# Institutional Matrices Theory as Methodology for Theoretical and Empirical Research in Russian Social Sciences

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The paper presents new sociological Institutional Matrices Theory (IMT), created in the early 2000s (*Kirdina*, 2000, 2001), and its application in modern social research. More than 120 articles, theses and monographs of Russian researchers were studied. The main sociological research areas, in which the IMT is used as basic methodology, are singled out. They are – Economy and Society, Social Transformation and Social Change, Political Sociology, Environment and Society, Sociology of Culture, Logic and Methodology in Sociology and some others. The IMT as a curricula topic in Russian universities is presented. Proponents' and opponents' positions expressed in discussions on the IMT in Russian journals on Sociology and Economics are analyzed. The courses and prospects of the new theory application are considered in conclusion.

# 1. Social theory, sociological theories and thematic social research.

The term "social theory" is usually applied to all or certain theoretical investigations of social relations *irrespective to their disciplinary basis* and origin. In its turn, "sociological theories" comprise different approaches and scientific wings, intellectual paradigms and conceptual schemes *within the framework of the sociology* as the specialized discipline.

In spite of these differences, social and sociological theories are united by the object of their research, namely social relations, which structuralize the society as a whole. In both cases the social structure is the subject of the research rather than

separate sides of social reality. With regard to this, the term "social structure" in sociological theories is understood in different ways.

Thus people sometimes speak about social theory as if it were sociological theory in its *broad understanding* or sociological theory in itself in its *narrow understanding*. The sociological theories are created by researchers who work within the framework of certain paradigms.

In its turn, social and sociological theories are often used as the methodology and the framework for interpretation in empirical sociological research. This paper analyses this particular aspect of relations between the theory and its application. We will consider how one of the newest sociological theories – the Institutional Matrices Theory (IMT) – is used as the methodology for the research of some social topical research. We will primarily speak about Russian social science research but not only about them.

## 2. Main theses of Institutional Matrices Theory

The IMT based mainly on Structural Functionalism and Evolutionary Theory sociological paradigms. Originally the IMT had been developed as a conceptual scheme within the framework of the sociology and had the status of the sociological theory. But now it is getting a part of broad research areas in social science - economics, political science and some others. Therefore we can speak about the IMT as a sociological theory in its broad understanding or as a social theory.

This theory regards the society as a structured whole with three main spheres – economy, policy and ideology, which are morphologically interconnected. Thus social relations forming the inherent structure includes the following:

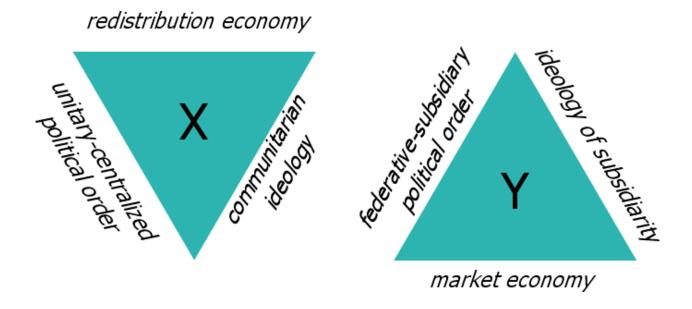
- economic interrelations related to resources used for the reproduction of social entities;
- political, i.e. regular and organized social actions to achieve the defined objectives; and
  - ideological interrelations embodying important social ideas and values.

Basic institutions are the subject of the analysis. They are permanently reproducing staples of social relations in different civilizations and historical periods. Basic institutions integrate the society into the whole that is developing, sometimes with conflicts. Institutions have a dual natural-artificial character. On the one hand, institutions manifest self-organization mechanisms of the society as natural social system. On the other hand, institutions are the result of human reflexion with regard to relevant laws and rules; they emerge as human-made entities.

We define aggregations of interrelated basic economic, political and ideological institutions as *institutional matrices*. Historical observations and empirical research as well as mathematical modeling give ground to the hypothesis about two types of institutional matrices, namely X-matrices and Y-matrices.

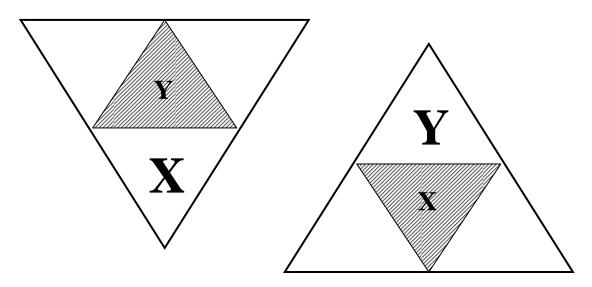
An X-matrix is formed by institutions of *redistributive economy* (Karl Polanyi's term), *unitary political order* and *communitarian ideology* with the

priority of "We" over "I". An Y-matrix is formed by institutions of *market economy, federative political order* and *the ideology of subsidiarity*, i.e. the priority of "I" over "We" (Picture 1).



Picture 1. X- and Y- matrices structure

In real-life societies X- and Y-matrices interact, with one of them permanently prevailing. Dominant institutions of the prevailing matrix define the nature of society and serve as the framework of performance for complementary institutions from the other matrix (Picture 2).



Picture 2. Balances of dominant and complementary institutional matrices

Structures and functions of basic institutions in X- and Y-matrices are presented in Tables 1-3.

**Table 1. Economic institutions** 

Functions of institutions	Institutions of redistributive economy in X-matrix	Institutions of market economy in Y-matrix
Fixing of goods (property rights system)	Supreme conditional ownership	Private ownership
Transfer of goods	Redistribution (accumulation- coordination-distribution)	Exchange (buying-selling)
Interactions between economic agents	Cooperation	Competition
Labor system	Employed labor	Contract labor
Feed-back (effectiveness indices)	Cost limitation (X-efficiency)	Profit maximization (Y- efficiency)

It appears that the same economic functions are instrumented by specific institutions in different matrices.

**Table 2. Political institutions** 

Functions of institutions	Institutions of unitary political order in X-matrix	Institutions of federative political order in Y- matrix
Territorial administrative order of the state	Administrative division (unitarity)	Federative structure (federation)
Governance system (flow of decision making)	Vertical hierarchical authority with Center on the top	Self-government and subsidiarity
Type of interaction in the order of decision making	General assembly and unanimity	Multi-party system and democratic majority
Filling of governing positions	Appointment	Election
Feed-back	Appeals to higher levels of hierarchical authority	Law suits

There are 5 basic economic and political institutions and 3 ideological.

**Table 3. Ideological institutions** 

Functions of institutions	Institutions of communitarian ideology in X-matrix	Institutions of subsidiary ideology in Y-matrix
Driver of social actions	Collectivism	Individualism
Normative understanding of social structure	Egalitarianism	Stratification
Prevailing social values	Order	Freedom

The type of the material and technological environment is the key determinant of either X-matrix or Y-matrix. The environment can be a *communal* indivisible system, where removal of some elements can lead to disintegration of the whole system, - or it can be *non-communal* with possibilities of its technological dissociation. In a communal environment the institutions of X-matrix are dominant whereas Y-matrix institutions are complementary. In a non-communal environment it is *vice versa*.

We suppose that X-matrix prevails in Russia, China, most Asian and Latin American countries. Y-matrix prevails in the USA and Europe.

The ratio of dominant and complementary institutions is defined by the changing conditions of social-economic development. On one extreme there is a totality of dominant institutions without conscious implementation of complementary institutions. It results in collapse (e.g. USSR) or crisis (e.g. US Recession). The opposite extreme implies that historically dominant institutions are completely replaced by complementary ones. That leads to revolutions with reconstruction of dominant institutions in the new forms (e.g. the Great French Revolution and Russian October Revolution) or unsustainable socio-economic development (e.g. some Latin American countries).

## 3. Institutional Matrices Theory as the methodology and the subject

The source of information in this analysis were articles in journals, books and textbooks on Sociology and Economics, curricula, theses, monographs with reference to the Institutional Matrices Theory (IMT), which were presented in 2000-2008 in Russian Internet and e-mailing. 127 items were studied. The following three main areas, which deal with this theory, were analyzed: 1) IMT application in thematic social research as the methodology and as the framework for the interpretation of empirical data results; 2) IMT as the subject of discussion; 3) IMT in curriculums.

### 3.1. Institutional Matrices Theory application in thematic social research

The structures of Research Networks of ESA and Research Committees of ISA were used for the classification of thematic social research published by Russian (among others) scientists. Table 4 contains classification results for 93 publications in 2000-2008.

Table 4. Classification of papers using the Institutional Matrices Theory, by thematic research areas, items, 2000-01.08.2008

IMT application Thematic research areas	As methodology for theoretical and empirical social research	As framework for interpretation of empirical data results	Total
Economy and Society	11	4	15
Political Sociology	12	1	13
Social Transformation and Social Change	8	5	13
Environment and Society	9	1	10
Sociology of Culture	6	4	10
Logic and Methodology in Sociology	9	0	9
Sociology of Organizations	2	3	5
Globalization	3	0	3
Sociology of Communication, Knowledge	1	2	3
Comparative Sociology	3	0	3
Sociology of Education	2	0	2
Sociology of Law	1	1	2
Youth and Generation	0	2	2
Sociology of Population	1	0	1
Economic Sociology	0	1	1
Social Stratification	0	1	1
Total	68	25	93

We can see that the Institutional Matrices Theory is broadly applied in different sociological topics - in 16 thematic areas, to be precise. The main sociological research areas, in which the IMT was used as the basic methodology more actively, were Economy and Society (16%), Social Transformation and Social Change (14%), Political Sociology (14%), Environment and Society (11%), Sociology of Culture (11%) and Logic and Methodology in Sociology (10%). These topics include three quarters (76%) of all remarkable areas.

It can be supposed that the domination of these topics in research areas is coursed by the possibilities, which the IMT gives for understanding and revealing of modern social changes in different spheres of Russian society and their explanations as well. It is evident in titles and contents of the following typical works within the singled out thematic areas:

- Economy and Society: there are many works devoted to the analysis of economic institutions, for example "Forms of ownership and institutional changes in banking" or "Path dependency in the evolution of ownership institutions". Authors remark that "economic effectiveness is the factor of choice of ownership forms. The probability of fixing for definite form is higher if it encourages expenses reduction and enhancement of result" (Volchik V., 2001). Therefore economic institutions of X-matrix are more advantageous for transforming Russia;
- Political Sociology: the author of one of the articles "The territorial organization of Russia as a problem of the role of government" (Anokhin M., 2002) appeals to the institutional matrices theory and proclaims: "At present we are not dealing with the substitutions of unitarity for federalism rather we are dealing with the modification of unitarity according to new conditions of state development";
- Social Transformation and Social Change: the IMT is used as the framework for explanation of social transformation essence. The latter is presented as a process of Y-matrix institutions implementation instead of X-matrix institutions (Dublikash T., 2001; Zgonnick L., 2005; Kara-Murza S., 2008 etc);
- Environment and Society: "the institutional matrices theory is used as the methodology for analysis and decision making for qualitative transformation of land-developing industry" in modern Russia (Asaul N., 2004);
- Sociology of Culture: there are "speaking for themselves" titles, for example, "Peculiarities of Russian economic mentality" (Balabanova E., 2001) or "Social-cultural aspects of modernization process in Russia" (Gavrov S., 2004);
- Logic and Methodology in Sociology: a line of IMT arguments concerning the modern Russia is compared to logical conclusions of other theoretical concepts, such as, for example, the article "In what matrix do we live? (ethnometrical testing of the institutional matrices theory)" by N. Latova, 2003;

Sociology of Law: in thesis "Methodological background of sociology of law in West-European sociology in XIX-XX" the author states that "the effectiveness of legal and law institutions can exist if they are adequate to the in-depth parameters of the dominate institutional matrix" (Glazyrin V., 2006), and it explains the courses and prospect for implementation of borrowing foreign institutions.

The more often application of the IMT as a methodology for the investigation (71%) rather than the framework for the interpretations of empirical data results (29%) also shows that the IMT has considerable advantages in terms of understanding of different social processes.

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<sup>&</sup>lt;sup>1</sup> All references in paragraph 3 are given according to the list (in Russian) on http://kirdina.ru/links2.shtml

The geographical span of the thematic social research with application of the IMT is the following - Russia (82 items), the Ukraine (8), Bulgaria (2) and the United Kingdom (1).

### 3.2. Attitudes of other scientists toward Institutional Matrices Theory

Besides that fact that the IMT serves as the methodology in thematic social research, it is often considered as the special subject for the analysis itself. Discussions about the structure of the IMT, its terminology as well as its comparison with other concepts were presented in 16 publications. The scientists, who analyzed the Institutional Matrices Theory, can be divided into three groups – active supporters, neutrals and those who are in disagreement (Table 5).

Table 5. Attitudes of other scientists toward institutional matrices theory, publications and mass-media, 2000-01.08.2008

Active supporters	Neutral analysis	In disagreement	Total
2	8	6	16

The texts of the last group are, of course, in the center of our interest. From our point of view, the majority of critical arguments here are connected with two main reasons. The first one is the misunderstanding of some IMT statements. It can be explained by the fact, that the author herself was unclear in her presentation and by the shortage of necessary terminology in the IMT. The second reason is connected with famous Niles Bohr's "complementary principle", which means the personal interpretation of experimental data (as well as theoretical ones) by scientists as a reason for the differences in estimations. This second argument is vividly expressed in one opponent's quotation. In the radio-interview he remarked that he is in disagreement with the institutional matrices theory but he said "I have no exhaustive proofs against this theory" (Yassin Y., 2005).

## 3.3. Institutional matrices theory in curriculums

According to the Russian Internet data and e-mailing there are 18 curriculums including those where the institutional matrices theory is a part of program (Table 6).

Table 6. Institutional Matrices Theory in curriculums, 2002-01.08.2008

On Sociology	On Economics	On Political Science	Total
10	5	3	18

Since 2002, the IMT has been presented in 10 courses on Sociology, 5 courses on Economics and 3 – on Political science. Geographically 11 courses are delivered in Moscow universities, 1 – in Sent-Petersburg University, 3 – in other regions of Russia and 1 – in Belarus. Besides them, the IMT is included in 2 obligatory federal education programs – one for the Ph.D. students on Sociology in Russia and one - for the universities students in Belarus.

### 4. Courses and prospects of Institutional Matrices Theory application

Why is the relatively new sociological theory – the Institutional Matrices Theory – actively used and discussed by Russian sociologists? The classification of factors and arguments, put forward by researches themselves, and the situation analysis of actual sociological theory also allows us to single out two main courses in the application of the IMT as the principal methodology.

The first reason is provoked by the insufficient adequacy of actual theoretical schemes for understanding and prediction of modern Russian transformations. We know that the sociological theoretical mainstream is presented first of all by the theories of the so-called "western mentality". Father-founders of sociology as the discipline were from Europe, and then scientists from Europe and the USA have contributed and are steel contributing to the majority of basic ideas of the sociological theory. These concepts are working well as the schemes for the description and the explanation in appropriate societies - we mean the societies where they were produced. As for some other countries, modern Russia being among them, these famous theories could be very useful in the analysis of different new phenomena and they are really being used. But the same theories are not so effective in the analysis of long-term or special processes and tendencies (Kirdina, 2008) in the development of Russia. As for the IMT, one proponent of this theory wrote that "No matter how unique can Russia seem, this uniqueness can be considered as one of manifestations of general regularities. The institutional matrices theory suggests the adequate methodology and terminology which can be the basis for correct correlation of Russian evolution with the theory and practice of global development" (Anokhin, 2002).

Besides that, the application of popular theories in the analysis of transformations in Russia often results in negative judgments and estimations. According to these concepts Russia is stigmatized as "non-modern society" with "insufficient market discipline" and "inadmissible ideological interference of the state into economy" etc. Such kinds of connotations influence the formation of the "negative national identity". Thus the "social immunity" of Russian scientist brings them to alternative and ideologically neutral concepts, such as the IMT.

The second reason of the IMT popularity could be connected with the formation of new "episteme of epoch" (in sense of Michel Foucault) manifesting in self-organization or synergetic ideas. The study of different physical and chemical, and biological, as well as social structures from the point of view their self-organization and emerging of "the order out of chaos" (*Prigogine, Stengers*,

1984) is becoming a widely spread focus in contemporary investigations. In this context the IMT ideas of the institutions' self-production according to material and technological conditions of nations are supported as the embodiment of synergetic approach.

We can suppose that the explanation and prediction possibilities of the IMT, on the one hand, and positive attitudes of modern Russian sociologists toward the synergetic approach, on the other hand, give a good chance for the further IMT application in the near future.

#### 5. Conclusions

S. Arjomand wrote that "real changes in the world have always formed social theories" (*Arjomand*, 2004). The Institutional Matrices Theory can confirm this statement. This social or sociological "in its broad understanding" theory is being developed in Russia in the period of dramatic social transformations in the world where Russia was also involved. This theory is actively used as the principal and additional methodology in variety of sociological disciplines and thematic social research. The regional geography of its application is gradually enlarging. The Institutional Matrices Theory is being permanently discussed in Russian journals and has become one of the topics of Russian universities curricula. The main courses of such extended use of the IMT are its explanation opportunities of the dynamics and mechanisms of social processes in Russia and some other regions.

#### References

Anokhin M. Theory and Practice of Politics Today and Tomorrow... / State service. 2002,  $\mathbb{N}_{2}$  1 (15). In Russian.

*Arjomand S.A.* The Changing Role of the Social Sciences. An Action-Theoretical Perspective. Symposium of Social Theory. Preface. / International Sociology, 2004, № 3, p. 299.

*Kirdina S.G.* (2000) Institutional Matrices and Russia Development. Moscow: TEIS; (2001) 2<sup>nd</sup> revised and supplement edition. Novosibirsk: SO RAN. In Russian.

*Kirdina S.G.* Modern Sociological Theories: Urgent Contradiction?" / SOCIS, 2008, № 8. In Russian.

Prigogine, I., Stengers I. (1984). Order out of Chaos. New York: Bantam Books.