

# ATTITUDES TOWARD CONTINUOUS LEARNING AND NEW COMMUNICATION TECHNOLOGIES

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**Abstract**

In this study, based on a representative sample of 1000 respondents, we analyzed the attitude of active population in the Republic of Macedonia toward continuous learning and new communication technologies. Starting from the definition that learning is a process of creation of a relatively permanent change in attitude towards the future, for the promotion of the way of thinking and as a special importance, the attitude of the active population toward continuous learning occurs. A positive attitude toward learning is the basic premise for the introduction of lifelong learning in entrepreneurship development. Attitude toward new communication technologies is also important as for the continuous learning as well for start up, sustainability and gaining a competitive advantage in the entrepreneurial businesses. First, we analyzed the correlation between the preferences of autonomous work, technology and continuous learning, then, the differences derived from age, ethnicity, education, and socioeconomic status. The results show that there is a correlation between the preferences of autonomous work, new technology and continuous learning. The results allow creation of specific approach to formal and informal education for improving of the entrepreneurial mindset.

**Key words:** lifelong learning, new communication technologies, entrepreneurship.

## 1. Introduction

According to Schackle (cited in Deakins & Freel, 2006) entrepreneur is creative and innovative. Unlike Kirchner who believes that entrepreneurs recognize the possibility, Schackle pointed out that entrepreneur creates (invents) possibility. Uncertainty and imperfection of information are crucial in explaining the role of the entrepreneur. Uncertainty allows competition between individuals who create the opportunity to identify profit. The act of imagination is important to identify the potential of the opportunity. But imagination itself is determined by a number of factors such as education, attitudes, habits, experience. Today in modern economics major emphasis is on so-called entrepreneurial experience (including the education, work experience and the ability and desire to learn), as important stakeholders in the development of entrepreneurship, especially the “pre-start” entrepreneurship.

Wagner and Ziltener in their study (2008) analyzed the factors that influence entrepreneurship. The factors are divided into three groups: socio-demographic factors (gender, age, and family and his habits), personal characteristics (ability to take risk, desire for achievement, desire for autonomy, adaptability, self-realization, need for control), human capital (education, social competence, work experience and entrepreneurial experience (strategic management, operational management, competencies).

If we took in consideration the employment related perspective of the lifelong learning process, we can resume that the main activities are focused toward building knowledge, skills and competences for successful coping with the changing and uncertain world of work (in the era of rapid ICT development). That is the main motive for this research paper. We try to make the linkage between the continuous learning, technologies and entrepreneurship, and in the same time empirically to explore, explain and describe the main attitudes of Macedonian population toward learning and technology, through the socio-demographic factors as influencing variables.

## 2. Adult learning

The field of adult learning was pioneered by Malcolm Knowles (1984). He identified the following characteristics of adult learners (Lieb, 1991):

- Adults are *autonomous* and *self-directed*. Their teachers must actively involve adult participants in the learning process and serve as facilitators for them.
- Adults have accumulated a foundation of *life experiences* and *knowledge* that may include work-related activities, family responsibilities, and previous education. They need to connect learning to this knowledge/experience base.
- Adults are *goal-oriented*. Upon enrolling in a course, they usually know what goal they want to attain.
- Adults are *relevancy-oriented*. Learning has to be applicable to their work or other responsibilities to be of value to them.
- Adults are *practical*, focusing on the aspects of a lesson most useful to them in their work. They may not be interested in knowledge for its own sake.

- As do all learners, adults need to be shown *respect*. These adults should be treated as equals in experience and knowledge and allowed to voice their opinions freely.

Another aspect of adult learning is motivation. At least six factors serve as sources of motivation for adult learning (Lieb, 1991): social relationships: to make new friends, to meet a need for associations and friendships; external expectations: to comply with instructions from someone else; to fulfill the expectations or recommendations of someone with formal authority; social welfare: to improve ability to serve mankind, prepare for service to the community, and improve ability to participate in community work; personal advancement: to achieve higher status in a job, secure professional advancement, and stay abreast of competitors; escape/stimulation: to relieve boredom, provide a break in the routine of home or work, and provide a contrast to other exacting details of life; cognitive interest: to learn for the sake of learning, seek knowledge for its own sake, and to satisfy an inquiring mind.

Unlike children and teenagers, adults have many responsibilities that they must balance against the demands of learning. Because of these responsibilities, adults have barriers against participating in learning as: lack of time, money, confidence, or interest, lack of information about opportunities to learn, scheduling problems, and problems with child care and transportation.

## Lifelong learning

The Lisbon European Council in March 2000 set the European Union the strategic goal, reaffirmed at the Stockholm European Council in March 2001, of becoming the most competitive and dynamic knowledge-based society in the world. Key elements of the strategy to achieve this were the adaptation of education and training to offer tailored learning opportunities to individual citizens at all stages of their lives; the promotion of employability and social inclusion through investment in citizens' knowledge and competences; the creation of an information society for all; and the fostering of mobility. Overall, consensus can be surmised around the following four broad and mutually supporting objectives of lifelong learning: personal fulfillment, active citizenship, social inclusion and employability/adaptability. That lifelong learning promotes this wide range of objectives is reflected in the extended definition below, in the light of which all references to lifelong learning should be understood: "all learning activity undertaken throughout life, with the aim of improving knowledge, skills and competences within a personal, civic, social and/or employment-related perspective" (Commission Of The European Communities, 2000). The breadth of this definition also draws attention to the full range of formal, non formal and informal learning activity. The Reference Framework (2007) sets out eight key competences for lifelong learning: 1) Communication in the mother tongue; 2) Communication in foreign languages; 3) Mathematical competence and basic competences in science and technology; 4) Digital competence (use of IST and ICT); 5) Learning to learn; 6) Social and civic competences; 7) Sense of initiative and entrepreneurship; 8) Cultural awareness and expression.

### 3. Technology and entrepreneurship

The reality is that today's business cannot be done or even imagined without the use of mobile phones, PC, Internet, e-mail, fax, printers and specific software and instruments/tools. Maybe Howard (2007) gave the best explanation about the linkage between technology and entrepreneurship when he said: "The word technology is not a new one. In fact, the root of the word means to shift or to change, and was used originally in relation to changing nature. As Bacon, Locke, and Descartes recognized, this idea of man changing nature, rather than being controlled by it was essential to the emergence of the autonomous self, and eventually to the very notion of the entrepreneur. Thus, technology and entrepreneurship are tightly related. Successful entrepreneurs are those who have a clear concept of what they are trying to accomplish - leverage technology in order to help them achieve their goals more quickly. In order to ascertain which technology will align with their goals, entrepreneurs must have a very open and inquisitive bias towards technology".

ICT helped the developed world to significantly reduce business transactions costs by providing much wider and cheaper access to relevant information, knowledge, services and means of communication cheaper. The use of ICT to get more and faster information on the demand and supply of specific markets is crucial for the competitiveness of small and large enterprises. The most promising type of ICT enhanced entrepreneurship is the one that uses ICT not only as tool for communication and information gathering, but actually creates tools and other digitized products and services (Sahlfeld, 2007).

### 4. Methodology

The data is gathered throughout research conducted in 2012 on national sample consisted of 1000 respondents. All the data was collected with "face to face" interviews. The respondents were asked by close-ended questions to state to what degree they personally value the work autonomy or the degree to which they can personally decide how to organize and perform the work different aspects in their workplace. Then there were questions toward their attitude toward technology or availability of the work technology, which understands usage of combination of tools, machines, computers, skills, information, knowledge in the production of goods and services. Also they were asked about the attitude toward continuous learning or studying throughout the accomplishment of the tasks, visiting conferences, seminars, trainings, formal education. The Likert scale was used with verbal description from 1 to 6, where 1 is insignificant and 6 is very significant.

Initially an examination of the reliability of the scale of the instrument on the grounds of Cronbach alpha coefficient is performed ( $\alpha = 0.88$ ). This instrument consists of valuable metrical characteristics needed for the analysis of the results. A bi-variant correlation is made so that the coefficients are determined to a simple correlation among the great number of variables. The Pearson's coefficient of correlation is used. The independent sample t-test has been used with Levene's Test for Equality of Variances.

## 5. Results

The intense was to discover whether there are dependencies among the preferences of work autonomy from one side and technology and continuous learning from other side.

For all variables the level of dependence with the level of significance is tested at 99% and 95% level. There was no difference in attitudes toward work autonomy, continuous learning and technology that comes from gender and socioeconomic status ( $p > 0.05$ ). The supplied results point out that statistically significant are the correlations among the work autonomy and technology ( $r = 0.467$ ,  $p < 0,01$ ) and the continuous learning ( $r = 0.446$ ,  $p < 0,01$ ). As can be seen from Table 1, the technology and continuous learning are strongly correlated ( $r = 0.651$ ,  $p < 0,01$ ). The high significance level indicates that work autonomy, technology and continuous learning are significantly positively correlated and variables are linearly related. As one of the variable increases the other two will also increase. And as one of the variable decreases, the other two also decrease.

Table 1: Correlations: Work autonomy, Technology, Continuous learning

		Work Autonomy	Technology	Continuous learning
Work Autonomy	Pearson Correlation	1		
	Sig. (2-tailed)	,		
	N	1000		
Technology	Pearson Correlation	,467**	1	
	Sig. (2-tailed)	,000	,	
	N	1000	1000	
Continuous learning	Pearson Correlation	,446**	,651**	1
	Sig. (2-tailed)	,000	,000	,
	N	1000	1000	1000

\*\* Correlation is significant at the 0.01 level (2-tailed).

\* Correlation is significant at the 0.05 level (2-tailed).

## 5.1. Work autonomy

The hypothesis that there is a difference in attitudes toward work autonomy that comes from age cannot be accepted because there was no significant difference confirmed ( $p > 0,05$ ).

The hypothesis that there is a difference in attitudes toward work autonomy that comes from ethnicity can be accepted. The statistics shows that significant differences exists among the all ethnics groups in Macedonia toward work autonomy. Between Macedonian and Albanian there is a significant difference ( $p < 0.01$ ) toward work autonomy. Between Macedonian and Turkish the difference is also significant ( $p < 0.01$ ). Between Albanians and Turkish there is difference also ( $p < 0.01$ ). As can be seen from Table 3, the work autonomy is most important for Albanians ( $A=4,9879$ ) and Macedonians ( $A=4,7906$ ) and less important for Turkish ( $A=4,2308$ ).

Table 3: Group Statistics: Ethnicity and Work autonomy

	VAR: Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
VAR: Work autonomy	Macedonian	640	4,7906	1,23076	,04865
	Albanian	248	4,9879	1,21889	,07740
	Turkish	59	4,2308	1,52973	,24495

The hypothesis that there is a difference in attitudes toward work autonomy that comes from education can be partially accepted. The significant difference appeared between respondents with elementary school from one side and respondents with secondary school and faculty education from the other side. There were no significant differences toward work autonomy between high school respondents and respondents with faculty education ( $p > 0.05$ ).

Table 4: Group Statistics: Education and Work autonomy

	VAR: Education	N	Mean	Std. Deviation	Std. Error Mean
VAR: Work autonomy	Elementary school	133	4,4887	1,35186	,11722
	Secondary school	539	4,8330	1,24280	,05353
	Faculty	301	4,9635	1,21483	,07001

As it can be seen from Table 4, the work autonomy is most important for respondents with faculty, than those with secondary school and less important for those with elementary school

## 5.2. Technology

The hypothesis that claims there is a difference in attitudes toward work autonomy that comes from age can be partially accepted because there was no significant difference among all age group ( $p > 0,05$ ). The significant difference ( $p < 0,05$ ) appears among the age group from 18-29 with all other age groups (30-39; 40-49; 50-65; and over 65). The less difference with group 18-29 in attitudes toward technology is group 30-39. As can be seen from Table 5 as the age increases the importance toward technology decreases.

Table 5: Group Statistics: Age and Technology

	VAR: Age	N	Mean	Std. Deviation	Std. Error Mean
VAR: Technology	18-29	252	5,4484	1,03779	,06537
	30-39	202	5,2574	1,02848	,07236
	40-49	203	5,1626	1,17236	,08228
	50-65	215	5,1070	1,27620	,08704
	Over 65	128	5,0703	1,39844	,12361

The hypothesis that there is a difference in attitudes toward technology that comes from ethnicity can be accepted. The significant differences appear among all ethnic groups ( $p < 0,05$ ). As can be seen from Table 6, the highest preferences toward technology showed Albanians.

Table 6: Group Statistics: Ethnicity and Technology

	VAR: Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
VAR: Technology	Macedonian	640	5,2047	1,15618	,04570
	Albanian	248	5,5040	,86777	,05510
	Turkish	59	4,4103	1,53414	,24566

The hypothesis that there is a difference in attitudes toward technology that comes from education level, can be accepted. The significant difference appeared between all groups of respondents ( $p < 0,05$ ). For those with faculty education the technology is most important (Table 7).

Table 7: Group Statistics: Education and Technology

	VAR: Education	N	Mean	Std. Deviation	Std. Error Mean
VAR: Technology	Elementary school	133	4,9398	1,36936	,11874
	Secondary school	539	5,2115	1,13894	,04906
	Faculty	301	5,4884	,92594	,05337

### 5.3. Continuous learning

The hypothesis that there is a difference in attitudes toward continuous learning that comes from age can be partially accepted because there was no significant difference between all age group. The significant difference appears among the age group 18-29 with the following age groups: 30-39; 40-49; 50-65 ( $p < 0,05$ ). Between age group 18-29 and age group over 65 there is no significant difference. The less difference with group 18-29 in attitudes toward learning is group over 65. As can be seen from Table 8 as the age increases the importance toward learning decreases until the age of 65.

Table 8: Group Statistics: Age and Learning

	VAR: Age	N	Mean	Std. Deviation	Std. Error Mean
VAR: Learning	18-29	252	5,2817	1,13439	,07146
	30-39	202	5,0495	1,21251	,08531
	40-49	203	5,0443	1,21989	,08562
	50-65	215	5,0140	1,31661	,08979
	Over 65	128	5,0703	1,44823	,12801

The hypothesis that there is a difference in attitudes toward Learning that comes from ethnicity can be partially accepted. The significant difference appear between Albanians and Turkish ( $p < 0,05$ ). Between Macedonians and Albanians and Macedonians and Turkish there is no significant difference. As can be seen from Table 9, the highest preferences toward learning showed Macedonians.



Table 9: Group Statistics: Ethnicity and Learning

	VAR: Ethnicity	N	Mean	Std. Deviation	Std. Error Mean
VAR: Learning	Macedonian	640	5,2621	1,03768	,06589
	Albanian	248	5,1234	1,22010	,04823
	Turkish	59	4,3846	1,56635	,25082

The hypothesis that there is a difference in attitudes toward learning that comes from educational background can be accepted. The significant difference appeared between all groups of respondents ( $p < 0.05$ ). For those with faculty education the learning is most important (table 10).

Table 10: Group Statistics: Education and Learning

	VAR: Education	N	Mean	Std. Deviation	Std. Error Mean
VAR: Learning	Elementary school	133	4,6466	1,42593	,12364
	Secondary school	539	5,0891	1,22833	,05291
	Faculty	301	5,4120	1,00485	,05792

## 6. Discussion and conclusions

We test the existence of differences that comes from educational level, age, ethnicity toward work autonomy, technology and continuous learning. The empirical evidence on the association between entrepreneurship and education is very mixed in the literature, and so are the results of our estimations. The most significant difference emerges for those with faculty education from those with elementary and secondary school background for the: work autonomy, technology and continuous learning. For the attitudes toward work autonomy there is no difference between secondary school and faculty. Those with elementary school are totally different from secondary and faculty considering work autonomy. It can be concluded that those with higher level of education appreciate more than those with secondary school and primary school: autonomy at work, technology and continuous learning. The positive relation between faculty education and work autonomy, communication technology and continuous learning supports the hypothesis that those with higher level of education are more open to start business, use the technology and learn in continuum about entrepreneurship.

Age also affects the survival rates of entrepreneurial business, which are higher on average for middle aged than for younger or older entrepreneurs (Bates, 1990; Holtz-Eakin, Joulfaian and Rosen, 1994). Cressy (1996) went so far as to claim that age rather than financial capital is the genuine determinant of survival.

Older, more educated and experienced entrepreneurs are expected to perform better than younger less educated and experienced entrepreneurs (Bates 1977, Irastorza 2010). Our data shows that there is no difference toward work autonomy that comes from age. For the use of communication technology and continuous learning the age group from 18 to 29 differs from all other age group. This age group is closer with attitudes toward technology with age group from 30 to 39. For the continuous learning has no significant difference only with age group over 65. This research results shows that age group from 18 to 29 is open toward usage of communication technology and continuous learning, but has no evidence that this group is more interested for work autonomy than other age group.

The ethnic origins, self employment tradition and religion are relevant factors found in the literature which help in explaining entrepreneurship (Light, 1972). Albanians and Macedonians are more similar in their attitudes toward continuous learning ( $p>0.05$ ), but both differ from Turkish. The Macedonians, Albanians and Turkish are significantly different in their attitudes toward autonomy at work, and communication technology. Macedonians are more prepared to learn than Albanians and Turkish. Albanians appreciate more autonomy at work and usage of communication technology than Macedonians and Turkish

Our analysis has also pointed out that faculty educated, young (18-29) people will be eager to learn new thing in continuum and use the communication technologies. Albanians are those who value work autonomy and usage of technology more than Macedonian and Turkish. Macedonians value learning more than Albanians and Turkish.

The conclusions that we can make are the following:

Attitude towards autonomy at work is undefined. The expectation was that the age group of 18 to 29 and 30 to 39 will have a greater preference for working autonomy than other groups, but this is not the case. This indicates that there is a still negative social attitude towards entrepreneurship and self-employment among population in the country. There is no faith that the good idea will lead to entrepreneurial success, nor is entrepreneurial business better than public employment. Positive attitude towards the learning is high among youth 18 to 29 years. This indicates that their education should be introduced content that will encourage the entrepreneurial spirit and continuous learning. Remains as critical age group the one over 39 years with primary or secondary education which shows low preference for either the work autonomy, the use of technology and continuous learning.

Researchers have highlighted the following obstacles to entrepreneurship in transition economies (Estrin et al., 2006): lack of wealth (reduced personal financing); massive economic uncertainty; weak or fragile institutions; negative social attitudes toward private business and entrepreneurship.

The results show that systematic and institutional impact should be done to improve the entrepreneurial mindset. This intervention can be motivated by belief that entrepreneurs generate important positive social and economic externalities, such as new ideas, new products, new employment and enhanced competitiveness. Also entrepreneurship can be seen as a route out of poverty.

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