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The experience of support of innovative start-ups in Poland, Slovenia and Czechia: lessons for Ukraine

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Abstract: The article is devoted to the problems of development small innovative enterprises – start-ups. The most successful experience of the creation and development of start-up companies in Poland, Slovenia and Czechia, including the programs of their support are investigated. It was concluded on expediency of the creation of similar mechanisms of organization and development of start-ups, taking into account Ukrainian realities.

Keywords: start-up, SMEs, innovation, program, state support, Poland, Slovenia, Czechia.

JEL codes: H25, O25, L53

1. Introduction

Until 2005, in Ukraine there were no innovative start-ups, and companies worked only as outsourcing companies. Despite this, the number of Ukrainian start-up companies in recent years is growing rapidly. Now Ukraine has one of the most rapidly expanding startup communities in Europe. Among these internationally oriented startups are BPMOnline, DepositPhotos, Grammarly, InvisibleCRM, Jooble, Lookery (acquired by Snapchat in September 2015), MacPaw, Paymentwall, Readdle, StarwindSoftware, and others. Some of them, like Paymentwall and Grammarly have developed into global companies while keeping their main R&D office in Ukraine, where they started (AVentures Capital, 2016: 15).

According to the experts of the project StartupBlink, in the beginning of 2015 in the world

were realized 68 thousand innovative projects (startups) in the area of ICT, 425 of which were in Ukraine, which is quite high figure (Deutsche Welle). It certifies the investment attractiveness of the innovative solutions of small business in Ukraine and the prospects of new products relative to the conquest of foreign markets.

However, there are no tools of state support of innovative start-ups in Ukraine still. Therefore, it can be argued, that the Ukrainian startups are developing not because of but in spite of the conditions that exists in the country.

Therefore, in the current economic conditions of the development of innovative start-ups in Ukraine deserves the attention of experience of not only innovative leaders countries, but the former socialist countries. In countries such as Poland, Czechia and Slovenia, the private sector is developing quite rapidly, replenishes the state budget, pays taxes, creates jobs, and provides the population with necessary goods and services.

2. Methodology

The aim of this article is to study the role of start-ups companies in modern economy and to analyze the support measures of innovative start-ups in EU countries: Poland, Slovenia and Czechia, for its adequate reproduction in Ukraine.

The starting points for the analysis are the problems of start-ups support in Ukraine. Section 2 presents the literature review about definition of «start-up company» and explains the impact of innovative start-ups on economic growth.

The support measures of innovative start-ups in EU are briefly describe in Section 3 and also present the programs of support of innovative start-ups in Poland, Slovenia and Czechia. The analysis is mainly based on data about policy makers in the field of R&D policy and current programs of support of innovative start-ups (Era Watch Reports) prepared by chosen countries and legal documents. The final section closes the paper with the main conclusions.

3. Results

The role of innovative start-ups. The necessity of solving socio-economic problems of society motivated OECD in 1998 year to make recommendations to OECD countries. One of the

recommendations made to OECD governments was to implement mechanisms of organization and development start-ups. Since that time the role of innovative entrepreneurship was highly increased. One of the most advanced types of start-ups with technological development are innovative start-ups.

A businessman Eric Ries determines start-up - a human institution established to create new products and services under conditions of extreme uncertainty (Eric Ries, 2011: 17). A venture capitalist Guy Kawasaki defines start-up a company that goes by bootstrapping (opening their own business without external support/external capital), is funding its development from the internal cash turnover and extremely cautious in spending (G. Kawasaki, 2012: 254). So, analysis of recent publications has shown that start-up companies are studied mainly from the point of innovative entrepreneurship (N. Blumenthal, 2013).

Though, international organizations also have shown a growing interest to high-tech start-ups, however, the issues related to state support of start-up companies are not sufficiently investigated (OECD, 2012).

The increased attention from countries with developed innovation systems to new participants in the market - innovative start-ups is due to the positive impact of these companies on economic development. They, in particular, relates to:

- creation of new jobs and the reduction of unemployment;
- increased competition;
- enhanced innovation and new technology and accelerated structural change in the economy;
- a way of eliminating regional economic disadvantages (OECD, 2012: 8-9).

That's why governments of developed countries pay much more attention to their support, realizing their main competitive advantage that lies in using new knowledge and on their basis producing innovative products.

The support measures of the development of innovative start-ups in EU. The countries of European Union actively continue to support innovations in small and medium enterprises (SMEs) including start-ups. Special attention is to Poland, Slovenia, the Czech Republic - new EU member countries in which there was a transition process to change the orientation of

macroeconomic policy, was held the harmonization of their institutional structure with the similar structure of the member countries of the European Union.

The most common instruments of direct financing of start-up companies and small and medium innovative enterprises in EU are:

- Grants and subsidies – are used at the seed and the early stage of financing of innovative start-ups;
- Venture capital - provides the strategic funds to accelerate entrepreneurial activity in the seed and early stages;
- Credit/loan guarantees - one of the most common means of access to the financing of enterprise throughout the life cycle of the enterprise.

Tax benefits (indirect funding) are an exemption from personal or corporate income tax or tax on capital gains to stimulate private investment in R&D and innovation entrepreneurship (OECD, 2014: 175).

Poland. In 2004 Poland entered into the European Union, and during this time the country is implementing a number of economic and social reforms, which allowed to build an effective innovation system in the background of other member countries of the EU.

Since, Poland is divided into 16 provinces, there are currently 14 SEZs (Specjalne strefy ekonomiczne) and investors get a permission for running a business in the SEZs, the amount of corporate income tax exemption can be utilized till the end of the SEZ's existence (i.e., up to 2026) in relation to the income generated on the business activities specified in the permit. The maximum value of state aid granted for an investment project may amount to 30% to 50% (depending on the location) of the eligible investment costs or two-year employment costs (EY, 2013: 145).

An important role in the innovation process is the business incubator of innovation centre – Kalisz. The incubator was founded without government support in September 1994, and was funded initially under the World Bank «Employment Promotion and Services Project» and its «small business development» project component, which supported the establishment of 24 incubators across Poland. The incubator supports development of entrepreneurship in the Kalisz city and the region, aiding entrepreneurs and the unemployed who wish to start their own companies.

Besides giving premises, the incubator through his foundation provides credits for SMEs and start-ups, training courses, seminars and conferences, start-up information, and access to technology transfer and partnership development through the Enterprise Europe Network. The foundation offers loans at rates below those of commercial banks and with interest rates of 5.26 to 8.26 percent to SMEs (depending on the company, profitability, and the type of guarantee) (World Bank, 2014: 105-106).

There are several programs which are functioning:

1. Initiated in 2012 by Centre for Research and Development (NCBiR) state *Program of Development of the Enterprises «Rozwoju Przedsiębiorstw»* till 2020 for the development of new start-ups and support of existing incubators, expected to support R&D in the amount of up to EUR 250 000 firms inside the incubator (maximum 85%), and outside of the incubator (maximum 65%) in the next 3-4 years (World Bank, 2013: 61).

2. Program «GO_GLOBAL.PL» created for supporting firm commercializing R&D outcomes in international markets, and established partnership with a leading tech start-up accelerator in Silicon Valley to help Polish companies gain access to the US market (ERAWATCH, 2013: p. 15). Acceptance of applications of the first contest lasted from 11 May to 15 July 2015 and the second contest from 18 April to 2 June 2016.

The Programme will be run in 2015-2023 according to the following schedule:

- 2015-2017 – carrying out calls for proposals (at least one call a year);
- 2015-2018 – funding and monitoring of project implementation;
- 2015-2023 – monitoring and evaluation of the use of project results (assuming that the last projects may be completed in 2018, and the NCRD may carry out checks in the period up to 5 years after the completion of the project) (The National Centre for Research and Development).

3. *Program «Polska Wschodnia»* (Platformy startowe dla nowych pomysłów) on 2014-2020 - is to support socio-economic development in 5 provinces (voivodships). The funds - 2 billion euro's from the European Regional Development Fund will focus on the development of innovative entrepreneurship, and investment in infrastructure. The aim of the program is to support small businesses (including a new innovative type of business start-up, increasing their capacity to implement innovation processes in the macro-region (Serwis Programu Polska Wschodnia).

Slovenia. In less than two decades, Slovenia has become a market-based economy. It has integrated with world markets and has joined the EU, the European Monetary Union and the OECD.

For all innovative companies, including start-ups government can give a support in form of:

- Loans (Posojila) may obtain legal entities established in Slovenia that are performing R&D activities (industrial research and experimental development) and/or investing in tangible and intangible assets for the purpose of R&D activity and who aim to introduce new products or solutions to the existing market (or when entering new markets) from a specified institution (SID Bank) with more favourable terms and conditions. Loans granted are regarded as state aid. The interest rate is usually based on the rating of the company, the quality of the submitted insurance collateral, loan maturity and other risk parameters. The loan may cover up to a specific percentage of the eligible costs for a project (EY, 2013: 172-173).

- General R&D tax relief - taxpayers can receive a double tax deduction for investments in R&D. Under the incentive, a 100% CIT base deduction is available on R&D investments and certain expenses incurred. Taxpayers are entitled to a general R&D tax relief, corresponding to 100% of the amount invested into R&D activities. The unused amount of the tax relief can be carried forward for five tax periods. The taxpayer has to evaluate whether the project and its expenses qualify for R&D tax relief (EY, 2013: 171).

An important role in the development of innovative start-ups plays the Slovene Association of Technology Parks and Incubators, which integrates eight local and regional technological parks, two university incubators and the Institute for Entrepreneurship Research. *Technological parks* are only for newly established high-tech companies; *entrepreneurial incubators* are designed for all other types of newly established companies and *university incubators* are focused for applied technologies and the transfer of theory into practice. Incubators provide business premises for newly established companies on more favourable conditions and provide them with advisory, management and administrative services, usually up to three years (EY, 2013: 173).

Incubators can apply for specific allocated funds from the Slovene Enterprise Fund and for other public tenders organized by the Slovene Enterprise Fund or SPIRIT. *The Slovene Enterprise Fund* - is a public financial fund in ownership of the Republic of Slovenia established for the purpose of granting financial support and incentives to the entrepreneurial sector in Slovenia.

The Slovene Enterprise Fund (SEF) supports the start-ups in technology parks and university incubators through direct subsidies. The measure was started in 2007 and has been further expanded in 2008 (on amount of €2.16m), providing also a continuous support to the newly established firms, which have already received an initial subsidy to meet their further development costs. SEF provides for supplementary guarantees, which helps SMEs in obtaining bank loans (ERAWATCH, 2013: 17). Part of the financial resources is available only to new start-ups and part to the start-ups, which are already established within technology parks and incubators. In terms of number of applicants, quite popular measure is the co-financing (subsidies) of new technical equipment in SMEs (for which for example €25m were available in 2008). The scheme has been expanded with special line of co-financing (subsidies) of new technical equipment in micro enterprises (up to 9 employees) in the amount of €9m (ERAWATCH, 2009: 16).

In addition, the government support to start-ups from SEF consists of different mobility measures:

- support to intermediary institutions, which provide consultancy to small and medium enterprises (SMEs) and special calls focusing on start-up companies;
- provide consultancy services can be in several areas, from legal to financial matters, but also in the field of technology and innovation development, patent or trade mark protection, etc.;
- promote public-private knowledge transfer: young researchers from business sector, technology parks, business incubators and university incubators, incentives to interdisciplinary teams, innovation environment etc. (ERAWATCH, 2013: 36).

So, government support of start-ups does not provide making of more favourable conditions for venture capitalists and/or network of Business Angel. Only SEF (indirectly financed by the government) provides support of innovative start-ups.

In addition, technology parks in Ljubljana and Maribor organise various events where young potential entrepreneurs are able to present their business ideas to potential investors (RIO Country Report, 2015: 39).

The Initiative Start:up Slovenia was founded in 2011 to create and strengthen national programmes for encouraging entrepreneurship, and ensure a network of comprehensive support for launching and building start-up companies all across Slovenia. Chamber of Commerce and

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Industry of Slovenia and COINVEST also joined as strategic partners. (The Initiative Start:up Slovenia).

Czechia. Czechia provides benefits in manufacturing industry for investors who decided to invest at least CZK 100 million (approx. EUR 4 million or USD 5 million), in selected regions this is reduced to CZK 50 million. Incentives are provided based on the law and consist of:

- corporate income tax relief for up to 10 years
- employment subsidies in the form of grants for job creation and training
- (only available in regions with high unemployment rates)
- cash grants for strategic projects
- purchase of land at discounted prices.

Cash grants for training and retraining employees will be provided to an employer in the form of a partial reimbursement of the costs incurred. The subsidy covers 25 percent of the eligible costs of training and retraining employees.

Companies performing R&D activities can apply a special tax deduction for this activity. The R&D deduction in fact allows companies to claim internal R&D costs twice: for the first time within the profit and loss account, for the second time as a special tax deduction. Effectively, savings can thus be up to 19 percent of R&D costs. The deduction can be claimed every year and there is no limit on the maximum amount to be claimed (KPMG, 2014:34, 37).

In Czechia there are 42 science and technology parks and 17 technological platforms. The Science and Technology Parks Association registers 10 accredited parks, 34 parks in the process of accreditation and 7 parks under preparation. CzechInvest (administers investment incentives) provides a list of 13 business incubators (RIO Country Report, 2015: 34).

Several business incubators for start-up companies of university students have been opened in the higher education sector, for example, InovaJET at the Czech Technical University in Prague has already supported about 80 projects since 2010 and xPort at the University of Economics in Prague and Point One at the Czech University of Life Sciences Prague have been just launched (RIO Country Report, 2015: 32).

The Business and Innovation Centre of the Czech Technical University is an expert and consultancy institution helping to implement and accelerate technology transfer, transforming research results and creative activities into a commercial form through innovative

entrepreneurship. It brings together the scientific and creative potential of the Czech Technical University and the innovative commercial environment inside the country and abroad. The main activities of the centre are consulting the academic as well as the business sector in the field of research project management and implementation, technology transfer, education and support for innovative entrepreneurship in the business incubator for technology start-ups (Vladislav Čadil; Jan Vanžura, 2011: 12).

The support measures of innovative start-ups in Czechia are provided within: The GAMA Programme, the ALFA Programme, Operational Programme Enterprise and Innovation and INOSTART Programme.

The Centres of Competence programme, launched in 2011, is a major programme aimed at increasing long-term collaboration between public R&D institutions and businesses. *The GAMA Programme* (2014-19), with a budget of USD 209 million (CZK 2 770 million), promotes transfer of public R&D results by funding the proof-of-concept phase. Similarly, *the ALFA Programme* (2011-16) seeks to fuel business innovation through collaboration with scientific research on advanced and green technologies with a total budget of USD 556.8 million (CZK 7.5 billion). Furthermore, 10 out of 14 Czech regions have introduced some kind of innovation voucher scheme to support SMEs for purchasing services from HEIs and PRIs (OECD, 2014: 304).

Innovative start-ups within *Operational Programme Enterprise and Innovation* (OP EI) can obtain:

- grants to support both R&D activities and implementing innovation in businesses;
- subsidised loans and guarantees that help start-ups and SMEs to overcome the limited availability of external funding (Guarantee and Start sub-programmes of the OP EI);
- tax allowances (tax-deductible items) for R&D expenditures (ERAWATCH, 2014: 13-14).

INOSTART Programme, a joint effort of the main commercial bank Česká spořitelna and the MIT that is backed by the Partnership Fund of Czech-Swiss Cooperation and the state-owned Czech-Moravian Guarantee and Development Bank, supports innovative business start-ups in terms of loan guarantees for innovative projects and consultancy services. Regional governments are increasingly implementing innovation voucher programmes, including in South Moravia, Moravia-Silesia and Prague. Hence, there is a small number of support programmes tailored particularly to the needs of innovative SMEs in place (RIO Country Report, 2015: 35).

4. Conclusion

Considering the declared Ukraine's European strategic guidelines, and wide range of start-ups support in Poland, Slovenia and Czechia, the development of a new form of innovative entrepreneurship in Ukraine becomes more important.

Given the fact that, in Ukraine there are top 5 tech hubs: in Kyiv, Kharkiv, Dnipropetrovsk, Lviv, Odessa, - the creation of regional programs of support innovative start-ups, on the example of Poland and Czechia, will have several advantages for Ukraine. Firstly, such programs will create new jobs and will reduce unemployment in specific region. Secondly, it will increase the development of innovations in specific region or territory. Thirdly, introduction of tax benefits for start-ups and investors in SEZs will create favourable conditions for the attraction of foreign investments to Ukraine. But for the program implementation must be clear criteria's (e.g. on the basis of strategic priority directions of innovation activity) and period of time on the basis of which will be provided the support to companies and investors, also introduction of annual verification of their activities. It is also important to develop a network of techno parks, business-incubators, and innovation centres all over the country, providing finance and equipment to them, and appropriate training to staff in regions.

Given the lack of state support of innovative start-ups in Ukraine, is necessary to enhance the information support of start-ups regarding the possibilities of participation in EU programmes of support, in particular, COSME, Horizon 2020.

The above activities will help to develop innovative start-up ecosystem and increase the production of high-tech goods and services in Ukraine.

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***Doświadczenie wspierania innowacyjnych start-upów w Polsce, Słowenii i Czechii:
lekcje dla Ukrainy***

Streszczenie

Artykuł jest poświęcony problemom rozwoju małych innowacyjnych firm – start-upów. Podjęto w nim próbę zbadania najbardziej udanych doświadczeń tworzenia i rozwoju nowych przedsiębiorstw w Polsce, Słowenii i Czechach, w tym programów ich wsparcia. W artykule przeanalizowano efektywność tworzenia podobnych mechanizmów organizacji i rozwoju nowych przedsiębiorstw przy uwzględnieniu realiów ukraińskich.

Słowa kluczowe: startup, sektor małych i średnich przedsiębiorstw, innowacje, program, wsparcie państwa, Polska, Słowenia, Czechia.