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Agnieszka Pawlak

Poznań University of Economics and Business, Faculty of International Economics, Department of International Competitiveness
agnieszka.pawlak@ue.poznan.pl

THE INFLUENCE OF GENDER ON THE ENTREPRENEURIAL INTENTION OF POLISH HIGH SCHOOL STUDENTS

Abstract: Entrepreneurship is nowadays one of the most important elements of the economy in any country. Creates expectations to open new companies, but in order to start a new enterprise, first entrepreneurial intention must be present. There are many factors that could influence this process. One of them is gender of the future entrepreneurs. The aim of this paper is to find an answer to the question as to whether the gender of Polish high school students has an influence on their entrepreneurial intentions. Are there any differences between the entrepreneurial intentions of men and women? To verify these statements the questionnaire used in the research was based on a sample of 887 Polish high school students. The results suggest that there is no significant relationship between gender and entrepreneurial intention amongst Polish high school students. The same factors influence entrepreneurial intention for boys and girls in a Polish high school. Moreover it is surprising that level of variables perceived behavioural control is higher for girls than boys. It shows a change in women's current thinking about their role in Polish entrepreneurship.

Keywords: entrepreneurial intention, gender, theory of planned behavior.

JEL codes: L26, J16.

Introduction

Entrepreneurship is often called the flywheel of the economy. It is because small and medium-size firms are one of the most important elements of the economy in any country. They provide employment, economic growth, and

benefits both for individuals and the economic system. It is not surprising then that the issue of creating new companies is nowadays the object of interest for scientists, businessmen and government officials. Scientists suggest that before new a enterprise is set up, entrepreneurial intention should occur. The probability of the appearance of entrepreneurial intention and its strength is specific to every person. There are also many factors that can influence it. One of the most often discussed is gender. In scientific literature we can find evidence for the existence of a connection between the appearance of entrepreneurial intention and the gender of an entrepreneur. But in other sources there are suggestions that there are no significant correlations between these two issues. The aim of this article is to verify if gender influences entrepreneurial intention of Polish high school students, or not. It identifies which antecedents from Ajzen's Theory of Planned Behaviour (behavioural attitude, subjective norms and perceived control) determine women's and men's entrepreneurial intention. It also shows whether there are any differences between them.

The article is divided into three parts. In the first is a literature review regarding the entrepreneurial intentions, the influence of gender for the appearance of entrepreneurial intention, and the main assumptions of the Theory of Planned Behaviour. Hypothesis are also presented that will be tested in research. The second part contains the methodology of research, namely the description of the research sample, the data collection process and information regarding the construction of the questionnaire. The last part presents conclusions regarding the influence of gender on entrepreneurial intentions on the basis of both the literature review and research. It also indicates possible directions for the next research on this topic.

1. Literature Review and Hypothesis

To start doing anything a man should have an impulse. Such an impulse in the entrepreneurial world is called an entrepreneurial intention. The entrepreneurial intention is a notion that has existed in scientific literature since the 1980s. The first scientist who defined the entrepreneurial intention was B. Bird. He understood it as the state of mind directing a person's attention and action towards self-employment as opposed to organizational employment. It can shape an early strategy of new business and influence the development of a new venture [Bird 1988, pp. 442–453]. Another definition is that entrepreneurial intention consists of a true motivation, a psychological tension ori-

ented towards taking an action [Ajzen 1991]. In such understanding they are the intermediaries between mental logic and the logic of action. The same author created in 2011 another definition of entrepreneurial intention. It shows it as a person's readiness to perform a given behaviour [Kautonen, Gelderen and Tornikoski 2013, pp. 698]. Krueger understood entrepreneurial intention as a commitment to starting a new venture. In this case it shows the potential of an entrepreneur to establish a new company in the future [Krueger 1993 pp. 5–23]. In 2004, a new definition of entrepreneurial intention arose. Its authors were F. Linan and J.C. Rodriguez. They stated that entrepreneurial intention was the effort and hard work of an individual to act entrepreneurially [Linan and Rodriguez 2004, pp. 23–27]. One of the latest definitions was created by E.R. Thomson in 2009. He presented entrepreneurial intention as a self-acknowledged conviction by a person that they intend to start a new venture, while consciously planning to set up a company at some future point in time [Thomson 2009, pp. 676]. Regardless of how entrepreneurial intention is defined it is the first step to discover, create, and exploit opportunities in the entrepreneurial world [Gartner et al. 1994, pp. 5–9].

Because of interest in creating new business, scientists have been looking for factors that could influence the appearance of entrepreneurial intention. We can classify it in two different ways. The first one discusses the source of an impulse. Here we have two categories, namely internal and external factors. External factors are social, legal, political, and economic factors and internal as are the individual personal traits and personality [Khan 2013, pp. 184]. The second presents three different factors – demographic profile (sex, age, influence of the role model, previous experience), personality traits (confidence, self-efficacy, autonomy, risk taking tendency, locus of control, professional attraction) and context (education and environment) [Wärneryd 1988].

One of the most popular factors that has been the subject of research on entrepreneurial intention is gender. For centuries entrepreneurship has been symbolically attributed to men. It is connected with such traits as initiative-taking, relative risk and accomplishment which are traditionally thought to be a domain of men, unlike women, who are attributed such traits as passivity, adaptation and flexibility. As a result female entrepreneurship has to be justified, as femininity and entrepreneurship belong to different imageries [Bruni, Gherardi and Poggio 2004]. Despite this women have been trying to act entrepreneurially for about forty years. We can distinguish their actions in three stages. The first one took place before the 1970s, when women moved from a gender-neutral position to the male-specific position. The second stage

took place between the 1970s and early 1990s and was characterized by stereotypical view and as to indication how women are perceived in relation to men. The last stage took place after 1990 and it presented the otherness of female entrepreneurship [Kyrö 2009]. Nowadays more than one third of all people involved in entrepreneurial activity are women [Minniti, Allen and Langowitz 2005]. Their ventures are no longer connected with housework; more and more frequently they are owners and managers of great ventures. Women entrepreneurs are increasingly becoming significant contributors to the entrepreneurial growth around the world, opening up economies and creating employment [Ugwu and Ugwu 2012]. The main reasons that women start running a business are combined with “push” factors. The most frequently cited are: frustration and boredom in their previous job. Another important factor is the “glass ceiling”, which is an impenetrable barrier that prevents female-workers from being promoted in a company’s structure [Buttner and Moore 1997]. Unfortunately women in many cases aren’t treated as serious business partners and have to stress their similarities to male entrepreneurs. This shows that issue of gender can be crucial in the entrepreneurial world [Lewis 2006].

What are the main reasons for a lower level of female entrepreneurial intention than that of the male? The first argument is combined with gender-stereotypes. It has been proved that people aspire to hold a job that is socially accepted for their sex and they avoid those which are considered appropriate for the opposite sex [Heilman 1983]. Additionally plenty of research evidence suggests that gender-stereotype affects men’s and women’s intentions to get into entrepreneurship as an achievement-oriented career domain [Gupta et al. 2005]. The second argument is the type of motivation. Men generally set up their businesses as a result of “pull” factors which force them to improve their positions. Here we can mention an opportunity to work independently with greater control over one’s work and bigger salary, unlike women who are motivated mainly by “push” factors connected with their need for achievement. The example of “push” factors can be limited by promotion opportunity or the glass ceiling, boredom in a previous job, avoiding an unreasonable boss or unsafe working conditions, job frustration and followed by an interest in business [Buttner and Moore 1997, p. 35]. Nevertheless there is also research in scientific literature that points out that not gender but rather the degree of perceived masculinity is the determinant of the level of entrepreneurial intention. In this case women with a higher male identification are characterized by higher entrepreneurial intention than women who perceive themselves as less masculine [Zwan, Verheul and Thurik 2012, p. 629].

In Poland for many years there has been gender gap in entrepreneurship. The rates of female entrepreneurship and self-employment especially in the non-agricultural sector are on average approximately half as high as the corresponding rates amongst men. They are also more dynamic and more susceptible to changes in the economic situation. It means that during economic downturns they tend to decrease more sharply than the male entrepreneurship rate, but that they also increase faster during economic upturns. It shows that it is possible to reduce the entrepreneurship gender gap in Poland, but it requires prolonged periods of economic growth [Gawel 2013, pp. 127–128].

The Ajzen Theory of Planned Behaviour belongs to a group of international models that try to explain how the entrepreneurial intention arises and what factors can influence it. The theory assumes that human behaviour is reasoned, controlled and planned because it takes into account the probable consequences of the considered actions. The Theory of Planned Behaviour suggests that we can predict behaviour that entails planning by knowing the intention to adopt that behaviour. The intention is a function of three antecedents, which are: attitudes toward behaviour, subjective norms and perceived behavioural control. Attitudes toward behaviour show an individual's awareness of the outcome of behaviour and the perceived opinion of it. The greater the perceived results of setting up a new company, the higher the level of entrepreneurial attitude toward behaviour. As a result, the stronger the entrepreneurial intention, the higher the probability of starting a business in the future. The second factor is the subjective norms. They emerge from the beliefs and opinions from one's close environment (family, relatives, friends and work colleagues) about his or her actions and persuasions. It can also be a social pressure to behave according to values and norms presented by other people. If someone cares about the opinion of a reference group it can have an influence on his/her entrepreneurial decisions. There will be a higher level of subjective norms and, as a consequence, entrepreneurial intention when the environment perceives setting up a business as a positive action. The last antecedent of entrepreneurial intention constitutes perceived behavioural control. It refers to the individual's belief about his/her abilities, capabilities, and accessibility of resources to become an entrepreneur. The stronger the individual's beliefs in his/her abilities to establish a business, the higher the probability of becoming an entrepreneur in the future [Ajzen 1991]. Of course all these three factors are important for an entrepreneurial intention to emerge, but their relative importance can differ from the context.

On the basis of this literature review, we can formulate the following hypothesis:

- H1: Gender hasn't got an essential statistical influence on entrepreneurial intentions of Polish high school students.
- H2: There are different factors that influence entrepreneurial intention for boys and girls in a Polish high school.
- H3: Polish high school girls have a higher level of attitude toward behaviour than Polish high school boys.
- H4: Polish high school boys have a higher level of perceived behavioural control than Polish high school girls.

2. Research

In the first half of 2013, the scientific research regarding entrepreneurial intention amongst Polish high school students was made. The aim of this research was to identify the level of entrepreneurial intention of this group and to verify which factors influence their occurrence. In this research, 887 Polish high school students from the Wielkopolska region took part. 431 of them were female and the rest (456) were male. To make this research statistically significant for the whole of Poland the structure of the Polish high school students was checked. According to the report of the Central Statistical Office (Główny Urząd Statystyczny) from 2012, there are two main factors that differentiate Polish high school students. The first one is connected with the type of school and the second one with its location. In Poland in 2012 there were 8 types of high schools: vocational schools, secondary schools, supplementary secondary schools, profile secondary schools, technical colleges, supplementary technical colleges, artistic schools and special schools that prepare for a job. Because of their non-significant share in the whole population (below 1%), four groups didn't take part in research. They were students from supplementary secondary schools, supplementary technical colleges, artistic schools and special schools that prepare for a job. Also students from profile secondary schools were not invited to participate in this research. The reason for this was the decision of the Minister of Education that from September 2012 the recruitment to profile secondary schools would not take place. It was the method to progressively close these types of schools in Poland. The second variable, which differentiates Polish high schools was their location. Here

we have only two types of schools – these located in the cities and those in the country. As a city we understand an administrative unit that has city rights. In the research, students who learn in randomly chosen schools from the list of all secondary schools in Wielkopolska took part. Table 1 and 2 show the implied and real structure of the research group with the distinction of the two main differentiating factors.

Table 1. The Implied Structure of Research Group

Specyfification	The share in the whole educational system	Therein: city	Therein: country
	%		
Vocational school	15,67	94,02	6,36
Secondary school	45,04	96,79	3,32
Technical college	39,29	91,66	9,09

Source: Developed by the author based on the Central Statistical Office (GUS) data.

Table 2. The Real Structure of Research Group

Specyfification	The share in the whole educational system	Therein: city	Therein: country
	%		
Vocational school	11,61	93,64	6,36
Secondary school	46,22	96,70	3,30
Technical college	36,41	91,50	8,50

Source: Developed by the author.

The research was carried out with the use of a questionnaire. It had 72 questions, using mainly the Likert-scale. The questions verified the attitude of the research group towards the statements presented. Answers ranged from total negation to absolute conformity. Questions were divided into several groups connected with their topic. In one, the respondents had to define their gender. The questionnaires were printed. They were filled in after a short introduction presenting the aim of research. The data collected in this way were transferred to a digital version and analyzed with the use of the statistical program.

The Sum variables were construed using factor analysis (generalized least squares, varimax with Kaiser normalization). It gives four factors: entrepreneurial intention, attitude towards behaviour, subjective norms, and

perceived behavioural control. Lists of variables which formed the sum of all variables are presented in Appendix 1 at the end of the article. For each of them Cronbach's alpha coefficients were calculated. They are satisfactory and reach from 0.717 to 0.929 (Table 3).

Table 3. Variables from Factor Analysis

Variables	Group	Number of respondents	Items	Cronbach's alpha	Mean	Standard deviation
Entrepreneurial intention	men	456	4	0.855	3.79	1.02
	women	431	4	0.881	3.56	1.08
Attitude toward behaviour	men	456	4	0.733	3.03	0.86
	women	431	4	0.717	2.94	0.79
Subjective norms	men	456	5	0.809	3.11	0.95
	women	431	5	0.848	2.97	1.03
Perceived behavioural control	men	456	7	0.901	4.01	0.82
	women	431	7	0.929	3.84	0.92

Source: Developed by the author.

Table 4. Regression Analysis. Dependent Variable: Entrepreneurial Intention (R Square = 49%)

Specification	B	Standard deviation	Beta (standardized)	t-value	Significance
(Constant)	0.374	0.160		2.344	0.019
Entrepreneurial attitude	0.016	0.033	0.013	0.502	0.616
Subjective norm	0.414	0.029	0.389	14.499	0.000
Perceived control	0.524	0.032	0.434	16.320	0.000
Trust in society	-0.036	0.028	-0.033	-1.318	0.188
Individual's responsibility	-0.029	0.030	-0.024	-0.958	0.338
Gender	0.104	0.052	0.049	2.019	0.044
Entrepreneurial family history	0.063	0.053	0.029	1.186	0.236

Source: Developed by the author.

To verify the hypotheses, several regression analyses were made. In the first (H1), the answers from all respondents were taken into consideration. Entrepreneurial intention constitutes there the dependent variable whilst the independent variables are: entrepreneurial attitude, subjective norms, per-

ceived behavioural control, trust in society, the individual's responsibility, gender and entrepreneurial family history (Table 4). In the next two analyses separate answers from the male and female groups were examined (H2, H3, H4). Entrepreneurial intention was also the dependent variable, but the independent variables were only entrepreneurial attitude, subjective norms, and perceived behavioural control (Tables 5 and 6). In this paper the interpretation of the results is based on a 1% significance level ($p < 0.01$).

Table 5. Regression Analysis for Male group. Dependent Variable: Entrepreneurial Intention (R Square = 45,2%)

Specification	<i>B</i>	Standard deviation	Beta (standardized)	t-value	Significance
(Constant)	0.449	0.205		2.190	0.029
Attitude toward behaviour	-0.023	0.042	-0.020	-0.548	0.584
Subjective norms	0.434	0.041	0.405	10.699	0.000
Perceived behavioural control	0.515	0.047	0.414	9.207	0.000

Source: Developed by the author.

Table 6. Regression Analysis for Female Group. Dependent Variable: Entrepreneurial Intention (R Square = 51,8%)

Specification	<i>B</i>	Standard deviation	Beta (standardized)	t-value	Significance
(Constant)	.152	.195		.779	.436
Attitude toward behaviour	.041	.047	.030	.877	.381
Subjective norms	.394	.040	.374	9.933	.000
Perceived behavioural control	.549	.043	.470	12.672	.000

Source: Developed by the author.

On the basis of the results of the regression analysis we can verify all the previous hypotheses. The analysis shows that there are no significant relationships between entrepreneurial intention and gender. It can be seen from Table 4, where only two factors (subjective norms and perceived behavioral control), explain entrepreneurial intention quite well. As a consequence we can see that H1 stating that gender has an influence on entrepreneurial intention was validated.

From Tables 5 and 6 it appears that for both men and women there are the two same factors that influence entrepreneurial intention – perceived behavioural control and subjective norms. What is interesting is that in both cases perceived behavioural control has a higher level of impact than subjective norms. It means that H2 about different factors which affect entrepreneurial intention should be rejected.

From the same table we can read the beta standardized value of attitude toward behaviour. In H3 we assumed that women should have a higher level of this factor because they perceive entrepreneurship as a chance to develop their careers. Unfortunately this suggestion cannot be accepted. Despite the fact that women have a higher impact of attitude toward behaviour towards entrepreneurial intention, the statistical significance in both cases is too low to take this factor into consideration. It suggests that we should reject H3.

The last hypothesis verifies the level of perceived behavioural control amongst males and females. The reason was that the statement that masculine types (often combined with male gender) have more self-confidence and inclination to take risk. But on the basis of the regression analysis we should also reject H4. It is because in the case of women there is higher influence of perceived behavioural control on entrepreneurial intention (0.470) than is the case of males (0.414).

Conclusion

The aim of this paper was to present the literature review regarding the impact of gender on entrepreneurial intention and to verify whether there is any significant influence of this factor on Polish high school students' entrepreneurial intention. Not all of the hypotheses were confirmed, but on the basis of them we can say that there is one undisputed conclusion – Polish high school students' entrepreneurial intentions don not differ significantly because of gender. The reason for this statement was the result of the regression analysis. That analysis shows that there is no significant influence of gender on entrepreneurial intention and that the same factor affects entrepreneurial intention in males as well as in females cases.

That results show how the attitude of Polish young women to entrepreneurial activity in next few years can change. Nowadays they are more women who are self-confident and ready to take risk. It can be also con-

firmed by the level of masculinity of Polish society, which has score of 64 on Hofstede's cultural dimension scale. Women's entrepreneurship can also be the effect of the situation on the Polish labour market. The period of time when young people after graduation look for a job which equals their aspirations and level of education lasts often a year or more. This situation motivates them to look for alternative solutions. In the case of women this motivation can be higher because of maternity leave. Working in their own company can guarantee them a stability of workplace and elastic work hours.

What can be interesting is the fact that the attitude toward behaviour is the factor which does not influence young Poles' entrepreneurial intention. It can be an introduction to a more detailed consideration. Here we should look for answers to the following questions: why does this factor not have any significant impact on entrepreneurial intention, do Polish young people perceive entrepreneurship as an unattractive job perspective and what should be done to change it?

The analysis published in this article can also be an inspiration for a more detailed analysis in the future. For example, it could be a basis for carrying out similar research in other countries and for creating a multinational comparison regarding entrepreneurial intention amongst young people in different countries. It can also motivate other researchers to look for other factors that can differentiate a population in the level and model of the creation of entrepreneurial intention. All this can enlarge our knowledge about entrepreneurial intention.

Appendix 1

Entrepreneurial intention:

- If I could freely choose, I'd rather be an entrepreneur than an employee.
- My aim is to become an entrepreneur in the future.
- I am going to make a living as an entrepreneur.
- For me entrepreneurship is a probable career choice.

Entrepreneurial attitude:

- Entrepreneurs are ideal citizens.
- Entrepreneurs are typically hard-working and responsible.
- Entrepreneurs' work is valuable for the entire society.
- Entrepreneurs play a key role in the success of the society.

Subjective norms:

- My close environment encourages me towards entrepreneurship.
- In my field (or my desired professional field) entrepreneurship is a valued career option.
- My parents encourage me towards entrepreneurship.
- My friends would find it great if I became an entrepreneur.
- In my close environment entrepreneurship is a valued career option.

Perceived behavioral control:

- I trust I am capable of working as a small entrepreneur.
- I believe I could learn the skills required in entrepreneurship.
- I trust I would be able to cope with the issues connected to setting up an enterprise.
- I believe I would have the qualifications to work as the manager of a small enterprise.
- I believe I could succeed as an entrepreneur.
- I believe I could make a living as an entrepreneur.
- Succeeding as an entrepreneur is not too challenging for me.

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