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## **The Conditions of Entrepreneurship Development in Kielce: Student Opinion Survey**

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### **Abstract**

*The purpose of this article is to analyze the conditions of entrepreneurship development in relation to: labour market, cultural offerings and the civil society development in the city of Kielce (in the opinion of management students from the Jan Kochanowski University in Kielce).*

**Key Words:** *Entrepreneurship, Economic development.*

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**Introduction:** Entrepreneurship plays a special role in economic development (both national and regional) by increasing economic efficiency, creating technological innovations, and generating new jobs. The dynamics of entrepreneurship can be vastly different depending on the institutional level of economic development and the result of agglomeration effects.

In addition to the level of economic development, many other economic, technological, demographic, cultural and institutional variables determine the rate of (nascent) entrepreneurship. There is extensive literature on these influences, across wide-ranging scientific domains including neo-classical economics or institutional economics.

**Economic development:** There are many concepts of economic development<sup>1</sup>. The role of economic development is to promote the standard of living, to decrease unemployment and to develop the local cultural offerings of a specific area. A well-known operational notion of economic development is referred to as structural transformation. Accumulation of capital (physical and human), and moves in the sector composition of economic activity (production, consumption, and employment) are considered as the main components of this transformation<sup>2</sup>. Related changes are, inter alia, urbanization<sup>3</sup>, an increased level of education, health care, public safety and cultural offerings.

On the other hand the mutual relationship between economic growth and sustainability of resources and ecosystems<sup>4</sup> must be analyzed.

The modern view of economic development underlines the increasingly sophisticated ways of producing and competing, and indicates the evolution from a resource-based economy to a knowledge-based economy<sup>5</sup>.

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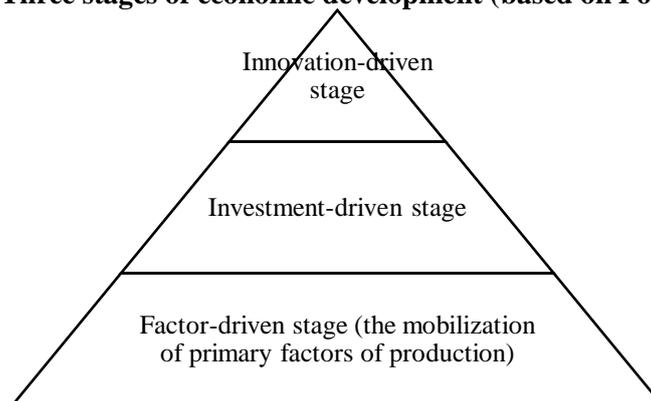
<sup>1</sup> R. N. Cooper, *A Half-Century of Development*, Center of International Development at Harvard University, Working Paper No. 118, March 2005, p. 3.

<sup>2</sup> S. Wennekers, A. van Wennekers, R. Thurik, P. Reynolds, *Nascent Entrepreneurship and the Level of Economic Development*, *Small Business Economics* 2005, Vol. 24, Issue 2, p. 294.

<sup>3</sup> J. D. Sachs, *End of Poverty. Economic Possibilities for Our Time*, The Penguin Press, New York 2005, p. 35-36.

<sup>4</sup> A. Garcia-Olivares, J. Sole, *End of growth and structural instability of capitalism - From capitalism to a Symbiotic Economy*, "Futures" 2015, Vol. 68, p. 31.

<sup>5</sup> S. Wennekers, A. van Wennekers, R. Thurik, P. Reynolds, *Nascent Entrepreneurship and the Level of Economic Development*, *Small Business Economics* 2005, Vol. 24, Issue 2, p. 294.

**Figure 1. Three stages of economic development (based on Porter et al.)**

M. E., Porter, J. D. Sachs, J. W. McArthur, *Executive Summary: Competitiveness and Stages of Economic Development* [in:] *The Global Competitiveness Report 2001–2002*, M. E. Porter, J. D. Sachs, P. K. Cornelius, J. W. McArthur and K. Schwab, Oxford University Press, New York 2002, p. 16-25.

Knowledge-based economy does merely mean the production of knowledge-intensive goods and services (tangible and intangible values), rather, knowledge must be initiated and disseminated throughout the economy. In the knowledge-based economy, innovation is driven by the interaction of producers and users in the exchange of knowledge (both codified and tacit)<sup>6</sup>. This innovation leads to the entrepreneurship that delivers the engine of economic growth.

**Economic development and entrepreneurship:** Entrepreneurship plays a very important role in the process of economic development (both national and regional)<sup>7</sup>. Entrepreneurship is considered to be an important mechanism for economic development through innovation, welfare effects and employment. The dynamics of entrepreneurship can be vastly different depending on the institutional level of economic development<sup>8</sup> and the result of agglomeration effects.

The environment shaping the economy affects the dynamics of entrepreneurship within any given country. This environment is marked by interdependencies between economic development and institutions<sup>9</sup>, which affect other aspects, such as quality of governance, access to capital and other resources, and the perceptions of entrepreneurs. Institutions are critical determinants of economic behavior and economic transactions in general, and they can impose direct and indirect effects on both the supply and demand of entrepreneurs<sup>10</sup>. This leads to the Institutional Economic Theory underlying the importance of institutions<sup>11</sup> as a determining factor of economic growth in society, providing a conceptual framework which is adequate for the institutional analysis of entrepreneurship<sup>12</sup>.

The development of entrepreneurship is a result of agglomeration effects. Some cities may be favored by the agglomeration of certain demand and supply-side factors which may enhance the potential access to knowledge and new ideas, factors of production, and clients or customers.

<sup>6</sup> N. Wickramasinghe, D. von Lubitz, *Knowledge-Based Enterprise: Theories and Fundamentals*, Idea Group Publishing, Hershey, London, Melbourne, Singapore 2007, s. 3.

<sup>7</sup> F. Linan, J. Fernandez-Serrano, *National culture, entrepreneurship and economic development: different patterns across the European Union*, "Small Business Economics" 2014, Vol. 42, Issue 4, p. 687.

<sup>8</sup> Z. J. Acs, S. Desai, J. Hessels, *Entrepreneurship, economic development and institutions*, "Small Business Economics" 2008, Vol. 31, Issue 3, p. 219.

<sup>9</sup> For Douglass North, institutions are fundamental to economic development. D. W. Arner, *Financial Stability, Economic Growth, and the Role of Law*, Cambridge University Press, Cambridge – New York 2007, p. 17-18.

<sup>10</sup> Z. J. Acs, S. Desai, J. Hessels, *Entrepreneurship, economic development and institutions*, "Small Business Economics" 2008, Vol. 31, Issue 3, p. 219.

<sup>11</sup> P. L. Joskow, *Introduction to New Institutional Economics: A Report Card* [w:] *New Institutional Economics. A Guidebook*, red. E. Brousseau, J-M. Glachant, Cambridge University Press, Cambridge - New York 2008, p. 6.

<sup>12</sup> M. C. Sánchez-Escobedo, J. C. Díaz-Casero, R. Hernández-Mogollón, M. V. Postigo-Jiménez, *Perceptions and attitudes towards entrepreneurship. An analysis of gender among university students*, "International Entrepreneurship and Management Journal" 2011, Vol. 7, Issue 4, p. 444.

Entrepreneurs can leverage these economies of scale in cities. Furthermore, market proximity and business infrastructure have shown to positively affect entrepreneurship<sup>13</sup>. Urban agglomerations are places rich in cultural life and other amenities conducive to ascertain lifestyle and work-life balance that attracts highly skilled people<sup>14</sup>.

**The City of Kielce:** The city of Kielce is an economic, cultural and educational center and the capital of the Świętokrzyskie Voivodship. It is worth emphasizing that in the years 1949 – 2008 the population of Kielce increased from 49 960 to 205 665, that is by 412%. The city's area increased almost three times, from 4 052 to 10 945 ha. Presently, the population of Kielce is 199 870 residents (Dec 2013).

**Table 1. Human resources in Kielce**

Working-age population	127 913 people (2012)
Economically active population	73 667 people (2012)
Unemployed	11700 people (2012)
Unemployment rate	10.8% (2013)
Total number of companies having their registered office	20563 (2013)
Average monthly wage	3 597.04 (Dec. 2013)

Source: *Human resources and labour costs*, [http://www.invest.kielce.pl/eng/economy/human\\_resources\\_and\\_labour\\_costs](http://www.invest.kielce.pl/eng/economy/human_resources_and_labour_costs) 2014.27.12; *Investing in Poland. Trendbook Poland 2015*, Warsaw Business Journal Group, Warsaw 2014, p. 87.

There could be differentiated sectors with the largest investment potential in Kielce. Defined areas of development (“strengths”, and “sectors of opportunity”) are:

- Kielce Technology Park – a multifunctional area of economic activity. This institution represents an advanced and comprehensive institutional form of activating regional development and supporting entrepreneurship. Kielce Technology Park helps the newly created and innovative companies to achieve maturity and the ability to function on the market<sup>15</sup>.
- Trade fairs and fair support services sector – Kielce Trade Fairs is a fast growing exhibition centre. Kielce Fairs is a member of international trade fairs organizations such as UFI and CENTREX that confirm to a high quality of services provided;
- Construction industry – rich natural resources of the city and it's the surrounding area attracted many companies operating in the construction and the building materials industry;
- Steel, machinery and precision industry - traditions associated with the presence of the Old Polish Industrial District (the oldest and the largest industrial region in Poland dominated by mining and smelting of lead, silver, copper and iron) make it possible to successfully continue to strengthen this branch;
- Health service sector - dynamic development of this sector in the region should be associated not only with natural conditions (presence of water with high degree of sulphide mineralization), but also in wellness companies<sup>16</sup>.

**Methodology and hypothesis development:** The main goal of this article is: to explore the conditions for entrepreneurship development from the perspective of management students from the Jan Kochanowski University in Kielce.

The main research problem (RP0) explored in this paper is: to investigate the conditions for entrepreneurship development in relation to the labour market condition, cultural offerings and the condition of civil society development in the city of Kielce.

The detailed research problems explored in this paper are:

<sup>13</sup> A. B. Garcia, *Analyzing the determinants of entrepreneurship in European cities*, “Small Business Economics” 2014, Vol. 42, Issue 1, p. 81.

<sup>14</sup> D. Audretsch, O. Falck, S. Heblich, *Who's got aces up his sleeve? Functional specialization of cities and entrepreneurship*, “The Annals of Regional Science” 2011, Vol. 46, Issue 3, p. 624; X. Li, A. G. Yeh, *Modelling sustainable urban development by the integration of constrained cellular automata and GIS*, “International Journal of Geographical Information Science” 2000, Vol. 14, No. 2, p. 132.

<sup>15</sup> *Kielce Technology Park*, <http://www.technopark.kielce.pl/eng/home> 2014.27.12.

<sup>16</sup> *Economy. Kielecki portal gospodarczy*, <http://www.invest.kielce.pl/eng/economy> 2014.27.12.

- Q1: What is the relation between conditions for entrepreneurship development in relation to the situation on the labour market in Kielce from the point of view of management students from the Jan Kochanowski University in Kielce?
- Q2: What is the relation between conditions for entrepreneurship development in relation to the cultural offerings in Kielce from the point of view of management students from the Jan Kochanowski University in Kielce?
- Q3: What is the relation between conditions for entrepreneurship development in relation to the condition of civil society development in Kielce from the point of view of management students from the Jan Kochanowski University in Kielce?

Accordingly, I offer the following hypotheses:

Main hypothesis is as follows – for students of management from the Jan Kochanowski University in Kielce, perceived conditions of entrepreneurship development will have a positive relationship with the perceived situation on the labour market; perceived cultural offerings and perceived condition of civil society development in Kielce.

The detailed hypotheses explored in this paper are:

- H1. There is a positive correlation between the conditions for entrepreneurship development and the situation on the labour market in Kielce from the point of view of management students from the Jan Kochanowski University in Kielce.
- H2. There is a positive correlation between the conditions for entrepreneurship development and the cultural offer in Kielce from the point of view of management students from the Jan Kochanowski University in Kielce.
- H3. There is positive correlation between the conditions for entrepreneurship development and the condition of civil society development in the city of Kielce from the point of view of management students from the Jan Kochanowski University in Kielce.

An open-ended online survey instrument was developed for this study. A questionnaire was developed and administered to students of management from the Jan Kochanowski University in Kielce. The first section collected demographic information about the student (gender, age). The next section of the questionnaire required students to rank conditions for entrepreneurship development, labour market condition, cultural offerings and the condition of civil society development in the city of Kielce.

A total of 58 students completed the survey. The questionnaire was published in April 2014 and closed one month later.

The data was initially summarized using univariate statistics (means and frequencies) to provide a better understanding of the respondents and characteristics of the data. The Spearman correlation coefficient was used to give information about the degree of correlation as well as the direction of the correlation between variables. The Spearman correlations coefficient estimation is a non-parametric technique based on ranks. This non-parametric technique was used because of the uncertainty about the population distribution.

**Data analysis and results:** In the frequent user group: 19 were male (32.8%) and 39 were female (67.2%).

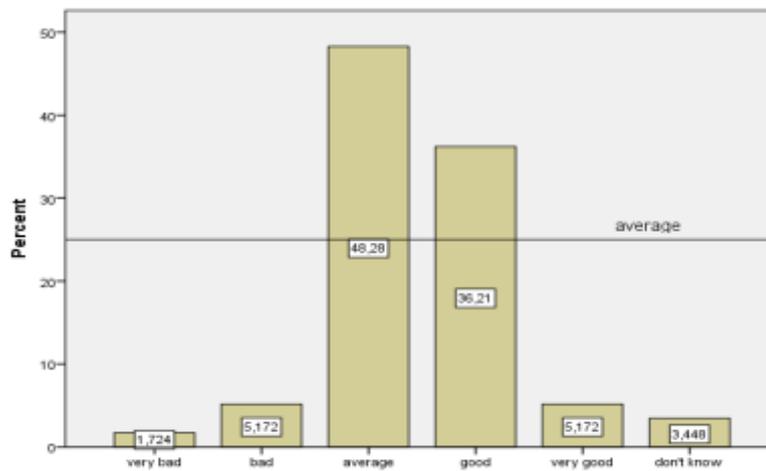
**Table 2. Gender of the respondents**

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	Female	39	67.2	67.2	67.2
	Male	19	32.8	32.8	100.0
	Total	58	100.0	100.0	

Source: Own analysis.

The first aspect was concerned with the entrepreneurship development in Kielce. In the opinion of respondents, entrepreneurship development in Kielce is mostly average (48.3%) and good (36.21%).

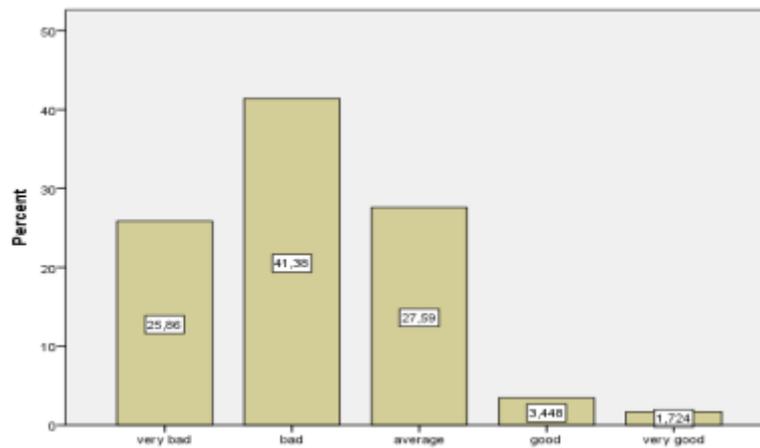
**Figure 2. Entrepreneurship development in Kielce (student’s opinion)**



Source: Own analysis.

Next feature was concerned with the labour market in Kielce. In the students’ opinion the situation on the labour market in Kielce is bad (41.4%), then “average” (27.6%) and “very bad” (25.9%).

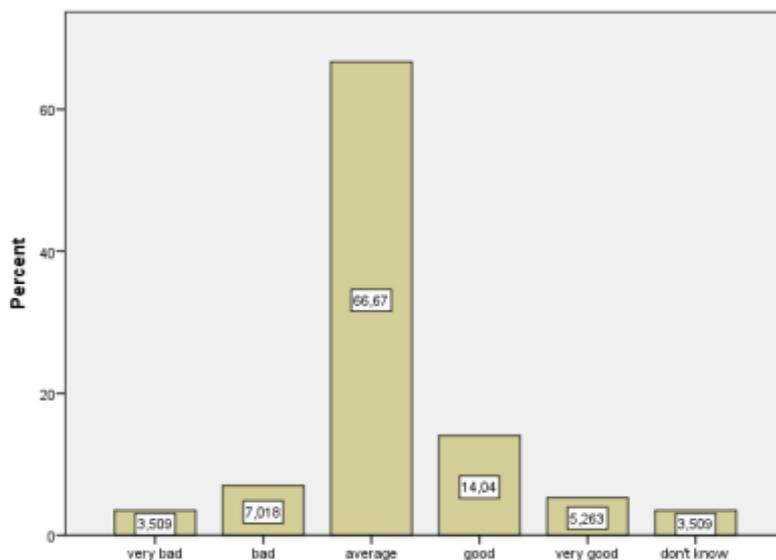
**Figure 3. Situation on the labour market in Kielce (student’s opinion)**



Source: Own analysis.

For the type of conditions of civil society development in Kielce, the vast majority of respondents estimated that aspect on “average” (66.7%).

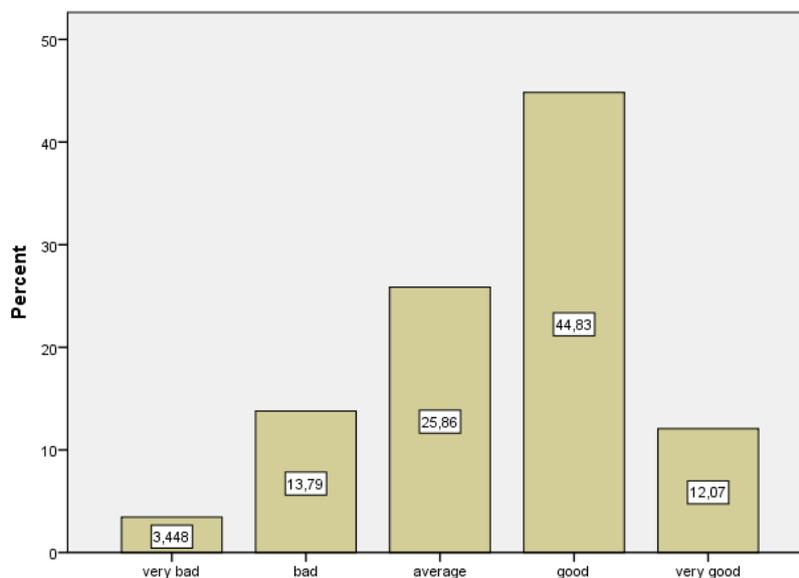
**Figure 4. Conditions of civil society development in Kielce (student’s opinion)**



Source: Own analysis.

Cultural offer in Kielce was estimated as “good” (44.9%) and average (25.9%).

**Figure 5. Cultural offering in Kielce (student’s opinion)**



Source: Own analysis.

**Table 3. Correlations between entrepreneurship development, civil society development, situation on the labour market and cultural offer in Kielce**

		Entrepreneurship development	Civil society development	Situation on the labour market	Cultural offer
entrepreneurship development	Correlation Coefficient	1.000	0.465**	0.314*	0.409**
	Sig. (2-tailed)	0.0	0.000	0.019	0.002

		N	56	55	56	56
Civil society development	Correlation Coefficient		0.465**	1.000	0.351**	0.315*
	Sig. (2-tailed)		0.000	0.0	0.009	0.019
	N		55	55	55	55
Situation on the labour market	Correlation Coefficient		0.314*	0.351**	1.000	0.035
	Sig. (2-tailed)		0.019	0.009	0.0	0.797
	N		56	55	58	58
Cultural offerings	Correlation Coefficient		0.409**	0.315*	0.035	1.000
	Sig. (2-tailed)		0.002	0.019	0.797	0.0
	N		56	55	58	58

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

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

(An opinion “don’t know” was excluded from the Spearman correlation analysis)

Source: Own analysis.

**Discussion and Conclusions:** There is a relationship between entrepreneurship development and the situation on the labour market; cultural offerings and civil society development. A more advanced analysis of this research shows that the situation on the labour market ( $\rho = 0.314$ ;  $p < 0.05$ ) is significantly positively correlated with entrepreneurship development. Cultural offer ( $\rho = 0.409$ ;  $p < 0.001$ ) is positively correlated with entrepreneurship development. The strongest correlation was observed between civil society development ( $\rho = 0.465$ ;  $p < 0.001$ ) and entrepreneurship development.

**Table 4. Spearman’s rho**

Variable	Spearman’s rho	Significance level
Entrepreneurship development vs. Situation on the labour market	0.314	Sig. 0.05 level
Entrepreneurship development vs. Cultural offerings	0.409	Sig. 0.01 level
Entrepreneurship development vs. Civil society development	0.465	Sig. 0.01 level

Source: Own analysis.

This study examined the main research problem from which it follows, that creation of conditions for the entrepreneurship development influences at the cultural offerings and civil society development in the city.

The main and detailed hypothesis was confirmed.

**Table 5. The detailed hypotheses**

	Hypothesis	Verification
H1	There is positive correlation between conditions for entrepreneurship development and the situation on the labour market in Kielce	<u>Weak</u> positive correlation
H2	There is positive correlation between conditions for entrepreneurship development and the cultural offerings in Kielce	<u>Medium</u> positive correlation
H3	There is positive correlation between conditions for entrepreneurship development and the condition of civil society development in the city of Kielce	<u>Medium</u> positive correlation

Source: Own analysis.

## References:

1. Acs Z. J., Desai S., Hessels J., *Entrepreneurship, economic development and institutions*, "Small Business Economics" 2008, Vol. 31, Issue 3.
2. Audretsch D., Falck O., Heblich S., *Who's got aces up his sleeve? Functional specialization of cities and entrepreneurship*, "The Annals of Regional Science" 2011, Vol. 46, Issue 3.
3. Arner D. W., *Financial Stability, Economic Growth, and the Role of Law*, Cambridge University Press, Cambridge – New York 2007.
4. Cooper R. N., *A Half-Century of Development*, Center of International Development at Harvard University, Working Paper No. 118, March 2005.
5. *Economy. Kielecki portal gospodarczy*, <http://www.invest.kielce.pl/eng/economy> 2014.27.12.
6. Garcia A. B., *Analyzing the determinants of entrepreneurship in European cities*, "Small Business Economics" 2014, Vol. 42, Issue 1.
7. Garcia-Olivares A., Sole J., *End of growth and structural instability of capitalism - From capitalism to a Symbiotic Economy*, "Futures" 2015, Vol. 68.
8. *Human resources and labour costs*, [http://www.invest.kielce.pl/eng/economy/human\\_resources\\_and\\_labour\\_costs](http://www.invest.kielce.pl/eng/economy/human_resources_and_labour_costs) 2014.27.12.
9. *Investing in Poland. Trendbook Poland 2015*, Warsaw Business Journal Group, Warsaw 2014.
10. Joskow P. L., *Introduction to New Institutional Economics: A Report Card [w:] New Institutional Economics. A Guidebook*, red. E. Brousseau, J-M. Glachant, Cambridge University Press, Cambridge - New York 2008.
11. *Kielce Technology Park*, <http://www.technopark.kielce.pl/eng/home> 2014.27.12.
12. Li X., Yeh A. G., *Modelling sustainable urban development by the integration of constrained cellular automata and GIS*, "International Journal of Geographical Information Science" 2000, Vol. 14, No. 2, s. 132.
13. Linan F., Fernandez-Serrano J., *National culture, entrepreneurship and economic development: different patterns across the European Union*, "Small Business Economics" 2014, Vol. 42, Issue 4.
14. Porter M. E., Sachs J. D., McArthur J. W., *Executive Summary: Competitiveness and Stages of Economic Development [in:] The Global Competitiveness Report 2001–2002*, M. E. Porter, J. D. Sachs, P. K. Cornelius, J. W. McArthur and K. Schwab, Oxford University Press, New York 2002.
15. Sachs J. D., *End of Poverty. Economic Possibilities for Our Time*, The Penguin Press, New York 2005.
16. Sánchez-Escobedo M. C., Díaz-Casero J. C., Hernández-Mogollón R., Postigo-Jiménez M. V., *Perceptions and attitudes towards entrepreneurship. An analysis of gender among university students*, "International Entrepreneurship and Management Journal" 2011, Vol. 7, Issue 4.
17. Wickramasinghe N., von Lubitz D., *Knowledge-Based Enterprise: Theories and Fundamentals*, Idea Group Publishing, Hershey, London, Melbourne, Singapore 2007.
18. Wennekers S., van Wennekers A., Thurik R., Reynolds P., *Nascent Entrepreneurship and the Level of Economic Development*, "Small Business Economics" 2005, Vol. 24, Issue 2.

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