

ABSTRACT

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Topic of my research: *Innovation management in Russian universities (theory and methodology).*

Objective of research is: to analyze the transformation of Russian technical universities into innovation actors and their innovation management system at the period of knowledge-based economy (KBE) formation.

This analysis is very important for Russian higher education when, on the one hand, world economy has been moving to KBE, on the other hand, the socio-economic crisis have had very strong impact on Russian higher education.

The main results. When the problems of higher education system have been actively discussed in Russian society the common idea is that the main reason of its transformation is deep socio-economic crisis in Russia. However, the basic premise of my thesis is that the transformation of Russian universities is determined above all by world-wide movement to KBE. In these circumstances, abovementioned process can be considered as a part of general process of changing universities' role in modern society. Over past decades universities (especially technical ones) have become not only education and research centers but real innovation agents which produce new knowledge and convert it into new products, technologies, start-ups, networks, consulting services. In my work this "third mission" of modern university and its pre-conditions are analyzed in connection with evolution of knowledge role as economic resource. Modern university is presented as an *innovation microsystem* producing, disseminating and implementing knowledge. The comparative analysis of evolution routes of Russian and Western universities from traditional to innovation structures is made.

In my thesis the *innovative university (IU)* as a way of Russian technical universities' transformation is proposed. Innovative university is a complex diversified structure. The specific feature of Russian universities is that small innovation firms, technoparks and other innovation units are often not independent but included into university structure as its elements. This is determined by mixture of factors including property rights, tax policy etc. Thus, outputs of innovative university are three innovative products – highly qualified experts, new ideas, new innovation products. According this, innovative university con-

sists of three closely interacting subsystems – educational, research and innovation-production subsystems.

These issues allowed me to implement the concept of intellectual capital to Russian innovative university management. Intellectual capital is shown as an instrument of increasing organization competitiveness in modern economy.

On the basis of analyzing relevant research, conceptual frameworks of intellectual capital management in IU are detailed, my definition of this process is proposed. Intellectual capital of IU is identified as divided into four components: human capital, structural capital, intellectual property and external relations capital. The specific of each component in each subsystem is recognized taking into account university environment in modern Russia.

For example, it's necessary to keep in mind the strong state regulation of Russian education system including universities. Russian universities have hard hierarchic structures and strong rules and standards, both internal as external. Because of this reason, I have detached so-called “regulative” capital as a part of structural capital. Regulative structural capital includes external and internal ones. External is government official documents and standards and internal is rules and norms established by Rector and university council within university.

On this basis the model of intellectual capital circulation within innovative university is developed.

The main tasks of intellectual capital management in Russian innovative universities are defined on the basis of my interpretation of intellectual capital substance. These tasks are as following: an optimization of intellectual capital structure; a continuity of intellectual capital circulation; maximization of outputs with optimal inputs of intellectual capital; increasing value of intellectual capital for organization and society. The experience of Russian and Western universities in the solution of these tasks is investigated.

Innovative university can be considered as an innovation micro-system, which is an element of big innovation systems – regional, national, international ones. IU plays an important role in regional innovation system as in itself as by interactions with other elements. In developed and stable economy (organized system) its role appears through output of abovementioned three innovation products. In conditions of economic transformation and formation of regional innovation system IU obtains important additional

function to insert an organization and stability into low-organized system.

In transition period national and regional economy can be defined as low-organized system. Increasing its organization can be achieved through reinforcement of “stability islands in chaos ocean” - some organized stable elements inside system. Innovative university can be considered as such “stability island”, organized element in low-organized space within region. At first, among all sectors of Russian science only higher education could to save better its research and innovation capability which can be enough base of rising innovation activity within the region and within the country in whole.

At second, it is supported by Russian Ministry of Education policy of reforming higher education system. One of ways of this policy is transformation of some Russian universities into innovative universities. Through abovementioned innovation products IU can affect all aspects of region life – real production through new knowledge-intensive goods and technologies, information sphere within region, management of production, life style, culture and mentality through high-qualified experts.

At third, university as IU concentrates all phases of innovation process within its framework including innovation infrastructure and workers’ training, that allows to be independent (to some extent) on environment in supply of resources and to reduce transaction costs.

As a result, innovative university activity gives a possibility to form the real agents of regional economy who are able to create and to apply innovations. Thus, innovative university is really able to become *system-creating element* of regional innovation system.

In my research IU interaction with other elements of regional innovation system is analyzed. These elements are divided into two groups of institutional agents – federal and regional authorities and private agents (firms, banks, industrial enterprises). This interaction can be performed as structural and functional one. The forms of structural and functional interactions and their developments are shown (fig.1). Formation of innovation system in Saratov region and role of regional higher school in this process are described particularly such forms as technoparks, regional R&D and technological programs, regional government departments coordinating innovation activity in the region.

Thus, the university impact on social-economic development of Saratov region is as following:

training high-skilled personnel (all levels);

R&D for industry needs;

serial production of innovation products;

start-ups;

consulting services;

expertise and certification of goods;

development and expertise of regional programs and legal acts.

In conclusion, patterns of Russian economic life are the acknowledgement the universities is really able to become system-creating element of innovation system.

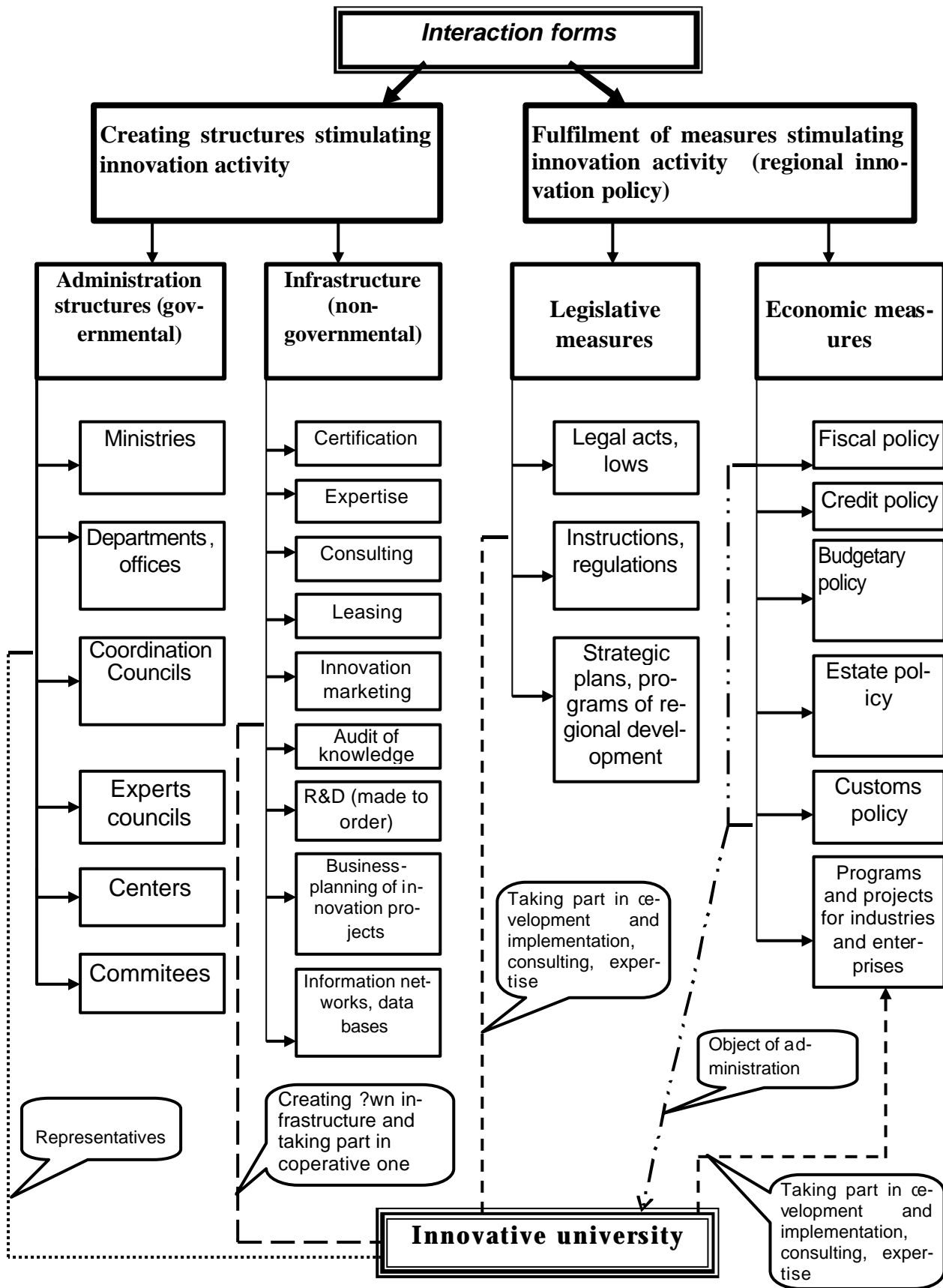


Figure 1. Interactions between innovative university and regional authorities

Main references

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