# **Identification of College Students' Entrepreneurship Qualities**

# Gražina Strazdienė, Algirdas Garalis

Šiauliai University

#### **Abstract**

The paper attempts to identify entrepreneurial characteristics of students in Lithuanian colleges. The General Enterprising Tendency (GET) test was used for this purpose. The test measures enterprising tendency through the assessment of five enterprise characteristics, namely, calculated risk – taking, creative tendency, high need for achievement, high need for autonomy and internal locus of control (Caird, 1999). It was discovered that the students had lower performance scores on all of the measures of occupational groups such as business owner managers, teachers, nurses, civil servants, lecturers and trainers except clerical trainees. Analysing particular entrepreneurship qualities it is seen that students have medium need for achievement, which indicates that students are probably willing to embody entrepreneurship ideas reconcilable with their lifestyle. Students' need for autonomy is slightly higher than low and it indicates that students can work as entrepreneurs-managers in companies and be valuable members of organisation teams. In order to start own business, they would have to develop stronger qualities of independent leadership. Students are characteristic of medium creative tendency. This indicates that they are probably willing to embody simple to apply and reconcilable with their lifestyle ideas, which would induce moving forward. Established students' medium level of calculated risk - taking can be explained by the fact that students tend to embody less risky ideas, even the ones, where a partner takes the risk. Internal locus of control also occurs of medium level. It indicates that although students have some entrepreneurship qualities, in order to start own business they have to develop self-confidence and entrepreneurship skills to be successful. Students have to devote more effort to control the development of their ideas. Self-confidence can be strengthened by developing specific business or project management skills in the areas that require improvement. Students who are entrepreneurial are inclined to have greater entrepreneurial tendency, calculated risk - taking and creative tendency than those who are not entrepreneurially inclined. Such findings indicate the challenge facing colleges

if they are to be founded. All of these characteristics can be developed in students, but not by using the more traditional, pedagogical teaching methods nor by teaching the standard functional competences traditionally taught in business schools.

**Key words:** entrepreneurship, entrepreneurial characteristics, GET test.

#### Introduction

Entrepreneurship is one of the key factors of economic growth and has a substantial effect on the country's development, job creation, and social stability. A knowledge economy demands educated, qualified and enterprising leaders, executives, and organisations.

Entrepreneurship education is a relatively new field in Lithuania. Different topics related to entrepreneurship, qualities, features and skills characteristic to an entrepreneur were analysed by Lydeka (1996), Juozaitienė and Staponkienė (2004), Martinkus and Žičkienė (2006), Valuckienė, Ruškus, Balčiūnas (2004). Research on entrepreneurship education has become especially relevant now, implementing Lisbon Strategy guidelines to create competitive and knowledge-based society.

In the common European area entrepreneurship is encouraged at different levels: political, institutional, and educational. The European Commission has adopted a series of regulations promoting entrepreneurship: the European Charter for Small Enterprises (2000), the Green Paper "Entrepreneurship in Europe" (European Commission, 2003). Every year a report on implementation of the European Charter is prepared (Implementation Report on the European Charter for Small Enterprises, 2005). The educational sector is undergoing significant changes, influenced by the Bologna process (Bologna Declaration, 1999), Copenhagen Declaration (Declaration of the European Ministers of Vocational Education and Training, 2002), Bergen Communiqué (2005), and agreements signed during summits in Lisbon (2000), Prague (2001), and Barcelona (2003). The Ministry of Education and Science of the Republic of Lithuania has prepared the Strategy for economic Literacy and

Entrepreneurship Education (2004), National Youth Entrepreneurship Promotion Programme (2007). This indicates that entrepreneurship education is gaining considerable importance under the conditions of social, economic, and technological changes.

As Lithuania is seeking to implement the strategies of entrepreneurship education at educational level, it is pertinent to assess ongoing changes in the environment, accept new challenges, and follow the tendencies in entrepreneurship education. It is essential to develop entrepreneurship awareness of college students as well as the knowledge of trends of entrepreneurship development and implementation possibilities. It is also a research problem, which manifests itself in problem questions: What entrepreneurship qualities do college students have? Do they plan to start their own business after graduation.

**The aim of research:** to establish the expression of entrepreneurship qualities in student population by a standard written poll.

# The tasks of research:

- 1. to disclose the dimensions of entrepreneurship qualities in theoretical aspect;
- 2. to empirically survey the expression of entrepreneurship qualities of college students.

**Research methods:** analysis of scientific literature analysing entrepreneurship, standardised written poll. The research data was processed using statistical methods: frequency tables, chi-square tests, one-sample t-tests, descriptive statistics. SPSS 14.0 software was used for research data processing.

# The conception and properties of entrepreneurship

The conception of entrepreneurship in scientific literature is described in controversial and diverse aspects. The definition of the conception of 'entrepreneurship' causes discussions among scientists and practicians. According to Parker (2003), economists compare entrepreneurs with the representatives of small businesses as they are always coping with risk, one of the elements of entrepreneurship. Other authors believe that such definition is too wide and maintain that only the business owner managing production is the actual entrepreneur (ibid). Others maintain that the definition of entrepreneurship proposed by economists is too narrow as it does not cover entrepreneurship in a large company and in social environment.

Gibb and Nelson (1996) (quoted from Henry, Hill, Leitch, 2003) have defined entrepreneurship as functional competences and skills of management necessary to start, run and develop a small business, while business management is related to personal competences to develop business.

Carland (quoted from Garavan and O'Cinneide, 1994) defines entrepreneurs by innovative behaviour and strategic management practice aiming at profit and growth. Lydeka (1996) describes entrepreneurship as a procedural phenomenon, "when an individual relying on own entrepreneurship, auspicious situation, belief in success and accepting financial, moral, and social responsibility, forms a new, profitable and useful to consumers business idea". Martinkus and Žičkienė (2006) maintain that entrepreneurship is a production factor embracing other three production factors: capital, labour, and natural resources. Juozaitienė and Staponkienė (2004) describe entrepreneurship as incubation of an idea and creation of an organisation to implement the idea.

Caird (1991) describes an enterprising person as a businessman or entrepreneur in a company or organisation, or an individual who creates and manages voluntary projects in a community. According to the author, enterprising people are more likely to start projects, introduce innovations and seek improvement. They are constantly searching for opportunities and know how to use human, technological, psychological and organisational resources best.

Different authors indicate different entrepreneurship qualities characteristic to an entrepreneur. Koh (1996) has distinguished most frequently mentioned psychological qualities of entrepreneurship: need for achievements, situation control, tendency to accept risk, tolerance towards ambiguity, self-confidence, and innovativeness.

Casson (1982, quoted from Littunen, 2000) maintains that typical qualities of a successful entrepreneur are as follows: ability to take risks, innovativeness, knowledge of market functioning, marketing skills, business management skills, and ability to cooperate.

According to Timmons (1985), there are 14 qualities necessary for an entrepreneur and they can be learnt: final obligation, determination and perseverance, need to achieve and grow, turn towards goals and opportunities, initiative and personal responsibility, confidence and a sense of humour, seeking and using feedback, internal locus of control, tolerance towards ambiguity, stress, and uncertainty, accepting calculated risk – taking and risk division, low need for an official position and power, respectability and reliability, resolution, immediacy and patience, learning from failure, forming a team, and nurturing personalities. However, the list is not final.

According to the overview of literature, the aim of which was to establish key psychological characteristics of entrepreneurs, Caird (1991) has compiled a test for measuring a tendency towards entrepreneurship in people of various occupational groups, the GET test (General Measure of Enterprising Tenden-

cy). According to the author, an especially enterprising person has the following qualities: strong need for achievements, like of being responsible, seek for opportunities and use of different resources in achieving the goals. It is believed that such people have or can gain qualities to achieve success, are innovative and determined to accept calculated risk - taking. The qualities of entrepreneurship distinguished by Caird (1991) are explained below.

## The need for achievement

An enterprising person is very motivated, energetic, hard-working, engaged, dynamic, and highly committed to carry out planned actions. His high motivation is determined by a strong need for achievements, manifesting itself in a will to lead, create and manage projects. According to the author, a person with a high need for achievements has the following qualities:

- 1. self-confidence
- 2. optimistic rather than pessimistic attitude
- 3. strong orientation towards tasks
- 4. efficient time management
- 5. aiming at results, both himself and with others
- 6. restless, active, and energetic
- 7. obstinate in defending own ideas and attitudes
- 8. determined to convince that aims are achievable even if there are obstacles
- 9. responsible and obstinate in achieving the aims
- 10. oriented towards challenging yet realistic aims
- 11. determined to work long and hard to complete the tasks.

## The need for autonomy

An enterprising person has a high motivation level, is energetic, likes leadership, planning and acting his way. He is independent, active, dynamic and can be leading or working individually.

A person with a high need for autonomy has the following qualities (Caird, 1991):

- 1. independent, prone to working alone, especially if he is a leader
- 2. expressing himself, having a strong need to act his way rather than work in other people's projects
- 3. individualist, not responding to the pressure of a group
- 4. leader, tends to be responsible and dislikes leadership of others
- 5. unrestrained and ready to withstand
- 6. having own opinion and able to express his thoughts
- 7. having strong attitude, resolution and perseverance concerning his interests

#### Creative tendency

An enterprising person is restless with his ideas, uses imagination in solving problems and tends to see the world differently. The tendency of innovativeness and the need for achievements aids in developing ideas, creating new products and processes.

A creative person has the following qualities (Caird, 1991):

- 1. tendency of imagination, creative tendency or innovation in creating new ideas
- 2. intuition, ability to combine ideas and knowled-ge
- 3. prone to change, prefers novelty, changes and challenges, avoids routine
- 4. flexible and relying on personal resources in projects or solving problems
- 5. curious and interested in new ideas.

#### Calculated risk - taking

An enterprising person pursues opportunities and seeks information and expertise to assess whether it would be beneficial to engage in a potentially risky opportunity. Such people have the following qualities (Caird, 1991):

- 1. making decisions, able to act without having all information
- 2. confidence in an ability to assess own skills rightly
- 3. analytical, able to assess the benefit before taking actions
- 4. oriented towards the aim, establishes challenging, yet achievable aims
- 5. demonstrates efficient information management in using the information to calculate the probability of activity success.

#### Locus of control

An enterprising person has more inner than outer state control, which means that he believes one can control destiny and be successful. Such a person seeks to control own life, relies on inner resources and believes that success comes because of effort and hard work. A person having internal locus of control has the following qualities (Caird, 1991):

- 1. seeking opportunities, seeking and accepting the advantages of opportunities
- 2. self-confident, believes that controls own destiny and creates success and is not controlled by fate
- 3. taking personal responsibility in managing problems that arise when success is aspired on set deadlines
- 4. determination and resolution
- 5. confidence when comparing achieved results and input

With regard to the variety of expression of the entrepreneurship conception and qualities, several schools analysing entrepreneurship education are distinguished. Cunningham and Lischeron (1991, quoted from Koh, 1996) have distinguished six main schools analysing entrepreneurship education. The school of "appropriate personality" describes an entrepreneur as a person having innate intuition, energy, liveliness, obstinacy, and self-esteem. "Classical"

school associates entrepreneurship with innovation, creative tendency, and discoveries. "Management" school describes an entrepreneur as a person who organises, manages, heads, and takes the risk. "Leadership" school describes an entrepreneur as a person who motivates, directs, and leads the way.

Littunen (2000) distinguishes two different schools engaged in entrepreneurship studies. One of them is based on the model of entrepreneurship qualities, the other – on unexpected thinking.

The studies of entrepreneurship qualities analyse why some people establish companies and become successful entrepreneurs. In these studies the personal qualities of an entrepreneur do not depend on a prevailing situation. According to another model based on unexpected thinking, the qualities necessary for entrepreneurship are linked to the company environment and a prevailing situation. Personal qualities are formed through interrelation of an individual and the environment. Situations, experiences, and changes of the world are of key importance in the life of an individual (Rotter, 1990, quoted from Littunen, 2000).

#### Research method

The research was carried out in 2007. In research students from different Lithuanian colleges were polled. 630 questionnaires were distributed, 458 of them were received filled out. 26 questionnaires were invalidated due to incompletion. The return of the questionnaires equalled 68.8%. Research sample was 432 respondents.

In order to measure inclination of college students towards entrepreneurship, the General Measure of Enterprising Tendency (GET) test was used. This test is widely used in different countries for students, pupils and participants of entrepreneurship courses, but only for educational purposes. The test is simple to complete and easy to administrate. The test was used with the consent of its author Professor Caird Sally.

When taking the test, respondents had to indicate whether they agree or not with 54 statements,

identifying various aspects of entrepreneurship tendencies (Caird, 1991). The test measures inclination towards entrepreneurship by assessing five entrepreneurship qualities: need for achievements, need for autonomy, creative tendency, calculated risk - taking, and internal locus of control.

Construct validity and reliability were ensured by testing different occupational groups and discovering (with 5% probability of error) that entrepreneurs were significantly more enterprising than teachers, nurses, civil servants and clerical workers and lecturers and trainers (Caird, 1991). Even greater difference was discovered between occupational groups (with 1% probability of error) when analysing specific entrepreneurship qualities. Entrepreneurs were not assessed weightier than lecturers and trainers in the following entrepreneurship qualities: need for autonomy, creative tendency, and calculated risk - taking - taking. Teachers, nurses, and civil servants did not have significantly different creative tendencies than entrepreneurs. As it was expected, entrepreneurs do not have a monopoly over entrepreneurship qualities but tend to engage in entrepreneurship more than other occupational groups of the research.

#### Research results

The research aimed to establish the following entrepreneurship qualities in college students: need for achievements, need for autonomy, creative tendency, calculated risk - taking, internal locus of control, and entrepreneurship that covers the above mentioned qualities.

Research results indicate (Table 1) that the majority of college students have average entrepreneurship qualities (mean=31.09). It means that they have some strong entrepreneurship qualities and can be enterprising. Currently students are not determined to establish an innovative, growth-oriented, large enterprise and probably could express their entrepreneurship working as managers in companies or implementing various projects.

Table 1
Entrepreneurship qualities

Entrepreneurship qualities		Mean		SD	valued		
	N	value	SE		low	medium	high
Need for achievements	432	6.97	0.087	1.799	38.0	54.9	7.2
Need for autonomy	432	2.31	0.062	1.283	60.2	22.7	16.9
Creative tendency	432	7.18	0.098	2.044	35.6	51.6	12.5
Calculated risk - taking - taking	432	7.39	0.092	1.921	30.6	56.0	13.4
Locus of control	432	7.24	0.094	1.952	34.0	53.5	12.5
Entrepreneurship	432	31.09	0.266	5.534	21.1	78.5	0.5

In order to obtain percentage frequencies, the scale was reorganized so that it would reflect entrepreneurship qualities of high, medium, and low levels. Thus, students with medium entrepreneurship qualities amount to 78.5%. Many students have low entrepreneurship qualities (21.1%) and only 0.5% of students have high entrepreneurship qualities.

Analysing particular entrepreneurship qualities it is seen that students have a medium need for achievements (mean=6.97), which indicates that students are probably willing to embody entrepreneurship ideas reconcilable with their lifestyle. A medium need for achievements is observed in 54.9% of students; 7.2% have a high need for achievements and 38% – a low need for achievements.

Students' need for autonomy is slightly higher than low (mean=2.31). Therefore, it is attributed to a medium level, and it indicates that students can work as entrepreneurs-managers in companies and be valuable members of organisation teams. In order to start own business, they would have to develop stronger qualities of independent leadership. Although mean assessment of the need for autonomy is medium, analysis of percentage frequencies distribution shows that the majority of students (60.2%) have a low need for autonomy, 22.7% – a medium need, and 16.9% – a high need for autonomy. The obtained results can be explained by the fact that students tend to accept advice on how to work and do not like taking responsibility. It is noteworthy that poll participants were full-time students of second and third year. Typically, full-time students are less likely to work independently than extramural students.

Students are characteristic of medium level for creative tendency (mean=7.18). This indicates that they are probably willing to embody simple to apply and reconcilable with their lifestyle ideas, which would induce moving forward. The percentage of students having a medium level of creative tendency equals 51.6%. Low level of creative tendency is characteristic for 35.6% of students, and 12.5% have a high level of creative tendency.

Established students' medium level of calculated risk - taking (mean=7.39) can be explained by the fact that students tend to embody less risky ideas, even the ones, where a partner takes the risk (even though some achievements would be sacrificed). Total percentage of students having a medium level of calculated risk - taking equals 56%. Low calculated risk - taking is characteristic for 30.6% of students, and 13.4% have a high level of calculated risk - taking.

Internal locus of control also occurs at a medium level (mean=7.24). It indicates that although students have some entrepreneurship qualities, in or-

der to start own business they have to develop self-confidence and entrepreneurship skills to be successful. Students have to devote more effort to control the development of their ideas. Self-confidence can be strengthened by developing specific business or project management skills in the areas that require improvement. Students having not high self-confidence are more likely to overly rely on other persons, such as partners or clients, which would pose additional business risk. 53.5% of students have a medium level of internal locus of control, 34% – low, and 12.5% – a high level of internal locus of control.

The aim of the research was to establish whether the tendency for entrepreneurship and entrepreneurship qualities of college students differed from the results of clerical trainees in Caird's (1999) research.

Having selected the level of significance of statistical criterion  $\alpha$ =0.05, we verified the hypothesis:

HO: Entrepreneurship tendency and entrepreneurship qualities of college students: need for achievements, need for autonomy, creative tendency, calculated risk - taking and locus of control do not differ from the results of Caird's (1999) study.

H1: Entrepreneurship tendency and entrepreneurship qualities of college students: need for achievements, need for autonomy, creative tendency, calculated risk - taking and locus of control differ from the results of Caird's (1999) study.

Having applied one-sample t-test, we see that entrepreneurship tendency and entrepreneurship qualities: need for achievements, need for autonomy, creative tendency, calculated risk - taking, and internal locus of control are statistically significantly different from the results of clerical trainees obtained by Caird (1999). Total entrepreneurship tendency of college students (mean=31.09) is higher (p=0.000 < 0.05) than of the group measured by Caird (mean=29.40). Having analysed entrepreneurship qualities, we have established that:

- the need for achievements (mean=6.97) is higher than in the group measured by Caird (mean=6.70) (p=0.002 < 0.05)
- the need for autonomy (mean=2.31) is lower than in the group measured by Caird (mean=3.00) (p=0.000 < 0.05)
- creative tendency (mean=7.18) is higher than in the group measured by Caird (mean=6.10) (p=0.000 < 0.05)
- calculated risk taking (mean=7.39) is higher than in the group measured by Caird (mean=6.20) (p=0.000 < 0.05)
- locus of control (mean=7.24) is lower than in the group measured by Caird (mean=7.90) (p=0.000 < 0.05)

Obtained research results allow rejecting the hypothesis *HO* and accepting the alternative hypothesis that college students' entrepreneurship tendency and entrepreneurship qualities: need for achievements, need for autonomy, creative tendency, calculated risk taking, and internal locus of control differ from the results of clerical trainees measured by Caird (1999).

It is maintained that entrepreneurship qualities influence a motivation to start own business. The aim of the research was to find out whether students intend to start their own business after graduating from the college. Obtained results are presented in Table 2.

The majority of students (37.1%) indicated that they were planning to start their own business in five to ten years. However, many students selected the variant 'other' (24.8%). Having analysed the variants 'other', we noticed that students were not determined about starting a business and indicated: "do not know", "it will depend on the circumstances", "if there is a good opportunity", "will decide later, after graduation", etc. It can be explained by the fact that

full-time students do not yet have definite plans on starting own business because many of them intend to study further at universities.

Statistically significant difference (p=0,005 <  $\alpha$ ) was observed between the intention of men and women to start their own business. The majority of men intend to start their own business in five to ten years (38.5%), and 24.8% – in the next five years. The majority of women intend to start own business similarly as men – in five to ten years (36.6%). However, a large part of women (15.8%) are planning to start a business only after ten years. It is noteworthy that more women (8.7%) than men (7.3%) indicated that they were not going to start a business. It can be related to the fact that women are less likely to take risks than men. It should be noted that a lot of women (28.0%) selected the variant 'other'. This once again confirms that women are not determined and have doubts about starting own business. The percentage of uncertain men is significantly lower and equals 15.6%.

Table 2
Students' intention to start own business

Are you planning to start your own business?		Your g	Your gender	
, ,		male	female	Total
in next 5 years	N	27	35	62
	% out of 'your gender'	24.8%	10.9%	14.4%
in 5 to 10 years	N	42	118	160
	% out of your gender	38.5%	36.6%	37.1%
after 10 years	N	15	51	66
	% out of your gender	13.8%	15.8%	15.3%
never	N	8	28	36
	% out of your gender	7.3%	8.7%	8.4%
other	N	17	90	107
	% out of your gender	15.6%	28.0%	24.8%
otal	N	109	322	431
	% out of your gender	100.0%	100.0%	100.0%

Comparison allows concluding than men are more likely to start a business than women. Women tend to have doubts about starting a business and postpone their plans to further future (after ten years).

For further analysis the scale was condensed. All participants in the poll were divided into two groups: intending to start a business and not. The first group consisted of students who had indicated planning to start own business in five years and in five to ten years.

The second group involved students who had indicated planning to start a business after ten years, not planning at all and those, who did not answer this question. Attributing students who intended to start a

business after ten years to the group of respondents not intending to start a business is based on statistics (Department of Statistics, 2007), which indicates that the majority of people intending to start a business establish companies immediately after graduation or in five to seven years after graduation.

Having divided students into two groups, we sought to find out whether there were any differences between entrepreneurship qualities of these students. A hypothesis was put forward that entrepreneurship qualities of students intending and not intending to start a business do not differ.

Having selected the level of significance of statistical criterion  $\alpha$ =0.05, we verified the hypothesis:

HO: Entrepreneurship qualities of students intending to start own business: need for achievements, need for autonomy, creative tendency, calculated risk – taking, internal locus of control and enterprising tendency are not different from students who do not intend to start a business.

H1: Entrepreneurship qualities of students intending to start own business: need for achievements, need for autonomy, creative tendency, calculated risk – taking, internal locus of control and enterprising tendency are different from students who do not intend to start a business.

Percentage results of students' viewpoint are presented in Table 3.

Having carried out analysis, statistically significant difference (p=0.01 <  $\alpha$ ) was observed between students intending and not intending to start a business and enterprising tendency. The majority of students intending to start own business (84.2%) and not intending to start a business (72.2%) have medium

entrepreneurship qualities; however, the percentage of students intending to start a business is higher. More students who do not intend to start a business have low entrepreneurship qualities (27.3%). It is maintained that these students are more likely to engage in wage-work. They would be more successful observing a business than heading one. Enterprises need people who would support them and work to accomplish the tasks in order to achieve company goals. Therefore, these students can successfully work for companies rather than lead them.

Statistically significant difference was not observed between students intending and not intending to start own business and the need for achievements, need for autonomy, and internal locus of control. It can be stated that the need for achievements, need for autonomy, and internal locus of control of students intending and not intending to start a business do not differ, i.e. zero hypothesis is accepted.

Table 3

Expression of entrepreneurship in groups of students intending and not intending to start a business

Entrepreneurship		Intention to sta		
			Not intending to	Total
		Intending to start	start	
	N	34	57	91
low	% out of intention for business	15.3%	27.3%	21.1%
	N	187	151	338
medium	% out of intention for business	84.2%	72.2%	78.4%
	N	1	1	2
high	% out of intention for business	.5%	.5%	.5%
Total	N	222	209	431
	% out of intention for business	100.0%	100.0%	100.0%

However, statistically significant difference was observed between students intending and not intending to start own business and creative tendency (p=0.000 <  $\alpha$ ) and calculated risk — taking (p=0.007 <  $\alpha$ ).

The majority of students intending to start a business have higher medium (54.8%) and high (17.2%)

level of creative tendency than students who do not intend to start a business (respectively 48.3% and 7.7%). The majority of students who do not intend to start a business have low creative tendency (44.0%). These students do not have creative ideas for starting a business and are more likely to be wage-workers in a traditional enterprise (Table 4).

Table 4 Creative tendency in groups of students intending and not intending to start a business

Creative tendency		Intention to sta		
			Not intending to	Total
		Intending to start	start	
	N	62	92	154
low	% out of intention for business	28.1%	44.0%	35.8%
	N	121	101	222
medium	% out of intention for business	54.8%	48.3%	51.6%
	N	38	16	54
high	% out of intention for business	17.2%	7.7%	12.6%
Total	N	221	209	430
	% out of intention for business	100.0%	100.0%	100.0%

The majority of students intending to start a business have higher medium (61.3%) and high (14.9%) calculated risk – taking than students who do not intend to start a business (respectively 50.2% and 12.0%). Students having high calculated risk – taking

are capable of analytical thinking and assessing the benefit before performing. They are able to manage the information efficiently and use it for calculating the probability of success of actions. Such students can act even not having all information (Table 5).

 ${\bf Table~5}$   ${\bf Calculated~risk-taking~in~groups~of~students~intending~and~not~intending~to~start~a~business}$ 

Calculated risk - taking		Intention to sta	Intention to start own business		
			Not intending to	Total	
		Intending to start	start		
	N	53	79	132	
low	% out of intention for business	23.9%	37.8%	30.6%	
	N	136	105	241	
medium	% out of intention for business	61.3%	50.2%	55.9%	
	N	33	25	58	
high	% out of intention for business	14.9%	12.0%	13.5%	
Total	N	222	209	431	
	% out of intention for business	100.0%	100.0%	100.0%	

The majority of students who do not intend to start a business have low calculated risk - taking (37.8%). These students find it difficult to take any risks, as they may have too many obligations or too little resources in order to feel comfortable accepting financial and entrepreneurial risks.

#### **Conclusions**

- 1. The majority of students have a medium need for achievements, which indicates that students are probably willing to embody entrepreneurship ideas reconcilable with their lifestyle. Students are characteristic of a medium level for creative tendency. This indicates that they are probably willing to embody simple to apply and reconcilable with their lifestyle ideas, which would induce moving forward.
- 2. Internal locus of control also occurs at a medium level. It indicates that although students have some entrepreneurship qualities, in order to start own business they have to develop self-confidence and entrepreneurship skills to be successful. Students have to devote more effort to control the development of their ideas. Self-confidence can be strengthened by developing specific business or project management skills in the areas that require improvement.
- 3. However, the majority of students have only slightly above a low need for autonomy, which can be explained by the fact that students are not independent enough and tend to receive constant advice for activity. They do not like taking responsibility. Students' need for autonomy indicates that students can work as entrepreneurs-managers

- in companies and be valuable members of organisation teams. In order to start own business, they would have to develop stronger qualities of independent leadership.
- 4. Established students' medium level of calculated risk taking can be explained by the fact that students tend to embody less risky ideas, even the ones, where a partner takes the risk.
- 5. Having compared intentions of men and women to start their own business, it was discovered that men are more likely to start a business than women. Women tend to have doubts about starting a business and postpone their plans for further future (after ten years).
- 6. Statistically significant difference was established between the students intending and not intending to start a business and enterprising tendency, creative tendency, and calculated risk taking. Many students not intending to start a business have low creative tendency and calculated risk taking.

#### Refereces

- 1. Ataskaita apie Europos mažujų įmonių chartijos įgyvendinimą. (2005). [žiūrėta 2008-04-20] Prieiga per internetą: http://europa.eu.int.com.
- 2. Bologna declaration. Joint declaration of the European Ministers of Education. Convened in Bologna on the 19th of June 1999. [žiūrėta 2008-03-20] Prieiga per internetą: http://europa.eu.int/comm/education/policies/2010/et en.html.
- Bergen Communique. The European Higher Education area Achieving the Goals. Communique of the Conference of European Ministers responsible for Higher Education, Bergen, 19–20 May 2005. [žiūrėta 2008-03-20] Prieiga per internetą: http://europa.eu.int/comm/education/policies/2010/et\_en.html.

- 4. Copenhagen declaration. Declaration of the European Ministers of vacational Education and Training, and the european Commission, convened in Copenhagen on 29 and 30 November 2002, on enhanced European cooperation in vacational education and training. [žiūrėta 2008-03-20] Prieiga per internetą: http://europa.eu.int/comm/education /policies/2010/vocational en.htm.
- Caird, S. (1991). Testing Enterprising Tendency in Occupational Groups. *British Journal of Management*, No. 2, pp. 177–186.
- 6. Casson, M. (1982). *The entrepreneur: an Economic Theory*. Oxford: Martin Robertson.
- 7. Cunningham, J., ir Lischeron, J. (1991). Defining Entrepreneuship. *Journal of Small Business Management*. Vol. 29, p. 45–61.
- 8. European Commission (2003). *Green paper Entrepreneurship in Europe. Brussels*. [žiūrėta 2007-08-12] Prieiga per internetą: http://www.oecd.org/document
- 9. Garavan, T. N., O'Cinneide, B. (1994). Entreprenuership Education and Training programmes: a Review and Evaluation Part 1. *Journal of European Industrial Training*. Vol. 18, No. 8, p. 8–12.
- Gibb, Y. K., Nelson, E. G. (1996). Personal Competences, Training and Assessment: A challenge for Small Business Trainers. *Proceedings of European Small Business Seminar, Finland*, p. 97–107.
- Juozaitienė, L., Staponkienė, J. (2004). Verslo ir vadybos įvadas. Šiauliai: VŠĮ Šiaulių universiteto leidykla.
- 12. Henry, C., Hill, F., Leitch, C. (2003). *Entrepreneurs-hip Education and Training*. Ashgate: England.
- 13. Koh H. C. (1996). Testing hypotheses of entrepreneu-
- G. Strazdienė, A. Garalis

- rial characterictics. *Journal of Managerial Psychology*. Vol. 11, p. 12–25.
- 14. Littunen H. (2000). Entrepreneurship and the characteristics of the entrepreneurial personality. *International Journal of Entrepreneurial Behaviour and Research*. Vol. 6, No 6, p. 295–309.
- Lydeka Z. (1996) Verslininkas, verslumas ir verslininkystė. Organizacijų vadyba: sisteminiai tyrimai. Nr. 2.
- 16. Lietuvos Respublikos švietimo ir mokslo ministro 2004-06-02 įsakymas Nr. ISAK-835. *Ekonominio raštingumo ir verslumo ugdymo strategija*.
- 17. Martinkus, B., Žickienė, S. (2006) *Verslo organizavimas*. Šiauliai: VŠĮ Šiaulių universiteto leidykla.
- 18. Nacionalinė jaunimo verslumo skatinimo 2007–2011 m. programa. (2007). Projektas. [žiūrėta 2007-11-15] Prieiga per internetą: http://www.lijot.lt/index.php?language=lt&page=14414.
- 19. Parker, S. C. (2003). *On the dimensionality and Composition of entrepreneurship*. [žiūrėta 2007-11-15] Prieiga per internetą: http://www.dur.ac.uk/s.c.parker/
- Rotter, J. B. (1966) Generalized expectancies for internal versus external locus of control of reinforcement.
   Psychological Monographs: General and Aplied. Serial number 609, Vol. 80, p. 1–28.
- 21. *Statistikos departamentas*. [žiūrėta 2007-09-20] Prieiga per interneta: http://www.std.lt.
- 22. Valuckienė, J. Ruškus, J. Balčiūnas, S. (2004). Verslumo kaip asmenybės savybės identifikacija moksleivių populiacijoje. *Socialiniai tyrimai*. Nr.4, p. 103–112.
- 23. Timmons, J. A., Smollen, L. E., Dingee, A. L. M. (1985). *New Venture Creation*. Irwin: Homewood, IL.

#### Kolegijos studentų verslumo savybių indentifikavimas

#### Santrauka

Straipsnio tikslas – nustatyti Lietuvos kolegijų studentų verslumo savybes. Siekiant šio tikslo buvo pasitelktas polinkio į verslumą nustatymo būdas – GET testas. Testas matuoja polinki į verslumą įvertindamas penkias verslumo savybes: pasiekimų poreikį, poreikį būti nepriklausomam, kūrybingumą, pamatuotą riziką, vidinę padėties kontrolę. Nustatyta, kad studentai turi žemesnius verslumo įvertinimo balus nei tie, kurie buvo nustatyti Caird (1999) tirtose užimtumo grupėse: verslo įmonių vadovų, mokytojų, auklių, valstybės tarnautojų, lektorių ir praktikų vadovų, išskyrus biuro specialybę studijavusių studentų. Analizuojant konkrečias verslumo savybes matyti, kad studentams būdingas vidutinis pasiekimų poreikis. Tai reiškia, kad studentai galbūt ketina išbandyti verslumo idėjas, kurios tiktų jų gyvenimo būdui. Autonomijos poreikis yra tik šiek tiek didesnis nei žemas. Vadinasi, studentai gali dirbti kaip verslininkai, vadybininkai įmonėje, būti vertingi organizacinės komandos nariai. Studentams būdingas vidutinis polinkis į kūrybingumą: jie galbūt norėtų išbandyti nesudėtingai įdiegiamas ir jų gyvenimo būdui pritaikytas verslumo idėjas, kurios paskatintų judėjimą pirmyn. Nustatytas vidutinis polinkio į pamatuotą riziką lygis aiškinamas tuo,

kad studentams geriau bandyti ne tokias rizikingas idėjas, galbūt net rinktis tokias situacijas, kai partneris prisiima riziką. Vidinė padėties kontrolė taip pat yra vidutinio lygio. Nors studentai turi kai kurių verslumo savybių, bet jeigu jie nori pradėti savo verslą, reikia ugdytis pasitikėjimą savimi ir verslumo gebėjimus, kad įmonė būtų sėkminga. Nustatytas statistiškai reikšmingas skirtumas tarp ketinančių pradėti savo verslą studentų ir to neplanuojančių bei verslumo tendencijos, kūrybingumo ir pamatuotos rizikos Studentai, kurie yra linkę į verslumą, turi aukštesnę verslumo tendencija, pamatuota rizika ir kūrybinguma, palyginti su tais, kurie nelinkę į verslumą. Palyginti vyrų ir moterų ketinimai pradėti savo verslą. Galima teigti, kad vyrai daugiau linkę pradėti savo verslą nei moterys. Moterys abejoja dėl verslo pradžios, savo ketinimus linkusios nukelti į tolimesne ateiti (po 10 metu). Gauti rezultatai kviečia kolegijas keisti požiūrį į mokymą. Visos tirtos studentų savybės gali būti ugdomos, tačiau tam būtina naudoti netradicinius mokymo metodus ir ugdyti ne tik funkcines kompetencijas, kurių tradiciškai mokoma kolegijose, bet socialines, profesines ir bendrąsias.