

## ENTREPRENEURIAL APTITUDE OF STUDENTS OF ÓBUDA UNIVERSITY WITH THE INTENTION OF STARTING A BUSINESS VENTURE

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*Not everyone is fit to become a successful entrepreneur. Since the number of places at Óbuda University's Entrepreneurship Development masters program is limited, we tried to assess the entrepreneurial aptitude of our bachelor level students intending to start their own business venture. Among 179 bachelor students of business administration intending to start a business, about 50% were suitable to start a successful venture according to their entrepreneurial aptitude scores. The scores did not show any significant correlations with the age or gender of the respondents, however significant differences arose when comparing the mean scores for each of the statements of the test. On the basis of the results it is advisable to test the students applying for the Entrepreneurship Development masters program, since even those, who are actively considering becoming an entrepreneur as a life-choice are not always fit to turn into a successful one at their present state.*

**Keywords:** students of business, university students

Óbuda University's Kelety Faculty of Business and Management has a masters program that is dedicated to Entrepreneurship Development. Since the number of places is limited, it is important to select the very students who are not only eager to learn about entrepreneurship, but are also capable and willing to engage themselves in entrepreneurial activities, - for example starting their own ventures, - in the long run.

However, without having at least a basic estimate about the entrepreneurial aptitude of the average business students, it is a demanding task to decide whether an applicant is better or, worse than the average. In order to determine a standard for those who should be considered for the masters program, as well as to create a better understanding of those, who already at the bachelors level are dedicated to entrepreneurship, we initiated a research on entrepreneurial aptitude among bachelor students taking "Establishing a business venture" courses.

## Literature overview

According to Schumpeter (1934) entrepreneurship is the gale of creative destruction. Entrepreneurs make the world go round and contribute to the economic growth to an enormous extent (Szekeres, 2005; Borbás and Kadocsa, 2010; Csiszárík-Kocsir and Medve, 2012, Francsovcics and Kadocsa, 2012). Along with this, there is a consensus on entrepreneurship being of utmost importance, however, the definition of it is still highly debated. After Cantillon has introduced the notion of entrepreneurship for individuals taking the risk of selling goods for uncertain price that have been bought for a certain price in 1723 (Des Bruslons, 1723), many authors began looking for other traits that make entrepreneurs and their ventures successful.

Besides personal characteristics such as uncertainty-tolerance (Mandgunjaya, 2011), desire for independence (Collins and Moore, 1964), internal locus of control (Albert Shapero, 1975), creativity (Schumpeter, 1934) and aggressiveness (Wilken, 1979), skills as opportunity exploitation and recognition (Drucker, 1970) along with the willingness and ability to take the initiative (McClelland, 1961) were considered inevitable for successful entrepreneurs.

The 21st century has brought big changes into the world, and literature of entrepreneurship. New approaches and along with them new crucial skills emerged. According to the social approach the embeddedness, and through it the perception and decision processes of entrepreneurs are of utmost importance when searching for the key factors for successful ventures (Singh, 2000; Shane and Venkataraman, 2000; Hoang and Antoncic, 2003).

Since most of the connections that are indispensable for the success of an entrepreneur are not contract based, Hansen (2001) introduced the notion of social support into the literature of entrepreneurship. Stating, that informational support (data on different aspects of the environment), tangible support (material, financial resources), along with emotional support (love, trust and respect) and positive social support (quality time) are essentials, and that for entrepreneurs it is a must to accumulate social connections to individuals, groups and organisations.

Also in line with the contingency approach, setting up, balancing and maintaining social ties/networks are considered essential (Anderson *et al.*, 2005). What is more, according to Klyver's and Hindle's (2007) research data social ties do not only provide various benefits to entrepreneurs, but affect, or even determine the entrepreneurial orientation, the opportunity recognition, the intention of starting a business venture and the final decision whether to become an entrepreneur as well.

When researching the entrepreneurial aptitude of our students we have taken the broadest definition into consideration, concentrating not only on skills and competences, but on the contingency approach's discoveries as well.

## Research method and participants

In line with the ever growing scope of definitions, the number of tools devoted to measure entrepreneurial aptitude is almost unrestricted. There are some to consider the process of setting up a venture, and skills needed along this procedure (GEM, 2009), again others try to provide predictions about the future of the entrepreneur and his/her enterprise (Tjan, Harrington, Hsieh, 2012). Present paper endeavours to show the data of a general entrepreneurial aptitude test (Hungarian adopted version of the SEM created

by the Knowledge Institute). When filling out the questionnaire each student was required to provide their age, gender and unique student identification code (Neptun code) and rate 25 statements, with the help of a 5-point Likert Scale. The Neptun code enables us to access the students' personal and academic data, and hence provides us with further details about the respondents at hand. In present paper we do not consider any auxiliary data gathered with the help of the Neptun code, only present some basic results of the just finished research.

The participants of the research were 180 full- and part time bachelor students of Óbuda University's Kelety Faculty of Business and Management with a common feature of attending the elective course of "Establishing a business venture" in year 2012 and 2013. 179 of the questionnaires were applicable for further analysis. 68 male and 111 female students submitted their entrepreneurial aptitude tests.

The average age of the respondents was 22.9106 (Std.: 2.216), the average for female respondents being slightly lower (22.32) than that of male respondents (23.87). The relatively high average age results from 60.5% of the students being part time students. (Statistical tests, along with graphs and tables presented in this paper were created with the help of the SPSS program.)

## Research hypothesises

Since each of the respondent has signed up for the "Establishing a business venture" course, the design of the data set already provided us a zero hypothesis for the study:

H0: Those signing up for the course of "Establishing a business venture" have an interest in, if not an explicit intention of starting their own business.

According to this hypothesis, the results of our survey should not be considered representative for the normal population, and for the average students of Óbuda University either. The research is directed on a population where entrepreneurship as a way of living has its appeal.

Our further hypothesises were designed to provide us a clue on whether the age or the gender of the students has any significant connection with their entrepreneurial aptitude. We intended to check variables that have already been proved to be significant in a prior research (Lazányi, 2013, Szekeres, 2010).

H1: Older respondents do not score higher than younger respondents on the entrepreneurial aptitude test.

H2: There is a structural difference between the younger and older respondents' entrepreneurial aptitudes.

H3: Male respondents do not score higher than female respondents on the entrepreneurial aptitude test.

H4: There is a structural difference between the male and female respondents' entrepreneurial aptitudes.

## Results

Since 179 of the questionnaires (out of a population of 180) were applicable for further analysis, this means that the research on the given population is representative.

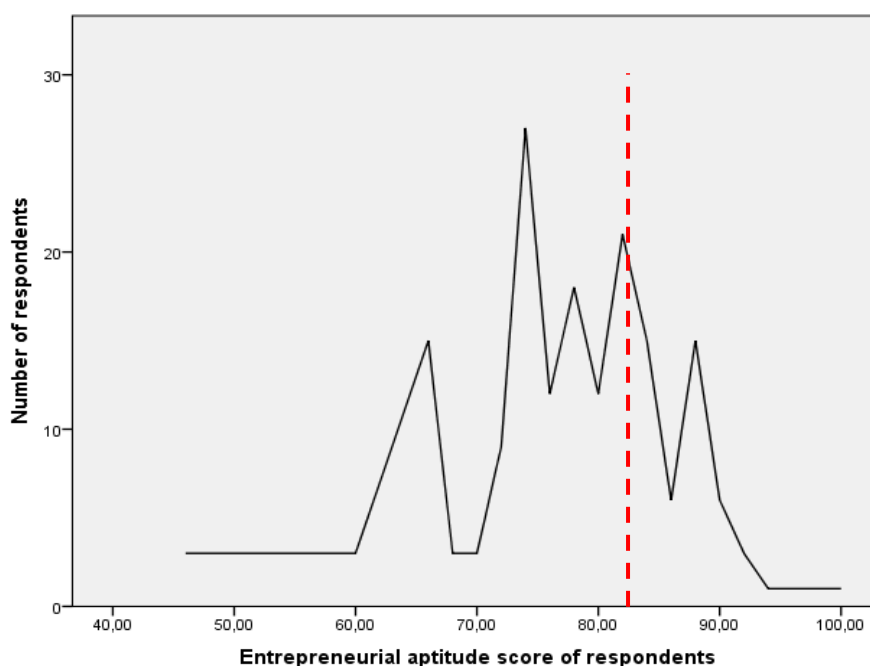
However, the question of representativeness might arise again, when we consider the population of those, who did not opt to take the "Establishing a

business venture" elective course (about 70 % of the Kelety Faculty's students). On the one hand, it might mean that they were not interested in becoming entrepreneurs or establishing their own ventures. If this can be considered as the main reason for not deciding on the course at hand, H<sub>0</sub> seems verified. On the other hand, there might be two minorities of students, who either did not have the opportunity to elect the course because they could not fit it into their timetable, or were not interested in the course, since they think to know everything/enough about the topic at hand. Since our research did not address students outside the already mentioned course's frame, unfortunately, there is no way to say how big is the ratio of those willingly not taking the course to those, who for some reasons could not take it, although being interested and to those, being interested in becoming entrepreneurs but not opting for the course for any reason. Since this questions is important and relevant from an educational point of view, we plan to involve students who did not attend any courses of "Establishing a business venture" in the second round of our research.

The mean score of respondents on the applied entrepreneurial aptitude test was 77.073 (Std.: 9.450) the average score being slightly higher for male respondents (78.706) than for female respondents (76.072).

The histogram on the following page shows the distribution of the respondents on the basis of their entrepreneurial aptitude scores. the red line signifies the minimum level of aptitude scores, that are sufficient for to-be-entrepreneurs.

According to our data, about half of the students attending the "Establishing a business venture" class were not suitable to start their own business without further education or devoid of the help of their peers. That means that the self image of students applying for the course might be somewhat distorted, or the preconditions of becoming self employed are not fully identified. In line with this, including our H<sub>0</sub> hypothesis, even those, who are actively considering becoming an entrepreneur as a life-choice are not always fit to become a successful one at their present state.



In order to verify our first hypothesis we checked for bivariate correlations. The test came up with a non-significant (Sig.: 0.682) two-tailed

Pearson coefficient of 0.031. To look into the relation in further details independent samples t-tests has been initiated to test for non-transitive relations between various age groups, comparing those younger and older than 21, or, 22, or 23, and those younger than 22 with those older than 25. The t-test for equality of means signalled with a significance levels in all cases above 0.5 that the difference in means can not be explained by the difference in the ages of the participants. With this, we see our H1 hypothesis verified.

To test our second hypothesis, we checked for correlations between the age of the respondents and their scores given to each of the statements. Significant Pearson correlation has been found for seven statement. Significance levels and correlations are listed in the table below. Significant correlations are flagged by \* and highly significant ones with\*\*.

	Pearson Correlation	Sig. (2-tailed)
I would like to set my own hours and working conditions	-0.253**	0.001
Others have called me stubborn.	0.212**	0.004
I do not like to be told what to do.	-0.209**	0.005
I do not get tired easily when I am interested in a project.	0.173*	0.021
I like being in charge.	0.165*	0.027
I am determined.	0.150*	0.045
I would like to have control over my earning and growth potential	-0.149*	0.046

As it can be seen from the table above, we found various significant, however very weak correlations. In order to look into these correlations, we tried running independent samples t-test with cut points being 21,22 and 23 for ages of respondents. The table below summarises the results, showing which statement gained significantly different average scores from groups of students defined by the given age cut points on the basis of the t-test. Significant correlations are flagged by \* and highly significant ones with\*\*.

	Difference of means (Equal variances assumed)		
	Cut point at age		
	21	22	23
I do not like to be told what to do.	-1.210**	-0.663**	-1.513**
I don't get tired easily when I am interested in a project.	0.670**	0.631**	1.576**
I am flexible.	0.479**	0.323*	1.079**
Others have called me stubborn.	0.680*	0.629**	
I am determined.	0.336*	0.574**	
I would like to set my own hours and working conditions	-0.814**		-0.572*
I prefer my own way of doing things.	-0.438**		-0.488*
I will take a chance when I think an idea has promise.	0.568**		
Once I set a goal, I see it through.		0.339*	
I enjoy continually learning new things.		-0.352*	
I often trust my instincts.		-0.473**	
I am self-confident.			0.732*
I view mistakes as learning opportunities.			-0.763**

Since possible evaluation of statements ranged from 1 - not at all like me to 5-very much like me, negative numbers mean that the younger students

had higher average points, thought the statement more relevant to them as their elder mates. Positive numbers stand for relations, where the average score of younger respondents was significantly lower than that of older respondents.

The first, and one of the most striking variances that was showing transitive in all t-tests with various cut points, was the difference in scores for the statement "I do not like to be told what to do." Older respondents were more likely to rate this statement lower, signifying that they do not really mind being told what to do at times.

However, in connection with stamina and flexibility older respondents were at advantage. They perceive themselves as more flexible and more enduring than younger participants in the study.

Besides these three transitive differences there have been many, that were connected to certain cut-points, nevertheless, without further discussion of the results shown in the table above, our H2 hypothesis, stating that there is a structural difference between the younger and older respondents' entrepreneurial aptitudes is verified.

To verify our third hypothesis we used an independent samples t-test. The Levene's test for equality of variances showed a significance level of 0.499, meaning that the variance of the entrepreneurial aptitude scores of the two gender based groups can not be assumed as equal. The t-test for equality of means signalled with a significance level of 0.79 that the difference in means (2.634) can not be explained by the chosen grouping variable (namely gender). With this, we see our H3 hypothesis verified.

To test our fourth hypothesis further independent samples t-tests were initiated on each of the entrepreneurial aptitude test's statements. The results are shown in the table below. Positive numbers mean that the average score of female respondents was higher than that of males. Alongside, negative numbers signify statements that were considered more relevant among male students than among female students. Significant correlations are flagged by \* and highly significant ones with\*\*.

	Difference of means (Equal variances assumed)
I view problems as obstacles to overcome.	0.660**
I prefer thinking out of the box and being innovative.	0.611**
I don't get tired easily when I am interested in a project.	0.521**
I will take a chance when I think an idea has promise.	0.512**
I am self-confident.	0.435*
I would like to set my own hours and working conditions	0.432*
I am a risk-taker.	0.373*
I am inventive.	0.370*
I would like to have control over my earning and growth potential	0.296*
I view mistakes as learning opportunities.	-0.324*
I work well by myself.	-0.715*

The results listed in the table above show that female respondents scored various statements significantly higher than male respondents. The biggest difference in means was in the perception of difficulties and creativity, followed by stamina and acting on an opportunity.

Male students rated the statements "I view mistakes as learning opportunities." and "I work well by myself." higher than female students on

average. That means they are better off alone when it comes to working and are more apt to learn from their mistakes and start anew.

Since the total average entrepreneurship aptitude score of males and females did not show significant difference (as already discussed above) we can not conclude that in general males or females have advantage when considering starting a business venture. However, on the basis of the results displayed above, we can see our H4 hypothesis, namely there being a structural difference between the male and female respondents' entrepreneurial aptitudes verified.

## Summary

According to our research data, even those, who are actively considering becoming an entrepreneur as a life-choice are not always fit to turn into a successful one at their present state. On the basis of their entrepreneurial aptitude scores about 55% percent of the researched population can be regarded as a good "material" for entrepreneurial purposes. With the help of our dataset we could identify a difference in average scores of entrepreneurial aptitude and significant different of means on various statements on the basis of the respondents age and gender.

Along with these notions, Óbuda University should only consider those bachelor level students for its master program on Entrepreneurship Development, who excel or at least perform better than 75% of the population on the basis of these traits. In order to enrol the most suitable students, applicants undergoing the oral entry test should be assessed on the basis of their entrepreneurial aptitudes along the same guidelines which have been addressed in our research. Being provided a basis for comparison by our present research data the selection of the fittest would become more undemanding.

## References

- ANDERSON, A. R., JACK, S. L., & DODD, S. D. (2005). The role of family members in entrepreneurial networks: Beyond the boundaries of the family firm. *Family Business Review*, 18 (2), 135- 154.
- BORBÁS L., & KADOCSA GY. (2010). Possible ways for improving the competitiveness of SMEs: A Central-European approach. In *MEB– International Conference on Management, Enterprise and Benchmarking* (pp. 103-123). Budapest: Óbudai Egyetem.
- COLLINS, O., & MOORE, D. (1964). *Enterprising man, Bureau of Business and Economic Research, Graduate School of Business Administration*. East Lansing: Michigan State University.
- CSISZÁRIK-KOCSIR Á., & MEDVE A. (2012). The perception of the recession due to the effects of the economic crisis in view of the questionnaire-based research results. *MEB– International Conference on Management, Enterprise and Benchmarking* (pp. 263-272). Budapest: Óbudai Egyetem.
- DES BRUSLONS, S. (1723). *Dictionnaire Universel de Commerce*. Paris: Chez al Veuve Estienne.
- DRUCKER, P. F. (1970). Entrepreneurship in business enterprise. *Journal of Business Policy*, (1), 1-15.
- FRANCSOVICS A., & KADOCSA GY. (2012). Vergleichende Wettbewerbsfähigkeitsanalyse der KMU in Ungarn. *MEB– International Conference on Management, Enterprise and Benchmarking* (pp. 115-131). Budapest: Óbudai Egyetem.
- GEM (2009). *The Global Entrepreneurship Monitor*. Retrieved from [www.gemconsortium.org](http://www.gemconsortium.org) [01.15.2014]

- HANSEN, E. L. (2001). *Resource acquisition as a startup process: Initial stocks of social capital and organizational foundings*. Retrieved from <http://www.babson.edu/entrep/fer/IV/TVB/html/Iv-B.html> [01.15.2014]
- HOANG, H., & ANTONCIC, B. (2003). Network-based research in entrepreneurship - A critical review. *Journal of Business Venturing*, 18, 165-187.
- KLYVER, K., & HINDLE, K. (2007). The role of social networks at different stages of business formation. *Small Business Research*, 15 (1), 22-37.
- LAZÁNYI K. (2013). A vállalkozói készség szint felmérés az óbudai egyetem hallgatói körében. In *Tanulmánykötet SJE Nemzetközi Tudományos Konferenciája „Új kihívások a tudományban és az oktatásban“ Komárom, 2013. szeptember 17-18.* (pp. 195-201). Komárno: SJE.
- MANGUNDJAYA W. L. H. (2011). The Correlation and Impact of Uncertainty Avoidance to Innovative Behaviour. A Study among Minangkabau Entrepreneurs. In *10th International Entrepreneurship Forum, Tamkeen, Bahrain, 9-11 January 2011.*
- MCCLELLAND, D. (1961). *The Achieving Society*. Princeton: D Van Nostrand.
- SCHUMPETER, J. (1934). *Theorie der wirtschaftlichen Entwicklung*. Berlin: Duncker Humbolt.
- SHANE, S., & VENKATARAMAN S. (2000). The promise of entrepreneurship as a field of Research. *Academy of Management Review*, 25 (1), 217-226.
- SHAPERO, A. (1975). The Displaced, Uncomfortable Entrepreneur. *Psychology Today*, 9 (6), 83-88.
- SINGH, R. P. (2000). *Entrepreneurial opportunity recognition through social networks*. London: Garland Publishing, Inc.
- SZEKERES V. (2005). Evaluation of factors behind the stagnation of Japan's economy. In *3rd International Conference on Management, Enterprise and Benchmarking* (pp. 171-185). Budapest: Óbudai Egyetem.
- SZEKERES V. (2010). Gender and its relevance to economic performance. In *MEB – International Conference on Management, Enterprise and Benchmarking* (pp. 217-224). Budapest: Óbudai Egyetem.
- TJAN, A. K., HARRINGTON, R. J., & HSIEH, T. J. (2012). *Heart, Smarts, Guts, and Luck: What It Takes to Be an Entrepreneur and Build a Great Business*. Harvard Business Press.
- WILKEN, PH. H. (1979). *A comparative and historical study*. Norwood: Ablex Publishing Corporation.