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THEORETICAL AND SCIENTIFIC-PRACTICAL ASPECTS OF PROLIFERATION OF INNOVATIVE PRACTICES IN THE RURAL SOCIETY

Abstract: The paper addresses the features of theoretical models of the innovative evolution with reference to the rural society. It appears that the susceptibility of the population to innovative products and technologies is one of the main factors of the innovative development of rural areas. The paper gives a sociological assessment of the differentiation in rural communities in terms of the level of mastering of innovative practices. It is shown that one of the main social risks today is the stratification of the rural society by the criteria of accessibility of and readiness to master modern technologies. This brings about the need to develop a set of measures that would provide all social groups of the rural population with equal opportunities with regard to accessing new technologies and acquiring the knowledge and skills required for mastering them. 

Keywords: rural society, innovative potential, culture, innovative practices, differentiation.

INTRODUCTION

Transition to an innovative model of development of the rural living space is impossible without having a certain social base as a most important prerequisite for its implementation.

Rural areas are a very important resource of life-support (food production), life activity (conditions and quality of life in rural areas), livelihoods (degree of habitat utilization), population reproduction, national culture and mentality. At the present stage, any growth in agricultural production, as well as doing away with the social problems of the rural population are impossible without transiting to integrated innovative development of the countryside.
The sine qua non conditions for successful innovative development are the following:
- technological and intellectual potential sufficient for launching the innovation process;
- institutional system (including both formal and informal elements) focused on innovative development;
- constantly growing number of participants in the innovation activity because of involvement of new social groups in it;
- demand for innovations from the side of the majority of economic entities and individuals (Matveikin, Dvoretskiy, 2007: 45).

The latter two conditions seem to be the most complicated aspects of the ongoing and forthcoming transformations for the Russian countryside, since they cannot be attained through a strong-will decision, legislative acts or structural changes. They can only be attained through changing the system of the needs and ethical norms of the rural society.

Reducing the social costs of this transition and increasing the pace of dissemination and mastering of innovations is only possible on the basis of a deep knowledge of the mechanisms of dissemination of innovations in the rural society. There arises an objective need to study the attitude of the people to the new reality, the peculiarities of their perception of innovations in different fields and the degree of awareness of the significance and consequences of the forthcoming changes.

Given the current realities, we believe it most relevant to find answers to the following question: “In what transformations is the rural society interested, and what innovative potential does it possess?”

**INNOVATIVE POTENTIAL OF THE SOCIETY: THEORETICAL APPROACHES TO UNDERSTANDING THE ESSENCE AND STRUCTURE**

Analyzing the existing theoretical and methodological approaches to studying innovative potential shows that although the issues of formation and development of innovative potential as a reflection of the essence of an innovative economy are widely represented in the works of domestic and foreign authors, the very concept of “innovative potential” does not yet have an unambiguous interpretation.

In studies, the concept of “innovative potential” is widely interpreted as the ability of the system to transform the actual order of things into a
new state with the purpose of satisfying the existing or emerging needs (innovators', consumers', markets', etc.) (Andrianov, 2008; Matveikin, Dvoretskiy, 2007; Kravchenko, Kladchenko, 2003). With this, an effective use of the innovative potential makes it possible to transit from a hidden opportunity to an explicit reality, that is from one state to another (namely, from the traditional to the new). Thus, innovative potential is considered as a kind of characteristics of the system’s ability to change, improve and progress.

There are also several definitions of the innovative potential that reveal one or several of its essential characteristics. The emphasis can be shifted towards institutional structures or means of forming the potential (Danko, 1999; Nikolayev, 2001) in other cases, it is linked to some specific level (enterprise, national economy, etc.) (Kalashnikov, 1998:131), or some indirect characteristics of the innovative potential is presented through defining the essence of the concept of “potential” (Kravchenko, Kladchenko, 2003).

Along with the resource approach, innovative potential can be viewed as a “measure of readiness” of an enterprise, industry, society to implement a strategy for introducing new products (Zhits, 1999; Kokurin, 2001). At the same time, innovative potential includes, alongside the technological progress, institutional forms associated with the mechanisms of scientific and technological development, the innovative culture of the society and its susceptibility to innovations (Gunin, Barancheev et al., 1999; Gusakov, 1999; Lisin, Fridlyanov, 2002; Trifilova, 2000).

We believe that to make the concept of “innovative development” operational, it should rather be defined as a “system of factors and conditions necessary for implementing the innovation process” (Nikolayev, 2001: 55).

Despite the existence of many studies addressing the social-economic aspects in innovation processes and searching for ways of making an objective assessment of the scope of innovative potentials of individual enterprises, industries, regions or the country as a whole, many methodological and methodical issues have not yet been settled.

For instance, the criteria and indicators (general and specific) for assessing the innovative potential have not been substantiated to date; the basic requirements to the system of assessment indicators have not yet been developed; and there is no scientifically substantiated classification of the factors that determine the innovative potential. Studies addressing the issues of social and socio-psychological factors and barriers on the way to innovative devel-
Development, the issues of integrated assessment of the innovative potential of the rural society and the social mechanisms of its implementation, the delineation of the motives and incentives for innovation activities of different social groups are very few. Consequently the social context of economic models of innovative development remains poorly examined, which reduces the efficiency of management of innovation processes on the macro-, meso- and microlevels.

When developing the system of indicators for assessing the innovative potential of the rural society, we proceeded from the generally recognized provisions that the content of the concept of “society” includes not only individuals and their associations, but also social connections and interrelations, social actions, interactions and relationships, social institutions and organizations, culture, social values and norms. Thus, society is an integrated social system.

The innovative potential of a society reflects its ability to improve or renew and is implemented through innovative behavior – an initiative kind of individual or collective behavior associated with the systematic mastering by the social actors of new means of activity in various fields of public life or the creation of new objects of material and spiritual cultures.

From the standpoint of the system-functional approach, the innovative potential of a society is a complex spatial system evolving over time. In order to determine the structure of the innovative potential of the society, in the course of our study we applied such a research approach, according to which each society, like any material object, has three substantial levels: material-energy, functional-organizational and informational. The first one is represented by social communities, the second – by social institutions and organizations, and the third – by systems of culture (Nemirovskiy, 1999: 65).

Accordingly, in the structure of the innovative potential of a society, the following three elements can be distinguished:
- objective characteristics of the cumulative human potential of the society fundamentally affecting the nature and success of the advancement of innovations;
- innovative culture;
- innovative infrastructure.

The objective characteristics of the cumulative human potential of the society fundamentally affecting the prospects for innovative processes in the given society include: the age structure of the society; the level of education (educational structure) and the activeness of participation of its members
in the process of continuous education; the rate of employment and the socio-professional structure.

The need to assess the cumulative human potential is due to the fact that the innovation process consists of the development and implementation of innovations, encompassing the entire complex of production, exchange and consumption relationships, therefore every member of the society, if not creates and introduces innovations, at least creates a need for them, using them in his/her labor or other activities.

INNOVATIVE CULTURE AS A FACTOR OF INNOVATIVE TRANSFORMATION

An integral part of the innovative potential of a society is the innovative culture, i.e. the state of receptivity of innovations by a person, group and society as a whole, their readiness and ability to implement the new as innovations. Dominating in the content of an innovative culture are the motivational component and the system of individual’s value orientations (Lisin, Fridlyanov, 2002; Nikolayev, 2001).

The lack of an innovative culture in a society is often viewed as one of the main causes of innovative stagnation.

The process of creation of an innovatively receptive environment is extremely complicated. As early as 1928, in his paper “Drivers of Progress” specifically addressing the issues of using innovations, K.E. Tsiolkovsky noted that the cause of the inappropriate attitude towards discoveries and inventions lies in human weaknesses. To the factors that stand in the way of implementing innovations, he refers inertia, ignorance and conservatism, distrust of unknown names, selfishness, egoism, misunderstanding of the universal and personal good, temporary losses, employees’ countering of the unusual, unwillingness to retrain, corporate interests, and professional envy.

Assessing the level of society’s innovative culture implies developing a system of indicators characterizing the “innovativity” of the consciousness and behavior of different social groups of the rural population. Three large problem blocks can be distinguished: attitudes towards innovations in various fields, including the need for specific innovations; susceptibility to innovations (participation in the creation, mastering and replication of innovative practices); readiness to develop their human capital (interest in acquiring new knowledge, participating in the system of continuous education).
Susceptibility to innovations is a most important component of any innovative culture. Groups with different degrees of readiness for mastering innovations can be found in any individual society. The most common is the classification by E. Rogers, in which the author constructs the ideal types of “agents-implementers” of innovations (Rogers, 1995). The first to perceive innovations are “innovators” – those who are the least dependent on the local social context and ready to immediately try everything new. These are followed by “early followers”, who play the role of opinion leaders in their local communities, and the willingness to accept innovations reinforces their authority. Representatives of the “early majority” are not hasty in mastering innovations: according to Rogers, they legitimize innovations in the community. Representatives of the “late majority” are reluctant to change their habits. They often accept innovations either when there is an economic necessity or under the pressure of the group of which they are members. The “lagging behind” are the most conservative representatives of the society: even under the pressure of circumstances, they may prefer to keep their usual way of life unchanged.

It is obvious that the fate of innovations in a definite society depends on the quantitative characteristics of the given groups. The means of mass surveys does not allow reliably distinguish the proposed categories, since respondents’ subjective assessments will have to be used as the basis for the classification. More accurate results can be obtained by using a method when the classification is based not on the rate of adoption/mastering of innovative practices, but rather on the number of the already mastered innovative practices.

INNOVATIVE PRACTICES IN RURAL SOCIETY: THE EXPERIENCE OF SOCIOLOGICAL RESEARCH

Innovative practices are usually considered as some typed human actions that are not yet too widespread, but are already quite noticeable, and on the other hand, they are such new ways of acting that yet a decade ago did not exist at all or existed to a limited extent (Radaev, 2003: 90). The sources of innovative practices are technical, technological and social innovations. With this, for classifying these or that specific practices as innovative the degree of their proliferation in the given society is important. Even if for other societies they are already quite common.

In order to study the innovative potential of the rural society, in the course of the scientific and applied sociological research, using the results of our expert survey, we made a list of the behavioral practices (predominantly in the field of consumption) that are considered to be innovative for the present-day rural society.
The field of consumption was chosen for studying the rural society’s innovative potential for the following reasons: the role of consumption in the present-day society has changed to be increasingly considered as one of the spheres of human self-realization; in the field of consumption, there is no direct administrative pressure (with the exception of antisocial and criminal practices); the living standard of the rural population improved in recent years.

The following innovative practices were among those under study: the use of a mobile phone and a PC; experience in obtaining bank loans and traveling abroad; the use of machinery, seeds of new varieties, modern crop protecting and yield increasing preparations at personal farmsteads; possession of modern home appliances, etc.1

The results of analyzing the obtained empirical information were used to distinguish groups of respondents differentiated by the number of mastered innovative practices. The share of those who have mastered 1 innovative practice is 10.8%, 2-3 innovative practices – 24.3%, 4-5 – 32.3%, 6-7 – 20.7% and more than 7 innovative practices – 11.7%. This distribution suggests that in the rural society there is a social stratum demonstrating a high degree of readiness for mastering new social realities. Prevailing among the respondents who have mastered the largest number of innovative practices are representatives of the social groups having a significant social weight in the rural society (specialists with higher education, entrepreneurs and skilled workers). We may therefore conclude that it is the attitude of the representatives of this very social stratum towards this or that innovation that to a large extent determines its fate in the given society (Morekhanova, 2013: 285).

SOCIAL RISKS AND LIMITATIONS OF INNOVATIVE DEVELOPMENT OF THE RUSSIAN VILLAGE

The progress in modern technology in itself does not lead to elimination of the already existing differences, but on the contrary, gives rise to new forms of differentiation. For instance, differences in terms of the amount of income, employment and educational opportunities and availability of social services were complemented in the past decade by “information poverty” or “digital inequality”, which refers to the lack or limited availability of information-communication technology (ICT). Today, the impossibility or insufficient level of

1 The sociological survey conducted by the Institute of Agrarian Problems of the Russian Academy of Sciences in 2010-2012 in three administrative districts of one of the typical agrarian regions of Russia – Saratov Oblast with personal involvement of the author. The spontaneous sample represents the able-bodied and working-age rural population of the country and includes 743 respondents.
using the ICT hampers even conventional forms of cooperation and makes the gap between the availability of information and accumulated knowledge greater.

The indicators characterizing the proliferation and use of the ICT are being monitored since 2005.

Table 1. Main indexes of ICT usage by households in Russian federation, per cent of all households

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<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
<td>Rural</td>
</tr>
<tr>
<td>Personal computer</td>
<td>31,0</td>
<td>11,0</td>
<td>59,0</td>
<td>40,0</td>
</tr>
<tr>
<td>Access to the Internet</td>
<td>23,2</td>
<td>6,7</td>
<td>54,2</td>
<td>31,6</td>
</tr>
<tr>
<td>Access to the Internet with the home PC</td>
<td>11,0</td>
<td>2,1</td>
<td>47,3</td>
<td>23,8</td>
</tr>
<tr>
<td>Broadband access to the Internet</td>
<td>---*</td>
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</table>


By 2016, the share of PC users in the total number of the surveyed rural households grew 5.6 times, while the respective shares of mobile phone and Internet users increased 2.4 and 9.5 times. Moreover, in 2016, the share of the households having access to the Internet is higher than the share of PC owners, which means that the Internet is also accessed using mobile phones, smartphones and tablet PCs.

The spread of the level of the modern technologies is determined not only by the technological accessibility, but also by factors like standards of well-being, standards of education, age structure of the population. Most commonly differences relate to age. 35.6% of rural citizens in the age of 45-54, 56.6% in the age 55-64, 77.2% whose age is 65-72 never used computer. Among the youth 15-24 years old only 5.1% have no experience of computer usage. Financial re-
restrictions are also important. The 20-percentage (quintile) groups by the level of disposable resources taken find out that the gap between the groups with highest and lowest income in 2014 was equal to 1.5 times in the number of personal computers, 1.3 times in the access to the internet.2

As the differences in the standard and quality of life of the urban and rural population remain, this makes the proliferation of modern high-tech goods in the city and the countryside noticeably different as well (Table 1).

The society’s conservatism is yet another barrier on the way to innovative development. The more conservative the society, the more difficult the processes of mastering and mass dissemination of innovations, the longer the innovation cycle. Today, a significant part of the rural population still sticks to the traditional, value-rational type of economic behavior, preferring to live consciously and labor to attain good glory among their fellow villagers rather than become rich and wealthy (Bednyi, 2003). The prospects of improving their living standard by radically changing their way of life remain little attractive for many peasants.

A socio-psychological obstacle on the way to innovative development can also be the persisting paternalistic sentiments among the rural population that still expects the government to fairly compensate for the losses and hardships suffered as a result of the market reforms. When such sentiments dominate, many tend to avoid innovations that may cause a further disruption of the customary order and existing traditions. Negative attitudes towards innovations of the majority of members of the society cause “washing out” of those inclined to innovation and reduce the modernization processes social base. At the same time, contrary to the popular belief, traditions may not only discourage, but also contribute to the dissemination of innovations. In view of this, the question of how traditions of the present-day rural society affect the perception and dissemination of innovations is highly interesting.

Among the main social barriers on the way to innovative development of rural areas today are the persistent ageing of the rural population and the decrease in the rural residents’ interest in continuing their education.

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The share of the rural residents over the age of 50 grew from 31.9% to 36.1% in the last 25 years. According to the basic variant of the forecast of the number and sex-age structure of the rural population of the Russian Federation carried out at the Institute of Agrarian Problems of the Russian Academy of Sciences, by 2040, the number of those below the working age and those of the working age is expected to decrease by 4.5% and 15.7%, respectively, while the number of those older than the working age is anticipated to grow by 9.9% (Blinova, Bylina, 2014: 305).

The age of a person is one of the most important factors affecting the degree of psychological resistance to the innovation process. In age psychology, there is an idea of a change in the behavioral strategy of individuals at the age of 45. Statistically, before this age the strategy is more likely to be innovative, and after – adaptive. 45 and 59 years of age are defined as the boundaries of this “transition”. (It should be also taken into account that one’s readiness for a change depends not only on the number of the years lived, but also on the one’s subjective perception of and attitude towards his/her age.) The results of sociological surveys are consistent with psychologists’ conclusions that the interest in acquiring new knowledge, mastering new professional skills and information technology decreases with the age. In the time of transition to the economy of knowledge, the low interest in acquiring new knowledge and the desire to do without any additional education in any circumstances, reported by 28.9% of the respondents over 45 years of age (with 21.2% for the entire sample), are becoming one of the factors contributing to the social differentiation between different age cohorts.

In terms of the general level of education, the rural population is traditionally inferior to the urban one (Table 2). This is due to both the differences in the structure of jobs and the nature of economic activity, and the differences in the educational infrastructures in the city and the countryside.

<table>
<thead>
<tr>
<th>Education levels</th>
<th>2005</th>
<th>2010</th>
<th>2015</th>
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<tbody>
<tr>
<td></td>
<td>Urban</td>
<td>Rural</td>
<td>Urban</td>
</tr>
<tr>
<td>Higher education</td>
<td>192</td>
<td>74</td>
<td>277</td>
</tr>
<tr>
<td>Incomplete higher education</td>
<td>37</td>
<td>14</td>
<td>54</td>
</tr>
<tr>
<td>Specialized secondary education</td>
<td>296</td>
<td>214</td>
<td>330</td>
</tr>
<tr>
<td>Professional technical education</td>
<td>116</td>
<td>162</td>
<td>47</td>
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Table 2. The level of education of the rural and urban population at the age of 15 and older (per 1000 of urban and rural population among those who indicated their level of education)
In the countryside, among those who have a job today, every fifth person does not have a specialty confirmed by a diploma or certificate, and among the employees of private enterprises or those working on the basis of self-employment - every third. The lack of basic education was compensated by special vocational training for only 31.8% of the rural residents who do not work in their specialty. Among the hired workers of private enterprises and those employed in the informal sector, only every fifth have undergone such a retraining.

All this makes it obvious that the rural population should be more active in participating in the system of continuous education, as a sine qua non of successful mastering of innovations.

With this, the degree of readiness to continue education almost in all of the rural social groups is extremely low. About 85% of the rural residents do not feel the need for additional education on a suitable program, every tenth respondent would like to study, but is in no opportunity to do so, and only 5% of the rural residents are seeking for an opportunity to receive additional education. The low interest in continuing education can most likely be explained by the decreasing motivation for getting more educated. The latter, in turn, is largely due to the situation in the rural labor sphere, where there is a shortage of jobs that meet the present-day workers' requirements (especially, young people) in terms of the amount of wages, working conditions and safety, and career opportunities. The life-meaning projects of the rural population related to the place of living primarily rely on the prospects of suitable employment and upward mobility. Both opportunities are not duly provided today in the Russian countryside. This makes the government-initiated breakthrough projects, which would be available for all categories of the rural population, much in-demand.

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CONCLUSION

The results of the survey show that now the pace of proliferation of innovations in the field of consumption in rural areas is decisively influenced not so much by consumer conservatism or lack of readiness to master innovative practices. The main factors restraining the proliferation of innovations in the countryside are the state of the labor sphere and infrastructure, including informational, and the remaining gap between the financial, technological and educational opportunities of the rural and urban population to master and apply these practices. The stratification in terms of the availability of modern technology and readiness to master them is continuously growing within the rural society as well. Only a part of the rural population knows how to use modern technology and get social benefits from this. Representatives of this social group are ready for innovative transformations and are interested in implementing them, provided that they are well aware of what they will benefit from this. The rest are rather interested in having their current situation gradually improved without experiencing any radical changes.

The transition to an innovative model of development of rural areas cannot be only limited to the creation and introduction of new machinery and technology. Its most important component should be the creation of conditions for the development of human capital, the provision of all social groups with equal access to new technologies, the acquisition of the new knowledge and skills it takes to master them, and the implementation of social benefits from the use of innovations. It seems appropriate to set up an educational system that would provide basic knowledge on how to use new technologies considering the specificities of the interests and opportunities of different social groups of the rural population and hold demonstrations and educational campaigns in order to encourage the rural residents to make use of advanced technologies in the various areas of their everyday life. Another priority, we believe, is to develop and make available, for all the strata of the rural population, electronic information resources and services in such fields like health care, education, job search and interaction with public authorities.

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ТЕОРИЙСКИ И НАУЧНО-ПРАКТИЧНЫ АСПЕКТИ ПРОЛИФЕРАЦИИ ИНОВАТИВНЫХ ПРАКСЕЙ У РУРАЛНОМ ДРУШТВЕ

Апстракт: Рад се бави карактеристиками теоријских модела иновативне еволуције у односу на рурално друштво. Чини се да је подложност становништва иновативним производима и технологијама један од главних фактора иновативног развоја руралних подручја. У раду се даје социолошка процјена диференцијације у сеоским заједницама у смислу нивоа савладавања иновативних пракси. Показано је да је данас један од главних социјалних ризика раслојавање сеоског друштва по критеријумима приступачности и спремности савладавања савремених технологија. То доводи до потребе да се развије низ мјер које ће свим друштвеним групама руралног становништва омогућити једнаке могућности у погледу приступа новим технологијама и стицања знања и вјештина потребних за њихово усвајање.

Кључне речи: рурално друштво, иновативни потенцијал, култура, иновативне праксе, диференцијација.