

Start-up and Spin-off Does They Require Different Support?

PETER DŽUPKA, VILIAM VAJDA

Technical University of Košice Faculty of Economics

Němcovej 32, 040 01 Košice

Slovak Republic

Peter.Dzupka@tuke.sk, Viliam.Vajda@tuke.sk

Abstract

This paper presents the theoretical overview on definition and basic differences in performance between the two categories of companies: Start-up Company and Spin-off Company. The main reason for such a theoretical work is, that the support policy for these companies is forming at the present in Slovakia. There are no theoretical or empirical works in Slovakia, which are directly focused on different needs of these two groups of the companies. Support policy therefore has no sources of information and data how to perform different approach to support of start-up and spin-of companies. The paper summarise the theoretical and empirical works, which proves that the start-up and spin-off companies have different needs and therefore the support measures should also differ. In the conclusion of this paper the current research which reflects this gap is shortly described.

Key words: Spin-of, spin-out, start-up, support policy

JEL Classification: D22, C51

1 Introduction

The issue of the start-up companies and spin-off companies is very current problem in the Slovak Republic. New initiatives, from the Slovak government, but also from different Universities and Towns are implemented with aim to support new business ideas, especially at their starting point. On the other hand, only few researches in this field can be found in Slovakia at the moment. The definition of notions start-up and spin-off companies are is often confused, although they are mentioned in strategic development documents. The measures for support in these documents are predominantly based on transfer of experience from abroad (Innovation strategy 2007-2013, OPKaHR). Another problem is, that the support measures are equal for stat-up and spin-off companies in Slovakia. This paper has therefore two main aims. First, to clearly describe the differences between these two types of companies, the second, based on the literature review, to prove that there are differences in the innovation performance of the start-up and spin-off companies and also that they have different needs in its growth.

The paper is divided in three main parts. Firs part is describing, from the theoretical point of view, the main differences between start-up and spin-off companies. Second part is a short view on Slovak start-ups support policy and the last par is introducing results of the pilot research focused on start-iu and spin-off companies in Košice. Conclusion shortly describes the research that is undertaken in the Slovak Republic with aim to analyse different needs of the start-up and spin-off companies with aim to adjust the current support policies.

2 Spin-off and Start-up What is the Difference?

Several approaches to distinguish differences between the spin-off and start-up companies can be found in the literature. One of the approaches is to distinguish the difference based on the parental support and the resource sharing. This approach can be seen in Fig. 1. The main characteristic of spin-off companies, is its separation from the original parent organizations (universities, research organizations, and private companies). Especially at the stage of research and ideas development and commercialization possibilities check-up, spin-off companies use resources (technical, technological, knowledge) of the parent organization and receive the support - either financial or in the form of various services. Conversely classic start-up companies are formed without any support, and are the result of the efforts of an individual or group of individuals.

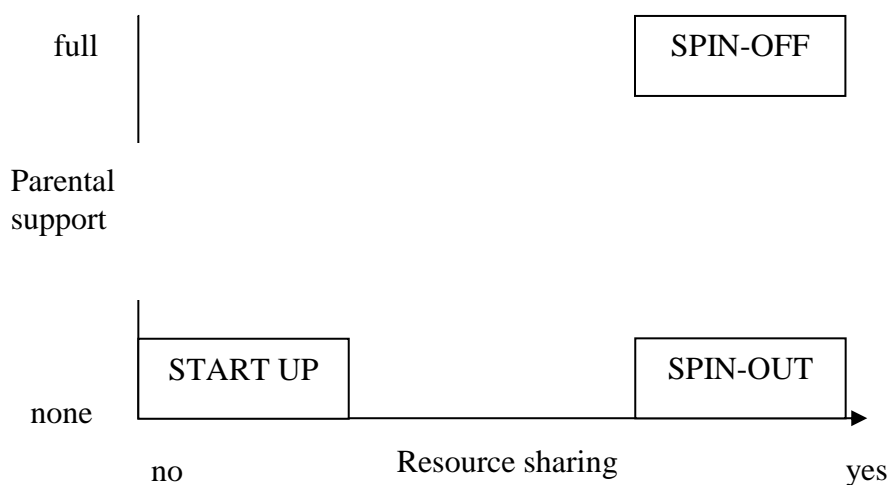


Fig. 1 Difference between the start-up and spin-off company

Source: KOSTER, 2014

Based on this definition start-up companies does not receive any support from the parental organization. According to (Koster, 2004) resources of individual start-ups originate from elsewhere, but spin-offs can be seen as new entities managing existing resources originating from a mother organization. Spin-out companies use resources of the parental organization, but further development of the company is not directly supported by the mother organization. This can be recognized as something between the start-up and spin-off companies. There are two basic types of the spin-off and spin-out companies. Usually they differ from the origin of their parental organization. Corporate spin-offs/ spin-outs parental organization is a private company; they are set-up by the mother company and are usually the result of a reorganisation. Parent company frequently invests the equity, management skills or they become a first major customer of the newly formed company. Academic spin-offs/spin-outs come out from Universities or other public research institutions (PRI). Theirs main role is to commercialize the research outcomes of the university or PRI. University spin-outs are backed by venture capital and are viewed as the entrepreneurial alternative to licensing (Druilhe & Garnsey, 2004).

It is very difficult to define university spin-offs. According to (Kogler & Munro, 2010) three common perspectives of the university spin-offs can be found in the literature. *Resource-based*

perspective recognizes four broad resource categories: technological, social, human, and financial resources. Each of these resources constitutes an asset, that is either owned or controlled by the new venture, and that has the potential to considerably influence its growth. *The business-model approach* relates to a firm's value proposition, market segment, and position in the value chain, cost structure, and profit potential. *The institutional context* is based on particular interest is the degree of dependence or reliance of a university spin-off on regulations regarding intellectual property rights, transfer policies, or start-up help. The intensity of these relationships is, in turn, used to differentiate between spin-off firms that have strong linkages and depend heavily on the university's positive attitude towards technology commercialization, and start-ups that are only loosely connected with a university institute, and therefore are not specifically influenced by its institutional policies.

The corporate spin-offs and spin-outs are the matter of the private sector. But the University and PRI spin-offs/spin-outs are the part of the public sector and therefore the efficiency of this support has to be proved. There are many empirical studies confirming that university and PRI spin-offs/spin-outs are one of the key drivers of economic change and growth. Originally a phenomenon thought to be specific to North America, today most advanced national economies strive to generate economic wealth by exploiting and diffusing public research by means of university spin-offs (Kogler & Munro, 2010). But what resources can be offer by Universities and PRI's? Most of the spin-outs and spin-offs from universities are technology based some the main support seems to be the access to research technologies and knowledge transfer. But there is one more critical resource that can be offered – the management skills. Management is also pivotal for a successful firm. The performance of a firm not only depends on the availability of resources, but also on the way management is able to mobilise and combine its resources for the production process (Koster, 2004).

It is the difference in the availability of support that determines the difference in the performance of the start-up and spin-off/spin/out companies. There is number of studies (Koster, S. 2004., Locketta, A. et. Al. 2005, Bathelt, H et. Al. 2010), which empirically confirms these differences. Spin-off companies tend to have a higher rate of "survival", on average, have more employees, achieve higher sales etc. Spin-off companies are generally more successful in science-intensive industries such as biomedicine. On the other hand, spin-off companies are more dependent on geographical proximity of research centers; universities, etc. are more demanding on access to quality technical and technological infrastructure and of course in the beginning are much more demanding on various forms of support.

Research in this area is in Slovakia focused primarily on knowledge transfer from abroad through the case studies or research results from other countries. (Brighton D. 2011, Gašparíková J.1998., Brighton D. 2010., Gašparíková J. 2010., Rostášová, M., Chrenková, A. 2012.) So far in the Slovak Republic the needs of spin-off and start-up companies were not yet identified and no analyses of differences in innovation performance was realized.

2 Spin-off and Start-up Support Policy in the Slovak Republic

In the Slovakia the support for start-up and spin-off can be divided into “public authorities” and “non-public” administration part. Government authorities (various ministries) are concentrated mainly on policy and providing necessary resources. Specialized agencies, supporting banking institutions and funds mainly serve to implement these policies.

Institutional framework is divided among several ministries and associated agencies and this fact cause the lack of coordination and synchronization of the policy.

The key role in supporting start-up and spin-off is playing the Ministry of Economy of the Slovak republic (www.mhsr.sk/) as the body responsible for the strategy of the business environment and support for SMEs.

Associated agency named Slovak Business agency (www.sbagency.sk - till February 2014 - National Agency for Development of SMEs) is a specialized institution for realizing a wide range of support tools.

Financial support

Innovation and Technology fund (FIT – www.fitfond.sk) in the form of risk capital that encourages entrepreneurial initiative Slovak SMEs. It was created in response to emerging demand for risk capital to support entrepreneurs with ideas and is the result of cooperation Slovak Business Agency (SBA) with investors. The fund has 4.5 million euros and the amount of investment in the project depends on the phase of the project and can range from 20 thousand to 1.5 million euros.¹ In September 2014 fund supports Slovak Start-up project Datamolino (innovative processing of invoices) with 500.000 euros.²

Neulogy Ventures and Limerock Fund Managers are two fund managers that are responsible for managing financial support for SMEs and innovative Start-ups in Slovakia. They are managing finance from European investment fund through the initiative JEREMIE.

Neulogy Ventures founded the Slovak Innovation Fund focuses on investments in companies in the early stages of development and Slovak Enterprise Fund to promote international ambitions already established companies. Both funds focus mainly on information and communication technologies, energy, and medical diagnostics together with amount approximately 23 million euros.³

Limerock Fund Managers will invest in attractive companies regardless of sector with a total amount approximately 12 million euros. The money will be provided through co-investment fund that will invest jointly with private investors. Fund will focus to support promising companies outside the Bratislava region, but also with the potential to enter the international markets.

¹ <http://www.euractiv.sk/podpora-startupov0005/clanok/startupy-na-slovensku-to-maju-este-stale-tazke-022522#sthash.ySD7suHc.dpuf>

² <http://www.fondfit.sk/novinky/datamolino-ziskalo-500-tisic-eur-na-rozvoj-svojho-produktu-na-spracovanie-faktur>

³ <http://www.euractiv.sk/lisabonska-strategia/clanok/slovenske-start-upy-si-prerozdelia-50-milionov-z-iniciativy-jeremie-022357>

In recent years in Slovakia were also initiatives associating to business angels. They are the investors interested to invest in young companies like Slovak business angels network (www.zmps.sk) - Initiative of Young Entrepreneurs Association of Slovakia, Slovak Business agency and Hospodárske noviny (Economic daily) or 42Angels (www.42angels.com) - Czech and Slovak entrepreneurs initiative for start-ups.

Non-financial support

In Slovakia there are many institutions that provide support for startups in a form of:

- space for start-ups (Connect, InQb at the Slovak Technical University in Bratislava, or Startup Centrum TUKE at Technical University of Kosice)
- mentoring - promoting entrepreneurial and strategic thinking (The Spot in Bratislava, SAPIE – Slovak alliance for Internet Economy, Eastcubator in Kosice)
- education and information for schools and teachers (Junior Achievement Slovakia)
- sharing and promoting experiences (Startup Camps, Startup Weekends, Hackatons)
- competitions (National - Startup Awards, Regional – Present your idea at TUKE)

Also The Ministry of Labour, Social Affairs and Family of the Slovak Republic in his proposal of strategic document Business for future suggests Initiate (in collaboration with TV and radio) reality show about start-ups for young entrepreneurs like forms that are successful in abroad (Dragons' Day in the UK, or D-Day in the Czech Republic or The Apprentice).⁴

Kosice and eastern Slovakia region

The plans of supporting Start-ups and Spin-offs at the Kosice self-governing region will be integrated into new regional strategy for years 2014-2020. Based on discussions with representatives of Kosice self-governing region the regional government wants to support the network of “spots” for start-ups and entrepreneurial support like The Spot in Bratislava. The Kosice city at this time supports start-up initiatives at the Technical University of Kosice – Startup Centrum TUKE and the Start-up centrum Eastcubator. At the area of eastern Slovakia there are periodic events like Startup weekend and Startup camps, also Hackatons. The advantage of Kosice region is fact that there are several IT companies associated in Kosice IT Valley association what creates well established IT ecosystem for generating ideas not only for IT sector but also other sectors including creative industry.

3 Result of Pilot Primary Research

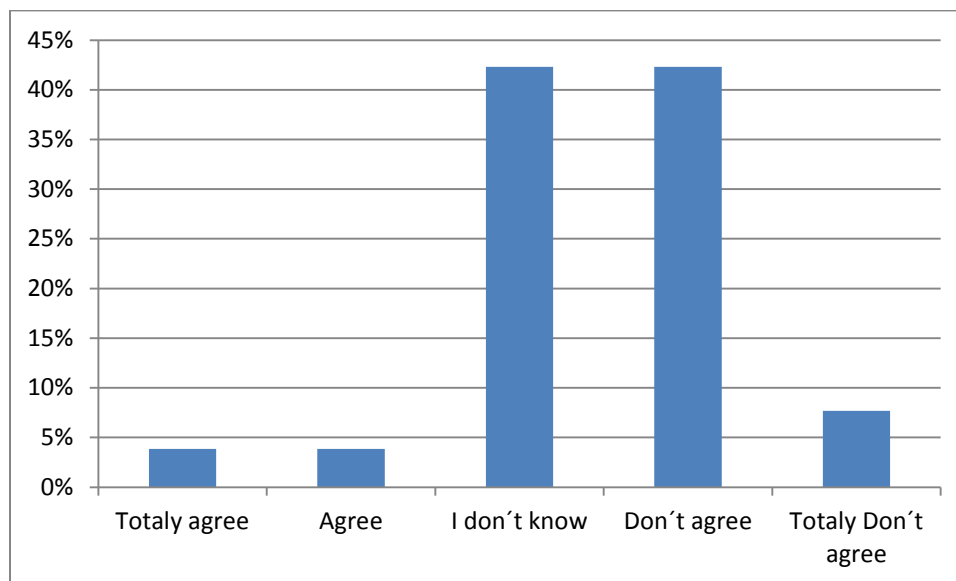
The main aim of the research is to analyse different support needs of the spin-off and start-up companies. This research is planned as a primary research, but as it was already stated there are no theoretical or empirical studies in Slovakia in this field. Therefor the pilot primary research was done with aim to test the possibilities to approach spin-off and start-up companies, to test the possibilities to identify difference between these groups and finally to identify theirs knowledge about existing support system in Slovakia, as described in last chapter.

⁴ <http://www.employment.gov.sk/files/ministerstvo/konzultacne-organy/rada-vlady-sr-ludske-prava-narodnostne-mensiny-rodovu-rovnost/navrh-strategie-statnej-politiky-vo-vztahu-k-mladezi-roky-2014-2020.pdf>

Start-up and spin-off companies were approached by e-mail. The e-mail database consists from small and young a company. This database was developed by the start-up centrum at the Technical University in Košice. Out of more than 100 sent e-mails, 26 correctly filled questionnaires were sent back. In this group 16 companies were identified as start-up companies and 10 as the spin-off companies (3 university spin-offs and 7 company spin-offs). The primary research took place in first from January to March 2014.

Short description of difference between start-up and spin-off company was givent to all respondents. First positive test result was, that respondents were easily able to fit its company to one of the group (start-up or spin-off company).

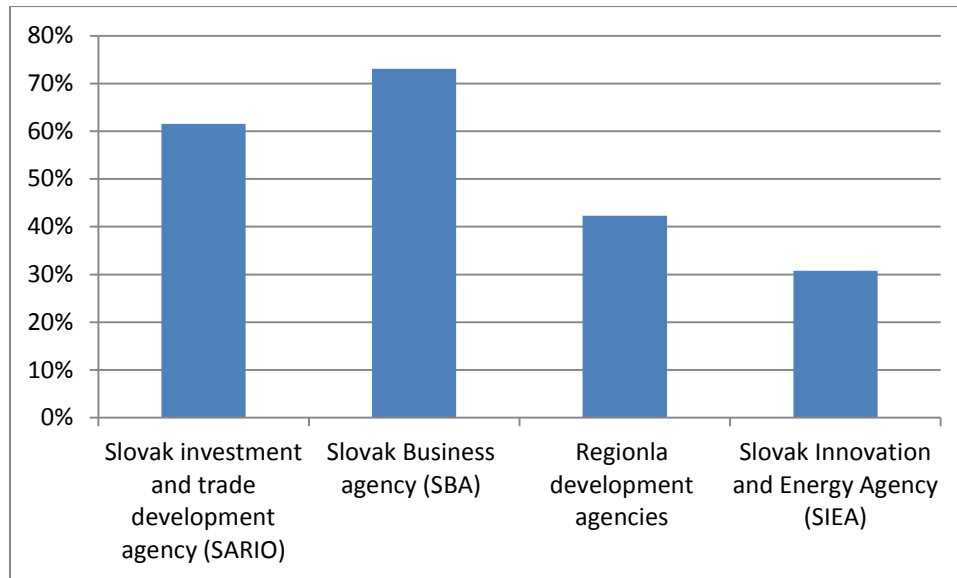
Next questions were focused on evaluation of existing support system for start-up and spin-off companies in Slovakia. As can be seen from the following chart, 50% of all respondents don't agree that the support system is sufficient. What is also very surprising, 42% of respondents cannot judge whether it is sufficient or not. Respondent have not enough relevant information about existing support system. Our regular research will therefore be more focused on evaluation of the support system but also on analysis of the information dissemination toward the start-up and spin-off companies.



Graph 1 Is support of start-up and spin-off companies sufficient?

Source: own elaboration based on (Sinovitzká, Džupka, 2014)

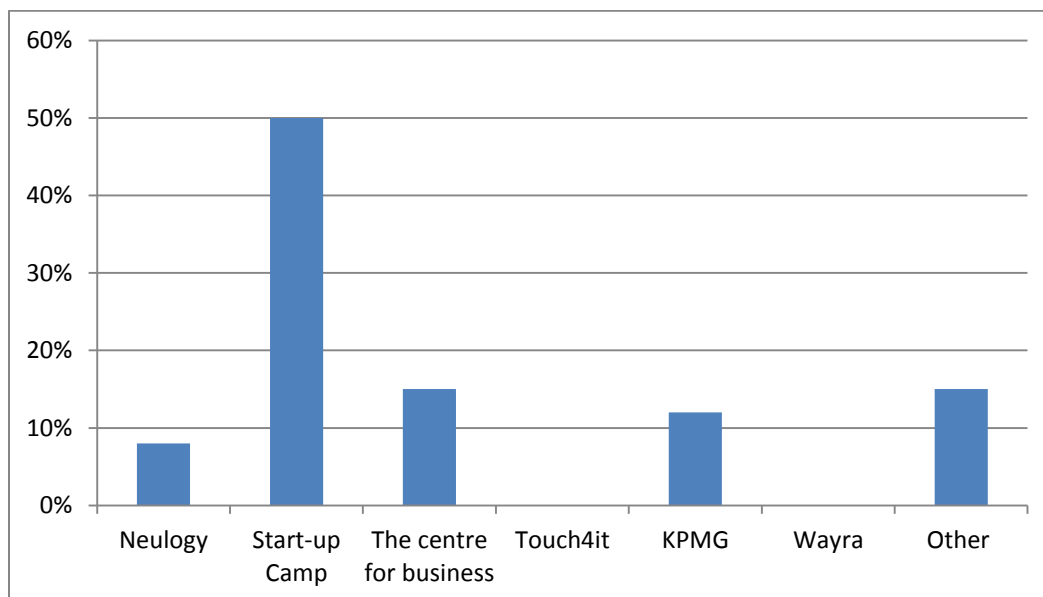
Following questions were focused on knowledge about the support infrastructure in Slovakia. First question was focused on knowledge about official public support institutions and the next one on private companies or initiatives. Respondents were provided with list of public institutions from the official Slovak support system and then asked whether they know something about their activities. As can be seen from the following graph, the most known institution is the Slovak Business Agency (SBA – former NADSME). More than 60% of respondent know about some activities from SARIO, but only 30% of respondents know something about activities of SIEA.



Graph 2 Knowledge about official public support institutions

Source: own elaboration based on (Sinovitzká, Džupka, 2014)

Another interesting result from our pilot research is the knowledge about private activities supporting start-ups and spin-offs. Again, all respondents were provided with the list of selected private companies and initiatives, and then asked whether they know something about their activities. The most information, our respondents, have about the Start-up Camp, which is very popular and well known activity for start-ups in Košice. Surprise is, that other initiatives were recognized by less than 15% of respondents.



Graph 3 Knowledge about private companies and initiatives supporting start-ups and spin-offs

Source: own elaboration based on (Sinovitzká, Džupka, 2014)

4 Conclusion

The issue of star-up and spin-off companies support is very current at the present in Slovakia. As it was stated in this paper actual support policy is based mostly on best-practices transfer from abroad. The research in the field of identification of different needs of start-up and spin-off companies was not done in Slovakia yet. This paper is created within the VEGA project which aims to identify the key differences in innovation performance of spin-off and start-up companies and to analyse the differences in the needs of these companies at different stages of their development. The research will end 2015 and is based on primary research among spin-off and start-up companies in Košice and Bratislava. Primary research is implemented through partially structured interviews with representatives (owners respectively founders) of selected spin-off and start-up companies in Bratislava and Košice. In the frame of the research questions research examines in particular the main reasons of a successful establishment and start of innovative spin-off and start-up companies. Micro approach also monitors how the spin-off and start-up companies are formed in different environments (sectors and regions). Another task is to examine the industry in which the spin-off and start-up companies are formed. Research also want to examine the role of external and internal environment between spin-off and start-up companies and identify needs of spin-off and start-up companies in various stages of development. The selection of representatives between spin-off and start-up companies in selected innovative sector in Bratislava and Kosice is based on the basis of registered spin-off and start-up companies. As a tool for analysis of the primary research results the econometric model based on binomial logistic regression was build. Logistic regression will measure the relationship between a categorical dependent variable and more independent variables. Dependent dummy variable is the indicator that will denote whether the new venture is an academic spin-off or not. A set of independent variables concerned with spin-off and start-up is presented following table.

Tab. 1 Set of independent variables

Employment	Number of employees
R&D	Total amount of R&D in the last three years
Location	Dummy variable indicating the region where the venture was established (0 = Bratislava Region, 1= Kosice Region)
Patent	Number of venture patent applications
Age	Age of the venture
Sales	Total amount of sales in the last three years
Profit	Total amount of net profit in the last three years
Sector	Dummy variables indicating the industry the venture is active (1) ICT (2) consumer/business services and consulting, (3) medical engineering, (4) mechanical engineering, (5) environmental technology

Source: own research

Acknowledgements

This paper was created within the project VEGA 1/0548/14 „Analysis of differences in innovation performance of spin-off and start-up firms in Slovakia“

References

- BATHELT, H., KOGLER, D., F., MUNRO, A., K. 2010 A knowledge-based typology of university spin-offs in the context of regional economic development. In. *Technovation*. ISSN 0166-4972, Dostupné na internete: <http://www.sciencedirect.com/science/article/pii/S0166497210000519>
- BRIGHTON D. 2010. Technology Transfer at the Slovak University of Technology – real opportunity or mission impossible?. In *Forum statisticum Slovacum*, ISSN 1336-7420, 6/2010, s. 11-16. Dostupné na internete: <http://www.ssds.sk/casopis/archiv/2010/fss0610.pdf>
- BRIGHTON D. 2011. Cambridgeský technologický klaster a kľúčové piliere jeho úspechu. In *Forum statisticum Slovacum*, ISSN 1336-7420, 4/2011, s. 13-20. Dostupné na internete: <http://www.ssds.sk/casopis/archiv/2011/fss0411.pdf>
- DRUILHE, C., & GARNSEY, E. (2004). Do Academic Spin-Outs Differ and Does it Matter? *Journal of Technology Transfer*, 269-285.
- GAŠPARÍKOVÁ J. 1998. The Role of Spin-off Organisations and Incubator Centres (Science and Technoparks and Regional Centres). In *Ekonomický časopis*, ISSN 0013-3035, Vol. 46. 1998, 6, p. 913-929
- GAŠPARÍKOVÁ J. 2010. Inovácie a ich zázemie. In. *Ekonomické rozhlady*. ISSN 0323-262X. 39./2010 Dostupné na internete: http://www.euba.sk/departament-for-research-and-doctoral-studies/economic-review/preview-file/er3_2010_Gasparikova-9858.pdf
- INOVAČNÁ STRATÉGIA SR NA ROKY 2007 AŽ 2013, Ministerstvo Hospodárstva SR, Dostupné na internete: <http://www.economy.gov.sk/inovacie-6194/127879s>
- KOGLER, D. F., & MUNRO, A. K. 2010. A knowledge-based typology of university spin-offs in the context of regional economic development. *Technovation*, 519-532.
- KOSTER, S. 2004. Spin-off firms and individual start-ups. Are they really different? In. Paper prepared for the 44th ERSA conference, 25 – 29 August 2004, Porto Dostupné na internete: http://www.rug.nl/staff/sierdjan.koster/2_-_spin-offs_and_individual_start-ups_-_are_they_really_different.pdf
- Operačný program Konkurencieschopnosť a hospodársky rast, Ministerstvo Hospodárstva SR, Dostupné na internete: <http://www.mhsr.sk/operacny-program-6352/128037s>
- KOSTER, S. 2004. 44th ERSA conference . Spin-off firms and individual start-ups. Are they really different? Porto: ERSA conference.
- LOCKETTA, A., SIEGELB, D., WRIGHTS, M., ENSLEYD, M., D. 2005. The creation of spin-off firms at public research institutions: Managerial and policy implications. In *Research Policy*. ISSN 0048-7333 , Volume 34, Issue 7, September 2005, Pages 981–993.
- ROSTÁŠOVÁ, M., CHRENKOVÁ, A. 2012. Klasifikácia znalostnej podpornej infraštruktúry. In *Acta regionalia et environmentalica*. ISSN 1336-9253, roč. 9, 2012, č. Mimoriadne - Special Iss. Dostupné na internete: http://www.fem.uniag.sk/acta/sk/15/acta_regionalia_et_environmentalica/obsah/2012/mimoriadne_-_special_iss./1064/

SINOVITZKÁ, I. - DŽUPKA, P. 2014. Možnosti rozvoja start-up a spin-off podnikov v Košiciach. Diplomová práca

STEPHAN, A. 2012. Are Research Spin-Offs More Innovative? Evidence from a Matching Analysis. In CESIS Electronic Working Paper Series The Royal Institute of technology, November 2012. Dostupné na internete: <http://www.kth.se/dokument/itm/cesis/cesiswp287.pdf>