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Issues in Development of Special Economic Zones in Russia: the Case of Titanium Valley

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Abstract:

In Russia, industrial development has significantly slowed down for the past 20 years and the federal government strives to seek new methods to attract foreign direct investments (FDIs) and stimulate economic growth. Special Economic Zones (SEZs) are utilised by governments to develop and diversify export activities, increase employment, attract investments and launch technology exchange. SEZs have been established since 2006 in Russia, but the majority of them struggle in development for some reasons. This paper investigates the issues in the implementation of SEZs in Russian regions with Titanium Valley Zone, as the case of analysis. The carried out study in the form of interviews revealed that the core obstacle in developing these initiatives is high state interference and participation in business activities that imply time-consuming bureaucratic procedures, managerial and organisational incompetence among policy-makers and lack of in-time funding. As a result, SEZ policies fail to achieve initial objectives and do not contribute to the sustainable economic development to an expected degree of the regions, in which they have been implemented.

Keywords: *special economic zone, innovation, competition, collaboration, state, Russia, Titanium Valley, industrial cluster*

1. Introduction

1.1. Background

The implementation of SEZ policies is used as an effective tool for strategic planning and infrastructural enhancement by developing countries. These initiatives facilitate export diversification, industrial and economic growth, attract local and foreign investments, increase employment, and stimulate technology exchange and knowledge sharing (Aggarwal, 2010; Farole, 2011; Kirk, 2014). In Russia, SEZs started to emerge after 2006, when in 2005 the President signed the decree №116-Federal Law "Establishment of special economic zones in Russian Federation", which comprised the formation of four types of SEZs: industrial zones; innovation zones; tourist zones, port and logistics zones (Tolmachev et al., 2011). This study investigates the SEZs of industrial type only, as seeking for methods to increase an industrial growth is a vital subject for the Russian economy. SEZs have been predominantly established in the areas with declining economic trend. Local governments have made a decision to reconstruct the existing manufacturing sites with insufficient infrastructure and low production capacity and instead, to build large industrial zones with certain attractive conditions in order to attract potential investors (Tolmachev et al., 2011):

- Individually prepared infrastructure for each investor;
- Autonomous customs zone with simplified procedures and duty-free benefits;
- More liberal economic and juridical regulations;
- Perspective partnerships with other companies;
- Proximity to local world corporations;
- Labour resources;
- New potential markets for growth;
- Tax benefits within the territory of the zone (Table 1).

Tax name	Country	SEZ	Tax benefits period
Income tax	20%	13,5-15,5%	49 years
Property tax	2,2%	0%	10 years
Transport tax	6-150 rubles per horse/power	0 rubles	5 years
Land tax	1,5%	0%	5 years

Table 1: Tax differences in the country and on the territory of SEZs

Source: Special Economic Zones in Russia Website, 2016.

Fiscal incentives in the forms of reduced tax and customs rates can slightly vary, but, overall, they are lower than in the whole country. Although the establishment of the economic zones is typically initiated by the government (Gupta, 2008; Farole and Akinci, 2011), in the Russian case, there has not been done any detailed strategic planning in implementing these policies. Due to the absence of precise guidelines from the central administration in Moscow, shortage of relevant experience and knowledge, local state officials have made some first attempts to develop the SEZs in their regions striving to cope with various political, economic and organisational difficulties. Consequently, while some projects succeeded and demonstrated impressive results, others struggled in their development. At the moment there are six industrial SEZs: Alabuga SEZ in the Tatarstan Republic, Titanium Valley SEZ in Sverdlovsk region, Lipetsk SEZ in Lipetsk region, Togliatti SEZ in Samara region, Moglino SEZ in Pskov region and Kaluga SEZ in Kaluga region. This paper investigates Titanium Valley economic zone as a case that can help to identify factors that prevent the effective development of SEZ policies in Russia.

The contribution of this article fills the gap in the literature concerning the issues in implementation stages of SEZs initiatives in Russia and in general. This process implies high state interference into the business activities and its essential regulatory role in all aspects of the economic development, which involves bureaucracy and different informal practices as well. This research also aims to examine the emerging issues in establishing the economic zones that consequently may assist in avoiding them. The structure of the paper is the following: it starts with the literature review about the basics of SEZ and various theoretical approaches, which are followed by the explanation of methodology and research findings. The last section contains conclusion and recommendations for further research.

2. Literature Review

2.1. SEZ definition

SEZ is a geographic concentration of companies on a certain demarcated area. The common definition embraces different variations of traditional commercial zones that contain some basic essential characteristics: the territory of the SEZ is delimited; it has an administration; it provides various fiscal incentives, such as tax benefits; it offers a separate customs zone with duty-free policies and it gives more liberal economic and juridical regulations than outside the zone (The World Bank Group, 2008; Farole, 2011; Zeng, 2012; Kirk, 2014). SEZs typically provide better infrastructure as well: they are commonly established on the basis of the strategic industrial policy to stimulate regional economic development, which involves offering incentives to attract anchor and other investors to a particular location (Chen, 1993). Some examples of the SEZ types are Export-processing zone, Free trade zone, Science park, Industrial park, Freeport, Single Factory Zone, etc. (The World Bank Group, 2008) The economic zones are expected to loosen the infrastructural complexity that may complicate the inflow of investments into the regional or national economies by offering potential investors established manufacturing sites with prebuilt essential utilities (sewerage, water, electricity, etc.) and leases for long-term perspectives. Besides, SEZs simplify administrative procedures concerning registration of the enterprise, gaining licences, easier access to vital services, such as construction, outsourcing, etc. Typically, the management of the zone provides “single window” or “one-stop” policy service that involves taking all the duties and obligations to organise administrative processes. Finally, the important service offered to investors is customs administration with fiscal incentives. As a rule, it is located within the zone or at the gate, and provides customs clearance services to accelerate and simplify import and export procedures (Chen, 1994; Gupta, 2008; Farole and Akinci, 2011; Zeng, 2012). Fiscal incentives play an essential role in attracting investments, but only in short-term perspective and particularly in early stages of the SEZ development. They do not have a significant impact on long-term success because there is no relationship between tax reductions with the outcomes. Some findings even demonstrate negative tendency: for instance, these tax discounts may reduce the performance concerning exports and employment. The key element in this policy is not the provision of fiscal incentives for investors, but the achievement of competitive advantage and consequently escaping from these incentives dependence (Balasubramanyam, 1988; Schrank, 2001; Tyler and Negrete, 2009).

However, despite the growing tendency of the SEZs in the world, some of them did not succeed in achieving their initial objectives, such as export diversification, employment growth, technology exchange, innovation implementation, etc. (Kirk, 2014) Moreover, many of them have shifted from their foundation of competitiveness to focusing on the quality of services instead of merely relying on fiscal incentives. According to Farole (2011), these factors are considered to be crucial in identifying the differences between effective and failed economic zones. To function profitably, SEZs need to resolve the following challenges (Milberg, 2007; Creskoff and Walkenhorst, 2009): there is a ceiling in export growth, as someone has to import; participation in the World Trade Organisation can result negatively; the change of high technological standards in manufacturing can be an issue for the economic zones; there can be a need in harmonising labour regulations within and outside zones. General investment climate of the country plays a significant role in attracting investments, FDIs in particular. Positive investment climate results in high level of productivity (Benassy-Quere et al., 2007) and export operations (Stein and Daude, 2001; Djankov et al., 2006); low level of bureaucracy and corruption (Drabzek and Payne, 1999; Smarzynska and Wei, 2000), finally, property rights and the rule of law (Knack and Keefer, 1995; Acemoglu et al., 2001).

2.2. Theoretical Approaches

The neoclassical approach suggests that SEZs are areas providing more open and liberal trade regulations with the aim to promote business operations. According to this concept, free trade is the best option for the government to employ. Evaluating it from the static

perspective, the economic zones are instruments that alter trade, lead to unfair competition between inside and outside companies, reduce government profits and, in case if the rest of the economy is not liberalised, they persist on being manufacturing areas providing the small contribution to the economy. The neoclassical approach suggests that SEZs are beneficial when the government utilises them as additional stimulative instruments for more complex economic reforms. The role of the zones is temporary assisting the transition period of the economy from import substitution policy to free trade concept with little state participation. They are not a method to liberalise the regime but are the consequences liberalised economy (Madani, 1999; Crowley and Hodson, 2014).

The perspective of the political economy approach states that state intervention implies lobbying by interest groups for rent seeking. The message of this point of view is based on the theory of 'minimalist government', which argues that the best approach for all nations is to liberalise the economy. Free trade along with the little government participation can guarantee the development. So, the purpose of SEZ, in this case, involves generating rents to a few investors by easing land procurement and providing fiscal incentives for the cost of the rest of the local population, which results in the reduction of prosperity (Buchanan and Tullock, 1962; Khan, 2004). The Heterodox school suggests the combination of state and market interactions, which implies an essential role of the government in investment, human capital formation, technology attainment, institutions establishment and the implementation of relevant policies and reforms (Chang, 2002). According to this approach, local companies do not possess sufficient marketing, technical or managerial capacity, and rarely have access to international markets and distribution channels. In this case, the government provides this aid through the implementation of SEZ policies by improving the investment climate regarding the well-organised infrastructure, good management, skilled labour, fiscal incentives and more simplified regulatory system. These measures facilitate attraction of FDI, which comes with more sophisticated technologies and managerial experience. The localization of foreign companies produces significant spillovers, which imply knowledge, skill and technology sharing processes (Malmberg, 2007; Hsu et al., 2013; Delgado et al., 2015). It means that this concept corresponds to industrial cluster approach.

The success of clusters is based on the following key elements: competition, collaboration, firm structure and strategy, demand conditions, knowledge exchange and innovations, production diversification and emergence of supplementary industries (Porter, 1990; Feldman et al., 2005; Delgado et al., 2015). SEZs have to pursue these factors to achieve growth (Hsu et al., 2013; Zeng, 2012; Bräutigam and Tang, 2014; Nel and Rogerson, 2014). The benefits of clusters are rooted in knowledge spillovers, resource sharing and labour pooling. Besides, they improve productivity and stimulate innovation through the mutual implementation of technologies, information, specialised labour, competing companies, supplementary firms, research centres and universities and other relevant organisations. More active and developed interaction of these factors facilitates the productivity growth within the clusters; as well as, the proximity of firms fosters the intensity of this interaction (Porter, 1990; Feldman et al., 2005; Zeng, 2012; Delgado et al., 2015). Some enhanced SEZs are based on the conception of industrial districts suggested by Becattini (Becattini et al., 2003), which implies social and cultural linkages between firms and people within the cluster that consequently create trust and self-help relations. In general, SEZ policies enable the host country to penetrate the global value chain through offshoring and offshore outsourcing. Hence, they stimulate both local and foreign investments (Aggarwal, 2010).

3. Methodology

3.1. Research Method

The aim of the study is to investigate the potential issues in establishing and developing SEZs in Russia. Data collection has been conducted in the SEZ Titanium Valley in the form of semi-structured interviews in three stages: in September 2014, December 2014 – January 2015 and December 2015 – January 2016. Using this data collection method enables the researcher to refer to the list of questions as a plan and to ask additional information basing on the direction of the conversation and given responses by the interviewee. This method is considered to provide "flexibility" (Myers, 2013). The order of the questions can be altered, as well as rewording is possible because obtaining full and in-depth answers is very significant. According to Cronholm and Hjalmarsson (2001), if there is not enough primary knowledge of the unstudied phenomenon, it is advantageous to start the research with the qualitative approach, using the interviewing method in particular. In this case, pre-understanding of the problem is nonconcrete, and there is uncertainty whether the inquired questions are correct and applicable. Another significant moment is that interviewing allows investigating the participant's perception, awareness, comprehension and clarification of a certain problem or event, types of behaviour and individual experience (Myers, 2013).

The participants were the administration of the SEZ Titanium Valley, investors and one of the state officials from the Department of Infrastructural and Industrial Development of Sverdlovsk region. On the basis of the literature about SEZs and industrial cluster theory, three lists of questions have been composed for the study that have covered the followed topics presented in Table 2:

<p>Administration of the SEZ</p> <p>Covered topics:</p> <ul style="list-style-type: none"> • The process of establishment of the SEZ, year of foundation, the number of staff within the administration of the economic zone, key responsibilities, etc. • Methods of attracting potential investors into the zone; • Competitive and cooperative environments between companies within the zone; • Potential markets for the firms of the SEZ; • Legal aspects of implementing of SEZs in Russia; • The role of the regional or federal governments in the development of the zones; • The impact of SEZ on the regional economy.
<p>Investors of the SEZ</p> <ul style="list-style-type: none"> • The process of becoming the investor of the SEZ; type of industry, year of foundation, etc. • Reasons for coming into the economic zone; • Competitive and cooperative environments within the SEZ; • Market growth and diversification; • The role of the regional and federal governments in facilitating the development of the company with the zone; • The impact of SEZ on the business activity of the company.
<p>State official</p> <ul style="list-style-type: none"> • The process of implementation of SEZ policy in Sverdlovsk region; • Legal aspects in establishment the economic zone; • The role of the regional or federal governments in these procedures; • Methods of attracting first investors; • The impact of SEZ in the regional economy.

Table 2

3.2. Case study

SEZ Titanium Valley was established in 2010. It is located in Sverdlovsk region right in the heart of the Urals area between two towns with the biggest industrial economies in the country – Verkhnyaya Salda and Nizhny Tagil. It is a Greenfield project. The conception of this SEZ is to create a cluster in the form of a manufacturing chain of titanium producers that specialise on aircraft, automotive, machinery, construction and medical industries. The basis for this cluster is the close location to the world giant titanium producer Joint Stock Company (JSC) VSMPO-AVISMA that collaborates with such multinational corporations, as Airbus and Rolls-Royce. This local titanium producer also plans to establish its assembly plant on the territory of the zone. SEZ Titanium Valley is located 180 kilometres from the major city Ekaterinburg, which is considered as the fourth biggest in Russia and one of the most developed cities with the strong economy. The population of Sverdlovsk region is about 4.5 million people. It has other local multinational corporations: for instance, JSC Uralvagonzavod and Ural Mining and Metallurgical Company. In general, the Urals area consists of the most important and largest industrial manufacturers and plants for the national economy. The federal state plans to invest 600 million dollars into the SEZ Titanium Valley, to accommodate about twenty investors and create 20,000 jobs (Tolmachev et al., 2011). However, by mid-2016, eight companies have been registered as members of the SEZ, but only one of them has initiated the construction processes, and none of them has started any business activity. Hence, this case prompted to start the investigation of the possible issues in establishing and developing the SEZ policy.

4. Findings

4.1. Managing Company of the SEZ

In 2005, after the President of Russia signed the decree №116-Federal Law “Establishment of special economic zones in Russian Federation”, which implicated the establishment of four types of SEZs, some regions have applied for permission to implement these policies on their territories. First two pioneering projects were approved: Alabuga SEZ in the Tatarstan Republic and Lipetsk SEZ in Lipetsk region. The creation of the economic zone in Sverdlovsk region has been initiated by the local governor and by titanium corporation JSC VSMPO-AVISMA far in 2005. However, the Ministry of Economic Development has approved the application only by 2010. The vital factors that enabled to obtain this approval were to demonstrate that the region possessed enough financial and economic capacity, developed industrial infrastructure and appropriate location. Despite the fact that Sverdlovsk region satisfied all the necessary criteria, it took about five years to establish the zone. According to the respondents, the reason was political instability, because during these five years the regional governor had been changed twice. Another issue is the world financial crisis in 2008 that influenced the Russian economy to a certain extent and it slowed down the required funding from the federal government for a couple of years after 2010. Two parties finance the economic zone project: the federal government (51% of investments) and the regional one (49%).

The Ministry of Economic Development of Russia has created a separate state organisation for SEZs, which headquarters is based in Moscow. This organisation has its branches in all established six SEZs in different regions that are called “managing companies”.

Despite that the SEZ organisation has been created in the form of JSC, as well as its subsidiaries, 100 percent shares belong to the government. It is entirely a state project. So, the managing companies in the regions have been initiated not to gain profit, but they are responsible for searching and attracting investors into the economic zones, preparing the necessary infrastructure (gas, water, sewerage, etc.), monitoring the efficiency of this infrastructure and the zone in general, collecting payments for using the infrastructure, collaborating with investors on any occasions that can subsequently facilitate the development of the economic zone. Nevertheless, these organisations keep all the profit received from the usage of infrastructure by investors in the regional budget and do not share it with the federal headquarters. At the early stages of development, the managing companies are financed by the federal state budget, but they are expected to operate self-sufficiently in the long run. The process of preparing the infrastructure for investors in SEZ Titanium Valley implied that the managing company strived to attract the companies and obtain some initial contractual obligations first. Only after some documents were signed that guaranteed the investments into the zone, the managing company commenced building the required infrastructure. Consequently, these circumstances were not appealing for the investors. Besides, there was always a risk of non-fulfillment of contractual obligations from the SEZ administration, because of irregular financial funding from the government.

In Sverdlovsk region the governor has initiated the SEZ project in partnership with JSC VSMPO-AVISMA not only to create the titanium cluster in the region that has a great potential for the growth but also to improve industry competitiveness, attract more FDI and increase employment. There are other two essential laws specifically designed for the SEZ projects. The first one is the Federal Law №398 “The criteria for establishment of special economic zones” (26 April 2012) that provides the requirements regarding the information that has to be presented in the application form if the region plans to implement the SEZ: description of the territory and infrastructural capacity, business plan, etc. The second one is that the Ministry of Economic Development supervises the effectiveness of the SEZs annually basing on the Federal Law №491 “Criteria for evaluating the performance of special economic zones” (10 June 2013) that clarifies how the managing companies are assessed. There are a lot of criteria, but the most crucial are the amount of attracted FDI into the SEZ, a number of new investors that have joined the zone during a year, the amount of newly created jobs, annual volume of taxes, annual volumes of sales and revenues of the SEZ investors; proportion between the investments done by the government and by private investors into the project. However, no sanctions are imposed on the managing companies in case if the SEZs demonstrate negative results. In the worst-case scenario, the entire management team of the administration of the zone can be reconstructed, but the SEZ will not be closed down.

SEZ Titanium Valley is promoted in two main ways. The first one is that regional governor or his colleagues from administration mention about the project at the meetings with the regional and foreign partners at various events. The second one is the managing company in partnership with the Department of International Affairs, and Regional Development of Sverdlovsk region arrange and participate in international meetings, events, conferences and exhibitions where they promote this project. Among the SEZs in Russia, there is no genuine competition. Every economic zone is distinctive and exceptional that comprises its economic, industrial and geographical peculiarities. The zones are located rather remotely from each other and, hence, operate in their regional markets. Concerning the competitive and cooperative environments in SEZ Titanium Valley, as it has been mentioned before, this zone has been initiated as a cluster with the supply-chain production networks between companies. So, investors within the zone are not competitors to each other, but partners. However, the problem in this particular SEZ is the absence of operating companies on its territory. It is too early to discuss the impact of the zone on the regional economy because it is not working fully yet. Additionally, the circumstances are worsened by the current economic crisis in Russia provoked by imposed sanctions by some Western countries, high banking interest rates and devalued local currency “ruble” (Chernousov, 2016).

4.2. Investors

One of the respondents was an anchor investor of the SEZ Titanium Valley – JSC VSMPO-AVISMA, which initiated the creation of the zone in 2005. It planned to establish its first enterprise on the territory of the economic zone and, hence, attract other potential investors. Moreover, first investors were expected to be the partners of this corporation: for instance, Rolls-Royce and Airbus. The idea was to create a titanium cluster on the basis of supply-chain collaboration that would enable to reduce transport, manufacturing and other costs. However, as it has already been mentioned before, due to political instability in the region, the local governor has been changed twice during five years. According to the respondents, the role of the regional governor or other policy-makers is vital in the implementation of SEZs policies or any other projects, as they provide the final approval and promote these projects further to the federal government. Because of such political uncertainty in Sverdlovsk region in 2005-2010, the SEZ project has been postponed many times, but finally agreed and established only by 2010. By that time the majority of potential investors have made a decision not to locate in SEZ Titanium Valley and established their subsidiaries in other countries instead, e.g. China and South Korea.

The reasons for investors to come into this particular SEZ are rather common for this concept: fiscal incentives (e.g. duty-free zone or different tax benefits) particularly at the starting point, and potential markets for growth. Besides, due to the immaturity of the zone, investors tend more to use duty-free benefits for import procedures only - to purchase necessary equipment for manufacturing processes from abroad. For some companies, personal networks play a significant role in the selection of the economic zone, as it also helps to overcome some bureaucratic procedures needed for becoming the member of the economic zone and registering the company in general. There were cases when investors required the meetings with the regional governor or policy-makers in order to build personal trust and thus obtain guarantees for the fulfilment of contractual obligations. Nevertheless, because of low-level activity among regional managers, SEZ Titanium Valley had issues in its development.

All respondents confirmed that they would not experience any competition either inside or outside the economic zone. Firstly, their location within the zone offers better competitive conditions (i.e. tax benefits, infrastructure). Secondly, other potential competitors

are located in different regions and countries. According to Brown and Earle (2000) and Tsukhlo (2007), because of the huge size of Russia, some regions are estimated as separate markets. Companies mostly expect tight collaboration with each other in this zone basing on cluster model. They emphasise the importance of anchor investor, i.e. JSC VSMPO-AVISMA, which is expected to direct the whole zone. Finally, the respondents have agreed that the main obstacles that prevent from actively investing into the SEZ and starting businesses are directly related to the current economic crisis in Russia and high uncertainty regarding what to expect. At the moment companies cannot use any financial products in the banks, because of high-interest rates, as well as devalued local currency worsens the situation.

4.3. State-official

The respondent has agreed that SEZ Titanium Valley has been initiated both by the governor and JSC VSMPO-AVISMA approximately in 2005 and due to political instability in the region, the project has been promoted to the federal level only by 2010. At the end of the same year, the SEZ has been approved by central government. However, due to unknown reasons, Sverdlovsk region did not receive necessary financial support to establish the zone and to prepare the infrastructure. Funding has been provided from the regional budget only, which is not enough. Only in 2013, the federal government gave solid financial aid, which prolonged the implementation process of the SEZ policy for three years. Besides, if to estimate the entire period beginning with 2005, when the idea was first initiated, and 2013 when first substantial funding was provided – it is rather long time for implementation of the project. As previous respondents have said, during this period some potential investors have decided to locate their enterprises in other zones in different countries; moreover, the Russian economy has changed by now; the market signals have changed as well. Lack of funding from the federal government forced the managing company to attract investors to the SEZ with unprepared infrastructure. Despite that in 2013 the circumstances changed for the better, the respondent stressed on inactivity of the investors that had joined the zone before 2013: they had enough time and could receive all possible aid from the managing company to start construction processes and finally launch the enterprise. In 2016 it is has become harder to attract both foreign and local investors because of political and economic instability and general investment climate of the country.

5. Conclusion

The aim of this article was to investigate the issues in implementing SEZ policies in Russia with Titanium Valley economic zone as a case of analysis. Basing on the literature about SEZs and the examination of the establishment processes, they may slightly differ in many countries, but some tendencies remain. Commonly the economic zones have similar goals: attract local and foreign investments, improve competitiveness, increase employment, launch knowledge and technology exchange, and develop innovations. Governments create and modify regional regulations to offer more attractive conditions for potential investors, such as fiscal incentives and simplified bureaucratic procedures. Furthermore, SEZs imply provision of necessary prebuilt infrastructure before even trying to attract investors into the zone (The World Bank Group, 2008; Gupta, 2008; Farole, 2011; Aggarwal, 2010; Tolmachev et al., 2011; Zeng, 2012; Kirk, 2014). In the case of SEZ Titanium Valley in Russia, some aspects were different. For instance, infrastructure hadn't been created fully at the initial stages of economic zone implementation; as a result, the managing company struggled to attract investors, as the territory was almost empty. Moreover, signing the pre-contractual obligations did not guarantee their fulfilment from both parties, which did not encourage the investors to come into the zone.

Another essential aspect is the importance of the regional government in the development of the SEZ. Regional policy-makers, the governor, in particular, are expected to express personal interest in developing the economic zone in their region; promote the project at all possible levels and arrange meetings with big investors, if necessary. The case of Titanium Valley clearly demonstrates the significance of the state role, because of political instability and lack of activity, the implementation of the SEZ has extended for five years; moreover, once it was established, sufficient funding had been provided three years later. According to the literature, state interference in the development of SEZs should be restricted in providing necessary funding and legal support (Chen, 1994; Gupta, 2008; Farole and Akinci, 2011). As it has been discussed previously in this paper, The Heterodox approach proposes the state and market cooperation, in which through the SEZ programs the government helps local companies to improve technological and managerial capacity, build cooperative networks with foreign firms and obtain access to national and international markets (Chang, 2002). But the results of the SEZ Titanium Valley are not impressive at the moment; thus, purely the Heterodox approach is not applicable, and another one should have been possibly employed with the free market and liberalised foundations.

The concept of the SEZ Titanium Valley is based on a cluster model with the companies that will potentially form a supply-chain production of titanium products. However, observing the currently registered investors of the zone (e.g. Praxair, Urals Optical Plant, Syneris, Stroydizel-Composite, etc.), it is hard to say how these companies are related to the titanium industry. Hence, there can be the lack of cooperative and competitive environments, which are crucial factors according to industrial cluster concept. It may also result in the absence of knowledge spillovers, technology exchange processes and production growth (Porter, 1990; Feldman et al., 2005; Hsu et al., 2013; Zeng, 2012; Bräutigam and Tang, 2014; Delgado et al., 2015). All the most significant findings are shortly summarised in Table 3:

The establishment of the SEZ:

- The project was initiated by the regional governor and JSC VSMPO-AVISMA in 2005;
- It took five years to get the permission from the federal government to establish the SEZ, because of political instability in Sverdlovsk region;
- Only after three years, the project started to receive necessary funding from the federal budget.

Method of attracting investors:

- Fiscal incentives;
- Local markets;
- Various events (e.g. conferences, exhibitions);
- Proximity to local industrial corporations (e.g. JSC VSMPO-AVISMA).

Reason for investors to come into the SEZ Titanium Valley:

- Fiscal incentives;
- Local markets;
- Proximity to local industrial corporations;
- Personal networks with state officials or with the managing company.

Competition and Collaboration:

- The concept of SEZ Titanium Valley is the cluster that consists of companies specialising in producing titanium products;
- No competition is expected within and outside the zone.

Markets:

- The subsidiary of JSC VSMPO-AVISMA plans to export a lot, but smaller companies plan to target predominantly regional or national markets;

Legal aspects:

- Federal Law №116 “Establishment of special economic zones in Russian Federation” (2005);
- Federal Law №398 “The criteria for establishment of special economic zones” (2012);
- Federal Law №491 “Criteria for evaluating the performance of special economic zones” (2013);

Role of the state:

- Personal interest of the regional governor in developing the SEZ;
- Promotion of the project at national and international events;
- Personal meetings with potential investors, if necessary.

Impact of SEZ on regional economy:

- By January 2016 the government has invested about 15 million dollars into the SEZ Titanium Valley;
- Eight companies are registered as the members of the SEZ; only one has initiated the construction process; none of them have started any business activity;
- SEZ Titanium Valley is not fully operating yet and has no impact on the economy of Sverdlovsk region.

Table 3: Key findings

Findings of this research revealed that key issues in implementing the SEZ Titanium Valley are predominantly related to the state: inactive participation in the development of the zone, political instability and lack of in-time funding. Moreover, the existing industrial cluster concept of the zone has some gaps, which may result in non-achievement of initial objectives. However, the current SEZ remains in the immature stage of its development, which means that it is too early to make any firm conclusions. This research has a core limitation that only one SEZ has been examined, which contains a small quantity of investors. However, this problem requires more profound investigation and, hence, sophisticated data collection method and analysis approach. Recommendations for further research would be a deeper examination of other SEZs in Russia and their investors with specific concentration on the role of the regional government; also, to investigate the relationship between SEZ model and industrial cluster concept more thoroughly and to identify the stimulative factors for the sustainable development of the SEZs in Russian business realities.

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