

Reputation Economy of Regions Using the Example of the Republic of Tatarstan

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Abstract. A significant increase in the influence of intangible factors of production in the modern world, including on economic processes, their constant interaction with classical markets of production factors, and, accordingly, the need to develop a methodology for assessing their mutual influence - all this predetermined the purpose and objectives of the study. The article highlights some approaches to determining the reputational capital of a region, considers the directions for identifying the basic components of a reputational economy. In addition, a toolkit is proposed for assessing the mutual influence of indicators of a region's reputational economy and classical markets: labor, capital, commodity market, allowing to identify the closeness of the relationship between the qualitative and quantitative indicators of classical markets and the reputational capital of a region. Based on the conclusions made, a methodology for quantitative assessment of this influence is proposed, which is characterized by simple and convenient application in the implementation of state regulation of the regional economy. The study is based on the analysis of statistical data for a nine-year period of economic development of the Republic of Tatarstan and is highly representative. Based on the results of the conducted study, the influence of each of the considered qualitative and quantitative indicators of classical factor markets on the dynamics of investments in fixed capital of the region was established, which made it possible to substantiate and formulate measures of state influence on the corresponding functional areas of development of the regional socio-economic system.

Keywords: Development Economics, Macroeconomics, Regional Economy, Reputation Capital of a Region, Reputation Economy, Systemic Functional Model of the Economy.

1 Introduction

The present time is characterized by an active change in the paradigm of the effective existence of not only enterprises and organizations, but also large territories, most often

representing subjects and participants in the national economy. If earlier the main role in increasing the efficiency of the functioning of organizations and individual regions was played exclusively by a unique combination of material factors of production and their effective management, now the system of intangible factors comes to the fore, the key of which is traditionally called reputational capital.

In the scientific research community of Russia, we highlight two key, from our point of view, approaches to defining the reputational capital. At the same time, we note that we are mainly interested in the reputational capital of a region as an integral part of the regional reputational economy.

An interesting interpretation of reputational capital is given by I.S. Vazhenina [1], who suggested understanding the reputation of a territory as a set of real opportunities and guarantees for the realization of interests and needs of members of various groups offered by the region, namely: real and potential consumers of territories are interested in the most efficient use of the competitive advantages of a given territory for living, doing business, investing, recreation, and studying. The authors of the second interpretation of the reputational capital of a region are M. Safiullin, S. Grunichev, and L. Elshin [2], from whose point of view the reputational capital of a region is the result of events and measures of state regulation and management that contribute to the development of resources and opportunities. Therefore, the most important task in studying the reputational economy of a region is to find approaches that contribute to a systematic assessment of the information space that characterizes regional reputational activity. Unlike Russian researchers, foreign scientists quite actively operate with the concept of «reputational economy».

Based on foreign views on the definition and substantive interpretation of the concept of «reputation economy», it is necessary to note their unambiguous focus on the object of study, which is an individual with a different reputation that forms a basis for his/her career and personal development. Thus, in accordance with the approach by [3], the reputation economy is an environment in which the brands of economic agents are formed on the basis of their perception in the online space through a comprehensive assessment of their positive and negative qualities and characteristics. According to [4], the most important component of the intensification of the development of companies is the presence of a high-quality brand that promotes the processes of cooperation with them of other economic entities in order to increase the mutual economic efficiency of the use of available resources.

Based on the results of the consideration of the conceptual features of the reputation economy of the region, we generally accept the concept of A.S. Grunichev and L.A. El'shin[5]. It is also important to note that, despite the absence of the concept of «reputation economy» in the domestic research space, it is, in essence, transmitted, in accordance with foreign approaches, through the category of «reputation management».

2 Methodology

To understand the reflection of the influence of the region's reputation economy on its aggregate socio-economic characteristics, we used the methods and approaches of economic modeling. In particular, the basic tools of the systemic functional model of the market economy – the systemic functional multi-sector model of the economy and its modifications [6]. The proposed simulation tools allow organically fitting the cost, quantitative and qualitative characteristics of the region's reputation capital into the modern economic system, which makes it possible to more fully understand the nature, relationship and multiplicative wave effects of the mutual influence of the features of the reputation economy of the Republic of Tatarstan and the indicators of classical markets: inflation, employment, involvement of fixed assets, investment processes [7]. We believe that the proposed approach contributes to the presentation of a holistic concept for determining the place and role of the reputation economy in the system of interaction of classical markets.

Based on the analysis of existing studies, the authors of this contribution adopt the indicator of investments in fixed assets of the Republic of Tatarstan as the resulting indicator for assessing the dynamics of the region's reputation economy. To assess the impact of the region's reputation economy on the behavior of the classic labor, capital, and commodity markets, we analyzed the relationship between the following indicators:

- 1) commodity market: GRP – price index – investment in fixed capital;
- 2) labor market: wages – number of employees – investment in fixed capital;
- 3) capital market: cost of capital – cost of fixed assets – investment in fixed capital.

This study is based on official statistics data from the Republic of Tatarstan for the period from 2015 to 2023 [8-10].

3 Results

Let us consider the results of constructing a systemic functional model taking into account the impact of reputation economy factors on the dynamics of commodity market indicators. As stated above, we selected the volume of gross domestic product (quantitative indicator) and the price index (qualitative indicator) as the basic indicators of the commodity market. Their interaction with reputation economy indicators is presented in graphical form (Fig. 1).

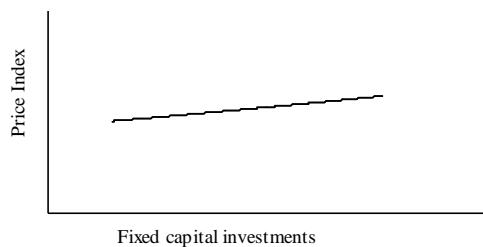


Fig. 1. The interaction of the price index and the level of investment in fixed assets (Source: authors).

As can be seen from Fig. 1, the interdependence of the qualitative indicator of the commodity market and the resulting indicator of the reputational economy of the region is of a very conditional nature and is described by a power function of the form (Eq.(1)):

$$y=1.7407x^{2.7692} \quad (1)$$

where x – the level of investment in fixed capital; y – the price index.

For the period from 2015 to 2023, this dependence was very weak. A completely different picture is observed when analyzing the mutual influence of the quantitative indicator of the commodity market and the resulting indicator of the reputational economy of the Republic of Tatarstan. Fig. 2 shows a more stable interdependence of the quantitative indicator of the commodity market (GRP) and the resulting indicator of the reputational economy of the region (investments in fixed capital).

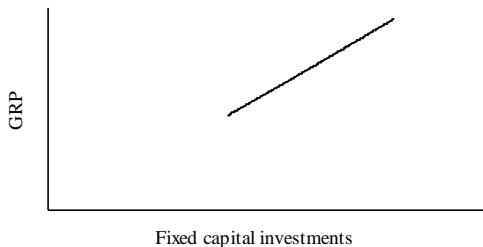


Fig. 2. The interaction of gross regional product and the level of investment in fixed assets (Source: authors).

This dependence is described by a power function of the form (Eq. (2)):

$$y=1.5643x^{1.067} \quad (2)$$

where x – the level of investment in fixed capital; y – the value of the gross regional product.

It should be noted that in the analyzed period, with an increase in the level of investment in fixed capital, there is a steady growth in the volume of production of the gross regional product in the republic.

The next classic market of the regional economy of the Republic of Tatarstan, analyzed in the context of its interaction with the resulting indicator of the reputational economy of the region, is the labor market (Fig. 3).

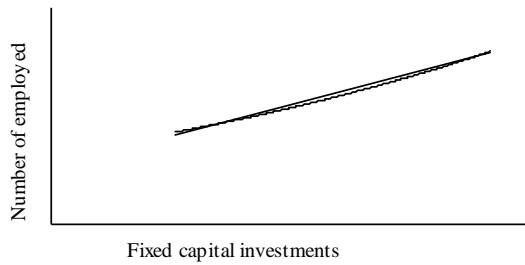


Fig. 3. The interaction of the number of people employed in the economy and the level of investment in fixed assets (Source: authors).

As can be seen from the figure, we analyzed the mutual influence of the number of employed (quantitative indicator of the labor market) and the level of investment in fixed capital. In this case, a stable ($R^2 = 0.905$) interdependence was obtained, described by a linear function of the form (Eq. (3)):

$$y=5415.1x-1E+07 \quad (3)$$

where x – the level of investment in fixed capital; y – the number of people employed in the economy.

Another indicator of the labor market that characterizes its qualitative component is the level of wages. Let us consider the results of the analysis of the mutual influence of this indicator and the resulting indicator of the dynamics of the region's reputation economy (Fig. 4):

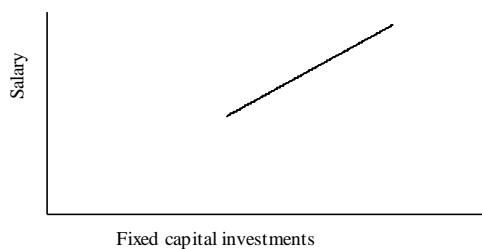


Fig. 4. The interaction of the salary size and the level of investment in fixed assets (Source: authors).

The resulting interdependence is stable and is described by a function of the form (Eq. (4)):

$$y=0.0543x^{1.0014} \quad (4)$$

where x – the level of investment in fixed capital; y – the size of salary.

Accordingly, with an increase in the volume of investment in fixed capital, the regional economy responds with an immediate increase in the level of wages.

In addition to the reaction of classical markets to changes in the reputation economy of the Republic of Tatarstan, we also analyzed the reactionary processes in the capital market due to the processes occurring in the reputation economy. As shown in Fig. 5, there is an unstable relationship between the quantitative indicator of the capital market (the cost of fixed assets) and the resulting indicator of the reputation economy of the Republic of Tatarstan.

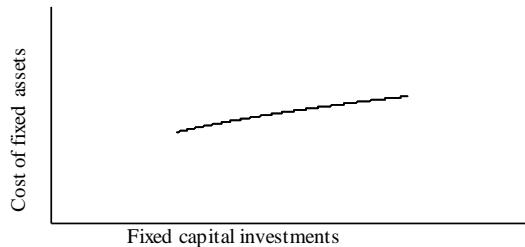


Fig. 5. The interaction of the cost of fixed assets and the level of investment in fixed assets (Source: authors).

This dependence is described by the function:

$$y=5009.4 x^{0.3144} \quad (5)$$

where x – the level of investment in fixed capital; y – the cost of fixed assets.

Despite the relatively low level of closeness of the relationship between these indicators, it should be noted that with the growth of investment in fixed capital in the region, there is an increase in the value of fixed production assets.

The interdependence of the qualitative indicator of the capital market – the cost of capital – and the resulting indicator of the dynamics of the reputational economy of the region is shown in Fig. 6. When analyzing this mutual influence of indicators, we obtained the most stable interdependence, where the approximation coefficient approaches 1.

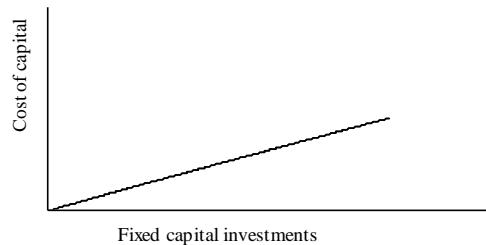


Fig. 6. The interaction of the cost of capital and the level of investment in fixed assets (Source: authors).

As the graphical representation of the obtained interdependence shows that with the growth of investments in fixed capital we observe the growth of the cost of capital in the capital market. In mathematical form, the obtained interdependence can be described as a power function (Eq. (6):

$$y=1.3993x^{0.9771} \quad (6)$$

where x – the level of investment in fixed capital; y – the cost of capital.

4 Discussion

The analysis of the mutual influence of classical markets (labor, capital and commodity market) and the resulting indicator of the region's reputation economy allowed us to identify a number of both expected and completely unexpected trends.

Firstly, according to the results of the analysis, the following were classified as stable interdependencies:

- interdependence of the qualitative indicator of the labor market (salary) and the dynamics of the reputation economy;
- interdependence of the qualitative indicator of the capital market (cost of capital) and the dynamics of the reputation economy;
- interdependence of the quantitative indicator of the commodity market (GRP level) and the dynamics of the reputation economy.

Secondly, we identified a conditionally stable interdependence of the quantitative indicator of the labor market (number of employees) and the dynamics of the reputation economy.

Thirdly, a low level of closeness of the relationship was shown by:

- interdependence of the quantitative indicator of the capital market (cost of fixed assets) and the dynamics of the reputation economy;
- interdependence of the qualitative indicator of the commodity market (price index) and the dynamics of the reputation economy.

The regional economy of the Republic of Tatarstan demonstrated a closer interdependence of the qualitative indicators of classical markets and the reputation economy of the region. In particular, one can note the growth of salary and the subsequent

strengthening of the reputation capital of the Republic of Tatarstan. In addition, the reverse effect looks similar: strengthening the reputation capital of the Republic contributes to the growth and positive dynamics of the reputation economy of the region. A similar trend is observed in the analysis of the mutual influence of the cost of capital and the reputation capital of the Republic of Tatarstan: with an increase in one of these factors, the second invariably grows.

The results of the analysis of the interdependence of the level of GRP of the republic and the amount of its reputation capital also look quite expected: with the growth of one component of the regional economy, a reciprocal growth of the other component is observed. Conditionally negative results were also obtained in the analysis of the mutual influence of the reputation capital of the republic and the dynamics in classical markets. These include a weak relationship between the value of fixed assets and the level of investment in fixed assets.

5 Conclusion

Modern economic conditions, characterized by a high level of globalization and development of an open society, determine a special type of competitive environment, where the most important factor determining success in the struggle for attracted resources is the reputation of the regions, limited by the economic, social, political, institutional and other potential of the territory [11].

Our analysis showed significant unevenness in the development of the reputational economy of the Republic of Tatarstan and a significant shift in the mutual influence of the indicators of classical markets (labor, capital, commodity market) and the dynamics of the reputational economy of the region. It is necessary to isolate certain levers of influence on the reputational capital of the Republic of Tatarstan, based on existing close interdependencies. From the point of view of regulation in the labor market, preventing a reduction in real salary significantly affects the level of the reputational capital of the republic, which in turn has a positive effect on the cost of capital and the consumer price index in the region.

These conclusions allow us to make appropriate adjustments to the process of forming recommendations for building the economic policy of the Republic of Tatarstan. The identified stable and conditionally stable interdependencies of qualitative and quantitative indicators of classical markets and the resulting indicator of the reputational capital of the Republic of Tatarstan make it possible to develop and most fully implement optimal measures to increase the reputational capital of the region, strengthen the reputational economy, and, as a consequence, the sustainable and comprehensive development of the region in the future.

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