

## Entrepreneurship Attitudes of Students in the Information Society Era With and Without Entrepreneurship Training: Exploratory Study

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In the Information Society era the knowledge about entrepreneurial profile plays a leading role in assessing the probability of success of a venture and in designing curricula. The results of this initial research study show that those who participated in entrepreneurial training probably have a higher intention of entrepreneurship, greater perception of the feasibility of what they are planning and increased perception of risk when undertaking business.

**Keywords:** entrepreneurship, human capital, labor management, innovation and invention: processes and incentives.

### Postawy przedsiębiorcze studentów w erze społeczeństwa informacyjnego i ich zależność od posiadania szkolenia z zakresu przedsiębiorczości: badanie eksploracyjne

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W erze społeczeństwa informacyjnego wiedza na temat profilu postaw przedsiębiorczych odgrywa znaczącą rolę w ocenie prawdopodobieństwa sukcesu przedsięwzięcia oraz przy projektowaniu programów nauczania. Wyniki tego wstępnego badania pokazują, że ci, którzy uczestniczyli w szkoleniach z zakresu przedsiębiorczości, prawdopodobnie mają wyższą skłonność do zachowań przedsiębiorczych, pełniejsze postrzeganie wykonalności tego, co planują i większą świadomość ryzyka przy podejmowaniu działalności gospodarczej.

**Słowa kluczowe:** przedsiębiorczość, kapitał ludzki, zarządzanie pracą, innowacje i wynalazki: procesy i zachęty.

**JEL:** L26, J24, M54, O31

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## 1. Introduction

Entrepreneurial training is an important part of the education system from the point of view of durability of the success of starting a business. In the information society era, we can observe a great area of opportunities for starting a new business from a very basic level because information is now a crucial resource. And this aspect of the business environment must be especially underlined. But any innovation without the support of appropriate skills may be insufficient. As regards the information society, we can also observe that knowledge that gives confidence in the operation allows novice managers to minimize the risk of failure. This knowledge allows for an accurate assessment of the situation and for optimizing the consumption of resources that are available. The relevance of these insights can be verified by examining attitudes of potential entrepreneurs with or without entrepreneurial training. The groups that make up a useful manpower for research are economics and management students coming from countries with different systems of complementary entrepreneurship education. It is important, however, that in many other aspects of the description of starting and conducting business, the compared countries should be similar. An example of a pair of countries, such as Spain and Poland, meets these requirements well. Of course, the research presented below can be treated as a very initial study of the subject because there is no further exploration of some very specific, local circumstances observed in each of the two countries. In spite of this, we can find a lot of interesting phenomena which can show us the most important and interesting areas for future research.

## 2. Theoretical Framework of Reflection

Entrepreneurial attitudes are widely explored to create an effective entrepreneur profile. The profiles of that type play a leading role in assessing the probability of success of a venture. These profiles are also used to design curricula and as a tool for assessing entrepreneurial training. Each time has its own challenges. Also now, in the era of information society, we must learn what are the circumstances as regards students' entrepreneurial profile. For this purpose, the model of Entrepreneurial Intention by Shapero (1982) and Ajzen's (1987) theory of planned behavior were applied.

In Shapero's (1982) model, the attitude of entrepreneurship is derived from two elements. The first element is the evaluation of purpose. Purpose is understood as perceived probability of receiving benefits through the implementation of the project. The second element is a feasibility assessment. Feasibility is defined as the degree to which a person assesses the possibility of undertaking a project independently. Both elements are

independent of each other. Many years later, Ajzen (1987) proposed the theory of planned behavior. According to this theory, human behavior is the result of three types of perception. The first type of perception is the attitude toward behavior. The second type of perception is the conviction of others' expectations and motivation to meet these expectations (subjective norms). The third type of perception (the so-called perceived behavioral control) is the conviction of the presence of factors that may facilitate or hinder the achievement of the outcome. According to Ajzen, the combination of these three perspectives leads to the creation of behavioral intentions. This creation is decisive for taking action. The general rule indicates that a strong belief in positive effects leads to positive attitudes and commitment to action. This results in a strong intent of action. Despite its large popularity, TPB has been much debated and criticized recently. Some researchers reveal that the theory does not explain human behavior adequately (Ajzen, 2011, p. 1113).

According to Krueger, Reilly and Casrud (2000), both theories (by Shapero and by Ajzen) can be considered compatible. However, this first theory is more focused on the individual and on the entrepreneurial measure of the individual. The second theory analyzes the situation by context or by the operating environment. It includes the analysis of behavioral support from the social factor. In practice, many authors used these models to evaluate the effectiveness of training. For example, Noel (2001) noted in particular the impact of entrepreneurial training on entrepreneurial development and perceived self-efficacy. In his work, he shows that those who received entrepreneurial training were more likely to start a business and had a higher level of engagement and more developed self-efficacy than students who did not receive training. Peterman and Kennedy (2003), using the framework of the business competition in Australia, examined the impact of participating in an entrepreneurial education program on the perception of purposefulness and feasibility of starting a business. The results showed that participants in the program had higher self-esteem and self-confidence than the general public. Guerrero, Rialp and Urbano (2008) conducted research for the Catalonian region of Spain and applied the conceptual diagram of Brazeal and Krueger (1994). Brazeal and Krueger have integrated two models: those of Ajzen (1991) and Shapero (1982). Although they did not use the exact example of entrepreneurial education, they conducted a study comparing the students of management and economics (according to the authors, management and economics are closely related to entrepreneurship) and students of other fields (experimental sciences, human sciences, science and social health, engineering sciences). The results show that in the group of people with similar socio-demographic characteristics, students related to entrepreneurial studies were more likely to be interested in setting up new businesses and were more convinced that this was a convenient solution in the long run.

On the other hand, Jimenez and Oliveras (2015), after evaluating student training in Spain, show that the perception of environmental difficulties increases after information about the business process is presented. These results are in line with Kuratko's (2005) observations, which refer to Ronstadt (1987). This suggests that educational programs should be designed in such a way that potential entrepreneurs might be aware of the existing barriers to starting an entrepreneurial career. The point is that they should come up with the best way to overcome these barriers. This is coincident with Alstete's suggestion (2008). Potential entrepreneurs must be well educated because business success is not easy and requires hard work and dedication of many hours of time. Jimenez and Oliveras (2015) suggest that perceiving large numbers of obstacles can reduce the likelihood of starting a business in the long run.

Jimenez, Oliveras and Vigier (2011, 2015) compared the experience of Argentina and Spain. It turned out that the perception of the feasibility, the environment and the fact of having a business idea have a positive relationship with the introduction of entrepreneurial training into the curriculum. However, such a relationship does not exist in the case of perception of purpose. It was also found that the effects are stronger when a comprehensive approach is used, i.e. when the subject of entrepreneurship is included in a multidimensional manner throughout the education system. Recently, Oliveras, Vigier and Porras (2014) have found that, in the case of Argentina, the application of such a comprehensive approach to the entrepreneurial education program generates a positive effect which assumes the form of increasing desire of students to start a business. The opportunity to start a business is treated by students as an option for professional development.

### **3. Description of the Discussion and Its Main Sections (Questions, Objectives, Theoretical Framework, Hypotheses)**

The purpose of this study is to compare two groups of students: one with and the other without entrepreneurial training. An analysis of the beliefs, perceptions and intentions of participants in both groups will be conducted. In particular, the study will include respondents' statements about their willingness to pursue a business activity, their perception of the relevance and feasibility of taking up such activity, the perceived effectiveness and difficulty of starting a business, and the fact of having a business idea.

In this context, the following hypotheses were made:

Hypothesis 1: Entrepreneurship is greater in students receiving entrepreneurship formation.

Hypothesis 2: The belief in self-efficacy is greater in students receiving entrepreneurship formation.

Hypothesis 3: Perception of feasibility is higher among students who have been trained in entrepreneurship.

Hypothesis 4: Risk perception is higher among students who have been trained in entrepreneurship.

Hypothesis 5: Difficulty perception is higher among students who have been trained in entrepreneurship.

Hypothesis 6: The probability of starting a short-term business is lower in students who have been trained in entrepreneurship.

Hypothesis 7: Students who have received entrepreneurial training have many ideas for running a business.

## **4. Methodology (Information Sources, Processing Methods and Data Analysis)**

### **4.1. Sources of Information**

The study (as the initial step for future larger research) was conducted – with the use of the Google Docs information system – in May 2016 for a group of 330 students. 161 students came from the Jagiellonian University (JU) in Cracow (Poland) and 169 from the Universidad de Castilla-La Mancha (UCLM) (Spain). The first group was without entrepreneurial training (in Poland, common enterprise training is developed on a small scale). The second group of respondents was previously trained in entrepreneurship.

The curriculum at UCLM is divided into four parts. The first part presents the business environment for creating business activities. The purpose of this part is to make students aware of the importance of entrepreneurship in the operation, conservation and revitalization of the market economy system. Students are expected to know the dynamics of changes in the economic environment through the continuous entry (exit) and exit (liquidation) of business entities. The causes of business creation and the context in which this creation takes place are discussed.

The second part of the curriculum discusses the socio-demographic and psychological profiles of the entrepreneur and his entrepreneurial motivations. The purpose of this block is to diagnose the process of starting a business. The subject of interest is not a new company but a person who establishes a business. This serves to define the characteristics of such a person.

The third part examines the process of generating ideas and creativity techniques that help create innovative ideas for creating a business. In this block, the students play the role of entrepreneurs and learn the spirit of entrepreneurship. By generating and searching for ideas for potential business, students develop their creative capabilities and build their innovative potential.

In the fourth and final part of the curriculum, the business plan for the establishment and running of the business is analyzed. The purpose of this

thematic block is to develop a viable business plan (technically, economically and socially) by students. Students need to determine what resources they need to start a business, they must create a strategy for starting and growing a business.

The whole concept of entrepreneurship education is based on student self-study techniques, teamwork, simulation in a controlled environment under the supervision of experienced specialists.

#### **4.2. Study Procedure**

In the first stage, Excel was used for data analysis. At that stage, data sorting and classification were carried out and a descriptive analysis of the information was performed. In the second stage, SPSS version 15.0 for Windows was used. At that stage, it was checked whether the distribution of collected data depends on the fact that the students had attended the training on entrepreneurship or not.

The variables used to test the hypotheses were as follows:

- Entrepreneurial intention: a dichotomous variable (yes-no) for assessing the ability to think about starting a business or conducting one's own business.
- Self-efficacy: perceiving oneself as an enterprising person. The Likert ten-point scale was used.
- Perception of purpose: perceiving the possibility of obtaining attractive effects by creating an enterprise. The Likert scale was used at seven points.
- Feasibility: perceiving the possibility of actual entrepreneurial action. The Likert scale was used at seven points.
- Risk: perception of risk. The Likert ten-point scale was used.
- Perception of environmental problems: perception of difficulties related to the environment of the business. The Likert scale was used at seven points.
- Opportunity to act in the short term: the question was about the possibility of action in the next 5 years.
- Having a business idea: a dichotomous variable associated with the presence (or failure) of a business idea.

## **5. Results**

### **5.1. Description of the Sample**

Regarding the demographic distribution, the sample selected for the study is distributed according to the information presented in Table 1. The sample is mainly composed of female students and in the group there also participate the students of foreign nationality.

University	Nationality		Male	Female
JU	Polish	84.5%	14.7%	85.3%
	Foreign	15.5%	30.0%	70.0%
UCLM	Spanish	89.3%	34.5%	65.5%
	Foreign	10.7%	47.0%	53.0%

Tab. 1. Distribution of nationality and gender. Source: Own research.

It may be also observed that the age of the students is between 22 and 23 years (Table 2), except the male students of the JU who represent a lower average age.

University		Average age by gender	
		Male	Female
JU	Polish	23.8	22.9
	Foreign	20.8	21.4
UCLM	Spanish	22.8	22.3
	Foreign	23.1	22.6

Tab. 2. Average age per university. Source: Own research.

As for the micro-entrepreneurial environment, it is found that, when compared to the UCLM students, the students attending the Polish university have a more developed micro-entrepreneurial environment. What is also worthy of note is the fact that, when compared with the UCLM, the JU students are characterized by having a higher rate of entrepreneurial mothers and a lower rate of entrepreneurial fathers (Table 3). In general, the example of the relatives is more significant in the case of Spanish students.

	JU		UCLM	
	Yes	No	Yes	No
Entrepreneurial environment	80.12%	19.88%	79.29%	20.71%
– Father	13.66%		17.75%	
– Mother	14.91%		11.83%	
– Other relatives	04.97%		34.32%	
– Friends	16.15%		08.88%	
– Others	30.43%		06.51%	

Tab. 3. Entrepreneurial environment. Source: Own research.

Other results of the comparison of the sample can be seen in the Appendix section.

### 5.2. Statistic Analysis

According to the data presented in Table 4, the results show that those who attended the specific training course present greater entrepreneurial intent, greater perception of feasibility and greater perception of risk when undertaking business activity. On the other hand, those who did not receive training perceive greater difficulties than those who received the training, although they are also more likely to undertake entrepreneurial activities within a short time.

		Average/frequency	Sig.
Entrepreneurial intent	With training	93%	0.016
	No training	85%	
Self-efficacy	With training	6.40	n/s
	No training	6.51	
Perception of desirability	With training	5.56	n/s
	No training	5.42	
Perception of feasibility	With training	4.85	0.015
	No training	4.43	
Perception of risk	With training	6.87	0.012
	No training	6.26	
Perception of difficulties of environment	With training	2.94	0.000
	No training	4.59	
Probability of undertaking business activity in short term	With training	2.99	0.000
	No training	4.14	
Have a business idea	With training	37%	n/s
	No training	42%	

Tab. 4. Comparison of samples. Source: Own research.

It is also observed that there is no association between the type of training received and the perception of desirability, self-efficacy and having a business idea. Likewise, as in other studies, it is found that contemplating the possibility of obtaining attractive results with the creation of a company (perceived desirability) would not be linked to the training received.



## 6. Conclusions

The presented research considerations evaluated the entrepreneurial profiles of university students with and without entrepreneurial training in the study program. The results show that those who participated in this training have a higher intention of entrepreneurship, greater perception of the feasibility and increased risk perception when undertaking business. Those who have not received such training see greater difficulties than those students who have been trained and who are more likely to try to start a business activity in the near future. The results also show that there is no link between the type of training and the perception of purposefulness, self-efficacy, and entrepreneurial thinking.

The above discussion on how students behave when starting a business is the evidence of the importance of training for entrepreneurial decisions. In addition, as in other studies, the analysis has shown that students' expectations for obtaining attractive results in establishing a business have nothing to do with receiving pre-training. The results also show that the potential course should be even more self-taught. Such a course should help students understand their strengths and weaknesses, and it will ultimately benefit in the long run if the students decide to start a business. Likewise, unlike other studies with similar goals, students' perception of potential opportunities to start a business was not related to participation in the training. This demonstrates the need for more intensive consideration of this aspect in the training program.

The above presented reflections were intended to contribute to improving the mechanisms for evaluating the effectiveness of training programs developed by academic institutions. The presented considerations were also intended to facilitate the decision-making process for the authors of the training programs as to the content of the entrepreneurship curriculum so that the future courses would be optimal. In this context, the described phenomena are particularly important for countries and universities wishing to include such entrepreneurial courses in their educational offerings. This will result in a good transfer of best practice to the community of prospective entrepreneurs.

### Appendix

Training in economy, business and entrepreneurship	JU		UCLM	
	Yes	No	Yes	No
07.01 Have you received training in economics in your studies?	87.1%	12.9%	100.0%	0.0%
07.02 Have you received training in business administration in your studies?	42.8%	57.2%	100.0%	0.0%
07.03 Have you received training in entrepreneurship in your studies?	50.3%	49.7%	100.0%	0.0%
07.04 Have you ever worked in any enterprise (officially or not)?	50.2%	49.8%	46.5%	53.5%

<b>01.1 Do you consider yourself a creative person? ↓1-10↑</b>	<b>Average</b>	<b>Variance</b>	<b>Deviation</b>
JU	5.42	1.94	1.39
UCLM	6.69	3.59	1.89

<b>01.2 Do you consider yourself an entrepreneurial person? ↓1-10↑</b>	<b>Average</b>	<b>Variance</b>	<b>Deviation</b>
JU	6.51	3.67	1.91
UCLM	6.40	3.48	1.86

	<b>JU</b>		<b>UCLM</b>	
	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
<b>01.3 Have you ever had a business idea?</b>	42.9%	57.1%	38.1%	61.9%

<b>01.5 Is the idea of creating your own company or having your own business attractive to you? ↓ 1-7 ↑</b>	<b>Average</b>	<b>Variance</b>	<b>Deviation</b>
JU	5.42	1.94	1.39
UCLM	5.56	2.10	1.45

<b>01.6 Do you see the possibility of creating your own company or business feasible for you? ↓ 1-7 ↑</b>	<b>Average</b>	<b>Variance</b>	<b>Deviation</b>
JU	4.85	1.99	1.41
UCLM	4.43	2.78	1.66

	<b>JU</b>		<b>UCLM</b>	
	<b>Yes</b>	<b>No</b>	<b>Yes</b>	<b>No</b>
<b>03.3 Have you ever thought about the possibility of starting your own business or having your own business?</b>	85.71%	14.29%	93.49%	6.51%

<b>03.4 Is creating a company or setting up a business very risky? ↓ 1-10 ↑</b>	<b>Average</b>	<b>Variance</b>	<b>Deviation</b>
JU	4.85	1.99	1.41
UCLM	6.87	4.43	2.10

03.5. How likely is it that you will create your own business in the next 5 years? ↓ 1-7 ↑	Average	Variance	Deviation
JU	4.14	1.67	1.29
UCLM	2.99	1.06	1.03

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