participate in one day seminars spend from 1 to 5 days for these seminars; 38% of respondents spend 1 to 5 days per year visiting professional counselors; 35% of respondents spend more than 30 days per year reading professional literature, and 42% of them spend more than 30 days per year gathering information on the world wide web.

Reading literature and gathering information from the world wide

web seems to be the most intense means of the knowledge acquisition process. This is probably related to the fact that those techniques are the most flexible for entrepreneurs.

We also measured money invested per month for different purposes in the knowledge acquisition process on a scale ranging from '0€' to 'more than 400€'. The majority spends between 20€ to 200€ per month on all types of the knowledge acquisition process (12% for degree education type, 27% for professional development workshop, 48% for one day seminars, 25% for professional counselors, 39% for professional literature and 42% for information from the world wide web). 66% of those entrepreneurs who are involved in degree type education processes do not spend any money for short professional development workshops.

We found that, in general, entrepreneurs consider gaining new knowledge a time and finance consuming process. Naturally one would expect that entrepreneurs would dedicate more time and energy towards gaining new information through reading professional literature and browsing the world wide web because these are the cheapest ways of obtaining knowledge.

In our research we want to know how significantly the investments into knowledge education processes are related to firm performance.

We tested the main hypotheses for relationships between quantity of time and finance invested into knowledge acquisition processes and venture performance.

Hypothesis 1 stated that the entrepreneurs who invest more time and money into formal education degree knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance. We found that entrepreneurs, who spend more time (Spearman's $\rho = 0.178$, sig. = 0.009, sig. < 0.01) and money (Spearman's $\rho = 0.139$, sig. = 0.049, sig. < 0.05) for gathering new knowledge of the degree education type, think they have a potential for growth. Entrepreneurs who spend more time in gathering new knowledge of the degree education type think they have better opportunities for employing a family member (Spearman's $\rho = 0.149$, sig. = 0.03, sig. < 0.05).

Hypothesis 2 stated that the entrepreneurs who invest more time and money into professional workshop acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance. We found that the entrepreneurs who spend

more time on gathering new knowledge by participating in a several-day professional development workshop:

- have a higher realization (Spearman's $\rho = 0.179$, sig. = 0.009, sig. < 0.01),
- have a higher average annual degree of growth of sale in the last four years (Spearman's $\rho = 0.153$, sig. = 0.027, sig. < 0.05),
- have a higher average annual degree of growth of profit in the last four years (Spearman's $\rho = 0.141$, sig. = 0.043, sig. < 0.05),
- think they have a potential for growth (Spearman's $\rho = 0.131$, sig. = 0.047, sig. < 0.05),
- think the firm gives them more self-control over the future (Spearman's $\rho = 0.153$, sig. = 0.021, sig. < 0.05).

We also found that entrepreneurs who have a higher realization, spend more money on gathering new knowledge by participating on several-day professional development workshops (Spearman's $\rho = 0.284$, sig. = 0, sig. < 0.01).

Hypothesis 3 stated that entrepreneurs who invest more time and money into one-day seminar knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance. We found that entrepreneurs who spend more time on gathering new knowledge by taking one-day seminars:

- have a higher realization (Spearman's $\rho = 0.185$, sig. = 0.005, sig. < 0.01),
- have a higher average annual degree of growth of sale in the last four years (Spearman's $\rho = 0.157$, sig. = 0.018, sig. < 0.05),
- estimate (feel or mean) that they have higher sales (Spearman's $\rho = 0.134$, sig. = 0.033, sig. < 0.05),
- consider that they have a greater range quality products and services (Spearman's $\rho = 0.174$, sig. = 0.006, sig. < 0.01).

We also found that entrepreneurs who spend more money on gathering new knowledge by taking one-day seminars:

- think that they have a profitable firm (Spearman's $\rho = 0.142$, sig. = 0.024, sig. < 0.05),
- consider that they have a potential for growth (Spearman's $\rho = 0.192$, sig. = 0.002, sig. < 0.01).

Hypothesis 4 stated that entrepreneurs who invest more time and money into professional literature knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance. We found that entrepreneurs who spend more money on gathering new knowledge by using professional literature:

- have a higher realization (Spearman's $\rho = 0.291$, sig. = 0, sig. < 0.01),
- consider that they have a potential for growth (Spearman's $\rho = 0.168$, sig. = 0.007, sig. < 0.01).

Hypothesis 5 stated that entrepreneurs who invest more time and money into world wide web knowledge acquisition processes are more successful as measured with objective and subjective indicators of entrepreneurial performance. We found that entrepreneurs who spend more money on gathering new knowledge by browsing the world wide web:

- have a higher realization (Spearman's $\rho = 0.263$, sig. = 0, sig. < 0.01),
- consider that they have greater chances for employing a family member (Spearman's $\rho = 0.135$, sig. = 0.039, sig. < 0.05).

The significance of these relationships indicates that time and money invested into knowledge acquisition processes in general is connected with measures of venture performance, but the connection is small.

We also found a connection between the entrepreneur's investment in growth and development of annual sales, and investment time and money for different modes of obtaining knowledge. Statistically significant relationships are reported in table 4.

We found that the entrepreneurs who invest more money in growth and development of annual sales spend more time and money on gathering new knowledge of the degree education type, by participating in several-day professional development workshops, by taking one day seminars, by visiting professional counselors, by reading professional literature and by gathering information on the world wide web than do the entrepreneurs who spend less money on growth and development.

We also analyzed reasons that the entrepreneurs listed for not spending more time on different types of knowledge acquisition processes and their performance records.

TABLE 4 Relationship between entrepreneur's investment in growth and development of annual sales, and investment of time and money for different modes of obtaining of knowledge

Time spent on/money spent on	Spearman coef.	Sign.
Time for university work/ money for university work	0.17 0.15	0.02 0.04
Time for professional development workshops/ money for professional development workshops	0.29 0.27	0.00 0.00
Time for one-day seminars/ money for one-day seminars	0.20 0.15	0.00 0.02
Time for professional counselors/ money for professional counselors	0.14 0.28	0.04 0.00
Time for professional literature/ money for professional literature	0.24 0.25	0.00 0.00
Time for World Wide Web/ money for World Wide Web	0.19 0.21	0.00 0.00

The most frequent reason for not spending more time on knowledge acquisition processes was that 'it takes too much time' (62% of respondents for degree type of education processes, 59% of them for short professional development workshops, 64% of them for reading professional literature and 69% of them for browsing the world wide web). Indeed, 41% of respondents do not spend more time on one-day seminars because they 'do not bring expected benefits', and the main reason given by 60% of respondents for not visiting professional counselors was that they are 'too expensive'.

We found statistically significant relationships between performance records and the main reason for not spending more time and money to gather new knowledge by reading professional literature and browsing world wide web because 'it takes too much time'.

By reading professional literature: the highest percentage (31%) had annual sales growth of 10% and more in the last 4 years while the lowest percentage for this reason was up to 5% (8%) in the sales growth group. Chi square tests were significant at 0.01.

The highest percentage (27%) had an annual profit growth of more than 5% in the last 4 years, while the lowest percentage for this reason was up to 5% (11%) in the profit growth group. Chi square tests were significant at 0.05.

The highest percentage (34%) had an annual increase in the number of employees of more than 5% in the last 4 years, while the lowest percentage for this reason was in the employee growth group of up to 5% (13%). Chi square tests were significant at 0.01.

By browsing the world wide web: the highest percentage (2%) had an annual sales growth of between 5 to 10% in the last 4 years, while the lowest percentage for this reason was in the sales growth group of up to 5% (13%). Chi square tests were significant at 0.05.

The highest percentage (35%) had an annual increase in the number of employees of 5% and more in the last 4 years, while the lowest percentage for this reason was in the employees increase growth group of up to 5% (19%). Chi square tests were significant at 0.05.

We can say that those entrepreneurs who are more successful stated that reading professional literature and browsing the world wide web takes too much time.

We also found statistically significant relationships between performance records and the main reasons for not spending more time and money on gathering new knowledge by formal degree education type, by participating in short professional development workshops and by attending one-day seminars because 'it is not important' and 'it does not bring expected benefits'.

Through formal education degree: the majority (22%) of entrepreneurs who think that 'it is not important' recorded sales of between 20,000 and 80,000€ and the lowest percentage of entrepreneurs that listed the reason as unimportant was in the group of less than 20,000€ of annual sales (11%). Chi square tests were significant at 0.05. Most entrepreneurs (16%) were in the group of negative increase of employees. The fewest entrepreneurs were in the group with increase of employees of more than 5%. Chi square tests were significant at 0.05.

Through professional development workshops: the highest percentage (8%) of entrepreneurs who listed 'it does not bring expected benefits' as the predominant reason for not being involved in professional workshops of knowledge acquisition had an annual sales growth of up to 5% in the last 4 years, and the lowest percentage for this reason was in the sales growth group of more than 10% (1%). Chi square tests were significant at 0.05. The highest percentage (11%) of entrepreneurs who listed 'it is not important' had annual sales growth of up to 5% in the last 4 years, and the lowest percentage for this reason was in the sales growth group of more than 10% (4%). Chi square tests were significant at 0.10.

Through one-day seminars: the highest percentage (27%) of entrepreneurs who listed 'it is not important' as the predominant reason for not being involved in one-day workshops had an annual negative increase in the number of employed people in the last 4 years, while the lowest percentage for this reason was in the employee growth group of up to 5% (12%). Chi square tests were significant at 0.05.

We can say that those entrepreneurs who are less successful stated that gathering new knowledge by formal degree education type, by participating in short professional development workshops and by visiting one day seminars are not important and do not bring the expected benefits.

Discussion and Conclusions

Acquiring formal education as well as professional skills is an important input to the individual's social, professional and personal development. It is also an important success factor. Given the ever increasing pace of economic and societal changes we face, knowledge needs to be regularly updated.

The empirical analysis was done on a sample of 303 small entrepreneurs, half of whom have limited liability companies and 45% of whom hold sole proprietorship. One third of them have 3 to 5 employees; their predominant industries are trade and services, and the majority of ventures are low rather than high tech. One fourth of responding entrepreneurs have an average annual sales growth rate between 5 to 10% in the last four years, an average annual growth rate of profits in the last four years of up to 5%, and an average annual rate of increase in the number of employees during the last four years of up to 5%. Half of them spend approximately less than 10% of their sales on future growth and development, and most of the responding ventures are relatively small: 44% of entrepreneurs reported under 120,000€ of annual sales. Two thirds of entrepreneurs included in the sample have a high school education; more than 70% of them are male of 30 to 50 years of age. The majority of them have been small business owners for 10 to 20 years.

Empirical analysis indicated that the majority of entrepreneurs (72%) use one-day seminars and reading professional literature as their preferable knowledge updating processes. Most money and time is spent on acquiring formal education degrees, yet only 18% of respondents in the sample are involved in such processes. In general, some 1 to 5 days per year are spent on visiting professional workshops, one day seminars and

business consultants. The majority of them spend between 20€ to 200€ per month for all types of knowledge acquisition process.

We found that entrepreneurs who invest more money in growth and development of annual sales spend more time and money on gathering new knowledge of the degree education type, by participating in several-day professional development workshops, by taking one-day seminars, by visiting professional counselors, by reading professional literature and by gathering information on the world wide web than do entrepreneurs who spend less money on growth and development.

When we tested the main hypotheses for relationships between quantity of time and finance invested into the knowledge acquisition processes and venture performance, we found that the time and money invested into knowledge acquisition processes in general is connected with measures of venture performance, but the connection is small. The statistically most significant relationships between time and money investment in gathering new knowledge and venture performance were found at professional workshop acquisition processes and in one-day seminar acquisition processes.

We searched for reasons for not spending more time and money on gathering new knowledge, if this is connected with company success. Shortage of time is listed as the most important reason for not being more intensely involved in such processes.

When reasons for not being involved more intensely in knowledge acquisition processes were significantly related to business performance, two interesting relationships surfaced. Entrepreneurs who have ventures with lower performance results do not engage in knowledge acquisition processes because they do not find them relevant and do not see any practical benefits that could be obtained from such processes. On the other hand, more successful entrepreneurs do not spend much time on knowledge acquisition processes through reading professional literature and browsing the world wide web because they found them to be time consuming. Given that the internet has become the most important channel to access new information and business opportunities, the success of those companies could be additionally leveraged if those entrepreneurs were more intensely involved in those processes.

The study has some limitations. In Slovenia we can speak about freer enterprise only for the last 15 years or so – most entrepreneurs started their own firms in this period. In our sample the largest number of entrepreneurs have had their own business from ten to twenty years, so that

we cannot make conclusions about entrepreneurs with a long experience. The second problem is that our sample included small firms with 3 to 5 employees, their predominant industries are trade and they are low tech. We think that we would obtain different results if we had more high tech companies and more with higher added value.

A potential general implication from this type of research could instruct institutions and influence the policy to design measures stimulating intrinsic motivation of entrepreneurs to be more intensely motivated to acquire new knowledge and to realize the importance for their current performance as well as future success and development in doing so. They would have to concentrate on a group of fewer successful entrepreneurs, that be them with help of market grips, convinced concerning meaning of knowledge for larger success. They would have to think about a manner of training more successful entrepreneurs, which would impose the least possible time load on them. Hills et al. (1996) proposed that in order for the entrepreneurs to gain new entrepreneurship knowledge with education and training, institutions must choose a target group, trainers and training and proceed to an analysis of entrepreneurs' needs at different levels. They must determine the goals and adapt teaching approaches, shapes, procedures and characteristics of entrepreneur trainers (Gibb 1994). Glas and Drnovsek (1999) suggest that in the field of education and training, entrepreneurship must be included in all formal education types, training must be adapted to a target group, society must stimulate education for technical occupations and institutions must educate in the entrepreneurship sense.

Developers of qualification and training programs for post-secondary education and training of entrepreneurs and potential entrepreneurs should (Labuschagne, Nieuwenhuizen, and Kroon 2001, 17):

1. Identify and integrate the outcomes from existing subjects in the field of economic and management sciences that relate to the success factors of entrepreneurs.
2. Supplement these outcomes with case studies, experiential exercises and practical activities that will enable learners to integrate the knowledge and skills obtained in such training of entrepreneurs and to apply these skills and knowledge in an entrepreneurial environment.

For further research, the question is raised concerning the efficiency of enterprise education and training in Slovenia – entrepreneurs can

invest time and money for obtaining knowledge, but the question is whether education and training mean quality. Košir explains that Slovenia is above the OECD average regarding formal education, yet in relation to functional literacy (ability in understanding a text) among the worst. Functional literacy is important also for successful husbandry (Ostan and Hvalič Erzetič 2006).

References

- Antončič, B., R. D. Hisrich, T. Petrin, and A. Vahčić. 2002. *Podjetništvo*. Ljubljana: GV založba.
- Antončič, B., and B. Hvalič Erzetič. 2004. Entrepreneurship education satisfaction assessment instrument: An empirical examination. In *Knowledge society – challenges to management: Globalisation, regionalism and EU enlargement process: Proceedings of the 4th International Conference of the Faculty of Management Koper*, ed. E. Žižmond, 165–73. Koper: Faculty of Management.
- Bharadwaj, P. N., T. W. Falcone, and S. W. Osborne. 2004. Creating entrepreneurs from the ranks of the unemployed. *Journal of Small Business Strategy* 15 (1): 1–16.
- Birch, D. 1993. Dynamic entrepreneurship and job creation: Lessons from the US experience for Central and Eastern Europe. In *Dynamic entrepreneurship in Central and Eastern Europe*, ed. D. F. Abell and T. Koellermeier, 13–23. The Hague: Delwel.
- Drnovšek, M. 2002. Merjenje prispevka podjetniških inovacij k rasti v mladih tehnoloških podjetjih. PhD diss., University of Ljubljana.
- Gaber, S., ed. 2000. *Pristopna strategija Republike Slovenije na področju razvoja človeških virov*. Ljubljana: Ministrstvo RS za šolstvo in šport.
- Gartner, W. B. 1988. Who is an entrepreneur? Is this the wrong question? *American Journal of Small Business* 12 (4): 11–33.
- Gibb, A. 1994. The enterprise culture and education. *Small Business Journal* 11 (3): 11–34.
- Glas, M., and M. Drnovšek. 1999. Support for graduate students with entrepreneurial intentions: The case of Slovenia. Paper presented at the 2001 ESBS conference, Dublin.
- Hills, G. E., J. M. Romaguera, L. Fernández, C. González, L. C. Hamilton, C. Pérez, and R. Rollman. 1996. Entrepreneurship curriculum innovation: The University of Puerto Rico at Mayagüez case. Paper presented at the 1996 IntEnt conference, Arnhem.
- Huber, G. P. 1991. Organizational learning: The contributing processes and the literatures. *Organization Science* 2 (1): 88–115.
- Kotey, B., and C. Folker. 2007. Employee training in SMEs: Effect of size

- and firm type-family and nonfamily. *Journal of Small Business Management* 45 (2): 214–38.
- Kubr, M. 2002. *Management consulting: A guide to the profession*. 4th ed. Geneva: International Labour Office.
- Labuschagne, M., C. Nieuwenhuizen, and J. Kroon. 2001. A multi-disciplinary approach to the development of training programmes and qualifications for entrepreneurship. Paper presented at the 2001 IntEnt conference, Kruger National Park.
- Mandel, M. I. 2004. How to sharpen the innovation edge. *Business Week*, October 11.
- McKeon, H., K. Johnston, and C. Henry. 2004. Multinational companies as a source of entrepreneurial learning: Examples from IT sector in Ireland. *Education and Training* 46 (8–9): 433–43.
- Olsen, K. 2002. *Entrepreneurial training: Does it enhance success rates?* MA thesis, Royal Roads University.
- Ostan, I., and B. Hvalič Erzetič. 2006. *Ekonomska uspešnost Slovenije 1991–2005: Gospodarsko ogrožena nacija in brezbržnost vseh slojev*. Portorož: Fakulteta za pomorstvo in promet.
- Penrose, E. 1995. *The theory of the growth of the firm*. 3rd ed. Oxford: Oxford University Press.
- Postigo, S., D. Iacobucci, and M. F. Tamborini. 2003. Undergraduate students as a source of potential entrepreneurs: A comparative study between Italy and Argentina. Paper presented at the 2003 IntEnt conference, Grenoble.
- Ravasi, D., and C. Turati. 2005. Exploring entrepreneurial learning: A comparative study of technology development projects. *Journal of Business Venturing* 20 (1): 137–64.
- Reid, R. S., and R. I. D. Harris. 2002. The determinants of training in SMEs in Northern Ireland. *Education and Training* 44 (8): 443–50.
- Ripsas, S. 1998. Towards an interdisciplinary theory of entrepreneurship. *Small Business Economics* 10 (2): 103–15.
- Sexton, D. L., N. B. Upton, L. E. Wacholtz, and P. P. McDougall. 1997. Learning needs of growth oriented entrepreneurs. *Journal of Business Venturing* 12 (1): 1–8.
- Solymosy, E., and A. A. Penna. 2001. Sustainable growth for the small business: A theory of organizational transition. Paper presented at the 2001 USASBE/SBIDA conference, Orlando, FL.
- Sullivan, R. 2000. Entrepreneurial learning and mentoring. *International Journal of Entrepreneurship Behaviour and Research* 6 (3): 160–75.
- Timmons, J. A. 1999. *New venture creation: Entrepreneurship for 21st century*. 5th ed. Boston, MA: McGraw-Hill.
- Welter, F. 2001. Who wants to grow? Growth intentions and growth pro-

- files of entrepreneurs in Germany. In *Frontiers of entrepreneurship research 2001*, ed. W. D. Bygrave, E. Autio, C. G. Brush, P. Davidsson, P. G. Green, P. D. Reynolds, and H. J. Sapienza, 91–100. Babson Park, MA: Babson College.
- Wiklund J. 2001. Growth motivation and its influence on subsequent growth. In *Frontiers of entrepreneurship research 2001*, ed. W. D. Bygrave, E. Autio, C. G. Brush, P. Davidsson, P. G. Green, P. D. Reynolds, and H. J. Sapienza, 100–12. Babson Park, MA: Babson College.
- Young, J. E. 1997. Entrepreneurship education and learning for university students and practicing entrepreneurs. In *Entrepreneurship 2000*, ed. D. L. Sexton and R. W. Smilor, 215–38. Chicago: Upstart.