

Re-Industrialization: Spatial and Territorial Aspects (the experience of Sverdlovskaya Oblast)

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Abstract — This article focuses on spatial and territorial distribution of innovative production facilities and modern technologically advanced processes as one of the re-industrialization issues. Traditionally, large cities have created more favourable environment for re-industrialization due to their material and socio-cultural components. The results of the survey, conducted by the authors in Sverdlovskaya Oblast, show that small and medium-sized towns potentially possess social and cultural prerequisites for re-industrialization: young adults from these settlements demonstrate positive attitudes and potential comparable with those of the youth living in large cities. It was revealed that in small and medium-sized towns the youth value knowledge as an important resource for doing business, and highly self-assess such qualities as leadership and entrepreneurship. However, young adults evaluate conditions for doing business in small and medium-sized towns as less favourable. In the future the youth intend to get engaged in trading, service and tourism activities. Only young adults from Ekaterinburg consider manufacturing as a perspective field of their activities. The authors conclude that in terms of spatial and territorial distribution, small and medium-sized towns possess the required labour potential capacity to implement the concept of re-industrialization. It is essential to assist the youth in small and medium-sized towns in acquiring the in-demand skills as well as promote a comprehensive policy aimed at developing socio-cultural environment in the settlements. These measures will not only contribute to meeting the challenge of re-industrialization, but also will preserve small settlements, that are rapidly losing grounds for their economic development.

Keywords— *re-industrialization; spatial distribution; territory economic development, youth; small and medium-sized towns.*

I. INTRODUCTION

These days most advanced scientists and economists recognize the need for re-industrialization, whilst there arises

an issue of spatial and territorial distribution of innovative production facilities and modern technologically advanced processes. The solution of this problem depends on the evaluation of economic costs and availability of highly skilled labour in the territory. There are two possible patterns of spatial distribution: in the territory of already operating enterprises and the development of new territories. As re-industrialization demands essential financial expenses, as a rule, in the interests of cost reduction it is expedient to use material and technical resources as well as human resources potential of the already functioning production facilities. The majority of such facilities and highly skilled labour capital are localized in large cities; therefore, we can observe a successful introduction of new production facilities and modern technological processes in these cities. For example, VIZ-Steel (the construction of a new reversing cold rolling mill) is located in the territory of the large city of Ekaterinburg, EVRAZ Nizhny Tagil Metallurgical Plant (the construction of coal injection plant in blast furnaces, the construction of the new converter plant) - in the city of Nizhny Tagil, Kamensk Uralsky Metallurgical Works (the construction of rolling mill complex) – in the city of Kamensk-Uralskiy.

Traditionally, small and medium-sized towns are considered less favourable environment for innovations due to material and socio-cultural factors. Currently, small and medium-sized towns are experiencing lots of different problems and the situation is so crucial that some authors argue that the support of small towns virtually contradicts the re-industrialization demands [1].

As far as the small and medium-sized towns of Sverdlovskaya Oblast are concerned, the key issue is the low quality of the overwhelming majority of the workforce. Besides, the youth tend to leave small towns due to lack of

jobs, poorly developed infrastructure and leisure facilities. Nevertheless, as the experience of Sverdlovskaya Oblast shows, sometimes the development of new territories appears to be more promising, including the location of new production facilities in small and medium-sized towns. Such experience is available in the region. For example, brand new industrial parks are located in Verkhnyaya Salda, Krasnoturinsk, Novouralsk, Sredneuralsk. Innovative production facilities are based in Verkhnyaya Pyshma (JSC Uralelectromed), Polevskoy (JSC Seversky Tube Works).

This study aims to estimate the maturity of re-industrialization sociocultural component – the youth labour potential in small and medium-sized towns - for vigorous economic activity and the likelihood of the youth involvement in the processes of re-industrialization.

II. LITERATURE REVIEW

Now most progressive scientists admit the necessity of re-industrialization and view it as an important condition for the country's entry as a key player into the global economic and social environment [2], [3], [4]. As the academician S. Glazyev notes, "The way we lived earlier (we called it the world's imperial economic set-up) in the forms of the Soviet planning and the America-centred system of multinational corporations is coming to the end of its life cycle. It, as it already happened before, failed to adapt oneself ... We witness the emergence of the world's new economic set-up" [5].

In the literature, the authors point out that new industrialization is always implemented in certain spatial and territorial borders [6], [7], [8], [9].

The choice of a particular pattern of spatial distribution is determined by a combination of significant factors: production process specificity, economic and social-cultural conditions. In any case, re-industrialization requires a lot of significant investments that inevitably leads to the necessity to consolidate the efforts of several actors (state, regional and municipal authorities, business and foreign partners) [10], [11], [12].

The workforce quality, in other words, the level of labour capital development proves to be the most essential factor among social and cultural conditions [13]. Innovative production is based on cutting-edge high-tech and automated equipment. These determine the necessity to train highly skilled workforce [14], [15].

A very important part in the process of re-industrialization is assigned to entrepreneurs [6]. In the experience of the countries with market economy, entrepreneurial activity boosts economic growth [5].

In the literature, it is stated that large cities are ready for re-industrialization processes due to their high educational potential [16]. Meanwhile, small and medium-sized towns show negative trends, in particular, the workforce outflow from these settlements [17], [18].

The issue of distributing the objects of re-industrialization in small and medium-sized town is still debatable. Ryazanseva [19] argues that as an alternative to pooling workforce in the territory of small and medium-sized towns local authorities can implement different strategies, such as attracting foreign

workforce or using the potential of shuttle migration in the framework of agglomerative development of large cities.

III. METHODOLOGY

Theoretically, we draw on the conceptual ideas of western ([20] and Russian ([2], [6], [22]) scientists, who argue that re-industrialization implies deep structural shifts to establishing science-intensive industries, developing and introducing high-tech production facilities. Re-industrialization is to contribute into the implementation of the country's industrial development strategy – a dramatic rise in its competitiveness.

The empirical base is formed by the research findings of the domestic scientists and statistical data. Besides, the article contains the findings of the authors' research. In May-July, 2017 the Department of Applied Sociology of USUE by the request of the public autonomous institution "Regional House of Youth" conducted a sociological survey on "The Youth Entrepreneurship Activities in Sverdlovskaya Oblast". During the survey we interviewed 555 young people aged 18–30 years old, living in the territory of Sverdlovskaya Oblast. To obtain representative data we used a multistage quote proportional selection on several bases (settlement type; age groups; sex). We deliberately distinguished those young people in the Oblast, who are currently engaged in entrepreneurship activities. Among our respondents, 18% refer to this group, so we were able to compare the opinions of actual and potential entrepreneurs among young adults.

IV. RESEARCH FINDINGS

The research findings allow to make an unambiguous conclusion: the Oblast's younger generation is potentially ready to perform high economic activity and intense work, the attitude to entrepreneurship has changed in the region. If at the beginning of the 90ies entrepreneurship was regarded as criminal and illegal activities [23], today the majority of the youth in the Oblast (69%) assesses it positively, 28.5% – neutrally, and only 2% – negatively. At the same time, we identified differences in the responses given by the youth living in different types of settlements. The young adults from the small and medium-sized towns show higher readiness for employment, for salaried positions at the state enterprise, in a government institution or privately-owned enterprises. 41.1% of the young people in the small and medium-sized towns would like to receive income from entrepreneurial activities compared to 56.1% of those in big cities, and 58.7% – in Ekaterinburg. 59.7% of young adults in Ekaterinburg are ready to be engaged in entrepreneurial activities in the future (of this number: 28% – surely, 31.7% – under favourable conditions). In small and medium-sized towns 42.7% of respondents plan to be involved in entrepreneurial activities (16.9% – surely, 25.8% – under favourable conditions).

At the same time, the survey results allow us to make a conclusion about a positive spirit and the available potential of the youth in the small and medium-sized towns comparable with the spirit and potential of the young adults in large cities. Estimating the importance of the conditions critical for setting up a business, the youth of the small and medium-sized towns more often than others pointed to the importance of knowledge (legal, economic, field and business-related, etc.): in Ekaterinburg the assessment of this factor on a 5-point scale

made up 3.7, and in the small town – 4.0. At the same time the youth of the small and medium-sized towns has a lead in their self-assessment of such qualities as leadership, entrepreneurial spirit: while in Ekaterinburg and large cities the average weighed score equalled to 3.4 and 3.3 respectively, in small and medium-sized towns this indicator amounted to 3.7. The opinion that entrepreneurs boost and modernize national economy is equally supported by young people from Ekaterinburg, and the small and medium-sized towns (69% and 70% respectively). Moreover, more young adults from the small and medium-sized towns consider that “Entrepreneurs contribute to the budget of the country”: 51% of those living in the megalopolis share this opinion, whereas among young adults from small and medium-sized towns this figure amounts to 66%. The respondents self-assessed such quality as “readiness for persistent work, irregular working hours” in the following way: 91% of the young residents from the small and medium-sized towns and 89% of the young adults from Ekaterinburg estimated this quality as 4-5 points. The youth of the small and medium-sized towns coincides with the youth of other settlement types in their self-assessment of such qualities as creative ability, taking initiative, innovation, ability to see and do something new, ability to figure out in advance possible losses and benefits.

The youth of the small and medium-sized towns understands the importance of knowledge and highly evaluates their entrepreneurial potential, however, without bias, the level of their qualification, awareness and proactive attitude is lower, than the youth, coming from the large cities. So, the young adults from the small and medium-sized towns are less informed about the organizations and institutions that support businesses (23% of the youth from Ekaterinburg and only 16.2% of the youth from the small and medium-sized towns are aware of Chamber of Commerce and Industry of Sverdlovskaya Oblast, 30.9 and 23.5% respectively know about the activities of the Union of Small and Medium-sized Business of Sverdlovskaya Oblast). 25% of the young people in the small and medium-sized towns and 13% – in the megalopolis consider themselves as “prone to passivity”. Currently, 42% of the Ekaterinburg’s young residents are active in the economic sphere, while only 25% in the small and medium-sized towns. 18% of the young Ekaterinburg’s residents and only 9.5% of the young adults in the small and medium-sized towns set up their own business.

When assessing to what extent the conditions provided are favourable for running one’s own business, the youth of the small and medium-sized towns evaluated them as less favourable: 68.3% respondents from Ekaterinburg assessed the conditions as favourable, 50% – in small and medium-sized towns. 19% and 25% respondents respectively described the conditions as unfavourable.

We can judge the development of economic processes in the territory based on the degree of the agreement with the statement “Entrepreneurs generate and provide jobs”. 90% of Ekaterinburg’s young people and 85% of the youth from small and medium-sized towns agree with this statement, 10 and 15% respectively express disagreement. Thus, it can be stated that the youth in small and medium-sized towns identify the innovative processes less clearly.

We spotted a difference in the activity type, that young people from different settlement types would like to engage in: the top three include “trade” (30.4%), “restaurant business” (20.3%) and “manufacturing” (17.1%) in Ekaterinburg and “trade” (16.8%), “restaurant business” (13.4%) and “tourism” (10.6% in small towns. As we can see, only young people from Ekaterinburg consider a manufacturing industry as a perspective field of their activities. This reflects the real state of economy in the settlements, the region and the country as a whole.

Yet, we detected an emerging positive trend in the development of social and cultural processes in the Oblast’s small and medium-sized towns. According to the data obtained, young entrepreneurs from small and medium-sized towns consider that over the last year the business environment in their settlement has improved (44%), whereas in Ekaterinburg only 38% of the respondents pointed to this trend.

When assessing the actions to be undertaken to improve the conditions for business activities, the youth of all settlement types pointed to the necessity to facilitate taxation, decrease taxes, make Russian legislation for entrepreneurial activities more stable. Importantly, Ekaterinburg’s young residents ranked third the need to “simplify the procedure of granting licenses and patents”, and those from small and medium-sized towns – “make the system of financial support more accessible” (this factor ranks second). These data prove the fact that the financial backing of enterprises in small and medium-sized towns cedes to the financial support available in the megalopolis.

V. CONCLUSION

The implementation of re-industrialization concept implies considering such factor as availability of highly skilled workforce in the territory. The research findings demonstrate that the youth from small and medium-sized towns have a can-do attitude towards active economic activities and potential opportunities for being engaged in entrepreneurial activities, although the level of their real-time proactive attitude, awareness of the business processes is currently lower than the young people from the large cities. It is mainly determined by the state of the settlement special environment, the development of its economy, infrastructure and culture.

It means that it is essential to perform organizational and educational work aimed to assist the youth in acquiring the in-demand skills. To realise this potential, it is necessary to pursue a purposeful information and educational policy, at the heart of which there has to be a close contact between manufacturing enterprises and educational institutions located in the Oblast.

From spatial point of view, it is extremely important to encourage the youth to stay in small and medium-sized towns: this strategy will not only ensure the development of brand new production facilities, but also will contribute to the preservation of the settlement types, that currently are losing grounds for their economic development [24].

The experience of Sverdlovskaya Oblast shows that innovative production facilities can be located in small and medium-sized towns. We can conclude, based on the research findings, that the youth of the small and medium-sized towns

in Sverdlovskaya Oblast is potentially ready for re-industrialization processes [25].

VI. DISCUSSION

Our research findings do not allow us to agree with the view that backing small towns contradicts the requirements of new industrialization [1]. We believe that in terms of spatial and territorial localisation, small and medium sized towns potentially possess the required labour potential capacity to implement the concept of new industrialization.

It is necessary to note that there are other ways of solving the problems of spatial and territorial distribution of highly-skilled workforce for new industrialization implementation. So, the overview of the experience gained in foreign countries shows that a number of countries focus on the strategy of attracting skilled specialists and talented young people from abroad (Germany, partly France) [19]. Notably, this choice is mainly driven by the demographic factor – high aging rate, as well as the state policy of “open doors”, negative consequences of which have become apparent in recent years. Besides, new industrialization demands not only manpower, but also highly skilled workforce, the attraction of which appears to be a challenging task in our current conditions.

Another possible option is tackling the problem of the deficit for some occupations and qualifications arising in certain regions by creating conditions for labour force mobility within the framework of agglomeration processes. We tend to think that such reserve is in place and can be used, given one of the negative factors of shuttle migration – transport fatigue – is thoroughly considered. If a highly qualified specialist spends commuting 2-3 hours daily, it can result in the feeling of dissatisfaction, tiredness and stress. Besides, Sverdlovskaya Oblast experiences multidirectional situation: some small and medium-sized towns suffer from labour force deficit, while the others enjoy workforce surplus, caused mainly by a decline in manufacturing in the settlement territory.

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