SRI «Institute of Political and Mediametric Studies» («IPMS»)



**#4** vol. 34 December 2015

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Two Years of Euromaidan and Strategic Perspective of the Ukrainian Crisis

Analysis of Scientific Approaches to Evaluation of the Quality of the State Programs Developed in the System of Forecasting of the Social and Economic Developmentof the Region

Feelings of Burden and Perceived Social Support Among Relatives of Hemodialysis Patients

PER ASPERA AD ASTRA

Elon Musk







# **THE RUSSIAN ACADEMIC JOURNAL** Российский академический журнал

#4 vol. 34 December 2015

Scientific edition

Журнал зарегистрирован в Управлении по Южному федеральному округу Федеральной службы по надзору за соблюдением законодательства в сфере массовых коммуникаций и охране культурного наследия

ПИ № ФС 10-6814 от 27 ноября 2007 г.

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Все авторские материалы, опубликованные в Российском академическом журнале, включаются в международные базы научного цитирования InfoBaseIndex, GoogleScholar, OCLC WorldCat, ROAR, BASE, OpenDOAR, RePEc, JournalTOCs, OAJI, ISI (UAE), DOAJ, Fedora (DURA SPACE), CrossRef, PORTICO, Ulrich`s (ProQuest), Exlibris, Index Copernicus, Socionet and funds of Library of the Congress of the United States of America и другие по протоколу OAI-PMH, а также Российский индекс научного цитирования (РИНЦ). Российский академический журнал входит в каталог Библиотеки Конгресса США.

Журнал издается с 2007 года., выходит 4 раза в год. Подписной индекс 11219 в Объединенном каталоге «Пресса России»

Учредитель: ООО Научно-исследовательский институт «Институт политических и медиаметрических исследований»

**Издатель:** Автономная некоммерческая организация высшего профессионального образования Научно-исследовательский институт «Институт политических и медиаметрических исследований» (Высшее учебное заведение)

Адрес учредителя и редакции: Россия, 344082. г. Ростов-на-Дону, ул. Темерницкая 14. тел. +7 863-218-40-00 chief@wolfcorner.org Адрес издателя: Россия, 346048. г. Новочеркасск, Ростовской обл., ул. Юности 1Г. Телефон: +7 863-218-40-00 chief@wolfcorner.org Почтовый адрес: 344007, Россия, Ростов-на-Дону, абонентский ящик 9059. Телефон: +7 863-218-40-00 Главный редактор: Шидловский А.В. Дизайн-верстка: Чибизов А.В. Верстка: Ткачев Ю.С.

Сдано в набор: 28.12.2015. Подписано в печать: 29.12.2015. Дата выхода: 30.12.2015. Бумага мелованная, 65 г/м<sup>2</sup>, формат А4 (210×297), д.л.1/16. Шрифт: PT Serif, печать трафаретная. Объем издания: усл.печ.л. 13,71; уч.изд.л 21,573 Тираж 4500. Заказ № 872 Типография: ИП Иванченко С.В. Адрес типографии: г. Ростов-на-Дону, пер. Радиаторный, 9а.

«Российский академический журнал», №4, Том 34, октябрь-декабрь 2015. Цена свободная. При перепечатке материалов ссылка на «Российский академический журнал» обязательна. Редакция не несет ответственности за содержание рекламных материалов. Редакция не всегда разделяет мнение авторов опубликованных работ.



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This publication gives its warmest thanks to the Open World Program for providing the opportunity for Russian experts to spend time with their counterparts in the United States. Such exposure has greatly enriched the capability and quality of this publication.

# THE RUSSIAN ACADEMIC JOURNAL Vol. 34, #4 (2015)

## **EDITORIAL COLUMN**

Editor's Pick – Valdai Club 2015   Alexey SZYDLOWSKI	7
MANAGEMENT	
Analysis of Scientific Approaches to Evaluation of the Quality of the State Programs Developed in the System of Forecasting of the Social and Economic Developmentof the Region   <b>Yulia RAGULINA, Tatyana BUTOVA</b>	8
Identification and Characterization of the Main Development Areas of the Innovation Activity of the Macroregion <b>Stanislav PROKOFYEV, Armen ZAKARYAN</b>	16
Basic Characteristics of Contemporary Corporate Environment: Management Problems and Managerial Solutions Irina BELYAYEVA, Yury KLIMKIN	24
The System of Corporate Governance in Companies With State Participation   Yulia PETROVA	29
POLITICAL INSTITUTIONS AND PUBLIC ADMINISTRATION	
Imitation of Anti-Corruption Activities of the State as a Factor of Political Corruption   Alexander KRYUCHKOV	34
MEDICINE. PUBLIC ASPECTS OF MEDICINE	
Antimicrobial Activity of Silver Nanoparticles Synthesized Via Green Chemistry   <b>Doga KAVAZ; Surayya Muhammad LAMIDO;</b> Huzaifa UMAR	36
Feelings of Burden and Perceived Social Support Among Relatives of Hemodialysis Patients   <b>Adem SEZEN, A.Y.SENYURT,</b> Ahmet Cenk DIKMEN, Birkan TAPAN, E.SEZEN	45
RECREATION	
Customer Loyalty Marketing in Thermal Tourism in Turkey   Orhan TUNCER	49
CONFERENCE	
Recovery of the Economy of Donbass as the Main Condition of Decrease in a Conflictness in the Region   Alexey SZYDLOWSKI	55
Two Years of Euromaidan and Strategic Perspective of the Ukrainian Crisis   Vadim VOLOVOJ	57
The Economic Relations Between Ukraine and Russia at the Present Stage   Leonid GUSEV	63
Islamic State is the Biggest Temptation of the Modern World   Andrey BYSTRICKY	66

### EDITORIAL COLUMN

## LC71-120.4

# Editor's Pick – Valdai Club 2015



Alexey SZYDLOWSKI Chief editor Deputy dean of Department of Management of the Southern Federal University (Rostov-on-Don, Russia) e-mail: chief@wolfcorner.org

The latest book published as a part of Valdai club's discussion on global order has a vocal title "WORLD ON THE EDGE: THE COIL UNWINDS" The book is a collection of essays by Russian and foreign authors focused on the current changes in international relations and transformation of important political institutions such as government, state, military etc. Apparently this book provides a very insightful outlook on the most important international problems of the modern world from different perspectives. Both economy and politics are undergoing a process of deep transformation and it is extremely important to notice the new trend as well as some minor tendencies that will grow into mainstream in not so distant future. This is exactly the job that Valdai's recent book does for the reader.

By and large the future of the modern national state remains among the most controversial topics mentioned in the book. The majority of authors tend to highlight ongoing weakening of the government as well as state institutions across the globe. On the one side you have a phenomenon of so called "fail state" that manifests itself quite distinctively in the Middle East, Africa and some other parts of the world. On the other side you can observe an increasing degradation of government power in Europe. But according to authors this process is far from linear. The weakness of some governments is being compensated by the growing influence of others. In addition completely new institutions that mimic the government power arise in the areas where traditional state experiences the most significant decline. ISIS seems to be one of the brightest examples.

Definitely one of the strongest sides of the book is an impressing volume of empirical data that authors rely upon while discussing issues ranging from economy to war. Comparative analysis of developed and emerging nations on a verity of variables such as technology, taxation, economic growth and political stability reveals some crucial factors that are driving all major political transformations in the modern world. Certainly the problem of ISIS along with Middle East tensions continues to be in the centre of analysis which is not surprising taking into consideration recent eruption of violence in the region. South East Asia is another region thoroughly discussed in the book. The rise of China balanced by economic headwinds that the country is experiencing in these days requires further discussion. And finally Russia's rising role in international relations constitutes the third mostly disputed topic in the book.

Traditionally Valdai club members demonstrate brilliance of analysis and seamless approach to academic research. In a way newly published book summarizes some of the discussions that took place during the last annual meeting of Valdai club members in Sochi in 2015. The problem of war and its growing role as a sort of last resort solution for international conflicts in the upcoming years was on the agenda of that meeting. Now in the book authors revisit the discussion on war and try to give explanation to the reasons behind this rising tendency to rely on military solutions in today's world. The other side of the problem is of course the declining influence of international organizations that were established to serve as a platform for negotiation and mediation of conflicting countries.

In general the book would be of a great interest and use for a broad body of readers including academics, researchers, diplomats, politicians as well as everyone interested in international affairs, global economy and politics. It continues the tradition of a high quality research papers published by Valdai club in recent years. Hopefully the book will help professionals to find tools and solutions in a turbulent world of international politics.

#### HD72-88

#### Yulia RAGULINA

State Research Institute of System Analysis of the Audit Chamber of the Russian Federation, Russia e-mail: julra@list.ru Financial University under the Government of the Russian Federation, Russia e-mail: tvbutova@mail.ru

**Tatvana BUTOVA** 

# Analysis of Scientific Approaches to Evaluation of the Quality of the State Programs Developed in the System of Forecasting of the Social and Economic Development of the Region

#### ABSTRACT

This article analyzes the definitions of the concept «quality of the state programs», and gives its specified interpretation based on it. It is proved in the work that composition of the development plans and programs represents one of the management functions, that is why programs quality control is also control of the region management quality. It was determined that most indices offered for evaluation of the quality of the draft state programs and their subsequent implementation are non-formalized values. **Key words:** *state and municipal management, state programs, quality evaluation indices* 

The term «quality» provides for a wide range of definitions. Most definitions of the quality offered by thinkers in different times, beginning from ancient times (Aristotle), modern age (Hegel) and contemporary history (W. Shewhart), are brought to the capability of the object, which quality is determined, evaluated, characterized or simply stated, to meet certain needs in accordance with the purpose (designation) of this object.

In general, the category of the quality reflects the important aspect of the objective reality of the object – definiteness. Quality of the object is not brought to its separate properties, but is related to the object, as a whole, covering it all and is irremovable from it<sup>1</sup>.

The business dictionary defines quality as a set of properties, signs of the goods, materials, services, work, characterizing their conformity to their designation and requirements thereto, as well as capability to meet the needs and demands of users. Most qualitative characteristics are determined objectively based on standards, agreements, contracts<sup>2</sup>.

Thus, the term «quality» is used in different contexts and more often characterizes the property of some object to fulfill its functions for a long time and to satisfy the consumer's demands.

In 1986, the International Standardization Organization (ISO) formulated quality terms for all branches of the industry and business. In 1994, the terminology was specified, in particular, upon specification of the term «quality» the term «properties» was eliminated from its definitions in previous years.

Quality is a set of characteristics of the object, related to its capability to meet certain and planned needs.

The concept of the quality management, used in ISO 9000, is based on consideration of the quality as a degree of conformity of characteristics to requirements<sup>3</sup>.

Herewith quality is related to capability to satisfy the consumer's desires. In general, all requirements (needs or expectations) that the quality must meet belong to three categories:

- general obligatory requirements established by the laws, standards and other regulatory documents;

- stated set requirements of the consumer (contract, agreement, technical assignment);

- usually supposed (implied) requirements.

Needs arise out of dissatisfaction of requirements necessary for normal life activity of individuals and are aimed at elimination of this dissatisfaction. That is why in respect to the definition of the quality of the state programs the orientation of the state program to satisfaction of some or other need of individuals should be noted specifically.

The portal of the state programs of the Russian Federation defines state programs of the Russian Federation as a strategic planning document containing a complex of planned actions agreed by tasks, period of implementation, executors and resources, and instruments of the state policy, ensuring achievement of priorities and goals of the state policy in the sphere of the social and economic development and

<sup>1</sup> http://www.znaytovar.ru/new1090.html

<sup>2</sup> http://www.slovarus.ru/?di=1465

<sup>3</sup> http://delovoymir.biz/ru/articles/view/?did=10562

assurance of the national security of the Russian Federation within implementation of the key state functions<sup>4</sup>.

The site Госпрограмма.PФ gives the following definition of the federal state program: «State program of the Russian Federation is a document determining the goal, tasks, results, key areas and instruments of the state policy, aimed at achievement of goals and implementation of priorities, established by the Concept of long-term social and economic development of the Russian Federation for the period of up to 2020. The state program includes federal target programs and subprograms, containing, without limitation, departmental target programs and separate actions of the state authorities<sup>5</sup>.

The investor's encyclopedia defines the state program as an instrument of the state regulation of the economy, ensuring achievement of long-term goals.

It is evident that the state program represents a document reflecting actions implementation of which is aimed at achievement of certain long-term goals and tasks, settlement of which is directly related to satisfaction of the needs of individuals.

Resource restrictions are one of the most important conditions of determination of problems for program development, since the resource restrictions can become a reason for change of priority of current (though important) problems over strategic ones.

The state program provides for evaluation of all resources in the sphere of activity of the executive authorities – budgetary appropriations, other material resources, being at their disposal, as well as integration of regulatory (constitutive, law-enforcement and control) and financial (budgetary, tax, customs, property, credit, debt and exchange) instruments for achievement of the goals of the state programs<sup>6</sup>.

Composition of plans and development program represents one of the management functions, that is why programs quality control is also control of the management quality.

For example, in respect to organizations, the management quality is viewed as an integrated characteristic of the company's ability to conduct business successfully (Vinokurov, & Vinokurov). Based on this assertion, it could be said that, in respect to public finances, the management quality it is an integrated characteristic of the ability of the state authorities to fulfill its functions declaratively related to growth of welfare of individuals, their standard of living, comfort of living on the territory, level of development of the healthcare, social sphere and infrastructure, etc.

The management quality is a set of properties determining the possibility of creation of proper conditions for efficient operation, development and assurance of conditions of the economic growth by means of selection, integration and combination of the means of influence on the certain factors of internal and external environment.

For evaluation of the quality of the state and municipal management both international monitoring techniques allowing to evaluate the quality of administration in inter-country comparison, and national methodologies (reflecting the specific features of the system of public administration of the specific state) are applied at the level of the specific countries. Viewing the practice of use of international indices reflecting efficiency of public administration, it should be noted that for some time past our country has been included in the public administration quality evaluation ratings of international organizations. For Russia index evaluating efficiency of public administration – GRICS (Annex B), human potential development index (HPDI, in 2014 Russia ranked 57<sup>th</sup> of 176 countries), corruption perception index (in 2014 Russia ranked 136<sup>th</sup> of 175 countries), opacity index, economic freedom index are calculated; creditability and investment ratings are assigned.

Our analysis of the quality evaluation methods shows that they all evaluate the object in an absolute or comparative form. However, even with application of an absolute form, the subject uses the logics of comparison subconsciously. This does not rules out the possibility of use of methods applied, for example, for evaluation of the products quality, based on analysis of cash flows and costs and results obtained therewith, comparison of characteristics of given goods with the goods assumed as a reference. However, state programs are not oriented to an individual consumer and this is their principal difference from the programs of manufacturing of any products, even mass production.

At present, in respect to state programs, the result-based management practice is used. The result-based management became the term describing such management system, as per which each act is measured by certain achievements in the sphere of public finances management organization of which is constructed according to the program-target principle. In most countries the indicated approach took the shape in transfer to the result-oriented budgeting principles (ROB).

N.N. Shash and A.I. Borodin pay attention to evident advantages of ROB technology, among which (Shash, & Borodin, 2014).

· concentration of attention of the public sector to achievement of results;

• possibility of receipt of more qualitative and complete information about priorities and goals of the government, as well as information about what contribution to their achievement are made by budget expenses in the respective area;

• transfer of the emphasis in budgeting to planning and execution of actions in the course of which the efficiency indicators reflect information about which expenses are really effective and which are not;

• increase of transparence of the public sector by means of provision of complete information on the efficiency of its activity not only to the government, but also to wide public.

In evaluation of the quality of the state programs one should proceed from the peculiarities of the program-target method of budgeting. The specific features of the program budget consists in the fact that the budget expenses are distributed by programs which represent the list of the specific actions aimed at achievement of the set goals and obtained results are evaluated on the basis of the certain indicators / efficiency indices (Shash, & Borodin, 2014).

The quality of the state program begins to form at the stage of its composition. The elements of the qualitative state program are as follows:

- clear wording of the goals of the program: the goals shall be specific, measurable, attainable, realistic, well-defined in time;

– logically developed structure: the program shall have a clear algorithm of implementation; contain description of the functions of all structural elements and ties between them; show the tie of this program with other state programs, included in the budget of the corresponding level;

- availability of the realistic evaluation system.

6 http://www.gosprog.ru/about-gosprogramms/

<sup>4</sup> http://programs.gov.ru/Portal/programs/whatIs

<sup>5</sup> http://www.gosprog.ru/about-gosprogramms/

## MANAGEMENT

The questions of reliability and objectivity of the quality and efficiency indices of the state programs continue to remain in the focus of attention of most discussions dedicated to the economic problems of the public sector, since there are no countries in the world, which are fully satisfied with their systems of the quality and efficiency indices of the budget system.

Analysis of the quality of the state programs is based on generally accepted ratings techniques. In particular, in evaluation of efficiency, two varieties of rating methods can be applied: in absolute form and comparative (relative) form

1) Rating methods of the absolute form include:

a) summary, providing for conferment of the certain number of points (grades) to each selected parameter of the ratings and their addition. Based on the produced total the final evaluation of the system is given with subsequent check for compliance to a separate integrated evaluation;

b) arithmetic mean, based on determination of the arithmetic mean value of the rating for each parameter. The final evaluation of the system is held by the produced arithmetic mean value (the evaluation result shall coincide with the summary one) with the same check for compliance as in the previous method;

c) summary-differentiated by the groups of efficiency indices, including rating evaluations for each group (indices can be grouped, based on the types of expenses, for example, expenses for state procurement, inter-budgetary transfers, expenses for social security of the population, etc.).

Advantages of this method consist in the opportunity to get an expanded evaluation of the state of each group of the elements evaluated in the rating. Possible subjective evaluations of each group of efficiency indices should be referred to shortcomings. That is why the final conclusion should be made as per the results of the differentiated evaluation of each of the groups separately and the entire system in general (based on the summary or arithmetic mean approach);

d) arithmetic mean-differentiated, representing the same as the previous one, only evaluations by groups and the system in general are given based on arithmetic mean values;

e) weighted average, based on determination for each of the parameters of the rating, besides conferment of points, weight factors, i.e. this method is similar to the complex method of the evaluation of efficiency (without comparative evaluation). In case of impossibility to give an object evaluation, its group integrated rating shall be determined for each group of parameters of the rating and based on them – overall integrated rating for the system in general. Within each of the groups it is expedient to rate the coefficients (the total of their values shall be equal to one). The same should be done for group weight coefficients for the system in general;

2) in a comparative form with application of weighted average evaluations of the rating the final integrated evaluation is performed based on comparison (correlation) with the basic value.

For generalization of evaluation of the quality of the state programs we propose to use the summary-differentiated rating method of absolute form.

In execution of paragraph 2 of the list of orders of the President of the Russian Federation dated October 20, 2013 No IIp-2451FC and for the purposes of creation of conditions for implementation of the principle of efficiency of use of budgetary funds, establishing that in composition and execution of budgets the participants of the budgetary process shall proceed, within the budgetary powers established for them, from the need of achievement of the set results, using the minimum volume of funds (cost effectiveness) and (or) achievement of the best result using the volume of funds, determined by the budget (efficiency) (article 34 of the Budgetary Code of the Russian Federation) the interdepartmental working group of the Finance Ministry of Russia and the Audit Chamber of the Russian Federation prepared the Criteria and technique of the evaluation of efficiency of budgetary expenses with account of peculiarities determined by the type of expenses (Annex A).

The indicated Criteria describe two areas of evaluation of the quality of the state programs:

- evaluation of the quality of the projects of the state (municipal) programs;

– evaluation of the quality of implementation of the state (municipal) programs.

In accordance with p. 6.1. of the Criteria, evaluation of the quality of the projects of the state (municipal) programs shall be made according to such criteria as:

- compliance of the goals and indicators of the state (municipal) program with the regulatory legal acts and documents, determining strategic priorities of the social and economic development of the Russian Federation (subject of the Russian Federation), including those of the branch character;

- subdivision of the indices of the state (municipal) program/ subprogram into «immediate» ones, characterizing results of use of resources, and «end» ones, characterizing socially important social and economic effect;

- compliance of the tasks and indices with the goals of the state (municipal) program;

- timeliness and justification of the selected forms of the state support with account of alternative variants;

- internal consistency and non-contradiction of the basic actions of the state (municipal) program;

- justification of attraction of extra-budgetary sources of financial support of the state (municipal) program;

- sufficiency and justification of the composition of the basic actions of the subprogram of the state program / federal target program (hereinafter referred to as the FTP) for settlement of the set tasks of the subprogram / FTP;

- justification of application of the instruments of the project management for achievement of the goals of the state programs, including availability of the technique ensuring selection of the optimal set of the projects;

- availability of comparison of alternative variants for achievement of the goals and tasks of the subprogram/FTP and their justification, including justification of selection of the mechanism of the state support;

- completeness of description of risks and availability of actions on their management;

- completeness of description of direct and indirect effects (associated with the result) from implementation of the state (municipal) program, including evaluation of effect of the state (municipal) program on economic, social and financial indices;

- availability and completeness of justification of the distinguished target groups, at which the state (municipal) program is oriented;

- availability of the public discussions of the progress and intermediate results of implementation of the state (municipal) program, including within social councils of the ministries and departments, open Government.

Evaluation of the quality of implementation of the state (municipal) programs (p. 6.2. of the Criteria) shall be made on such criteria as: - observation of the detailed schedule of implementation of the state (municipal) program;

- timeliness of bringing and completeness of distribution of limits of budgetary liabilities;

- compliance of the cash expenses with the schedule of financial support of the state (municipal) program;

- compliance of the scheduled expenses for implementation of the state (municipal) program with the actual ones;

- completeness of justification of the volume of unused budget appropriations for implementation of the state (municipal) program;

- degree of achievement of the goals and indices of the state (municipal) program;

- degree of implementation of the subprograms / federal target programs of the state program;

- compliance of the tasks and indices of the state (municipal) tasks for provision of the state (municipal) services (execution of work) with the tasks and indices of the subprogram, in case of provision of the state (municipal) services (execution of work);

- quality of the interdepartmental interaction of the responsible executor, co-executors and participants in implementation of the state (municipal) programs;

- quality of interaction with the subjects of the Russian Federation, state corporations and companies, state extra-budgetary funds and other organizations concerned in implementation of the state (municipal) programs;

- level of achievement of the values of the indices and their reliability based on comparison with the data of the state statistical observation, accounting and financial statements;

- quality of the internal control and audit systems in implementation of the state (municipal) programs;

- availability of offences revealed in the course of internal and external state (municipal) control;

- observation of the requirements on openness and transparency of information on execution of the state (municipal) program, its actions, on expenses and procedures of decision-making.

Our analysis showed that all criteria of the quality evaluation of the projects of the state (municipal) programs are non-formalized, which increases the probability of subjective evaluations (table 1).

For example, «compliance of the goals and indicators of the state (municipal) program with the regulatory legal acts and documents, determining the strategic priorities of the social and economic development of the Russian Federation...» can be evaluated by two values: complies or does not comply.

Such a criterion as «timeliness and justification of the selected forms of the state support with account of alternative variants», can also be formalized only conventionally, since «justification» is support with evidences (Bol'shoi ekonomicheskii slovar', 1997). Ozhegov's defining dictionary means «confirmation with the facts, serious arguments...» by justification (Ozhegov, & Shvedova, 1992).

In general, use of such criteria as «consistency and non-contradiction of the basic actions...», «sufficiency and justification of the composition ... of actions...», «completeness of description of risks...», «compliance with the requirements of regulatory documents», etc. cannot be evaluated unambiguously with verification and confirmation of this evaluation by other persons, by virtue of subjectivism of the evaluation scale used.

Table 1 – Criteria of the Quality Evaluation of the Projects of the State (Municipal) Programs from the Point
of View of Their Formalization

Criterion	Formalized criteria	Non- formalized criteria
Evaluation of the quality of the projects of the state (municipal) progra	ms	
Compliance of the goals and indicators of the state (municipal) program with the regulatory legal acts and documents, determining the strategic priorities of the social and economic development of the Russian Federation (subject of the Russian Federation), including those of the branch character		+
subdivision of the indices of the state (municipal) program / of the subprogram into «immediate» ones characterizing results of use of resources and «end» ones characterizing socially important social and economic effect		+
compliance of the tasks and indices with the goals of the state (municipal) program		+
timeliness and justification of the selected forms of the state support with account of alternative variants		+
internal consistency and non-contradiction of the basic actions of the state (municipal) program		+
justification of attraction of extra-budgetary sources of financial support of the state (municipal) program		+
sufficiency and justification of the composition of the basic actions of the subprogram of the state program / federal target program (hereinafter referred to as the FTP) for settlement of the set tasks of the subprogram / FTP		+

## MANAGEMENT

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justification of application of the instruments of the project management for achievement of the goals of the state programs, including availability of the technique ensuring selection of the optimal set of the projects		+
availability of comparison of alternative variants for achievement of the goals and tasks of the subprogram / FTP and their justification, including justification of selection of the mechanism of the state support		+
completeness of description of risks and availability of actions on their management		+
completeness of description of direct and indirect effects (associated with the result) from implementation of the state (municipal) program, including evaluation of effect of the state (municipal) program on economic, social and financial indices		+
availability and completeness of justification of the distinguished target groups at which the state (municipal) program is oriented		+
availability of the public discussions of the progress and intermediate results of implementation of the state (municipal) program, including within social councils of the ministries and departments, open Government		+
Evaluation of the quality of implementation of the state (municipal) prog	grams	
observation of the detailed schedule of implementation of the state (municipal) program		+
timeliness of bringing and completeness of distribution of limits of budgetary liabilities		+
compliance of the cash expenses with the schedule of financial support of the state (municipal) program		+
quality of justifications of amendments in the budget breakdown		+
compliance of the scheduled expenses for implementation of the state (municipal) program with the actual ones	+	
completeness of justification of the volume of unused budget appropriations for implementation of the state (municipal) program		+
degree of achievement of the goals and indices of the state (municipal) program	+	
degree of implementation of the subprograms / federal target programs of the state program	+	
compliance of the tasks and indices of the state (municipal) tasks for provision of the state (municipal) services (execution of work) with the tasks and indices of the subprogram, in case of provision of the state (municipal) services (execution of work)	+	
quality of the interdepartmental interaction of the responsible executor, co-executors and participants in implementation of the state (municipal) programs		+
quality of interaction with the subjects of the Russian Federation, state corporations and companies, state extra-budgetary funds and other organizations concerned in implementation of the state (municipal) programs		+
level of achievement of the values of the indices and their reliability based on comparison with the data of the state statistical observation, accounting and financial statements	+	
quality of the internal control and audit systems in implementation of the state (municipal) programs		+
availability of offences revealed in the course of internal and external state (municipal) control		+
observation of the requirements on openness and transparency of information on execution of the state (municipal) program, its actions, on expenses and procedures of decision-making		+

Non-formalized criteria take two values: «true» and «false», but can be formalized into structural indices calculated as a ratio of elements taking the required value to the total number of elements:

$$I=\frac{I_n}{N}, \qquad n=1, N$$

where:

$$I = ]0;1]$$

I – degree of conformity (share) of the measured index to the required criterion;

 $I_n$  – number of units of the measured aggregate, meeting the selected criterion;

N – total number of units of the aggregate.

We referred evaluation of the degree of achievement of the goals and indices of the state (municipal) program to the formalized criteria, supposing the possibility of calculation of the index of fulfillment (achievement) of the goals in the form of the ratio of the actually reached values of the state program to the regulatory or scheduled ones. The index can take the values in numeric interval [0; +n [, where  $n \ge 1$ .

The degree of implementation of the subprograms / federal target programs of the state program represents the structural index and is calculated as a ratio of the number of implemented programs to the total value of programs.

For certain non-formalized criteria, for example, the quality evaluation of the interdepartmental interaction of the responsible executor, co-executors and participants in implementation of the state programs a proprietary evaluation schedule can be determined.

In this connection, for evaluation of such non-formalized parameters a schedule of conformity, graded, for example, in percent, can be proposed, which will increase the objectivity of the evaluation and unambiguousness of interpretation of the results of implementation of the state programs of Krasnoyarsk Territory by the auditors of the Audit Chamber of Krasnoyarsk Territory, but this measure will not allow to rule out the subjectivism to the full extent.

The reviewed «Criteria...» are mostly of the asserting character, without binding and specification of approaches to determination of conformity to some or other index.

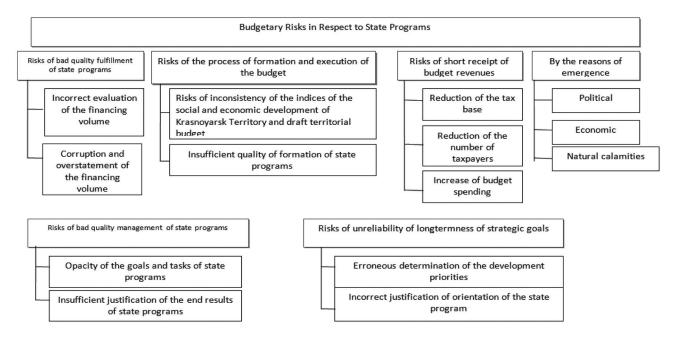
For example, «completeness of description of risks and availability of actions on their management».

At present, specialized scientific disciplines related to research of the risk develop actively, areas of the practical application of methods of risk management are expanded. The theory of risks and security reviews a lot of their classifications, one of which is presented in picture 1.

The presented classification does not pretend to completeness and is one of the examples of big variety of risks. The aggregate of risks is so various that their grouping and classification, distinguished by the expert method, foredooms the risk management system to incomplete coverage.

Let us consider possible types of budgetary risks.

1. Risks of possible inconsistency of individual indices of the forecast of the social and economic development of Krasnoyarsk Territory and draft territorial budget.



Picture 1 - Classification of Budgetary Risks in Respect to State Programs. Made by the Authors

2. Risks related to insufficient quality of formation and amendment of the state programs of Krasnoyarsk Territory, which is conditioned by absence of the comprehensive strategy of development of the territory, determining their goals and tasks in binding with available resources in Krasnoyarsk Territory. 3. Risks of possible reduction of budgetary expenses of the territorial budget in connection with reduction of the taxable base, nonachievement of the forecast volumes of exports of goods and services.

4. Risks related to growth of the budget deficits of the extra-budgetary system of Krasnoyarsk Territory because of change in development of the social and pension security.

5. Risks of possible violation of stability of receipt of individual incomes of the territorial budget and local budgets, related to increase of the debt load.

6. Risks related to absence of the concept of sustainable development of import substituting productions, including measures of the state support.

7. Risks of non-attraction of funds in the required volumes and on acceptable conditions at the expense of placement of the state securities at the local and federal markets for financing of the deficit of the territorial budget.

In our opinion, is it difficult to take into account all types of risks, besides, accounting of risks provides for actions on protection from consequences of their implementation, which implies additional expenses for insurance.

The Budgetary code of the Russian Federation does not define the concept of the budgetary risk that is why there is no uniform approach to the classification of such risk. Kovaleva T.V. defines the budgetary risk as a risk of short receipt of funds in the budget of any level and emergence of the risk of short financing from this (Kovaleva, 2007).

Risks of non-fulfillment of the scheduled budget because of the budget deficit arising due to non-conformity of the obtained budget revenues (loss or reduction of the source of incomes) to the scheduled expenses can be referred to budgetary risks. More precisely the budgetary risk can be defined as deviation towards reduction of the actual value of executed incomes of the budget and spending liabilities from the scheduled one.

Budgetary risks can be classified by the sources of emergence, financial consequences, level of losses, character of manifestation, time of emergence.

In respect to state program and their fulfillment the following types of risks can be distinguished.

Risks of bad quality management characterized by opacity of the goals and tasks, insufficient specification and justification of the end results.

Risks of unreliability of long-term strategic goals, induced by erroneous determination of priorities of development for a long-term prospect, incorrect justification of orientation of the state program.

Risks, related to bad quality implementation of the state programs, induced by incorrect evaluation of the volume of financing, absence or loss of the source of financing, non-achievement of separate indices (indicators).

That is why the criterion of completeness of description of risks and availability of actions on their management provides for performance of a lot of actions and requires preliminary irreparable expenses. It is evident that one cannot be limited only to economic risks in evaluation of this index, since the state programs are aimed at implementation of a lot of the goals achievement of which can be affected by the various events.

#### Conclusions

1. Quality of the state programs and their execution shall mean compliance with the general obligatory requirements established by the laws, standards and other regulatory documents.

2. Composition of plans and development program represents one of the management functions, that is why programs quality control is also control of the region management quality.

3. By the management quality we mean the set of properties determining the possibility of creation of proper conditions for efficient operation, development and assurance of conditions of the economic growth by means of selection, integration and combination of the means of influence on the certain factors of internal and external environment.

4. Most indices offered for evaluation of the quality of the draft state programs and their subsequent implementation are nonformalized values and their use provides for orientation towards the auditor's professional judgment.

**5.** We define the budgetary risk as deviation towards reduction of the actual value of the executed incomes of the budget and spending liabilities from the scheduled one.

#### References

Evans, P. (1996). Government action, social capital and development: reviewing the evidence on synergy. World development, 24(6), 1119-1132. doi: 10.1016/0305-750X(96)00021-6

Inglehart, R. (1997). Modernization and postmodernization: Cultural, economic, and political change in 43 societies (Vol. 19). Princeton, NJ: Princeton University Press.

Ismail, N., Bayat, S., & Meyer, I. H. (1997). Local government management. International Thomson Publishing Services.

Kiel, L. D. (1994). Managing chaos and complexity in government: A new paradigm for managing change, innovation, and organizational renewal. Jossey-Bass.

Kilby, P. (1971). Entrepreneurship and economic development.

Pollitt, C., & Bouckaert, G. (2011). Public Management Reform: A comparative analysis-new public management, governance, and the Neo-Weberian state. Oxford University Press. doi: 10.1787/budget-v3-art19-en

Rodgers, R., & Hunter, J. E. (1992). A foundation of good management practice in government: Management by objectives. Public Administration Review, 27-39. doi: 10.2307/976543

Rogers, S. (1990). Performance management in local government. Longman

Sharma, S. K. (1989). Municipal management. Urban Affairs Quarterly–India, 21(4), 47-53.

Treasury, N. Z. (1987). Government management. Wellington: Government Printer.

Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. Theory and

society, 27(2), 151-208. doi: 10.4135/9781412952583.n453

Banovetz, J. M. (1971). Managing the modern city. Washington: Published for the Institute for Training in Municipal Administration by International City Management Association.

Bol'shoi ekonomicheskii slovar' [Big economic dictionary]. (1997). Moscow: Institute of New Economics of AS.

Burks, J. D. (1912). Efficiency standards in municipal management. National Municipal Review, 1(3), 364-371. doi: 10.1002/ncr.4110010303 Cockburn, C. (1977). The local state: management of cities and people. Race & Class, 18(4), 363-376. doi: 10.1177/030639687701800403 Diamond, L. (1992). Economic development and democracy reconsidered. American behavioral scientist, 35(4-5), 450-499. doi: 10.1177/0002764292035004007

Donahue, A. K., Selden, S. C., & Ingraham, P. W. (2000). Measuring government management capacity: A comparative analysis of city human resources management systems. Journal of Public Administration Research and Theory,10(2), 381-412. doi: 10.1093/oxfordjournals. jpart.a024274

Kovaleva T.V. (2003). Organizatsiia biudzhetnogo upravleniia v sub"ekte Rossiiskoi Federatsii [Organization of the budgetary management in the subject of the Russian Federation]. Finansy i kredit, 61(120), 44.

McKinnon, R. I. (1973). Money and capital in economic development. Brookings Institution Press. doi: 10.2307/40201473

Ozhegov S.I., & Shvedova N.Y. (1992). Tolkovyi slovar' [Defining dictionary]. Moscow.

Reed, T. H. (1941). Municipal management. McGraw-Hill Book Co..

Shash N.N., & Borodin A.I. (2014). Povyshenie effektivnosti upravleniia gosudarstvennymi programmami: federal'nyi i regional'nyi aspekty [Improvement of efficiency of management of state programs: federal and regional aspects]. Vestnik Udmurtskogo universiteta. Seriia ekonomika i pravo, 2-4, 96-106.

Venter, A. (2007). Municipal management: Serving the people. Juta and Company Ltd.

Vinokurov V., & Vinokurov A. Kachestvo upravleniia kak faktor ukrepleniia rynochnykh pozitsii kompanii [Management quality as a factor of strengthening of the company's market positions]. Retrieved from: http://quality.eup.ru/MATERIALY11/qm-f.htm

Woolcock, M. (2001). The place of social capital in understanding social and economic outcomes. Canadian journal of policy research, 2(1), 11-17.

#### Armen ZAKARYAN

Financial University under the Government of the Russian Federation, Russia sprokofiev@roskazna.ru

**Stanislav PROKOFYEV** 

Financial University under the Government of the Russian Federation, Russia zakaryan.armen@bk.ru

# Identification and Characterization of the Main Development Areas of the Innovation Activity of the Macroregion

#### ABSTRACT

This article considers the priority areas of improvement of efficiency of the innovatization process of the regional social and economic development, gives evaluation to the development level of the innovation potential of the macroregion and identifies conditions determining the potential of its innovation development.

The work analyzes innovation development of the Siberian federal district, considers the level of development of the innovation infrastructure, innovation climate, determines the key areas of the long-term social and economic development of the macroregion, asserts that the gross regional product acts as a resulting index of the proposed model of the system of interrelations of the indices of the social and economic development of the region, as a basic index characterizing the level of development of the economy of the region. The author makes a conclusion that a high potential of the existing institutions of higher education, organizations of the fundamental and applied science in the regions, availability of the production and technical facilities is the major premise for activation of the innovation processes in the macroregion.

**Key words:** innovation development, innovatization, social and economic development of the region, innovation system, target indicators, sphere of innovations, system of the balanced indices.

For the purpose of assurance of the sustainable social and economic development of the region in the process of development and justification of the regional innovation policy, it is required to determine the priority areas of development that have formed in the region and to elaborate recommendations on improvement of the short-term, medium-term programs of the social and economic development and strategy of the innovation development of the region in general for a long-term prospect.

For this it is necessary to settle a number of the following tasks of the research:

- To determine the conditions determining the potential of the innovation development of the macroregion;
- To evaluate the level of development of the innovation potential of the macroregion;

• To develop recommendations on formation of measures aimed at improvement of efficiency of the innovation activity in the region (Biriukov, 2010).

Development of recommendations on improvement of efficiency of the innovatization process of the regional social and economic development provides for the need of specification of the conceptual approaches to formation of the regional policy and strategy of the social and economic development of the region. These recommendations shall be based on specification of the regional innovation policy, use of justified instruments of improvement of the regional innovation activity, settlement of the issues of organization and management.

Consequently, from our point of view, the innovation policy at the level of the region represents activity of the regional authorities, aimed at establishment of the system of the social and economic relations stimulating activity of its subjects for development, introduction, promotion in the market and consumption of the innovation goods, works, services in all branches in accordance with the latest achievements of the scientific and technical progress. The regional innovation policy is based on the strategy of the regional social and economic development of the region, which shall be an effective instrument of development and implementation of the regional innovation policy under the conditions of the postindustrial economy (Ursul, 2010).

Let us view an approach to formation of the regional policy and strategy of the social and economic development by the example of the regions of the Siberian Federal District (Novosibirsk Region, Krasnoyarsk Territory and Altai Territory) studied by us earlier.

The concept of the regional social and economic development up to 2020 is developed in the Siberian Federal District, in accordance with which basic control indices are determined, with which the model of the social and economic development shall be characterized in the

#### scheduled prospect (table 1).

It is supposed that the indices scheduled up to 2020 will be reached, first of all, at the expense of intensification of the processes of the innovation development of the region based on activation and improvement of efficiency of the innovation activity.

In determination of the basic tasks of the strategic innovation development of the Siberian Federal District, the basic provisions of the concept of the innovation development of the country were taken into account, as per which the innovation solutions for the short-term, medium-term, long-term prospects shall be prepared with account of the world trends of improvement of competition in the sphere of technologies, manufactured innovation products, as well as improvement of efficiency of use of the human capital (Navoyeva, 2010; Tsapiyeva, 2010).

Table 1
Basic Indices of the Social and Economic Development of the Siberian Federal District for the Period of Up to 2020

Ser. No	Indices	2008 (actual)	2010 (actual)	2015 (project)	2020 (project)
1.	Gross regional product, (thousand rubles / person)	191	187	242	297
2.	Share of investments in GRP, (kopecks / rubles)	24	22	29	35
3.	Specific investments, (thousand rubles / person)	46	41	70	104
4.	Labor productivity, (thousand rubles / person)	410	402	555	738
5.	Average salary, (thousand rubles / person)	15	16	22	28

In this connection, concept of the innovation development of the Siberian Federal District up to 2020 provides for settlement of the following basic problems:

- under the conditions of the technological revolution in the world it is necessary to reduce the gap in the technical and technological level of Russian and foreign manufacturers;

 – ensure increase of the growth rates of the competitive struggle for highly-qualified research, scientific and technical staff and bluecollars, increase mobility of the staff potential and create the necessary conditions for inflow of highly-qualified and educated workforce to the region;

- concentrate training of scientific, research and scientific production staff in institutions of higher education and research institutes;

- develop and implement pilot research and development projects in the field of training of highly-qualified specialists;

- continue generation of small scientific enterprises conducting their innovation activity in the sphere of high technologies and increase of the level of business research intensity on the basis of centers for introduction of achievement of scientific and technical progress, business incubators and technological clusters;

- develop regional innovation systems actively as an aggregate of interacting and interrelated enterprises and organizations, engaged in the production and commercialization of the manufactured innovation products;

- creation of the mechanisms of stimulation of development of innovation territorial production complexes on the basis of development of cooperation and integration processes of small innovation businesses with big scientific and educational, research, design, production organizations and enterprises, etc.

Development of the regional innovation system of the Siberian Federal District shall take place in three stages.

The first stage – completion of formation of the basic elements of the infrastructure of the regional innovation system (business incubators, innovation technological centers, technologies transfer centers, etc.), as well as development of the infrastructure of entrepreneurship in the sphere of innovations. At this stage it is supposed to complete works on selection of innovation projects and creation of the mechanisms of their stimulation. Breakthrough in evolvement of the competitive areas of the innovation development, supported by the state, shall be completed as a result.

The second stage (2015-2017) provides for activation of the system integration of all regions of the Siberian Federal District in the questions of rational use of individual elements of innovation infrastructures of district importance for the purposes of strengthening of joint interaction in settlement of the complex problems of renewal of the technological facilities of production enterprises on the basis of developments and introduction of the latest scientific and technical projects.

It is supposed that innovation centers of the regional training, professional retraining and advanced training of the staff on the basis of improvement of the system of commercial and state orders must be established, mainly, in this period.

The third stage (2020-2025) – stage of intensive development of the regional innovation systems, which shall allow:

- first, complete development of research and technological centers and complexes;

- second, accelerate completion of development of the high tech products manufacturing branches, ensure their effective distribution and creation of pilot innovation projects;

- complete implementation of the whole complex of projects for further development of the infrastructure of the innovation activity in the region, as well as the whole complex of projects implementing the priority areas of introduction of achievements of the scientific and technical progress.

Basic indices of development of the innovation processes in the Siberian Federal District for the period of up to 2020 are presented in table 2.

Table 2
Basic Indices of Innovatization of the Regional Social and Economic Development in the Siberian Federal District

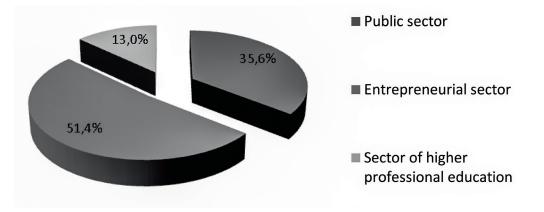
Ser. No	Indices	2008 (actual)	2010 (actual)	2011 (actual)	2015 (project)	2020 (project)
1.	Staff engaged in scientific research, persons	53956	55100	57300	59000	61000
2.	Young scientists of under 39 years old from the total number of scientists, %	12	14	15	22	27
3.	Number of students per 10 thousand residents	488	490	494	496	520
4.	Human potential development index	0,745	0,758	0,76	0,781	0,885
5.	Number of developed advanced productions technologies, pcs.	93	115	138	200	340
6.	Number of international research centers, pcs.	12	13	13	15	20 - 23
7.	Share of scientific journals with the international rating from the total number of similar journals in the Russian Federation, %	2	2	2	5	7
8.	Share of R&D expenses in the total volume of the shipped industrial products, %	under 1	1	1,5	2	2 - 4
9.	Number of patents for inventions, pcs.	2163	2500	2700	3600	4200
10.	Share of organizations engaged in technological innovations from the total number of organizations, %	7,7	9 – 10	11	12 – 15	20 – 25
11.	Share of high tech sector in the gross regional product, %	2 - 5	7 – 8	9	10 – 13	14 - 17

Based on the key provisions of the concept of the regional innovation development of the Siberian Federal District up to 2020-2025 work was also done on improvement of the concepts of innovatization of the social and economic development of territories, regions and republics, mainly on the basis of the prospect indices «finance»: internal expenses for research and development and volume of innovation goods, works and services.

Thus, the main areas of the regional policy of Altai Territory on transition to the innovation way of development are outlined in the Strategy of the social and economic development up to 2025, which provides for the mechanism of the state support and stimulation of research and development, establishment and development of the objects of the innovation infrastructure, promotion of innovation goods, works and services, both in the Russian and international market («Strategiia sotsial'no-ekonomicheskogo razvitiia...», 2012).

In general, by the indices of the level of the innovation activity of the region, Altai Territory belongs to low-intensity type of innovatization. In 2013, about 1714 persons were engaged in different types of scientific, designing and survey activity in 40 research organizations, including institutions of the Siberian department of the Russian Academy of Sciences and the Siberian department of the Russian Academy of Agricultural Sciences, research subdivisions of the higher school, design subdivisions of industrial enterprises. The number of advanced technologies used in 2001-2012 grew and in 2013 made 1507 pcs. Expenses for research and development in 2013 amounted to 1.1 billion rubles. As per 2013 results, the enterprises of the region sold the innovation products (works, services) for the amount of 5.8 billion rubles.

The main problem of development of the scientific potential of the territory is the problem of investment of funds in research and development. In recent years the trend for reduction of the share of the public sector emerged in the structure of the sources of financing of expenses for research and development with simultaneous increase of participation of the private sector of the economy (picture 1).



Picture 1. Distribution of Expenses for Research and Development by Sectors of Activity in Altai Territory in 2013

 18%
 20%
 ■ Applied research

 62%
 ■ Development

 Fundamental research

Research works of the region are of applied nature. In 2013, the specific weight of internal current expenses for applied research and development in the total volume of expenses made 82% and for fundamental research – 18% (picture 2).

Picture 2. Structure of Internal Expenses for Research and Development in Altai Territory, %

Most studies are performed in the sphere of technical sciences, share of expenses for which in 2011 made 99,2%, in 2012 – 96,3%, in 2013 – 99,3%. The leading positions by volumes of expenses in the technological sphere are held by the enterprises making food products (2011 - 22,2%; 2012 - 32,0%; 2013 - 28,7%). On the contrary, sharp reduction of expenses for technological innovations is observed in the sphere of woodworking from 7,6% in 2011 to 0,2% in 2013 and in the sphere of production of electric equipment, electronic and optical equipment from 8,5% in 2011 to 0,09% in 2013.

Development of the infrastructure in the regional centers of the innovation development is determined as one of the strategic tasks, ensuring development of the innovation activity in Altai Territory.

The center of research and development of the territory is Biysk, having the status of the scientific city of the Russian Federation. Scientific enterprises working in the city, accounting for about 50% of persons engaged in research and development, practically 70% of the total volume of research works of the region, 23% of all innovation industrial products manufactured in the territory.

The main areas of research and development in the spheres of defense industry, biopharmaceutics and nanotechnologies are developed in the scientific and production technological cluster «Biysk». The interregional center of nanotechnologies in the field of high energy nano-materials in military industrial complex, medicine and pharmacology is developed on the facilities of the Federal State Unitary Enterprise Federal Scientific Production Center «Altai».

For fuller realization of the development potential of the innovation sphere in Altai Territory it is important to establish a network of the regional innovation centers, cooperate with state scientific funds of Russia, involve research organizations of Altai Territory in the programs implemented at the federal level, search and support innovation projects, develop the information base of innovations (Ragulina, 2011).

6 thousand persons are employed, more than 200 new types of products were utilized within implementation of the strategic task on formation and development of the biopharmaceutical, touristic and agroindustrial clusters in the economy of the territory, within which 66 industrial enterprises were organized. Territorial state budgetary institution «Altai center of cluster development» was established for construction of scientific and production clusters.

For the purpose of creation of the favorable innovation climate a complex of measures was developed in Altai Territory, implemented by the executive authorities, in particular, implementation of the federal target programs, target financing, public-private partnership on support of development of science and technology, promotion of innovation sectors of the economy, etc.

Thus, development and introduction of high-technology goods and services, financing and stimulation of the advanced research and development are determined as the key areas of the long-term social and economic development of Altai Territory. Implementation of the policy in the field of science and innovations of Altai Territory provides for achievement of the following basic target indices (table 3).

Name of the indicator	2012 (actual)	2015 (project)	2020 (project)	2025 (project)
Volume of the innovation products, billion rubles	5,8	6,9	9,8	14,5
Internal expenses for research and development, in % to GRP	0,28	0,35	0,55	1,25

#### Table 3 Target Indices of the Innovation Activity of Altai Territory

Implementation of the developed measures on formation and development of the innovation processes of Altai Territory will make a considerable contribution to attraction of highly-qualified specialists, establishment and development of science intensive technologies, will contribute to increase of the investment attractiveness of the region (Shchetinin, 2012). However, the specific features of the innovation activity in the region require continuation of work on creation of favorable conditions aimed at improvement of efficiency of the regional innovation system of Altai Territory.

## MANAGEMENT

The process of formation of the sector of the innovation economy, facilitated by the Strategy of the innovation development for the period of up to 2020 «Innovation territory 2020» also takes place in Krasnoyarsk Territory.

Krasnoyarsk Territory belonging to medium intensive type of innovatization is one of few regions of the Russian Federation, in which there are all conditions for activation of the innovation sphere. By the number of organizations engaged in research and development, Krasnoyarsk Territory ranks 3rd in the Siberian Federal District. In 2013, 52 organizations operated in the territory, in which 6,353 persons were engaged in research and development. The number of applied advanced technologies for the studied period increased from 329 in 2001 to 2,283 in 2013.

The innovation infrastructure in Krasnoyarsk Territory is represented by Krasnoyarsk scientific center of the Siberian department of the Russian Academy of Sciences, Special designing technological bureau «Nauka» of Krasnoyarsk scientific center of the Siberian department of the Russian Academy of Sciences, industrial research institutes, as well as a number of branches of industrial research institutes and educational institutions of higher professional education.

For implementation of projects on development of the innovation activity, Territorial State Autonomous Institution «Krasnoyarsk territorial fund of support of research and scientific technical activity», Territorial State Autonomous Institution «Krasnoyarsk regional innovation technological business incubator» are established in Krasnoyarsk Territory, OJSC «Krasnoyarsk Technical Cluster» is formed.

For the purpose of support of the innovation activity, target programs of financial support are implemented in the region, in particular, from 2010, within the municipal target program «Support and development of small and medium entrepreneurship in the city of Krasnoyarsk», measures of support of innovation projects are implemented at all stages of their implementation, as well as state support of young scientists and researchers for the purposes of stimulation and increase of the prestige of innovation.

Herewith, today it is difficult to call the state of the innovation sphere satisfactory, which is characterized by the following indices of the innovation activity. Ratio of internal expenses for research and development to the gross regional product makes just 1 percent. The total volume of expenses for research and development in 2013 made 25,1 billion rubles, which is higher by 27% than in the previous year.

Whereof technological innovations account for the major part (98,0%), organizational ones -1,8% and marketing ones -0,2%. Most of expenses for innovations fall on processing -91,0% from the total volume of expenses (table 4).

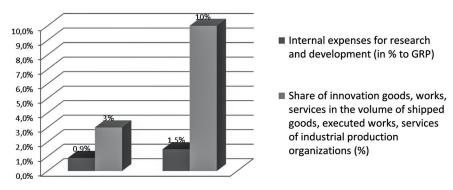
Types of economic activity	2011	2012	2013
Mining	77,3	162,0	548,1
Processing	12890,9	18245,0	22735,2
Production and distribution of electric power, gas and water	273,5	227,7	349,7
Communication	1039,6	454,0	300,1
Activity related to use of computer equipment and information technologies	1,1	9,3	10,3
Research and development	189,4	259,6	606,8
Provision of other types of services	1674,1	694,3	554,8
Total	15956,6	20051,9	25105,0

The innovation activity results are an output of the goods, works and services of innovation character. In 2013, innovation goods, works and services were manufactured for the amount of 35,8 billion rubles, which is three times as much in comparison with the previous year (table 5).

Table 5 Volume of Innovation Goods, Works and Services by Types of Economic Activity, Million Rubles

Types of economic activity	2011	2012	2013
Mining	-	473,5	288,5
Processing	2016,0	6146,4	8344,2
Production and distribution of eclectic power, gas and water	14,9	124,3	88,5
Communication	2529,3	3264,2	778,1
Research and development	956,8	1107,1	26272,2
Provision of other types of services	397,0	579,2	28,5
Total	4957,2	11694,6	35800,1

The share of expenses of organizations of the entrepreneurial sector in internal expenses for research and development makes only 5,5 %. The basic volume of financing 86 % is performed at the expense of the federal budget funds. Herewith, the all-Russia trend characteristic also of Krasnoyarsk Territory consists in annual increase of the budgetary financing in this sphere against overall reduction of the share of the innovation products manufactured by enterprises. As per the goals of the strategic development it is scheduled to allocate about 180 billion rubles in the sphere of the innovation activity of Krasnoyarsk Territory from 2013 to 2020. Target indicators of development of the innovation sphere in Krasnoyarsk Territory by 2020 are presented in picture 3.



Picture 3. Target Indicators of Development of Krasnoyarsk Territory Up to 2020

In general, innovation development of Krasnoyarsk Territory is at the medium level typical of the Russian Federation. Herewith, the actions on implementation of the strategy of Krasnoyarsk Territory must be aimed at creation of attractive conditions for the innovation development, establishment of interaction with the leading manufacturers of high-technology products, formation of the regional technological prerequisites in the priority areas of development of the territory, formation of markets of innovation products, development of scientific and staff potential ("Strategiia innovatsionnogo razvitiia...", 2011).

Innovation areas of development of Novosibirsk Region are determined in accordance with the «Strategy of the social and economic development of Novosibirsk Region for the period of up to 2025», as well as «Concept of development of the innovation activity in the economy and social sphere in the territory of Novosibirsk Region» ("Strategiia sotsial'no-ekonomicheskogo razvitiia...", 2007; "Kontseptsiia razvitiia innovatsionnoi deiatel'nosti...", 2009).

By the key indices of the innovation development, Novosibirsk Region belongs to the type of highly intensive regions. By the number of organizations engaged in research and development, as well as the number of employees involved in scientific research Novosibirsk Region ranks 1st in the rating of the Siberian Federal District. In 2013, about 21,590 persons in 113 research organizations were engaged in different types of activity in the sphere of research and development. The number of created advanced technologies made 25 and the number of applied advanced technologies – 2,589. As per 2013 results, the enterprises of the region sold the innovation products, works, services for the amount of 24,042.4 million rubles. Expenses for research and development in 2013 made 16,8 billion rubles, about 50% of these funds – from the federal budget.

The share of expenses for research and development in the gross regional product made about 2,6%, which is explained by presence of the scientific institutions of the Siberian department of the Russian Academy of Sciences, which are financed mainly from the federal budget.

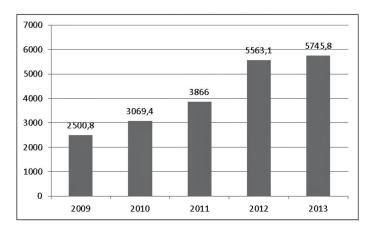
Creation of conditions for expansion of the innovation infrastructure in the sphere of consulting, patenting and other technical cluster areas is one of the strategic tasks of the innovation development of Novosibirsk Region.

The innovation infrastructure of Novosibirsk Region is represented by the scientific city «Koltsovo», state scientific center of virology and biotechnology «Vector»; 55 academic institutes of the Russian Academy of Sciences, Russian Academy of Medical Sciences and Russian Academy of Agricultural Sciences; over 60 industrial research, technological and design institutes, over 100 big enterprises and 1700 small enterprises, 46 institutions of high education.

Most innovation enterprises of Novosibirsk Region are united into associations, among which there are «SibAcademInnovation», «SibAcademSoft», «Information and technologies», «Power electronics of Siberia», «Siberian industrial hydraulics and pneumatics», etc.

For the purposes of support of organizations of the innovation infrastructure as one of the strategic tasks on development of the regional innovation system of Novosibirsk Region, the area of financial and organizational support of the innovation activity is evolving: «Novosibirsk regional fund of support of science and innovation activity», «Fund of development of small and medium entrepreneurship of Novosibirsk Region», «Fund of assistance to development of venture investments in small enterprises in the scientific and technical sphere of Novosibirsk Region», «Agency of investment development of Novosibirsk Region» and organizations of the bank sector.

Formation of favorable conditions in Novosibirsk Region for improvement of productivity of the sphere of scientific and education space, high technologies is the basis of assurance of the significant part of the gross regional product in branches producing innovation goods, works, services. The dynamics of expenses of organizations for technological innovations are presented in picture 4.



Picture 4. Expenses of Organizations for Technological Innovations in Novosibirsk Region, Million Rubles

Herewith, insufficiently high indices of the innovation infrastructure, development of enterprises of the innovation sphere, high-technology production branches condition the need of more active promotion of innovation developments and technologies in the economic and social sphere of Novosibirsk Region (Butova, & Krivtsova, 2014; Zolotareva, 2010).

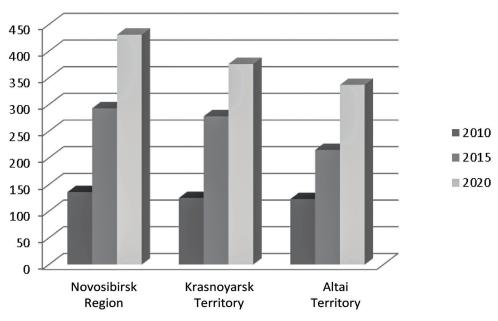
In the optimistic scenario of the innovation development of Novosibirsk Region, indicators are outlined, meeting the level of the world leading countries which are presented in table 6.

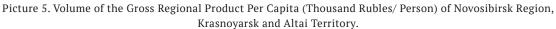
Name of the indicator	2005 (actual)	2015 (project)	2025 (project)
Internal expenses for research and development, in % to GRP	1,9	4,7	7,6
Specific weight of the innovation products in the total sales in the domestic market, %	7	28	60

Set strategic tasks are of long-term character and will be implemented in programs and plans of Novosibirsk Region, basic areas of the budgetary policy in subsequent periods with specification and adjustment of the main principles, basic areas and target indicators.

With account of the identified strategic areas and priorities of development of Novosibirsk Region, Altai and Krasnoyarsk Territory, the gross regional product acts as a resulting index of the model of the system of interrelations of the indices of the social and economic development of the region, proposed by us, as a basic index characterizing the level of development of the economy of the region.

The dynamics of change of the per capita gross regional product in the comparative prices of the researched regions in the long-term prospect of 2010-2020 are given in picture 5.





Thus, in general, for 2010-2020 period, the gross regional product per capita in Novosibirsk Region will reach 431 thousand rubles / person, having ensured growth of the per capita volume by 3,2 times.

The volume of the per capita gross regional product of Krasnoyarsk Territory will grow as much as 3 times in 2020 towards 2010 from 125 to 376 thousand rubles / person.

By 2020, the volume of the gross regional product per capita of Altai Territory will grow by 2,7 times towards 2010, having reached the volume of 337 thousand rubles / person.

In general, the analysis of the sphere of innovations in Altai, Krasnoyarsk Territory and Novosibirsk Region as examples of different types of innovatization, done by us, showed that, to a large extent, the development trends of the innovation activity of the regions of the Siberian Federal District meet the trends typical of Russia. The high potential of institutions of higher education, organizations of fundamental and applied science, operating in the region, availability of the production and technical facilities which allow to contribute to settlement of the strategic task of assurance of transfer of the economy of the Siberian Federal District to the innovation way of development act as the main prerequisite for activation of the innovation processes in the macroregion.

As a result it can be concluded that use of the mechanism of assurance of the sustainable social and economic development of the region on the basis of the system of balanced indices is indicative of formation of favorable innovation environment taking into account the peculiarities of development of each region, which shall be taken into consideration in development of state support measures.

#### References

Ursul, A. D., (ed.). (2010). Global'nye protsessy i ustoichivoe razvitie [Global processes and sustainable development]. Moscow: RGTEU.

Abashkin, V., Boyarov, A., & Kutsenko, E. (2012). Cluster Policy in Russia: From theory to practice. Foresight-Russia, 6(3), 16-27.

Biriukov, Iu. (2010). Issledovanie ustoichivosti razvitiia regional'nykh ekonomicheskikh sistem Study of sustainability of development of the regional economic systems. *Microeconomics*, 6.

Burns, T. E., & Stalker, G. M. (1961). The management of innovation. University of Illinois at Urbana-Champaign's Academy for Entrepreneurial Leadership Historical Research Reference in Entrepreneurship. doi: 10.1093/acprof:oso/9780198288787.001.0001

Butova T.V., & Krivtsova M.K. (2014). Analiz kriteriev otsenki regionov Rossii [Analysis of the criteria of evaluation of the regions of Russia]. *Mekhanizmy razvitiia sovremennogo obshchestva. Sbornik nauchnykh statei po materialam Mezhdunarodnoi zaochnoi nauchnoprakticheskoi konferentsii.* Moscow: Laboratoriia prikladnykh ekonomicheskikh issledovanii imeni Keinsa.

Fagerberg, J., Srholec, M., & Verspagen, B. (2010). Innovation and economic development. Handbook of the Economics of Innovation, 2, 833-872. doi: 10.1016/S0169-7218(10)02004-6

Forsman, H. (2011). Innovation capacity and innovation development in small enterprises. A comparison between the manufacturing and service sectors. Research Policy, 40(5), 739-750. doi: 10.1016/j.respol.2011.02.003

Gershman, M. (2013). Innovation development programmes for the state-owned companies: First results. Foresight-Russia, 7(1), 28-43.

Gokhberg, L. (2003, November). Russia: a new innovation system for the new economy. In A background material for a presentation at the First Globelics Conference "Innovation Systems and Development Strategies for the Third Millennium", Rio de Janeiro.

Gokhberg, L., & Kuznetsova, T. (2011). S&T and innovation in Russia: key challenges of the post-crisis period. Journal of East-West Business, 17(2-3), 73-89.

Golichenko, O. (2006). National innovation system in Russia: state and development. Moscow: Science.

Hsu, P. H., Tian, X., & Xu, Y. (2014). Financial development and innovation: Cross-country evidence. Journal of Financial Economics, 112(1), 116-135. doi: 10.1016/j.jfineco.2013.12.002

Kontseptsiia razvitiia innovatsionnoi deiatel'nosti v ekonomike i sotsial'noi sfere na territorii Novosibirskoi oblasti [Concept of development of the innovation activity in the economy and social sphere in the territory of Novosibirsk Region]. (2009). *Prikaz gubernatora Novosibirskoi oblasti No 254-p ot 19.10.2009* 

Lundvall, B. Å. (2007). National innovation systems—analytical concept and development tool. Industry and innovation, 14(1), 95-119.

Lundvall, B. A. (2008). Higher education, innovation, and Economic Development. In Annual World Bank Conference on Development Economics 2008, Regional: Higher Education and Development. Washington, DC: World Bank.

Navoyeva O.V. (2010). K razvitiiu programmy dolgosrochnogo sotsial'no-ekonomicheskogo razvitiia Rossii. Problemy perekhoda k innovatsionnoi ekonomike [To development of the program of the long-term social and economic development of Russia. Problems of transfer to innovation economy]. *Problemy sovremennoi ekonomiki* 2 (34).

Ragulina Yu.V. (2011). O konkurentosposobnosti otechestvennoi ekonomiki [On competitiveness of the national economy]. *Nauchnoe obozrenie*, 5, 486-491.

Sandberg, B. (2007). Customer-related proactiveness in the radical innovation development process. European Journal of Innovation Management, 10(2), 252-267. doi: 10.1108/14601060710745288

Shchetinin M.P. (Ed.). (2012). Innovatsii v ekonomike Altaiskogo kraia: tendentsii i perspektivy razvitiia [Innovations in the economy of Altai Territory: trends and prospects of development]. Barnaul.

Strategiia innovatsionnogo razvitiia Krasnoiarskogo kraia na period do 2020 goda «Innovatsionnaia territorii 2020» [Strategy of the innovation development of Krasnoyarsk Territory for the period of up to 2020 «Innovation territory 2020»]. (2011). Ukaz Gubernatora Krasnoiarskogo kraia No 218 ot 24.11.2011

Strategiia sotsial'no-ekonomicheskogo razvitiia Altaiskogo kraia do 2025 goda. [Strategy of the social and economic development of Altai Territory up to 2025]. (2012). Rezoliutsiia Altaiskogo territorial'nogo zakonodatel'nogo sobraniia No 569 ot 19.11.2012

Strategiia sotsial'no-ekonomicheskogo razvitiia Novosibirskoi oblasti na period do 2025 goda [Strategy of the social and economic development of Novosibirsk Region for the period of up to 2025]. (2007). *Prikaz gubernatora Novosibirskoi oblasti No 747 ot 03.12.2007* 

Szirmai, A., Naudé, W., & Goedhuys, M. (2011). Entrepreneurship, innovation, and economic development. Oxford University Press. doi: 10.1093/acprof:oso/9780199596515.001.0001

Tsapiyeva O.K. (2010). Ekonomicheskie problemy regionov i otraslevykh kompleksov [Economic problems of the regions and branch complexes]. *Problemy sovremennoi ekonomiki*, 2 (34), 46–49.

Zolotareva A. F. (2010). Innovatsionnaia strategiia razvitiia munitsipal'nogo obrazovaniia [Innovation strategy of development of municipal formation]. *Enterpreneurship*, 10.

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#### Irina BELYAYEVA

Financial University under the Government of the Russian Federation, Russia e-mail: IBelyaeva@fa.ru Yury KLIMKIN Financial University under the Government of the Russian Federation, Russia e-mail: 3649922@gmail.com

# **Basic Characteristics of Contemporary Corporate Environment: Management Problems and Managerial Solutions**

#### ABSTRACT

A huge multinational corporations are strong politic and economic agendas in a modern world. It is important to analyze the process of development of corporations and their operating environment in order to understand current development trends in the economy and the society in general. Modern corporations are the open economic systems, and they are the parts of environment: a combination of factors and activities of various groups that affect the corporation externally and cause certain changes in its behavior. In this topic we analize the management problems and solutions for corporation as a part of the environment. **Key words:** *Corporate Environment, Management Problems, Managerial Solutions, open economic system.* 

In recent decades, the number of corporations has grown, their versatility and multinationality have increased, as did their impact on global economic processes (Fedorov, 2012). According to some experts, corporations are a tool of specific struggle and market expansion in the global economy; they define the core areas of any country's domestic and foreign policy.

Thus, G. B. Kochetkov and V. B. Supyan compare largest corporations' sales to national GDPs and maintain that only 49 of the world's top-100 economies are states, while 51 are corporations. Sales of the top-200 corporations are increasing faster than the global economy in general. Their combined sales equal 27.5 percent of the world's GDP (Kochetkov, & Stupyan, 2005).

It is important to analyze the process of development of corporations and their operating environment in order to understand current development trends in the economy and the society in general. On the one side, corporation is a fairly efficient and self-sufficient economic system; moreover, it is an open one. On the other side, it is a social institution. In Peter Kestenbaum's view (*The Soul of a Business*), "corporations are as important for today's society as the church used to be. Consequently, a company carries the burden of moral responsibility". Corporations face ambitious and significant tasks that are not restricted to raising profits. The corporation as a modern institution reflects many social groups' aspirations and desires and implements the ideas of changes in the society. R. Salmon holds that "today, the company appears all the more frequently as a substitute for the family, the community, the state and even the church. This is especially true for large corporations with their widely promoted brands, trademarks and 'corporate culture'". Some of them do undertake missions that are not directly related to business and have more to do with the area of ethics and social problems" (Salmon, 2004).

As an open economic system, the modern corporation depends on its external content, the so-called environment: a combination of factors and activities of various groups that affect the corporation externally and cause certain changes in its behavior.

It is worth mentioning that the acceleration of changes in corporations' environment that began at the end of the twentieth century keeps growing in the twenty-first. This is bound to affect the corporation's activities, their mechanisms of managerial decision-making and the formulation of their corporate strategy. Alvar Elbing points out, "The organization's environment poses more and more problems for modern managers. In fact, recent events have made the leaders of the organizations that are of utmost importance for the society – commercial, educational and public institutions – to focus on the rapidly changing environment and its impact on their organizations' internal structure".

We shall use an environment study by J. P. Kotter and try to identify factors of the environment which cause such serious changes in corporate management (Kotter, 2008).

Churt It Environmentar ruce	ors finat bring About External Ci	iunges in corporations	
Globalization of markets and fiercer competition			
Factors of the environment that affect the corporation			-
Technological	Economic	Political	Social
– Development of resource- saving technology and nanotechnology	– free movement of capital on a global scale	– a change of the global political map	– implementation of the CSR concept and sustainable development
– Creation of high quality communication tools	– increase of meta-regulation in the economy	– new countries switching to market economy	<ul> <li>development of ideas of corporate citizenship and common social values</li> </ul>
– Development of global information systems	– increase of labor mobility	expansion of privatization	– Civil society gains importance
<ul> <li>Introduction of high-speed effective transport</li> </ul>	<ul> <li>increase of export revenues' share</li> </ul>	– formation of new transnational alliances	
	<ul> <li>increase of turnover fluctuation and crisis unpredictability</li> </ul>		
	– deceleration of economic growth in developed countries, leading to recession		
Consequences			
New opportunities for corporations: markets increase in number and size; fewer and weaker thresholds remain in place for businesses New requirements for the organizations and their management – large-scale changes in corporations for continuous adaptation		New threats to corporations: Fiercer competition Acceleration of business life	

#### Chart 1. Environmental Factors That Bring About External Changes in Corporations

To benefit from the new opportunities and to mitigate the new threats in the modern corporate environment, corporations must constantly improve their efficiency by developing their operations, restructuring and updating all types of their management activities, revising their strategic priorities, setting up effective incentives for designing and taking managerial decisions (Matveev, Habibulin, & Butova, 2015).

Even the most powerful corporations cannot resist globalization and have to consider various factors of the environment. It is obvious that these factors are divided into four main groups: technological, economic, political and social ones; it is difficult to tell which group of factors affects the corporation more or less than others or whether a group of factors affects both the company and the external environment and makes the latter more complicated. Therefore, one of the attributes of the present environment is its complexity, as determined by the number and the variety of the factors to be considered. It is important to assess each factor's impact and relationship with other factors. For example, the development of science, engineering and business technology exerts a strong impact on corporations. Already by the end of the twentieth century, new high-quality and fast-performance communication devices had become widespread. The Internet enables one to coordinate various business activities, efficiently to monitor corporate units and staff performance. Distances and locations of corporate units are no longer as significant as they used to be; management capabilities have seriously expanded. Nowadays, one may instantly receive or transmit any amount of data from/to different locations in the world. This allows easily to solve various management problems but, at the same time, complicates the corporate community's life, since any corporate activities, both positive and negative, become known to general public. Consequently, corporations have to consider the impact of their activities upon the society, the environment and the local community development.

Another significant feature of today's environment is its mobility, i.e. the environment's own change rate. A. Toffler, the author of *Future Shock* and *The Third Wave*, considers the acceleration of changes in the environment a general trend of the time. These changes affect not only the corporation as a system, but also its constituent elements: the structure, the growth rate of individual units. Increasing amounts of information, its diversity and the need to process it in time complicate the making of prompt and correct managerial decisions. Thus, clear management programs are required that set priority areas for changes, namely: the techniques, the parameters and the conditions of competitive struggle and strategic business development. It should be noted that new technologies, high-quality communication tools and high-speed transport enable rapid transfer of data and any other resources across the globe. Access to information and resources is no longer as crucial for a corporation's competitive advantage as it used to be.

It is at this point that another significant feature of the environment transpires: the environment's uncertainty which may be understood as a function of the amount and reliability of information about a specific situation. The less information and the more doubt as to its reliability, the more uncertain is the corporation's environment. What are the consequences? The management's decision-making process becomes more complicated. Indeed, making managerial decisions is a part of daily work of corporate management and covers all areas of management.

## MANAGEMENT

Ultimately, managerial decisions are the factor to be used by the boss to ensure that the task set for the company is achieved. However, greater uncertainties in a corporation's environment cause more difficulties in making effective managerial decisions, in choosing feasible options that would significantly contribute to the achievement of goals. Therefore, the management's dependence on larger amounts of information and on its greater accuracy is increasing. If one cannot be confident as to the accuracy of one's information, one is bound to be dependent on multiple expert opinions. On the one hand, it is difficult to imagine the development of managerial solutions in a corporation without using large amounts of information and various think tanks; on the other, this method entails a greater probability of false conclusions and a dilution of responsibility for the consequences of incorrect or inefficient managerial decisions.

Thus, it has become clear that the main features of the corporate environment are:

- interdependence of factors: a change of one factor affects the other ones;
- complexity: a high number of factors that affect the corporation;
- mobility: the environment's change rate;
- uncertainty: the amount and the reliability of information that exists in the environment.

Going back to the interdependence of the aforementioned groups of environment factors, one ought to mention a significant increase of the global capital flows and easy access to financial resources, which, combined with their limited quantities, are causing a fiercer struggle for financing among corporations. It should be noted that greater mobility of resources and goods, combined with their limited quantities, will only step up the competition and, paradoxically, will increase the environment's uncertainty. As a result of global changes in the markets, access to cheaper labor and imported materials and components likewise loses its importance, although the attempts to regulate these processes have not completely ceased.

Political factors that have fundamentally changed the global map have a great influence on the global economy. New countries enter global markets, new corporations are established through massive privatization and listing. Entities from developing countries are no longer mere suppliers of raw materials: they are becoming global players in their own right. As a result, spheres of economic influence are reshaped and new centers appear; this causes an even fiercer competition and a greater global uncertainty.

Therefore, one may agree with experts who state that the current global changes have rendered irrelevant the factors that could provide companies with sustainable and reliable competitive advantages just 10-15 years ago (Zhdanov, 2013). Nowadays it is almost impossible to find a company that has not been affected by the current global changes. Moreover, it is interesting and significant that, on the one hand, market globalization and fiercer competition pose serious dangers for the corporation's existence, but, on the other hand, they may give it radically new development opportunities by making it adapt to an ever-changing environment. Global changes in the business environment and in the key factors of competitive power force corporations to mobilize internal resources as well: they feel bound to rearrange their activities, to reshape their corporate and organizational structure, to increase the efficiency of their asset management.

#### The Impact of Environment Changes upon a Corporation May Be Represented as Follows

		Changes		
Impact of technological factors		Assets and their effective use to the benefit of shareholders		Impact of political factors
		Board of Directors		
Resources	Identification of a problem	Management	Decision making	Operating results
Impact of economic factors		Corporate Mission statement		Impact of social and cultural factors
		Corporate Statement of Purpose		
		Changes		

#### Chart 2. The Impact of Environment Changes upon a Corporation.

In this context, it is necessary to understand the interrelation of direct and indirect environment factors.

Factors That Have Direct Impact

Factors That Have Indirect Impact

It is obvious that any serious impact on a company requires a sufficient quantity of indirect impact factors, but analysis of these groups of factors suggests that there is a significant number of stakeholders that affect the corporation's activity and their interests must be in any case considered when managerial decisions are made (Vedzizhev, Chikin, Butova, 2015).

Present-day corporations must consider multiple stakeholders' interests. Though profit generation is indisputably important, competi-

tive advantage will be difficult to achieve unless one respects the interests of one's stakeholders: individuals or organizations that affect the company.

The number of stakeholders and their impact keep increasing. This causes a greater complexity and variability of the environment, and corporate management has to reckon with it. One may speak about the necessity of understanding and respecting the interests of persons that are important for a business (E. Griffin), about differences in how a corporation is perceived by its opponents. Even among the share-holders, there may be persons whose goals do not coincide: one expects dividends, another one wishes permanently to tap into the corporate cashflows in order to cover their personal costs, and there are also those who wish to expand their influence. We should also mention the diverging interests of investors as suppliers of financial resources:<sup>1</sup> thus, for example, an investor may have a short-term vision for a company's business and may be interested in a rapid growth of the company's value. A strategic investor has a different approach: he/she is interested in the company's long-term performance. It is obvious that the interests of different investor groups diverge. There may even be investors who are interested in a temporary downfall of the corporation's stock value. These aspects should be taken into account when managerial decisions are made. Strategic decisions are the area in which shareholders and investors may exert the strongest pressure; moreover, the mechanisms of such influence are set forth in corporate constituent documents and are required by regulators. Managers constitute a group of stakeholders of their own, and special attention should be given to their interests. It might seem that managers' interests should rather be aligned with those of the company; however, in practice, the management often seizes an opportunity of gaining personal benefits and neglects the shareholders' interests. It should be realized that any company's growth depends directly on the efforts of its management, on its ability to set up effective management systems, to optimize business processes and to participate in

It is certain that a corporation's long-term development is directly linked to a wide range of stakeholders. Thus, R. Freeman, a renowned expert in stakeholder theory, defines 10 principles that develop the company's stakeholder awareness (see Table 1).

No.	Principle name	General description
1	2	3
1.	Permanent monitoring of stakeholders' interests	The main idea of interaction with stakeholders consists in the understanding that value creation process is a joint action, as the company should both bring profits to its shareholders and fulfil obligations towards the state, the creditors, etc.
2.	Recognizing the fact that stakeholders are real persons with complex interests. They have their names, faces and values.	Employees are rather motivated to work in a company if they share its values and mission. The company, in its turn, has to consider the value of its employees.
3.	Searching for solutions and issues that may satisfy several groups of stakeholders at the same time.	Company managers should balance the stakeholders' interests and should respect the concerns and the expectations of multiple stakeholder groups.
4.	Engaging in intensive interaction with stakeholders, including unfriendly ones	Various methods of dialogue with the customers, the suppliers, the employees, the shareholders, the NPOs, the mass media and other stakeholder groups.
5.	Voluntarist mentality – seeking to manage one's stakeholders rather than having the government do it.	The need to change one's approach and voluntarily to bring one's management processes more in line with the stakeholders' expectations, and that without the state's involvement, may pose a serious challenge for a company's management.
6.	Generalization of the marketing approach	The need to increase companies' efforts to identify stakeholder needs, to use of marketing methods of stakeholder segmentation for a better understanding of their individual requirements and the multilateral nature of the majority of stakeholder groups.
7.	Never put the interests of one stakeholder on the same level with the interests of another one for a long period of time	Combining the concepts of "serving one's customers" and "serving one's employees" into a philosophy "serving one's stakeholders".
8.	Negotiating with primary and secondary stakeholders.	Strategic planning and interaction with groups or individuals that may affect the company are necessary.
9.	Permanent change of business processes to optimize the relationships with your stakeholders.	Any good stakeholder relationship may be improved further.
10.	Pursuing the goal of keeping one's promises made to stakeholders.	To strive for a balance between and the achievement of the company's and the stakeholders' goals (expectations).

Table 1. Ten Principl	es That Develop the Company's Stakeholder Awarene	SS

It should be noted that stakeholders' expectations are constantly changing; therefore, the task of maintaining stakeholder relations becomes more and more difficult. Any strategic step of the company will affect certain stakeholders in different ways and make them take action to protect their interests. Many experts warn that inconsistencies between the company and its stakeholders in short-term perspective could be quite significant. This seriously limits the range of alternatives available for the company in any specific moment. It becomes more difficult to identify a management problem and to develop a proper solution.

It seems that the field of interests of all involved parties should be structured, i.e., one may speak about compiling a general map of a company's interests and defining the dominating vectors in it. Probably, it should be followed by analysis of stakeholder behavior and an effort to facilitate cooperation and synergy, i.e., a process to define the company's common development "corridor" is required; such a process may bring about a fairly strong union of the parties interested in such development.<sup>2</sup>

It is easier to match different parties' interest areas and expectations and to agree upon objectives and priorities in a long-term perspective. Many experts suggest that the process of interest alignment should begin with finding such a common point in the future and then proceed by moving from that point into the present in order to arrive at a consensus. In this task, it is essential to search for ways of aligning interests.

#### References

Vedzizhev, M. B., Chikin, A. Y., & Butova, T. V. Osobennosti upravleniia v XXI veke [Special Aspects of Management in the 21st Century]. Sbornik nauchnykh statei po materialam ezhegodnoi Mezhdunarodnoi nauchno-prakticheskoi konferentsii «Aktual'nye problemy i perspektivy razvitiia gosudarstvennogo upravleniia» ot 25 noiabria 2014 g, 95-97.

Zhdanov, A. Y. (2009). Upravlenie protsessami restrukturizatsii integrirovannykh korporativnykh struktur [Management of Transformation and Restructuring Processes in Integrated Corporate Structures]. (Doctoral dissertation, A. Iu. Zhdanov. M., 2009).

Kochetkov, G. B., & Stupyan, V. B. (2005). Korporatsiia. Amerikanskaia model' [Corporation: The American Model]. Moscow and St. Petersburg: Piter, 8-9.

Kotter, J. P. (2008). Sut' peremen [Leading Change] Moscow: ZAO Olimp - Business.

Matveev, N. A., Habibulin, P. A., & Butova, T. V. Kharakteristika metodov rukovodstva organizatsiei [Specification of corporate management techniques]. Sbornik nauchnykh statei po materialam ezhegodnoi Mezhdunarodnoi nauchno-prakticheskoi konferentsii «Aktual'nye problemy i perspektivy razvitiia gosudarstvennogo upravleniia» ot 25 noiabria 2014 g, 249-251.

Salmon, R. (2004) Budushchee menedzhmenta [The Future of Management]. SPb.: Piter (Ed. E. V. Mineeva; St. Petersburg: Piter, 2004), p. 233.

Fedorov, A. V. (2012). Wait for a new revival wave. The Russian Academic Journal, 20(2), 6.

Gryaznova, A. G., Markina, E. V., Sedova, M. L., & Vasyunina, M. L. (2013). Finansy [Finances]. Moscow: Finansy i statistika

Christensen, J. F. (2006). Withering core competency for the large corporation in an open innovation world. Open Innovation: researching a new paradigm. Oxford University Press, Reino Unido, 35-61.

Bieler, A., Higgott, R., & Underhill, G. (Eds.). (2004). Non-state actors and authority in the global system. Routledge.

Jensen, N. M. (2008). Nation-states and the multinational corporation: A political economy of foreign direct investment. Princeton University Press.

Bratton, W. W., & Wachter, M. L. (2008). Shareholder Primacy's Corporatist Origins: Adolf Berle and The Modern Corporation. J. Corp. L., 34, 99.

Chesbrough, H. W., & Appleyard, M. M. (2007). Open innovation and strategy. doi: 10.2307/41166416

Minsky, H. P., & Kaufman, H. (2008). Stabilizing an unstable economy (Vol. 1). New York: McGraw-Hill.

Weber, M. (2009). The theory of social and economic organization. Simon and Schuster.

Burgesmani, R. A., & Wheelwright, S. C. (2004). Strategic management of technology and innovation. READING, 1(1).

Jacoby, S. M. (2007). The embedded corporation: Corporate governance and employment relations in Japan and the United States.

Prahalad, C. K., & Hamel, G. (2006). The core competence of the corporation (pp. 275-292). Springer Berlin Heidelberg. doi: 10.1016/ B978-0-7506-7223-8.50003-4

Weihrich, H., & Koontz, H. (2005). Management: A global perspective. Singapore: McGraw-Hill.

Freeman, R. E. (2010). Strategic management: A stakeholder approach. Cambridge University Press. doi: 10.1017/CBO9781139192675 Drucker, P. F., & Maciariello, J. A. (2008). Management Rev Ed. Zondervan.

Hammer, M., & Champy, J. (2009). Reengineering the Corporation: Manifesto for Business Revolution, A. Zondervan.

Zhihua, X. (2007). Internal Control, Corporation Governance and Risk Management: Relationship and Integration [J]. Accounting Research, 10, 007.

In this regard, it may be interesting to analyze public companies' non-financial reports that give the idea of how their business processes are affected by the interests of various stakeholder groups.

One may recall the Pareto set that describes possible company transformations that do not threaten anyone's interests.

HD3611-4730.9

#### Yulia PETROVA

Financial University under the Government of the Russian Federation, Russia e-mail: mfi21@yandex.ru

# The System of Corporate Governance in Companies With State Participation

#### ABSTRACT

The article describes the features of corporate governance in the public and non-public joint stock companies with state participation. **Key words:** corporate governance, state-owned companies, public and non-public joint stock companies, stakeholders, board of directors, management

Nowadays there are many corporate governance models which are formed in different countries under the influence of cultural, national, social and other peculiarities. Moreover, each of such models is specific, and, in particular, in public and non-public corporations. There is a generally accepted international practice which is appropriate for Anglo-Saxon and Continental systems of law and which involves setting of stricter requirements for corporate governance in public companies. At the same time, companies, which have no plans for placement in the stock market, obey more flexible laws that give shareholders more freedom, and specifically freedom to choose a corporate governance model and an adequate business development strategy<sup>1</sup>.

Criterion of division of joint stock companies into public and non-public is usually the placement and circulation of shares. The question on the advisability of establishing additional quantitative criteria, for example, which are connected with the number of shareholders, is still under discussion. Traditionally, public companies have to meet strict requirements with regard to the disclosure of information on any deviations from standard rules – modification of corporate bodies' competence, decision-making procedure, etc., which are formulated in the form of the principle "comply or explain". Such requirements are being currently extended and complemented with requirements imposed on the composition of financial and non-financial reports, organization of internal and external audit, disclosure of information on different aspects of company's operation connected with the remuneration payment policy, interested party transactions, control over risks and other.

Therefore, differentiation of regulation of public and non-public companies virtually means increasing of optionality in choosing of corporate governance models for non-public companies and simultaneous strengthening of regulation of public corporations. It is evident that a state, as an owner and shareholder of commercial companies, becomes a subject of economic, legal, social relations arising in the course of cooperation of all interested persons, i.e. becomes a party of the corporate governance process. Due to a broad range of legal, economic, social relations arising in the process of the federal property management (and, in particular, equity assets) in Russia, researchers emphasize that it is unique as a theoretical legal construction. In this perspective, "corporate governance of the federal property" is represented as "symbiosis between the classical corporate governance, which is based on optional legal relations between parties of governance, and state governance, which is based on heavy regulation of management functions and carrying out the state activity, within the framework of which the executive power is practically exercised by special entities – executive authorities".

While the state invests in companies' shares, it becomes a full market participant and joint enterprising entity, and faces the necessity to participate in the corporate governance of joint stock companies by its representatives. Activity of joint stock companies with state participation is controlled by different supervisors which represent not only interests of a state but also interests of other investors. In this case the state acts as a "complex stakeholder" having wide interests: in profit taking, increase of budget incomes, improvement of management of federal property subjects, fulfillment of social obligations, for exercising of all required functions of the state.

It should be noted that it will be an optimal position, if the state can strike a balance between its regulating function and the function of a shareholder, a full market participant. The state should establish optimum conditions for transparency of activities of market entities by using effective legislative tools, tariff regulation and with the aid of supervision and inspection authorities.

The right of the state to take part in activity of commercial companies is established in the Civil Code of the Russian Federation. As the owner of shares the state has the right to receive part of the profit generated from joint stock companies' activity and to take part in

<sup>1</sup> More detailed information can be obtained from the web portal of the Ministry of Economic Development of the Russian Federation http://economy.gov.ru/ minec/press/interview/doc20121115\_05

governance of a company. According to the functioning state program of the Russian Federation "Federal property management" (for the period 2013-2018) "companies with state participation are defined as commercial companies, shares in the authorized capital of which are in the federal ownership (irrespective of the amount)".

Joint stock companies with state participation can be grouped according to a number of its shares: sole shareholder (100%) and one of shareholders (less than 100%). In the first case, the state being a sole shareholder takes part in forming of the board of directors (supervisory board) and executive authorities. In the second case, the state partially participates in corporate governance by its authorized agents, or participates in forming of separate bodies of corporate governance, for example, a joint stock company with state participation in stock capital; a joint stock company, in the membership of the board of directors (supervisory board) of which state agents are present.

Nowadays it should be noted that there are a number of significant changes regarding activity of joint stock companies in the legal system. Thus, many amendments to Chapter 4 of Part One of the Civil Code of the Russian Federation concerning legal entities are entered into effect from September 1, 2014, and they significantly changed legal boundaries for Russian business. It stands to mention that there is a great concentration of ownership in Russian non-public companies, and key corporate decisions, including a status of company lifetime (public or non-public), determining of a corporate governance model, recruitment and personnel of its governing bodies, are made by owners or key co-owners of companies.

If mandatory regulation, which excludes discretion for companies attracting funds of indeterminate number of investors, is applied for public companies, then optional (permissible) regulation, which gives the opportunity to choose between various options, is applied for non-public companies, according to amendments to Law N 99- $\Phi$ 3 of the Civil Code of the Russian Federation. Overall, amendments to the Civil Code of the Russian Federation concerning non-public companies can be characterized as being more optional in comparison with former regulations – it gives business more freedom to choose the particular legal framework. Competence of corporate governance bodies in public and non-public joint stock companies are provided in Table 1 (Civil Code of the Russian Federation, 1994).

Table 1. Competence of Corporate Governance Bodies in Public and Non-Public Joint Stock Companies		
(Butova, Kharchilava, & Abdrakhmanova, 2015)		

Public joint stock companies	Non-public joint stock companies
Competence of the general meeting of shareholders (hereinafter – GMS) cannot be changed	Competence of GMS may be limited by a unanimous resolution of shareholders, except for the issues specified in subclause 1) of Clause 3, Article 66.3 of the Civil Code of the Russian Federation; it may be extended in any manner.
	*A unanimous resolution is made by all shareholders (not only by those who take part in GMS).
Governance board (board of directors, supervisory board, hereinafter – GB) is obligatory. Number of GB members is not less than 5.	GB is not obligatory, <b>if the number of shareholders holding voting shares is less than 50</b> (Clause 4, Article 65.3 of the Civil Code of the Russian Federation and Clause 1, Article 64 of the Joint-Stock Companies Act as amended).
	Number of participants of GB may be less that 5 as defined by unanimous resolution.
<ul> <li>Collective executive body (management board, directorate, hereinafter – CEB) is obligatory.</li> <li>Subclause 2), 3) of Clause 3, Article 66.3 of the Civil Code of the</li> </ul>	CEB may not be formed and its functions may be transferred to a governance board or sole executive body as defined by a unanimous resolution of shareholders.
Russian Federation allows abolition of CEB in non-public joint stock companies only.	
– CEB is not obligatory; in this case a unanimous resolution for its abolition is not required.	
Clause 3, Article 65.3 of the Civil Code of the Russian Federation: CEB is formed "in cases prescribed by this Code, other law or corporation's articles of association". There is no direct claim on formation of CEB in each public joint stock	
company in the Civil Code of the Russian Federation.	Sole executive body (hereinafter – SEB) is obligatory.
Sole executive body (hereinafter – SEB) is obligatory.	Articles of Association may provide for several SEB, acting jointly or independently.
Articles of Association may provide for several SEB, acting jointly or independently.	

Order of convening, preparing and holding of GMS and passing resolutions by GMS cannot be changed.	According to a unanimous resolution of shareholders order of convening, preparing and holding of GMS and passing resolutions by GMS, which are established by laws and other legal acts, may be changed under the following conditions: shareholders are not deprived of their right to take part in GMS; shareholders are not deprived of the right to obtain information regarding GMS. Conclusion: rules and terms established in Chapter VII of the Joint-Stock Companies Act ("General Meeting of Shareholders) and the Regulation on supplementary requirements for preparing, convening and holding of GMS (order of the Federal Financial Markets Service of Russia No.12-6/пз-н dated 02.02.2012)
Cannot be changed: order of forming; procedure for holding of meetings of a governance board and collective executive governing body	According to a unanimous resolution of shareholders order of forming; procedure for holding of meetings of a governance board and collective executive governing body can be changed in comparison with the law and other legal acts.
Audit Commission is obligatory	Audit Commission can be abolished by a unanimous resolution of shareholders
Annual accounting (financial) statements are obligatory for all JSC. Auditor should not be "bound by the property interests" with JSC or its shareholders	Annual accounting (financial) statements are obligatory for all JSC. Auditor should not be "bound by the property interests" with JSC or its shareholders

It should be noted that goals of the state and business plans may contradict each other. The traditional goal of a company is to maximize shareholders' equity. Goals of the state, basically social or political goals – it is necessary to ensure strategic advantages in the foreign policy for a country, and also create jobs, people should be supplied with essential services, such as communication services, electricity, heat, gas, and all these may be contrary to commercial purposes. Under such conditions, the state can ignore companies' financial hardship, losses, unsettled debts. The goal system, which is contradictory right from the beginning, makes objectives of corporate governance more complicated.

Traditional division into an owner and an agent (manager), which dispose of assets, is becoming more complex. Citizens are officially owners of state assets. However, citizens manage state-owned companies not directly, this role belongs to the state as an institution, and, more precisely, to government establishments. Then the management function is carried out by representatives of state authorities in the management structure of a company. Such mediation minimizes the degree of shareholders` control over activity of the employed management. There is increasing of risks of dishonesty of agents, which can use company's assets for personal interests.

Boards of directors in non-public companies with state participation fulfil the role of referral agents. Functions of boards of directors in such companies often come to transmitting of resolutions passed at a higher level. State agents vote on key issues in the consolidated form on directives. They do not actively and personally take part in development of management decisions due to official hierarchy or lack of motivation. Such circumstances are in direct contradiction to principles of fiduciary responsibility, i.e. liability personally incurred by a member of the board of directors towards all shareholders of a company. As a result, boards of directors may not be bodies which pass a resolution concerning important issues, such as appointment (or removal) of the general director, acquisition of a significant portion of assets, defining strategic directions for investment, etc.

In our opinion, a special corporate governance model is essential for non-public companies with state participation: great transparency of corporate objectives and solutions for their achievement, professionalism of members of the board of directors and its collective leadership. This could help to systematize and subsequently to take into consideration goals which are specific for state-owned companies and specific risks connected with the ownership structure and not always clear motivation of "agents".

In accordance with Clause 1 of Russian Federation Government Regulation dated December 3, 2004 No.738 "On Management of Federally Owned Shares of Joint Stock Companies and Exercise of Special Right of the Russian Federation to Participate in Management of Joint Stock Companies ("Golden Share")", rights of shareholders of joint stock companies, shares of which are owned by the Russian Federation, are exercised by the Federal Agency For State Property Management (FASPM) on behalf of the Russian Federation. FASPM performs the following functions as an owner: inclusion of issues in the agenda of the general meeting of shareholders; nominating candidates for the election to governing bodies, the audit commission; request for the holding of the extraordinary general meeting of shareholders; convening the extraordinary general meeting of shareholders; appointment of a representative (grant of a power of attorney) for voting at GMS; determination of the status of the shareholder – the Russian Federation on agenda issues at GMS. Responsibility for the operative administration of companies with state participation may be allocated to sector ministries. However, FASPM must negotiate its decisions with the relevant sector ministry. As a result, decision-making procedures with respect to state-owned companies become lasting and excessively bureaucratic.

The analysis of the corporate governance system in non-public Russian companies with state participation helps to make a number of specific recommendations implementation of which will provide for compliance of company's results with goals and tasks both of a company and the state.

Proposals for solution of problems connected with multitask agency service in non-public companies with state participation. There is a key performance indicator of the company in the private sector – it is income. There are many indicators in the public sector, these are economic and non-economic. Managers always can always declare that the reason why they have lost their money was not their

incompetence or inefficiency, but pursuing other aims. When there is a balance between different indicators, managers can explain that they failed to pursue one of the goals because of "outgoings" following attempts to pursue other goals. Falling of turnover may be explained as the necessary consequence for maintaining employment. Dismissals may be justified as the necessary precondition for profitability. This makes it impossible for a shareholder to establish some certain criteria of successfulness for assessment of management, which in its turn leads to quite serious problems in agency service (Kozhevina, Balunova, & Boyko, 2015).

Determination of a balance between indicators is assigned to a manager for now; however, if several indicators are given to him, this will be the same as to provide "indulgence" which waives responsibility for professional failures.

It is worthy of note that the problem of multitask agency service is not only the problem of stimulation which could be resolved by goodwill or more effective "internal" control. Competition in the private sector not only stimulates but also provides important information on successfulness of a company (2012). For example, private companies can define the degree of successfulness, if they compare themselves with other companies operating in the competitive environment. Indicators of management assessment should be commensurable for such comparing of companies. Consolidated directions for profit maximization allow comparing between companies because all managers do approximately the same in the similar economic environment.

Thus, from the point of view of corporate governance, the only possible solution is that a principal determinates the balance between different indicators which is desirable for a him. Issues on protection of interests of an owner are erased for the most part with the help of setting of clear goals. Focus on motivation of managers in stimulation systems is a determinant. Any management activity of managers should be governed by pursuing of the main goal – increase of the company's value for ensuring the sustained growth of a company. Strategies of management of the state-owned property should start from the principle that the state-owned companies, with respect to which the state has no goals other than goals of a private investor, should be privatized.

In turn, special goals and tasks of the state being an owner should be clearly formulated in a special document (conditionally – a middleterm corporate plan). At least three institutional options of the similar document can be used: inclusion of special goals in the articles of association of a company; conclusion of an agreement (contract) between the responsible state body (FASPM) and a company.

Each option has its comparative advantages; however, a special agreement/contract is generally preferred. Contracts may be concluded individually with any company and legally bind them to pursue goals which were defined in this agreement/contract by the state. Concluded contracts may be a platform for development of middle– and long-term plans of a company, which will represent not only goals and tasks put forward by the state, but also management proposals based on its experience and knowledge concerning competitive advantages of its company.

Corporate plans should act a dual role in the management system: firstly, they will perform the function of an orienting point for the parties of corporate governance, including company's management and state agents; secondly, they will help to limit possibilities of the optional interference of the state with company's decision-making. Implementation of such documents will allow increasing operational flexibility of state agents in governing bodies of a company and at the same time to implement the formalized procedure of control of their activity (Guniya, 2011).

State policy in the field of administration of its property should be guided by equal basis with all interested persons. It is important that the state acts as an active and transparent owner with respect to the companies where it is a controlling shareholder. Such transparency should be respected also in relations with all stakeholders. Boards of directors of companies with state participation should act for the benefit of the whole company, and in this case it is important to enhance the role of independent directors. Thus, activity of the corporate governance system in non-public companies with state participation is less bureaucratic and simplified in a number of issues. However, public companies with state participation are the most attractive for investments, and are among largest companies according to the level of market capitalization.

#### References:

Baysinger, B. D., & Butler, H. N. (1985). Corporate governance and the board of directors: Performance effects of changes in board composition. Journal of Law, Economics, & Organization, 1(1), 101-124.

Bebchuk, L., Cohen, A., & Ferrell, A. (2009). What matters in corporate governance?. Review of Financial studies, 22(2), 783-827. doi: 10.1093/rfs/hhn099

Bertrand, M., & Mullainathan, S. (2003). Enjoying the quiet life? Corporate governance and managerial preferences. Journal of political Economy, 111(5), 1043-1075.

Blair, M. M. (1996). Ownership and control: Rethinking corporate governance for the twenty-first century. Brookings Institution. Carter, D. A., Simkins, B. J., & Simpson, W. G. (2003). Corporate governance, board diversity, and firm value. Financial review, 38(1), 33-53. Council, A. C. G. (2007). Corporate governance principles and recommendations.

Denis, D. K., & McConnell, J. J. (2003). International corporate governance. Journal of financial and quantitative analysis, 38(01), 1-36. doi: 10.2307/4126762

Dodd, P., & Warner, J. B. (1983). On corporate governance: A study of proxy contests. Journal of financial Economics, 11(1), 401-438. Eng, L. L., & Mak, Y. T. (2003). Corporate governance and voluntary disclosure. Journal of accounting and public policy, 22(4), 325-345. doi: 10.1016/S0278-4254(03)00037-1

Farber, D. B. (2005). Restoring trust after fraud: Does corporate governance matter?. The Accounting Review, 80(2), 539-561. Forbes, D. P., & Milliken, F. J. (1999). Cognition and corporate governance: Understanding boards of directors as strategic decision-making groups. Academy of management review, 24(3), 489-505.

Gompers, P. A., Ishii, J. L., & Metrick, A. (2001). Corporate governance and equity prices (No. w8449). National bureau of economic research. doi: 10.1162/00335530360535162

La Porta, R., Lopez-de-Silanes, F., Shleifer, A., & Vishny, R. (2000). Investor protection and corporate governance. Journal of financial economics, 58(1), 3-27.

Lazonick, W., & O'sullivan, M. (2000). Maximizing shareholder value: a new ideology for corporate governance. Economy and society, 29(1),

MANAGEMENT

13-35. doi: 10.1080/030851400360541

Shitkina, I.S., & Biryukov, D.O. (2013). Predpriiatiia s gosudarstvennym uchastiem: osobennosti zakonodatel'nogo regulirovaniia i korporativnogo upravleniia. Natsional'nyi doklad po korporativnomu upravleniiu [Companies with state participation: features of legislative regulation and corporate governance. National report on corporate governance]. Moscow.

Shleifer, A., & Vishny, R. W. (1997). A survey of corporate governance. The journal of finance, 52(2), 737-783. doi: 10.1111/j.1540-6261.1997. tb04820.x

Williamson, O. E. (1988). Corporate finance and corporate governance. The journal of finance, 43(3), 567-591. doi: 10.1111/j.1540-6261.1988.tb04592.x

Bandurina, N.V. (2012). Pravovoe regulirovanie korporativnogo upravleniia v federal'noi sobstvennosti v Rossiiskoi Federatsii: Avtoreferat D.J.S [Legal regulation of corporate governance of the federal property in the Russian Federation: author's abstract of D.J.S]. Moscow. Butova, T.V., Kharchilava, H.P., & Abdrakhmanova, A.G. (2015). Problemy motivatsii gosudarstvennykh sluzhashchikh, monografiia [Problems of motivation of state agents, monograph]. Moscow.

Council, A. C. G. (2003). Principles of good corporate governance and best practice recommendations. Australian Stock Exchange Limited. Gosudarstvennaja programma Rossijskoj Federacii «upravleniju federal'nym imushhestvom" (na period 2013-2018 godov). Utverzhdeno Postanovleniem Pravitel'stva ot russkoj Federacii № 327 ot 15 aprelja 2014 goda [State Program of the Russian Federation "Federal Property Management" (for the period of 2013-2018). Approved by Government Regulation of the Russian Federation No. 327 dated April 15, 2014].

Grazhdanskij kodeks Rossijskoj Federacii. ot 30.11.1994 N 51-FZ (prinjat Gosudarstvennoj Dumoj Federal'nogo Sobranija Rossijskoj Federacii 21.10.1994) [Civil Code of the Russian Federation. dated 30.11.1994 N 51-Φ3 (enacted by the State Duma of the Federal Assembly of the Russian Federation 21.10.1994)]. (as amended 06.04.2015).

Guniya, A.A. (2011). Obespechenie gosudarstvennykh interesov v deiatel'nosti aktsionernykh obshchestv s gosudarstvennym uchastiem. Finansovyi i iuridicheskii aspekt [Ensuring of state interests in activity of joint stock companies with state participation. Financial and legal aspect]. Zakon, 4, 112.

John, K., & Senbet, L. W. (1998). Corporate governance and board effectiveness. Journal of Banking & Finance, 22(4), 371-403. Kozhevina, O.V., Balunova, N.V., & Boyko, A.N. (2015). Institutsional'naia ekonomicheskaia osnova dlia otsenki kachestva upravleniia v organizatsiiakh gosudarstvennogo sektora: monografiia [Institutional economic bases for assessment of management quality in public sector organizations: monograph]. Moscow: INFRA-M.

Ob upravlenii nakhodiashchimisia v federal'noi sobstvennosti aktsiiami otkrytykh aktsionernykh obshchestv i ispol'zovanii spetsial'nogo prava na uchastie Rossiiskoi Federatsii v upravlenii otkrytymi aktsionernymi obshchestvami ("zolotoi aktsii") [On Management of Federally Owned Shares in Joint Stock Companies and Exercise of Special Right of the Russian Federation to Participate in Management of Joint Stock Companies ("Golden Share")]. Postanovlenie Pravitel'stva Rossiiskoi Federatsii ot 3 dekabria 2004 g. N 738 g. (as amended 30.04.2015).

JN6690-6699

#### Alexander KRYUCHKOV

The National Academy of Study and Analysis of the Problems of Corruption, Russia e-mail: a.v.kryuchkov@gmail.com

# Imitation of Anti-Corruption Activities of the State as a Factor of Political Corruption

#### ABSTRACT

Today we say that the Russian political system has died and it can't be used any longer. All this time up to the mid 1990s it was playing the role of a facade, behind which the privatization of our state by the government official bureaucrats in tandem with the criminal world was taking place. Since 2000s the government of Russia has been ruling the country in the regime of "manual control" and it's only the imitation of ruling by means of construction of social reality. One of the manifestations of this imitation is the governmental anti-corruption activities.

**Key words:** *imitation, state government, construction of social reality, anti-corruption activities, political elite, political competition, political corruption, trend of development, colonial expansion, political instability.* 

By the end of 2011 the Russian authorities had lost much of their popularity and support among a large part of the population. The tandem failed to solve at least a single issue that was important for the country and due to which the citizens of Russia could have turned a blind eye to an all absorbing corruption and arbitrariness. The most terrible factor which confirms this state of things is the increase of the so-called "cloning" of political mythologemes from year to year. It concerns practically all important actions which are imitations, as a matter of fact, that have taken place in Russia since the beginning of 2000s.

The national projects by means of which it had been planned to start modernizing the industry and, first of all, the thinking, burst like soap bubbles in real life (indeed, they had always been like this). One of our greatest achievements – "Sochi Olympic Games 2014" – has already absorbed 100% of the planned budget, but in reality it hasn't got the previously planned construction of the infrastructure moving.

An attempt to find the way out of not such an easy economic situation was the idea to create a middle class in the country through the support of small and medium business. Today the results show that small and medium business will soon disappear. It follows from this that our society keeps on being more and more divided.

The notorious military reform which is being so much spoken about, is proceeding simultaneously with corruption scandals in the Russian Army, regularly bursting ammunition depots and inability of the military command to shift to a contract army. And this factor doesn't give an advantage to the safety and military power of our country.

There is still no political competition which is a paramount foundation of a democratic state system. One party dominates in the political system of Russia. Under such conditions both system and non-system opposition is only beating the air. Any oppositionists are not only admitted to politics but are even cultivated as a kind of exotic animals in specially provided spaces for special situations. And as the political elite has a real power in the country and controls the mass media, NCO, SPA then it's not difficult for it to take control over the process of elections. So we have the corresponding "results" of the elections.

It's quite obvious for western politicians and government officials that today in Russia the democratic institutions are razed to the ground, there is only their imitation (Kasyanov, 2009). It's absolutely clear that if nothing changes in the country, Russia will be considered a Failed State very soon (Melnikov, 2011).

By and large, all Russian democracy is complete imitation. For the political elite it's an instrument of adaptation of loan institutions to traditional meanings (Viniar, 2011). Under such conditions the state government is nothing but a commonplace relaying of imitation practices.

Under the imitation practices we understand the actions of political, governmental and administrative character in which a substitution of real governmental purposes with simulacra is taking place (Solodov, 2011). The aim of these simulacra is to present imaginary results of the governmental activities. The notorious anti-corruption policy, by which D. Medvedev marked his presidency, has almost been lost in the spectre of the activities. It's quite obvious that it hasn't brought any results up to now and that its mechanisms have non-system features, disperse in different directions at the same time, contradict each other in some cases and have an imitation character (Solodov, 2011). Corruption as a political institution still determines "the rules of the game" for powerful elite, defines the limits of interaction between the state and different

groups of interest (Lazarev, 2011). It's used as a stabilizing mechanism in conditions of considerable political instability and a threat of political violence (Lazarev, 2011).

Domestic political corruption is in a certain meaning "an export product". Of course, there are indices which are not inferior to the world's trends. But some products are so perfect that common people can't tell one from the other, especially to see the difference. In a system understanding this kind of corruption can be characterized as "colonial expansion" (Slizovsky, 2008), which is constantly taking new forms. In such a political reality one can't see a commonplace "rollback" for getting a state order, for instance. Everything is much more serious here. Self-perfection – this is the trend of development of political corruption all over the world today! These days we don't need the newest weapon, the newest technologies and armies of many thousands to seize a country. Nowadays, the political configuration of the whole regions of the planet is changing in order to take control over resources and sales market.

It's absolutely clear that the so-called "privatization of the country" in the form of joining the bureaucracy and the business took place regardless of the interests of the society and the state. For many countries corruption is the cause of inner political instability. Russia is not an exception. Such an interconnection is interdependent: the higher the level of political instability inside the country is, the higher the level of corruption is. This trend of developments leads to an aggravation of political situation and radicalization of political struggle, which in its turn leads to the collapse of political institutions. The slogans telling about the possibility of stable development of the corrupted state is the most dangerous political deception (Navalny, 2012).

Nowadays corruption is used by the ruling group not only for personal enrichment but also for control over bureaucracy and providing important political groups with loyalties. With such a strategy which is directed to making maximum profit and keeping the power, corruption turns into a self-supporting political institution. That is it becomes "the rule of the game" in which none of the participants is able to change anything. Neither is our President, who admitted his inability in solving the issues of corruption and building state anti-corruption policies which he himself had introduced (Medvedev: "uspekhov v bor'be s korruptsiei pochti net", 2011).

To counteract corruption is now a matter of common concern. It can become really effective only under the condition of involvement of all the people and the formation of public control. It is a matter of principle to provide such an involvement on the stage of preparation of anticorruption projects to make it possible to form a methodical and systematic civilian control over it in the future. The governmental authorities had to hear "a weak voice" of the civil society; an appearance of a new national plan to resist corruption proves it, but the inner voice prompts that this is the next imitation which is constantly trying to relax our vigilance. At the same time looting and state collapse are going on.

#### References

Amundsen, I. (1999). Political corruption: An introduction to the issues. CMI Working Paper.

Bull, M. J., & Newell, J. L. (2003). Corruption in contemporary politics. Palgrave Macmillan. doi: 10.1057/9781403919991

Della Porta, D., & Vannucci, A. (1997). The 'perverse effects' of political corruption. Political studies, 45(3), 516-538.

Della Porta, D., & Vannucci, A. (1999). Corrupt exchanges: Actors, resources, and mechanisms of political corruption. Transaction Publishers. Haller, D., & Shore, C. (2005). Corruption: anthropological perspectives. Pluto Press.

Heidenheimer, A. J., Johnston, M., & LeVine, V. T. (1970). Political corruption. New York: Holt, Rinehart & Winston, 24, 26-27. doi: 10.2307/2586263 Heywood, P. (1997). Political corruption: Problems and perspectives. Political studies, 45(3), 417-435. doi: 10.1111/1467-9248.00089 Issacharoff, S. (2010). On political corruption. Harv. L. Rev., 124, 118.

Jain, A. K. (Ed.). (2002). The political economy of corruption (Vol. 2). Routledge.

Johnston, M. (1982). Political corruption and public policy in America. Monterey, CA: Brooks/Cole Publishing Company.

Jowitt, K. (1983). Soviet neotraditionalism: The political corruption of a Leninist regime. Europe-Asia Studies, 35(3), 275-297. doi: 10.1080/09668138308411481

Kasyanov M. (2009). Bez Putina. Politicheskie dialogi s E. Kiselevym [Without Putin. Political Dialogues with E. Kiselyov]. Novaya Gazeta. Lazarev E.A. (2011). Korruptsiia i politicheskaia stabil'nost': institutsional'naia perspektiva [Corruption and Political Stability: Institutional

Perspective]. Politiya, 1(60). Medvedev: "uspekhov v bor'be s korruptsiei pochti net" [Medvedev: "There is almost no success in the fight against corruption"]. (26 Jan 2011). Retrieved from http://www.bbc.co.uk/russian/russia/2011/01/110125\_medvedev\_corruption\_failure.shtml

Melnikov A. (26 June 2011). Frontmeny dvizhukhi [The Frontmens of Dvizhuha]. Gazeta.ru. Retrieved from <u>http://www.gazeta.ru/</u> comments/2011/06/23\_a\_3672085.shtml

Navalny A. (1 March 2012). Bor'ba s korruptsiei i est' moia ekonomicheskaia programma [Fight Against Corruption Is My Economic Programme]. Vedomosti. Retrieved from <u>http://www.vedomosti.ru/opinion/news/1519747/ne\_vrat\_i\_ne\_vorovat</u>

Otkrytoe pravitel'stvo [Open government]. Retrieved from http://большоеправительство.pd/debate/1236/

Philp, M. (1997). Defining political corruption. Political Studies, 45(3), 436-462. doi: 10.1111/1467-9248.00090

Rothstein, B., & Eek, D. (2009). Political corruption and social trust an experimental approach. Rationality and Society, 21(1), 81-112.

Slizovsky D.E. (Ed.). (2008). Politicheskie instituty i protsessy v XXI veke [Political Institutions and Processes in the XXI century]. Sb. st. studentov, aspirantov i molodykh uchenykh-politologov. Moscow: MAKS Press.

Solodov V. (2011). Imitatsionnoe modelirovanie mekhanizmov gosudarstvennoi antikorruptsionnoi politiki [Imitation Modelling of Mechanisms of the State Anti-corruption Policy]. Gosudastvennoe upravlenie, 28.

Sung, H. E. (2004). Democracy and political corruption: A cross-national comparison. Crime, Law and Social Change, 41(2), 179-193. doi: 10.1023/B:CRIS.0000016225.75792.02

Theobald, R. (1990). Corruption, development and underdevelopment (p. 24). Durham, NC: Duke University Press. doi: 10.1007/978-1-349-20430-4

Viniar V.A. (2011). Prichiny primeneniia imitatsionnykh praktik v munitsipal''nom upravlenii [the reasons of using imitation practices in municipal government]. Gramota, 8(14), 2.

Williams, R. (2000). Aspects of party finance and political corruption. Party Finance and Political Corruption. New York: Macmillan, 2.

#### R856-857

**Huzaifa UMAR** Cyprus International University, Turkey e-mail: dkavaz@.ciu.edu.tr

Doga KAVAZ Cyprus International University, Turkey e-mail: dkavaz@.ciu.edu.tr Surayya Muhammad LAMIDO Cyprus International University, Turkey e-mail: dkavaz@.ciu.edu.tr

# Antimicrobial Activity of Silver Nanoparticles Synthesized Via Green Chemistry

#### ABSTRACT

Silver nanoparticles (AgNPs) synthesis is among the new areas of nanotechnological research and it's a bit cost effective, pollution free and environmental friendly compared to other metals used to synthesized nanoparticles. The synthesized nanoparticle was characterized using Atomic Force Microscope (AFM), FTIR, EDX, UV-Vis, Zeta Sizer and anti-microbial activity studies was also carried out. These techniques of identification were for morphological, particle size and concentration of NPs for the engineered NPs. Antimicrobial susceptibility tests was conducted to determine the in vitro activity against certain bacterial species developed in antimicrobial material using disc-diffusion method. The silver nanoparticles exhibits great effectiveness in anti-bacterial activity near gram positive S. aureus and gram negative E. coli.

Key words: Silver nanoparticles, Aliquot, Synthesis, Characterization.

#### 1. Introduction

Conventional methods for the synthesized of nanoparticles includes chemical, physical and biological. In order to produce large amount of nanoparticles, the chemical synthesis require a short period which would also need capping agents to equalize the size. The synthesis principle that make synthesize nanoparticles to be the best choice and also adopted as the most efficient way is the fact that, the particle is not toxic, environmentally friendly and it also give a chance to produce highly improved pharmaceutical products and chemicals with less or no side effect completely (Singhal, Bhavesh, Kasariya, Sharma, & Singh, 2011). The manufacture of nanoparticles by biological means has more advantage than chemical and physical means due to the fact that, it is not expensive, pollution free and it does not require much more energy, pressure, temperature (Ravindran, Chandran, & Khan, 2013). Green synthesis using plants and their extracts can play an important role and also serve as one of the process that has more benefit over other synthetic processes which has to do with a lot of strenuous as well as difficult step of taking care of the microbial culture (Sastry, 2003). There's a huge focus on engineered green NPs extracts and much more interest was given to the nanoparticles of silver, due to a lots of special characteristics as well as their uses in different medical and industrial applications. However, having the capability in reducing hazard produced by chemicals that are used in both medical and industrial application. The green synthesis also serve as a machinery that prevent wasting of resources and pollution prevention, the particles also has apparent, easy, sharp and controlled size (Mittal, Chisti, & Banerjee, 2013).

Olive is a plant species that belongs to a family called *Oleaceae* and Olive tree of Europe is called *Oleaeuropae*. It has good appearance, pleasant smell, and nutritional value and health benefits. The olive leaf extracts (OLE) has been reported to have antioxidant activity (Visioli, Bogani, Grande, & Galli, 2004), anti-inflammatory (Green, 2002), anti-aging and antibiotic agent as well as immune stimulatory properties (Walker, 1996). The medicinal effects of olive oil have been reveled since antiquity through history and it is also mentioned in Holy books. Traditionally it has been reported to cure and also prevent high blood pressure through many process like reducing blood glucose level and other properties such as antiseptic and anti-diuretic properties (Coni et al, 2000) and scientifically, anticancer activity of OLE has also demonstrated in human (Hamdi, & Castellon, 2005).

The production of metal nanoparticles using fungi such as *Fusariumoxysporum*, *penicillium* species is currently being experimented. Bacteria such as *Lactobacillus spp*. and *Staphylococcus aureus* (Jehan, A. & Sattar, 2013). The nanoparticles synthesis using extracts from plant species are among the well-known method of green chemistry and is widely used in the production of such products with great prospect (Jehan, A. & Sattar, 2013). Furthermore, a lots of experiments were been carried out on the nanoparticles of silver synthesis and its enhance medicinal activity has been revealed, the plants that were utilize in the synthesis include the *Halianthusannus*, *Oryza sativa*, *Zea mays*, *Sorghum bicolor*, *Aloe vera*, *Allium sativum*, *Medicago sativa* (*Alfafa*) and lots more. And they also had shown a high potency in clinical, pharmaceutical and industrial field. In addition AgNPs extracted from *Eucalyptus* hybrid using methanol is investigated thoroughly (Kasthuri, Kathiravan, & Rajendiran, 2009). Recent researches show that, AgNPs have been synthesized naturally from plant products similar to *Cameliasinensis* (Green tea), *Azadirachiaindica* (Neem tree), (*Sesbania drummondii* (legume shrub) leaf broth, starch, rubber, lemongrass leaf extract (Vijayaraghavan, Kamala, Nalini, Udaya, & Madhankumar, 2012). The study targeted at the nanoparticles of silver synthesis, its characterization as well as antimicrobial activity studies of olive oil extracts.

# 2.0 Materials and Methods

### 2.1 Olive Leave Extract Formulation

The garden-fresh leaves were air dried under shade and then pulverized to coarse powder using mortar and pestle. Some percentage of the leaves about 20g were weighed and mixed in ethanol (20ml). The solutions were mildly sealed and placed in a water bath for 30°C then centrifuge at 100 rpm for 48hrs to settle down and were removed for filtration with Whatmann No.1 filter paper.

#### 2.2 Green Synthesis of Silver Nanoparticles (AgNPs)

Olive leaf extract (5ml) For was added to 0.034 gram aqueous solution of  $AgNO_3$  and the volume fix up to 10 ml with de-ionized water in order to form a solution of 1 x  $10^{-3}$ M. The solution was stirred at following intervals 5, 15, 30 and 60 minutes in order to observe the color variations as the reaction of olive and nanoparticle is taking place.

### 2.3 Characterization of the Nanoparticles

The AgNPs was assessed using UV-Vis, XRD, EDX, FTIR, AFM and Zeta sizer. The nanoparticle size and distribution was determined using Nanosizer. The spectrum range of 300 – 700 nm was recorded with an HUV 1650 PC SHIMADZU, UV -Vis. AFM machine was employed to study the morphology of synthesized nanoparticles. It is use to focus beam of high– energy electrons to generate a numerous signals at the surface of solids specimens. The electron microscope was use to determine external structures, chemical composition, crystalline structure and orientation of materials. FTIR was used for the identification of bio molecules in the AgNPs.

#### 2.3.1 UV-Vis Spectroscopy Analysis

The wavelengths of AgNPs were determined by UV-Vis spectrophotometer.  $AgNO_3$  was added to the plant extract and the spectra were taken in different time intervals up to 24 hrs between 250 nm to 450 nm.

#### 2.3.2 X-ray Diffraction Analysis

Analytical machine was employed for X-ray diffraction studies (Rigaku ZSX Primus II). The phase variety and particle size were determined in X-ray diffraction studies with scanning range of 20°-80° and bond angle of 3°. The powder sample was taken for the XRD analysis which was placed on a glass slide.

#### 2.3.3 Atomic Electron Microscope (AFM)

The silver nanoparticles extracted will be imaged with an atomic force microscope (Nanomagnetics, Turkey). A slim film of AgNPs ( $100 \mu$ L) placed on slide and allowed for 5min to dry. The glass slide was then scan with the AFM software for the analysis.

#### 2.3.4 Zeta Sizer

The particle size and molecule size were measured using Malvern Zeta Sizer series (3000 HSA, Malvern, England). A small portion of the sample was placed into the machine for scattering with the light potential.

## 2.3.5 Fourier Transform Infrared Spectroscopy (FTIR)

FTIR is used for photoconductivity of organic and inorganic substances and compounds in solid, liquid or gas samples. The spectrometer concurrently accumulates spectrum in a vast range. FTIR has substantial improvement than dispersive spectrometer because of measurement of small wavelength. The measurement of FTIR is for identification of potential biomolecules in olive leaf that is responsible for the decease and efficient stabilization of the bio reduced silver nanoparticles. For the FTIR characterization, the sample was joined with solid KBr uniformly and properly which was compressed to settle down on a thin transparent film and this thin transparent film was for FTIR analysis which was kept in the chamber of the instrument for scanning.

#### 2.3.6 Energy Dispersed X-ray (EDX)

This analysis was carried out using high determination of transmission electron microscope to point out the existence of silver in the particles as well as to confirm other elementary composition of the nanoparticles.

#### 2.4 Anti-microbial Susceptibility Testing

Anti-microbial susceptibility tests was conducted to determine the *in vitro* activity against certain bacterial species developed in antimicrobial material using disc-diffusion method (Bauer, Kirby, Sherris, & Turck, 1966). In this method, antimicrobial susceptibility of the material by measuring the inhibition zones formed around the disks impregnated with silver nanoparticles was tested. Antibiotic susceptibility of bacteria to be tested, standard dilutions (MacFarland 0.5) prepared and propagated on solid agar Petri dishes. Prepared disks and each disk placed on agar impregnated with silver nanoparticles. For evaluation, a zone formed around the disk diameter is measured in centimeter (Swanson, Cheng, & Friedrich, 2011).

*Escherichia coli* and *Staphylococcus aureus* were investigated for reproduction sensitivity. In the beginning solid agar medium, 34.0 g/L of Mueller Hinton Agar (Merck, Germany) made up of four wells was used, prepared according to manufacturer's guideline and then Sterilized by autoclaving at 120°C for 1200 seconds at 25°C. In each of the wells 2µL of AgNO<sub>3</sub>, AgNPs, Olive leaf extract (OLE), and Ciprofloxacin were added respectively in order to measure and compare Minimal Inhibition zones. The Petri dish was incubated for one day (24 hrs) and the zone diameter (cm) formed around the plates were measured. Ciprofloxacin (1 mg/mL) was positively controlling and the test was conducted in triplicates.

# 3.0 Results and Discussion

# 3.1 Synthesis of Nanoparticles

Olive leaf extract (OLE) was added to silver nitrate solution for the formulation of AgNPs. It has been reported that, silver nanoparticle possessed a dark brown or yellowish brown depending on the concentration of the extract as well as the type of the plant (Jae, & Beom, 2009).

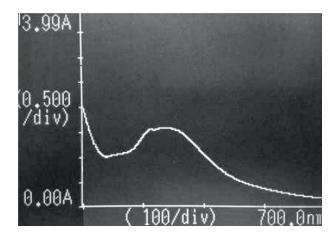


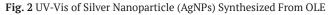
Fig. 1 Solution of AgNO<sub>x</sub> (1<sup>st</sup> left) and Nanoparticle at Different Timing (5, 15 and 30mins)

Afterwards, the silver nanoparticles formed in AgNPs with a pale yellow color, 5mins after the addition of OLE which is in agreement with the work done by Ajitha (Ajitha, Reddy, & Reddy, 2014). After 15mins a shift of color from pale yellow to yellowish color occurred which conform to pervious research (Ashok Kumar, Salmiah, Zeinab, & Norhaizan, 2015). And after 30mins the color still changes from clear yellow to brownish yellow (Mulvaney, 1996). The synthesized AgNPs was confirmed by UV-Vis spectrometry as illustrated in Fig. 1 (Abd El-Aziz, 2014).

# 3.2 UV-Vis spectroscopy Analysis

The Ag<sup>+</sup> is reduced to AgNPs upon contact to OLE was observed as a result of the color change. The change in color is as a result of Surface Plasmon Resonance. Figure 2 illustrate the UV-Vis spectrum of the AgNPs. The AgNPs disclose a characteristic absorption peak of 411 nm.





These spectrum obtained are in agreement with similar work, in which silver nanoparticles show SPR peak within the range of around 250nm and 450nm using plant extract of *Foeniculumvulgare* and *Pimentadioica* (Allspice) respectively (Rajiv, Rajeshwari, & Venckatesh, 2013). Similarly, the use of *Abutilon indicum* gives an SPR range of values between 402-426nm (Anandalakshmi, Venugoba, & Ramasamy, 2015), also plant extract of *Plectranthusamboinicus* gives a value of 428nm (Ashokkumar, Ravi, Kathiravan, & Velmurugan, 2014). Based on the result obtained, it shows that olive oil has the ability to reduce Ag<sup>+</sup> to AgNPs.

## 3.3 Atomic Force Microscope

AFM is a sophisticated characterization techniques usually used to describe the size, structure and dispersion of silver and other nanoparticles and it also present topographic images on the roughness surfaces or on different particles. The AFM can be carried out on dry as well as on wet nanoparticles it is necessary for the nanoparticle to have affinity for the substrate than for the probe of the microscope, otherwise the quality of the image will surely be affected. Moreover lack of proper attachment of the nanoparticle to surface may cause problem in the image produced (Grobelny et al., 2012). The first procedure for characterizing the silver nanoparticles was first prepared by the sonication method as described accordingly and the temperature was maintained at 15 minutes using ultra-sonication machine. Then the sample was died in a thin on mica-based glass slide which was due to view under the AFM Model NT-MDA Solver and the picture are shown in the figure bellow. The images can be obtained by either direct or near direct contact and for this work the images wasacquired by using a physical contact mode probe of the microscope (Daniel, Nehru, & Sivakumar, 2012).

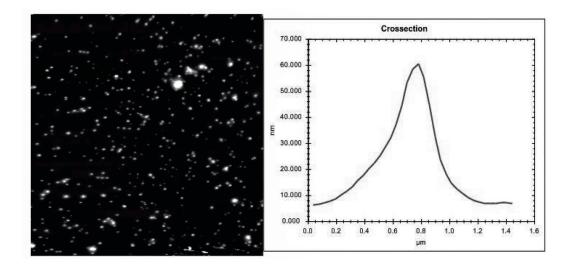
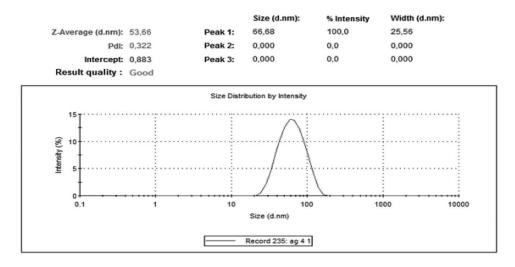


Fig. 3 (b) Cross Sectional Diameter of AFM Image.

In Fig. 3a shows the microscopic image of AFM of AgNPs while Fig. 4b shows that AFM image B Cross sectional diameter of AFM image of silver nanoparticle.

The surface morphological of the mono-dispersed AgNPs synthesized from OLE was evaluated by AFM. The spherical shape of the NPs is presented in Fig. 3a. The topographical image of AgNPs in particular bright spots reveals that, they are agglomerated and formed distant nanoparticles mostly spherical in shape (Daniel et al., 2012). And the result obtained is in conformity with the many works (Daniel et al., 2012; Rajiv et al., 2013).



#### 3.4 Zeta Sizer

Fig. 3 (a) AFM of AgNPs

Particle size distribution is one of the key factors used for the characterization nanoparticles.

Fig. 4 Zeta Particle Size Distribution

The Fig. 4 shows the average zeta diameter of the peaks is 53.66nm with intensity of 100%, width of 25.56 nm and an intercept of 0.883. The general size morphology according to the machine output is extremely good. The formed silver nanoparticles are well distributed with respect to volume and intensity is a demonstration of the formation of well-built silver nanoparticles with uniformly distributed particle (Singh, Sahu, & Thangaraj, 2014). Highly smaller size suspension or droplet material can be measure by zeta sizer. Particle size is vital in revealing the properties of a specific material and is also serving as indicator of potential of material (Shital, 2011).

#### **3.5 FTIR Analysis**

FTIR of AgNPs was examined as presented in Fig. 5. It shows an absorption band at  $3322 \text{ cm}^{-1}$  and is a powerful peak. And the measurement is done in order to distinguish credible biomolecules a robust capped and efficient of the nanoparticles. The different stretching includes O-H, C=O, OH, C and O which related with oleuropein, apigenin-7-glucoside or luteolin-7-glucoside present in the Olive leaf. And it has been reported that, those compounds present belong to phenolic group and are found in olive leaf, more especially the organ oil and they can also be hydroxylated or glycosylated (Barbaro et al., 2014). The first strong band 3322 cm<sup>-1</sup>reveled C=C-H asymmetric stretch vibration and it has a strong intensity with aromatic ring functional group (benzene). Also, the 1737 cm<sup>-1</sup> showed variable strength as well as intensity and it is sing for the presence of C=O (aldehyde). And 1634 cm<sup>-1</sup> C=C stretching vibration of *cis*-oleifins (Burgess, Duffy, Etzler, & Hickey, 2004). It has been reported that various peaks in FTIR signifies the different fuctional groups present within a particular compound (Reddy, Vali, Rani, & Rani, 2014). Other lower band has shown different functional group as illustrated in the Table 1 below.

# **MEDICINE. PUBLIC ASPECTS OF MEDICINE**

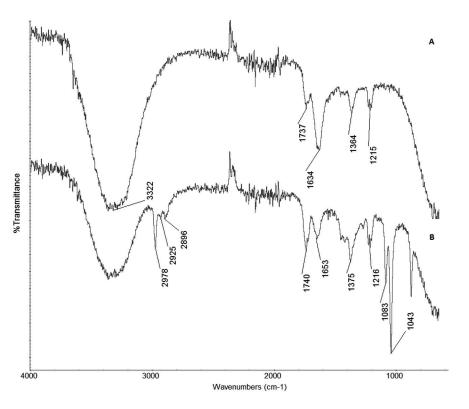


Fig. 5a FTIR of Olive Leaf Extract (b) FTIR of AgNPs

S/No	LEAF EXTRACT FTIR PEAKS (cm <sup>-1</sup> )	Functional groups
1	3322	Phenol, alcohol, OH Group stretch
2	1737, 1634	Assigned C=O aldehyde in I-raised C-N strength
3	1384	N (N=O) bend
4	1215	Amine with methyl formate group

Table 1: FTIR Functional Groups of Olive Leaf

From Table 1, the FTIR was observed at 3322cm<sup>-1</sup> in dried olive leaf which is characterized by the phenol, alcohol and OH. The medium band at 1737, 1634 cm<sup>-1</sup> relates to amine. The peak at 1384cm<sup>-1</sup> relates to Nitrogen– oxygen double bond of amine while 1215cm<sup>-1</sup> had strong manifestation of amine with methyl formate group.

The synthesized AgNPs using OLE gives strong band of 3320 cm<sup>-1</sup>in hydroxyl groups(OAH stretch) and in carboxyl groups gives a band of 2978 cm<sup>-1</sup> sudden decrease of 2925 and 2896 cm<sup>-1</sup> (CAH stretch) respectively. The spectrum does not exhibit any shift with a band of 1740 cm<sup>-1</sup> in amide I (AC at O stretch), a shift was observed in amide II between 1653 cm<sup>-1</sup>, 1375 cm<sup>-1</sup> (CAC stretch) and amide III 1043 cm<sup>-1</sup>. The extreme bands at 3322 cm<sup>-1</sup> as shown in the Fig. (5b) is also powerful and mostly is indicating C=C bending and confirming the presence of phenolic aromatic compounds and OH groups (Tegou et al., 2006). The FTIR spectra of the AgNPs after bio reduction band such 3352 – 3439 specify the partaking polyols, proteins, ketones and carboxylic acid. The secondary metabolites like terpenoids are soluble in water and are also not part of bio reduction reaction. Protein seems to exhibit little importance in biosynthesis of nanoparticles (Syed, 2013). The higher bands indicate the amines also reveal the presence of proteins binding which can enhance the stability of the nanoparticle (Abd El-Aziz, 2014).

The peak at 2978cm<sup>-1</sup> and 2925 as mostly reported are due to carboxylic and phenololics functional group surrounding the aromatic ring (Durgawalea, Phatakb, & Hendre, 2015). The 1740 and 1653 cm<sup>-1</sup>peaks as indicated in the figure match up the C-N and C=O (aldehyde), which is an indication of protein compound that are present in the olive leaf extract (Jeeva, Thiyagarajan, Elangovan, Geetha, & Venkatachalam, 2014). The lower peaks 1375cm<sup>-1</sup>, 1216 cm<sup>-1</sup>, 1083cm<sup>-1</sup> and 1043 usually indicate (N=O) band(amino group), Amines with methyl formate groups and C-N stretching vibration of amine (Shankar *et al.*, 2004). And the 925 cm<sup>-1</sup>revealed the =C-H bending with a strong intensity (alkene group) presence in AgNPs of OLE (Gurunathan et al., 2015). The bands peaks and the functional group revealed have shown in table below (Table 2).

S/No	FTIR of Synthesized Silver Nanoparticles	Functional groups	
1	3322	Phenol, alcohol, OH Group stretch	
2	2978, 2925	Carboxylic acid and OH Group stretch	
3	1740,1653	Assigned C=O aldehyde in I-raised C-N strength	
4	1375	N (N=O) band	
5	1216	Amine with methyl formate group	
6	1083,1043	C-N stretching vibration of amines	
7	925	Assigned to CH=CH <sub>2</sub>	

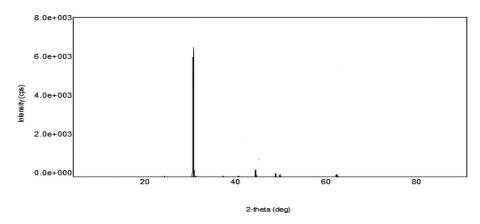
# Table 2: FTIR Functional Groups of AgNPs

The spectrums in both (Table 1 and 2) reveal different peaks and upon comparison the peak at 3322 cm<sup>-1</sup>, belongs to the hydroxyl/amine groups from the olive extract are analogous and they were the one responsible for lowering the peak intensity which arises due to binding of AgNPs to surface. At higher wavelength, the vibration at 1634 cm<sup>-1</sup> shown different peak of about 1653 cm<sup>-1</sup> and it also indicate that Ag+ was reduced to AgNPs. The result obtain in this research work is an agreement with previous work done which reveals that, the plant extract mostly gives a band between 3390-1045cm<sup>-1</sup> in OAH group (Anandalakshmi et al., 2015).

# 3.6 X-ray Diffraction Analysis

The structural properties, purity and the crystalline size of AgNPs have revealed by using XRD analysis in which dried powdered solution was used. The use of XRD has been employed in nanoparticles experiment especially in biosynthesis of metallic nanoparticles. And the analysis is use to probe the crystallinity of biosynthesize nanoparticles (Shankar, Rai, Absar, Ahmad, & Sastry, 2004). The result of XRD is presented inform of peak intensity, the XRD provides two peak intensity of separate reflections (K $\alpha$ 1 and K $\alpha$ 2), and at small values of 2 $\theta$  the peaks overlap each other.

The refractive indices in this work were noted between 20 - 80 degrees at angle  $2\theta$ . And also, XRD reveals that the structure of the nanoparticle is spherical shape; zero peak pattern of  $AgO_2$  with appearance of unknown substances (Fig. 6). Silver nanoparticle has a high purity. The unknown appearance of substances in the NPs structure could be probably as a result of various crystalline biological macromolecules in the plant extract (Silverstein, Bassler, & Morrill, 1981).



# Fig. 6. XRD of Silver Nanoparticle

# 3.7 Energy Disperse X-ray

Analysis of silver nanoparticle using Energy Disperse X-ray spectrometers confirms the silver signal. The peak around 3.40keV coincides to the binding energies of AgL. During the entire scanning process of binding energies, no peak belonging to impurity was detected. Hence, the reaction indicated that the mixture was composed of high purity silver nanoparticle. It was observed that, most of the plants in nanoparticle synthesis give a peak value with the range of 2.5 to 4.0 keV (Roya, Sarkar, & Ghosh, 2015), this confirmed that the peaks produce by olive leaf plant extract is within the limit value obtained in previous work. Table 3 below shows the elemental content of the synthesized silver nanoparticles.

#### Table 3. EDX Chart of Silver Nanoparticle

Element	Weight %	Atomic %
C k	28.41	21.92
O k	39.6	63.25
Mg k	1.02	1.05
K k	15.22	8.57
Ag L	15.75	5.21
Total	100	100

The elemental composition of AgNPs was carried out by EDX. The result shows indicates 15.75% by weight of the sample and 5.21% atomic weight of AgNPs. Other compositions include Carbon (21.92%% by atom), Oxygen (63.5% by atom), Magnesium (1.05% by atom) and Potassium (8.57% by atom). The bonding between Carbon and Oxygen suggest the presence of Carbohydrate compounds containing magnesium capped with AgNPs.

# 3.8 Antibacterial Property of Silver Nanoparticles

*E. coli* and *S. aureus* were used as model antibacterial synthesized AgNPs. The diffusion method was employed for the isolation from gramnegative (*E. coli*) and gram-positive (*S. aureus*). Antibacterial activities are studied against *S. aureus and E. coli* and the diameter inhibition zones (mm) around each bacterium with AgNPs solution are represented in Fig. 7 and Fig. 8. The AgNPs synthesized by olive leaf extracts are found to have reasonable antibacterial activity against *E. coli* and *S. aureus* respectively. To find percentage inhibition of AgNPs, on *E. coli* and *S. aureus* the olive leaf extract is used as a control (Mohamed et al., 2014), indicating lower inhibition while ciprofloxacin is used for the determination of maximum inhibition zone thereby setting lower and upper limit zones of antibacterial activities (OLE– CF).



Fig. 7 E. Coli Inhibition with: (1) AgNPs (2) AgNO<sub>3</sub> (3) OLE (4) Ciprofloxacin



Fig.8 S. Aurues Inhibition with: (1) AgNPs (2) AgNO<sub>3</sub> (3) OLE (4) Ciprofloxacin

The test efficiency on *E. coli* (Fig.7) reveals the sizes inhibition zone as illustrated  $1.9 \pm 0.07$ cm for AgNPs,  $0.6 \pm 0.05$ cm for AgNO<sub>3</sub>,  $0.5 \pm 0.08$ cm for olive extract and ciprofloxacin  $3.8 \pm 0.01$ cm respectively. Therefore the AgNPs has the ability to inhibit *E. coli* up to 43% and AgNO<sub>3</sub> only 2% this shows that the silver nanoparticle produce by olive leaf has a greater potential of stopping the growth of *E. coli* as compared to silver nitrate, because silver nanoparticles have a small surface area whichprovides better contact with the microorganism as compared with others (Vijayaraghavan, Nalini, & Prakash, 2012). It is also possible that AgNPs can penetrate the inner side of the bacteria by passing the cell membrane (Kaviya, Santhanalakshmi, & Viswanathan, 2015).

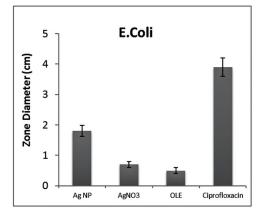
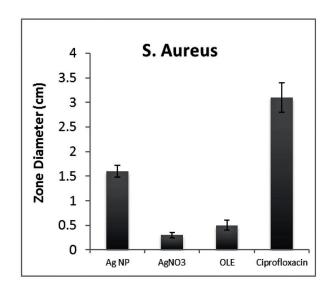


Fig. 9 E. Coli Agar Diffusion Method with Antimicrobial Efficacy

The above chart (Fig.9) shows the test performance of *E. coli*, in which the diameter zone inhibition of AgNPs  $2.0 \pm 0.7$ cm,  $0.5 \pm 0.08$  cm for AgNO<sub>3</sub>,  $0.4 \pm 0.06$  cm for olive leaf extract (OLE) and  $4.0 \pm 0.1$  cm respectively. Consequently, the inhibitory activity of AgNPs on *E. coli* showed almost 50% and the silver nitrate has no any significant effect on the *E. coli* activity and the result obtained are in conformity with of the work done which stated that, Gram-negative bacteria (*E. coli*) concentration is mostly affected by AgNPs of olive oil (Morones et al., 2015).



#### Fig. 10 S. Aurues Agar Diffusion Method with Antimicrobial Efficacy

The test performance on *S. aureus* indicates that the diameter zone inhibition of AgNPs is  $1.5 \pm 0.5$  cm,  $0.4 \pm 0.06$  cm for AgNO<sub>3</sub> and that of olive leaf extract and ciprofloxacin are  $0.5 \pm 0.07$  cm and  $3 \pm 0.1$  cm respectively as showed in Fig.10. Hence the inhibitory activity of AgNPs on *S. aureus* marked at 39 % and silver nitrate has no any significant effect on the bacterial activity. The Gram-positive *S. aureus* less sensitive to AgNPs compared with Gram-negative *E. coli*. At high concentration but lower concentration *E. coli* is mostly affected (Kim et al., 2007; Khalil, Ismail, El-Baghdady, & Mohamed, 2014).

### 4.0 Conclusion

Synthesized AgNPs are stable, small and nearly spherical in shape and have additional potential than the ordinary extract or the silver nitrates itself and this factor qualifies the nanoparticles produced by this extract to have a pure and high quality formation. The characterization of AgNPs was carried out by AFM, XRD, EDX, FTIR and Zeta seizer, UV-Vis with SPR peak of 411 nm. And the UV-Vis result shows that olive oil has the ability to reduce Ag<sup>+</sup> to AgNPs. The silver nanoparticle has shown inhibitory effects on gram-positive and gram-negative bacteria at a room temperature for 1 day and the activities also increase with increase concentration. Hence silver nanoparticles have a potential to be used in commercial, medicinal and pharmaceutical industries.

# References

Abd El-Aziz, A. R. M. (2014). Eco-Friendly Biosynthesis of Silver Nanoparticles By Aspergillus Parasiticus. *Digest Journal Of Nanomaterials And Biostructures*. 9 (4): 1485.

Ajitha, B., Reddy, Y. A. K., & Reddy, P. S. (2014). Biogenic nano-scale silver particles by Tephrosia purpurea leaf extract and their inborn antimicrobial activity. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, *121*, 164-172. doi: 10.1016/j.saa.2013.10.077

Anandalakshmi, K., Venugoba, J., & Ramasamy, V. (2015). Characterization of silver nanoparticles by green synthesis method using Pedalium murex leaf extract and their antibacterial activity. *Appl Nanosci*, 13204-015. doi: 10.1007/s13204-015-0449-z

Ashok Kumar, P., Salmiah, I., Zeinab, S., & Norhaizan, M. E. (2015). Allicin Alleviates Dextran Sodium Sulfate-(DSS-) Induced Ulcerative Colitis in BALB/c Mice. *Oxidative Medicine and Cellular Longevity*, 15 (2): 551.

Ashokkumar, S., Ravi, S., Kathiravan, V., & Velmurugan, S. (2014). Green biosynthesis of silver nanoparticles using Calliandra haematocephala leaf extract, their antibacterial activity and hydrogen peroxide sensing capability. *Spectrochim. Acta Part A Mol. Biomol. Spectrosc.* 121: 88.

Barbaro, B., Toietta, G., Maggio, R., Arciello, M., Tarocchi, M., Galli, A., & Balsano, C. (2014). Effects of the Olive-Derived Polyphenol Oleuropein on Human Health. *International Journal of Molecular Sciences* 15 (10): 18508. doi: 10.3390/ijms151018508

Bauer, A. W., Kirby, W. M. M., Sherris, J. C. T., & Turck, M. (1966). Antibiotic susceptibility testing by a standardized single disk method. *American journal of clinical pathology*, 45(4), 493.

Burgess, J., Duffy, E., Etzler, F., & Hickey, A. (2004). Zeta Potential and Particle Size to Predict Emulsion Stability. *AAPS Journal,* 6 (3): 8. Coni, E., Di Benedetto, R., Di Pasquale, M., Masella, R., Modesti, D., Mattei, R., & Carlini, E. A. (2000). Protective effect of oleuropein, an

olive oil biophenol, on low density lipoprotein oxidizability in rabbits. Lipids, 35(1), 45-54. doi: 10.1007/s11745-000-0493-2

Daniel, K. S., Nehru, K., & Sivakumar, M. (2012). Rapid Biosynthesis of Ag nanoparticles using Eichornia crassipes and its antibacterial activity. *Current Nanoscience*, 8 (1): 1.

Durgawalea, P. P., Phatakb, R. S., & Hendre, A. S. (2015). Biosynthesis of Silver Nanoparticles Using Latex of Syandenium Grantii Hook F and Its Assessment of Antibacterial Activities. *Digest Journal of Nanomaterials and Biostructures*, 10 (3): 847.

Green, P. S. (2002). A revision of Olea L.(Oleaceae). Kew Bulletin, 91-140. doi: 10.2307/4110824

Grobelny, J., DelRio, F. W., Pradeep, N., Kim, D., Hackley, V. A., & Cook, R. F. (2012). Size measurement of nanoparticles using atomic force microscopy. In: McNeil SE (Ed.), Characterization of Nanoparticles Intended for Drug Delivery (Methods in Molecular Biology). Humana Press,

Springer, New York, 71. doi: 10.1007/978-1-60327-198-1 7

Gurunathan, S., Jeong, J. K., Han, J. W., Zhang, X. F., Park, J. H., & Kim, J. H. (2015). Multidimensional effects of biologically synthesized silver nanoparticles in Helicobacter pylori, Helicobacter felis, and human lung (L132) and lung carcinoma A549 cells. *Nanoscale research letters*, *10*(1), 1-17. doi: 10.1186/s11671-015-0747-0

1. Hamdi, H. K., & Castellon, R. (2005). Oleuropein, a non-toxic olive iridoid, is an anti-tumor agent and cytoskeleton disruptor. *Biochemical and biophysical research communications*, 334(3), 769-778. doi: 10.1016/j.bbrc.2005.06.161

2. Jae, Y.S. & Beom, S. K. (2009). Green synthesis, antimicrobial and cytotoxic effects of silver nanoparticles using Eucalyptus chapmaniana leaves extract. *Bioprocess Biosyst. Eng.*, 32:79.

3. Jeeva, K., Thiyagarajan, M., Elangovan, V., Geetha, N., & Venkatachalam, P. (2014). Antibacterial activity of silver and zinc nanoparticles against Vibrio cholerae and enterotoxic. *Escherichia coli. Ind Crops Prod.*, 52: 714.

Jehan, A. & Sattar, S. (2013). Antibacterial activity of silver nanoparticles synthesized by Lactobacillus spp.against Methicillin Resistant Staphylococcus aureus International. *Journal of Advanced Research*, 1 (6): 178.

Kasthuri, J. Kathiravan, K. & Rajendiran, J. (2009). Phyllanthin assisted biosynthesis of silver and gold nanoparticles a novel biological approach. *Journal of Nanoparticle Research*, 11: 1075

1. Kaviya, S., Santhanalakshmi, J., & Viswanathan B. (2015). Green Synthesis of Silver Nanoparticles Using Polyalthia longifolia Leaf Extract along with D-Sorbitol: Study of Antibacterial Activity. *Journal of Nanotechnology*, 5: 24 – 225

Khalil, M. M., Ismail, E. H., El-Baghdady, K. Z., & Mohamed, D. (2014). Green synthesis of silver nanoparticles using olive leaf extract and its antibacterial activity. *Arabian Journal of Chemistry*, 7(6), 1131-1139. doi: 10.1016/j.arabjc.2013.04.007

Kim, J. S., Kuk, E., Yu, K. N., Kim, J. H., Park, S. J., Lee, H. J., ... Cho, M. H. (2007). Antimicrobial effects of silver nanoparticles. *Nanomedicine*, 3(1): 95 – 10. doi: 10.1016/j.nano.2006.12.001

Mittal, A. K., Chisti, Y., & Banerjee, U. C. (2013). Synthesis of metallic nanoparticles using plant extracts. *Biotechnology advances*, *31*(2), 346-356. doi: 10.1016/j.biotechadv.2013.01.003

Mohamed, M. İ., Amal, A. H., Ali, S., Afaf, A., Gehan, A., Abdulaziz, A. ... Hadeel, M. N., (2014). Synthesis of eco-friendly silver nanoparticles using plant extracts and assessment of their antimicrobial activity. *Fresenius Environmental Bulletin*, 23 (1a): 184-189.

2. Morones, J. R., Elechiguerra, J. L., Camacho, A., Holt, K., Kouri, J. B., Ramírez, J. T., & Yacaman, M. J., (2015). The bactericidal effect of silver nanoparticles. *Nanotechnology*, 10 (16): 2346 – 53. doi: 10.1088/0957-4484/16/10/059

4. Mulvaney, P. (1996). Surface Plasmon Spectroscopy of Nanosized Metal Particles. *Langmuir*, 12 (3), 788. doi: 10.1021/la9502711

Rajiv, P., Rajeshwari, S., & Venckatesh, R. (2013). Bio-Fabrication of zinc oxide nanoparticles using leaf extract of Parthenium hysterophorus L. and its size-dependent antifungal activity against plant fungal pathogens. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, *112*, 384-387. doi: 10.1016/j.saa.2013.04.072

Ravindran, A., Chandran, P., & Khan, S. S. (2013). Biofunctionalized silver nanoparticles: advances and prospects. *Colloids and Surfaces B: Biointerfaces*, *105*, 342-352. doi: 10.1016/j.colsurfb.2012.07.036

1. Reddy, N. J., Vali, D. N., Rani, M., & Rani, S. S. (2014). Biogenic synthesis of metallic nanoparticles and prospects toward green chemistry. *Mater Sci. Eng. C.*, 34: 115.

Roya, K., Sarkar, C. K., & Ghosh, C. K. (2015). Single-Step Novel Biosynthesis of Silver Nanoparticles Using *Cucumis sativus* Fruit Extract and Study of Its Photcatalytic And Antibacterial Activity. *Digest Journal of Nanomaterials and Biostructures*, 10 (1): 107.

Sastry, M. et al. (2003). Microbial nanoparticle production in Nano biotechnology. Nanobiotechnology, 2, 163 – 169.

Shankar, S., Rai, S., Absar, A., Ahmad, A., & Sastry, M. (2004). A review: Silver Nanoparticles Synthesis through plants in comparison with chemical and biological methods J. *Coll Interface Sci.*, 275: 496.

Shital, B. (2011). A Biogenic Approach for Green Synthesis of Silver Nanoparticles Using Extract of Foeniculum Vulgare and its Activity against Staphylococcus aureus and Escherichea coli. *Journal of bioscience*, 3(2): 59.

Silverstein, R. M., Bassler, G. C., & Morrill, T. C. (1981). Spectrometric Identification of Organic Compounds. 4th Ed. New York: John Wiley and Sons, QD272.S6 S55 doi: 10.1021/ed039p546

Singh, R., Sahu, S. K., & Thangaraj, M. (2014). Biosynthesis of Silver Nanoparticles by Marine Invertebrate (Polychaete) and Assessment of Its Efficacy against Human Pathogens. *Journal of Nanoparticles*, 2014. doi: 10.1155/2014/718240

Singhal, G., Bhavesh, R., Kasariya, K., Sharma, A. R., & Singh, R. P. (2011). Biosynthesis of silver nanoparticles using Ocimum sanctum (Tulsi) leaf extract and screening its antimicrobial activity. *Journal of Nanoparticle Research*, *13*(7), 2981-2988. doi: 10.1007/s11051-010-0193-y

Swanson, T. E., Cheng, X., & Friedrich, C. (2011). Development of chitosan–vancomycin antimicrobial coatings on titanium implants. *Journal of Biomedical Materials Research Part A*, 97(2), 167-176.

5. Syed, B. D., Devaraju, R. K., Kumara, S., Kavitha, P. S., Holalu, U., Kayitha, Y. R., & Sreedharamurthy, S. (2013). Plants: Emerging as Nanofactories towards Facile Route in Synthesis of Nanoparticles. *Bioimpacts*, 3(3): 111.

6. Tegou, E., Vlachos, N., Skopelitis, Y., Psaroudaki, M., Konstantinidou, V., & Chatzilazarou, A. (2006). Applications of Fourier transform-infrared spectroscopy to edible oils. *Analytica Chimica Acta*, 573: 459.

Vijayaraghavan, K., Kamala, S. P., Nalini, N. K., Udaya, P., & Madhankumar, D. (2012). One step green synthesis of silver nano/ microparticles using extracts of Trachyspermum ammi and Papaver Sommiferum. *Materials Letters*, 75:33.

Vijayaraghavan, K., Nalini, S. P. K., & Prakash, N. U. (2012). One step green synthesis of silver nano/microparticles using extracts of Trachyspermum ammi and Papaver sommiferum. *Colloids and Surfaces B: Biointerfaces*, 94: 114 – 117.

Visioli, F., Bogani, P., Grande, S., & Galli, C. (2004). Olive oil and oxidative stress. *Grasas y aceites*, 55(1), 66-75. doi: 10.3989/gya.2004. v55.i1.148

Walker, M. (1996). Bioorganic & Medicinal Chemistry Letters Explore, 7, 4.

# HV1551-3024

Adem SEZEN Istanbul Bilim University, Turkey ademsezen@hotmail.com Ahmet Y.SENYURT Abant İzzet Baysal University, Turkey yasinsenyurt@yahoo.com Ahmet C.DIKMEN International Cyprus University, Cyprus acenkdikmen@gmail.com Birkan TAPAN Istanbul Bilim University, Turkey birkantapan@gmail.com

# Erengül SEZEN

International Cyprus University, Cyprus erengulsezen@hotmail.com

# Feelings of Burden and Perceived Social Support Among Relatives of Hemodialysis Patients.

#### ABSTRACT

Caregivers are vulnerable to physical, psychological, and economical problems. Caregivers of hemodialysis patients should deal with economical difficulties due to job loss, or social life difficulties due to time strain of dialysis treatment. It is a fact that caregivers of hemodialysis patients suffer from caregiver burden. Our study aims to discover risk and protective factors of caregiver burden. For this aim, Multidimensional Scale of Perceived Social Support (MSPSS), Ways of Coping Questionnaire (WOC), and Zarit Caregiver Burden Scale (ZCB) delivered to 150 caregivers. Results revealed that protective factors are age and emotion focused coping. Surprisingly, no effect of perceived social support was found.

Key words: caregivers, hemodialysis patients, social support.

#### Introduction

Caregiving to patients or elderly people is an important stress factor that result in psychological symptoms, deterioration of physical health and decrease of quality of life (Belasco, & Sesso, 2002; Ruiz-Robledillo, & Moya-Albiol, 2013; Lowell, Moss, & Wetherell, 2012; Shimoyama, Hirakawa, Yahiro, Mizumachi, Schreiner, & Kakuma, 2003). Several studies proved that especially caregivers of people with chronic situations such as stroke (Pierce, Steiner, Hicks, & Holzaepfel, 2006), spinal cord injuries (Ma, Lu, Xiong, Yao, & Yang, 2014), autism spectrum disorder (Ruiz-Robledillo, Batalla, & Moya-Albiol, 2015), schizophrenia (González-Bono, de Andrés-Garcia, Romero-Martínez, & Moya-Albiol, 2013) and end stage renal disease (Alvarez-Ude, Valdes, Estebanez, & Rebollo, 2004) are more vulnerable to psychological, physical and economical problems. For example, more than one third of caregivers of patients with juvenile idiopathic arthritis found to have at least one emotional disorder (Bruns, Hila´rio, Jennings, Silva & Natour, 2008).

A study (White & Grenyer, 1999) conducted with spouses of end-stage renal disease patients showed that spouses felt burdens of the disease and negative psychological outcomes even when they evaluate their relationship positively. For hemodialysis patients, most of the treatment issues are handled by clinic staff, but there are still important issues which should be handled by caregivers. These are dietary management, transportation of patient, travelling limitations, and economical and physical burdens due to illness (Beanlands et al., 2005; Suri et al., 2011).

Ferraria and colleagues (2002) found that caregivers of hemodialysis patients (CHPs), experience economic problems, social distress, worry about health of the patient. They also found a corruption of social life as more than half of the caregivers stop visiting friends or places.

Some studies compared caregiver burden in terms of patient status; hemodialysis vs. peritoneal (Sezer et al., 2003) and peritoneal vs. renal transplantation (Avsar et al., 2013). These studies showed that a) CHPs showed more depression and somatization than peritoneal caregivers and b) caregivers of transplantation patients are psychologically healthier than peritoneal caregivers.

In another study, sleep problems are found to be more common in CHPs than hemodialysis patients (Çelik, Annagur, Yılmaz, Demir, & Kara, 2012). In the same study, more than half of the caregivers found to suffer from a decrease in quality of life.

Most of studies investigated life quality of CHPs found similar results. Caregiving to hemodialysis patients cause, a decrease in quality of life, emotional, economical, and physical problems (Alvarez-Ude et al., 2004; Sezer et al., 2003; Shimoyama et al., 2003). However, there are limited studies investigated protective and risk factors of these problems.

Bruns and colleagues (2008) found that family income and patients' health state are correlated with caregivers' burden. In a similar study, predictors of burden were being a female spouse, caregiver's mental health, vitality of the patient and, pain of the caregiver (Belasco, & Sesso, 2002). <u>Einollahi, Taheri, Nemati</u> and colleagues (2009) stated that being married, low education level and being spouse or parent of patient are the risk factor of burden for caregivers of kidney transplant recipients.

Studies, investigated coping styles and the level of burden, are usually conducted with caregivers of mental disorders, disabilities and cancer patients. In a recent study, avoidance coping is correlated with higher burden for caregiver of schizophrenia patients (Kate, Grover, & Kulhara, 2013). For cancer caregivers, burden was positively correlated with wishful thinking coping style (Papastavrou, Charalambous, &

Tsangari, 2012). In the same study, seeking social support, wishful thinking, and avoidance were also predictors of high depression scores. ). In contrast, Alnazly (2015) found that CHPs experience lower burden when they use prayers and faith as a coping strategy. They discussed that this difference may due to cultural and religious background. For Alzheimer caregivers, problem focused, avoidance, and seeking social support coping styles were positively correlated with burden scores (Raggi, Tasca, Paneri, Neri, & Ferri, 2015).

This study aims to explain the role of individual factors, such as perceived social support and coping styles, on caregiver burden among Turkish caregivers of hemodialysis patients.

# Method

#### **Participants**

One-hundred-fifty hemodialysis patients' caregivers participated to the study. Participants selected from two hemodialysis centers from İstanbul, Turkey. All questionaires were sent to houses of the participants by the patients. A total of 120 questionnaires were returned by the patients.

The average age of the participants were 39.43 (SD=13.043). The minumum illness duration of patients was 1 year, and the maximum was 25 years (X= 6,961, SD=4,62). Mean duration of caregiving was 7.12 years (SD=6.432). 73 of the caregivers (%61.3) were women and 46 of them were males (%38.7). Most of the caregivers' anual income was below 14000 Turkish Lira (approximately, \$5000). More than half of the caregivers were the children (%51) of the patients.

Our sample characteristics are similar to other studies. For example, in a Jordan study (Alnazly, 2015) caregivers' mean age was 32.23, %53 were female, and %41 of them were patients' son or daughter. A Brazilian sample was compose of %78 women and %41 of sons and daughters of patients.

#### Measurements

*To assess social support, Multidimensional Scale of Perceived Social Support (MSPSS) was administered in the study*. The MSPSS, was developed by Zimet, Dahlem, Zimet and Farley (1988). The scale was found to have three factors which were a)social support from family, b) from friends, and c) from someone special. The reliability of the Turkish version was tested by Eker, Arkar, and Yaldız (2001). Three factors structure also confirmed in Turkish version. In their study Cronbach's alpha of the Turkish version was found to be between .80 and .95 for the factors.

Ways of Coping Questionnaire (WOC) also administered to test coping styles of the caregivers . WOC has 74 items and developed by Folkman and Lazarus (1980). Gençöz, Gençöz, and Bozo, (2006) tested psychometric properties of the Turkish version and found that the scale has three dimensions which are problem-focused coping, emotion-focused coping, and seeking social support. They also found that internal consistency coefficients were .90, .88, and .84 respectively for the dimensions.

The last scale administered was Zarit Caregiver Burden Scale (ZCB). Original form of the scale has 22 items, all have a scale from 0 to 4. The items are related to caregivers' psychological well-being, and limitaions due to patients' status. It was adapted to Turkish by Inci (2006). Inci (2006) found that Turkish verion of ZCB is a valid and reliable measurement of burden among caregivers. It was also used for caregivers of schizophrenia patients (Özlü, Yıldız, & Aker, 2009). Özlü and colleagues eliminated three items due to factor analysis statistics. Their results revealed 5 factors for the scale; (1) mental tension and corruption of private life, (2) irritability and feelings of restriction, (3) deterioration of social life, (4) economical burden, (5) dependency. Remaining 19 items, and 5 factor structure were used in our study. Cronbach's alpha of the 19 items version was found to be .83.

#### Results

Mean burden score was 2.44 (SD=0.44). This means medium level of burden is experienced in our sample.

Correlational analysis showed that total ZCB score is positively correlated with time passed since hemodialysis started (heodialysis age; r=.271, p<.01) and negatively correlated with social support from someone special (r=.223, p<.05), age (r=.403, p<.001), problem focused coping (r=.305, p<.05), and emotion focused coping (r=.342, p<.005).

First factor of ZCB, mental tension (Mt) was found negatively correlated with problem focused coping (r=-.247, p<.05). Social support from someone special was found negatively correlated with the second factor (irritability; I) (r=-.253, p<.01). Total ZBC and subscales correlations with each other and with other variables are shown in TABLE 1.

			1401	e 1. Correlat	10113			
	Zarit Total	Zarit-1	Zarit-2	Zarit-3	Zarit-4	Zarit-5	Social Support Special someone	Social Support Family
Zarit-1	,736**							
Zarit-2	,780**	,623**						
Zarit-3	,691**	,494**	,551**					
Zarit-4	,330**	-,186	,100	-,133				
Zarit-5	,213*	-,285**	-,048	-,022	,443**			
Social Support Special someone	-,223*	-,064	-,253**	-,098	-,084	<b>,</b> 230°		
Social Support Family	-,157	-,017	-,125	-,025	-,181	-,045	,564**	

#### Table 1: Correlations

# **MEDICINE. PUBLIC ASPECTS OF MEDICINE**

Social Support Frien	ds -,093	-,068	-,072	,000	,050	,172	,615**	,526**
**. Correlation is significant at the 0.01 level (2-tailed).								
*. Correlation is significant at the 0.05 level (2-tailed).								

Regression analysis also run for total ZCB score and subscale scores. For each regression analysis, variables, that were found correlated with the dependent variable, were added to the model. Total ZCB score was predicted by age ( $\beta$ = -,367, p<.005), emotion focused coping ( $\beta$ = -,288, p<.05), and hemodialysis age ( $\beta$ = ,367, p<.005). The model fit was R<sup>2</sup>= .423.

Predictor of Mt was age ( $\beta$ = -,302, p<.05), but not problem focused coping ( $\beta$ = -,172, ns.) For irritability factor, age ( $\beta$ = -,252, p<.01) and social support from someone special ( $\beta$ = -,198, p<.05) were predictors. Predictor of the third factor (deterioration of social life) was problem focused coping ( $\beta$ = -,267, p<.05) but not age ( $\beta$ = -,175, ns). The significant predictor of the fourth factor was emotion focused coping ( $\beta$ = -,450, p=.000). For the last factor, emotion focused coping was a predictor ( $\beta$ = -,450, p=.000), but social support from someone special was not ( $\beta$ = -,087, ns).

#### Discussion

Our sample was selected from two dialyses unit from a single city. It is the most important limitation of the study. Therefore, the generalization of our results is questionable. Beside this limitation, our sample characteristics are similar with previous studies (Alnazly, 2015).

Predictors of burden are age, emotion focused coping, and time passed since hemodialysis started. Interestingly, two variables, age and hemodialysis age, have opposite effects on total burden. The result related to detrimental effect of dialysis age is consistent with the literature (Celik, Annagur, Yılmaz, Demir, & Kara, 2012). However, no literature was found related to protection of age. If maturation is a protective factor for CHPs future studies must focus on the issue.

In contrast to previous studies, that found problem focused coping as a protective factor (Kate, Grover, & Kulhara, 2013; Papastavrou, Charalambous, & Tsangari, 2012), we found emotion focused coping as a protective factor. Emotion focused subscale of Turkish version WOC has faith items such as "I brace myself as -God has ordained that way-" and "I pray for help from God". As Alnazly (2015) discussed, praying would be a resistance factor in Muslim countries.

We found age as negatively correlated with Mt and irritability subscales. As discussed in Ruiz-Rebrodillo and colleagues (2015), facing chronic stressors such as caregiving to people with autism spectrum disorder may have an incubation effect. People show less cardiovascular reactivity to acute stress and less psychological symptoms due to incubation. Incubation is the most plausible explanation for the positive effect for age.

Surprisingly, social support has very limited effect on burden. There are two possible explanations for limited effect which are much related. First one is cultural. In collectivistic cultures such as Turkey, perceived support is usually high as observed in our study. Mean scores of perceived social support subscales were above 23.07 (max=28.00). This leads us to second explanation, ceiling effect. Differences would be statistically nonsignificant, due to high scores of social support.

#### Conclusion

There were two protective factors for caregivers' burden; age and emotion focused coping. However, results did not revealed risk factors and the role of social support. For future studies, it is important to evaluate culture specific factors for development of effective intervention programs (see a detailed review for intervention programs: Tong, Sainsbury, & Craig, 2008).

#### References

Alnazly, E.K. (2015). Burden and coping strategies among Jordanian caregivers of patients undergoing hemodialysis. *Hemodialysis International*, May, 1-10. doi:10.1111/hdi.12318.

Alvarez-Ude, F., Valdes, C., Estebanez, C., & Rebello, P. (2004). Health-related quality of life of family caregivers of dialysis patients. *Journal of Nephrology*, 17, 841–850.

Avsar, U., Avsar, U.Z., Cansever, Z. Set, T. Cankaya, E. Kaya, A. Gozubuyuk, H. ... & Keles, M. (2013). Psychological and Emotional Status, and Caregiver Burden in Caregivers of Patients With Peritoneal Dialysis Compared With Caregivers of Patients With Renal Transplantation. *Transplantation Proceedings*, 45, 883–886. doi: 10.1016/j.transproceed.2013.03.004

Beanlands, H., Horsburgh, M., Fox, S. Howe, A., Locking-Cusolito, H., Pare, K., & Thrasher, C. (2005). Caregiving by family and friends of adults receiving dialysis. *Nephrology Nursing Journal*, 32, 621-631.

Belasco, A.G., Sesso, R. (2002). Burden and quality of life of caregivers for hemodialysis patients. *American Journal of Kidney Diseases*, 39, 805–812.

Bruns, A., Hila'rio, M.O.E., Jennings, F., Silvai C.A., & Natour, J. (2008). Quality of life and impact of the disease on primary caregivers of

juvenile idiopathic arthritis patients. Joint Bone Spine, 75, 149-154.

Çelik, G.P., Annagur, B.B., Yılmaz, M., Demir, T., & Kara, F. (2012). Are sleep and life quality of family caregivers affected as much as those of hemodialysis patients?. *General Hospital Psychiatry*, 34, 518-524. doi: 10.1016/j.genhosppsych.2012.01.013

Einollahi, B., Taheri, S., Nemati, E., Abbaszadeh, S., Pourfarziani, V., & Nourbala, M.H. (2009). Burden among care-givers of kidney transplant recipients and its associated factors. *Saudi Journal of Kidney Diseases and Transplantation*, 20, 30-4. Retrieved from: <u>http://www.sjkdt.org/text.asp?2009/20/1/30/44703</u>

Eker, D., Arkar, H. & Yaldız, H. (2001). Çok Boyutlu Algılanan Sosyal Destek Ölçeği'nin gözden geçirilmis formunun faktör yapısı, geçerlilik ve güvenirliği, *Türk Psikiyatri Dergisi*, 12 (1), 17-25.

Folkman, S., & Lazarus, R. S. (1980). An analysis of coping in a middle-aged community sample. *Journal of Health and Social Behavior*, 21, 219-239.

Ferrario, S.R., Zotti, A.M., Baroni, A., Cavagnio, A., & Fornara, R. (2002). Emotional reactions and practical problems of the caregivers of hemodialysed patients. *Journal of Nephrology*, 15, 54-60.

Gençöz, F., Gençöz, T., & Bozo, Ö. (2006). Hierarchical dimensions of coping styles: a study conducted with Turkish university students. *Social Behavior and Personality*, 34 (5), 525-534.

González-Bono, E., de Andrés-Garcia, S., Romero-Martínez, A., & Moya-Albiol, L. (2013). Cardiovascular Response to Psychosocial Repeated Stress in Caregivers of Offspring with Schizophrenia. *The Spanish Journal of Psychology*, 16. doi:10.1017/sjp.2013.4.

İnci, F.H. (2006). Bakım verme yükü ölçeği'nin Türkçe'ye uyarlanması, geçerlilik ve güvenirliği (Unpublished master thesis). Pamukkale University, Denizli, Turkey.

Kate, N., Grover, S., Kulhara, P., & Nehra, R. (2013). Relationship of caregiver burden with coping strategies, social support, psychological morbidity, and quality of life in the caregivers of schizophrenia. *Asian Journal of Psychiatry*, 6, 380-388. doi: 10.1016/j. ajp.2013.03.014.

Lovell, B., Moss, M., & Wetherell, M. (2012). The psychosocial, endocrine and immune consequences of caring for a child with autism or ADHD. *Psychoneuroendocrinology*, 37, 534-542. doi: 10.1016/j.psyneuen.2011.08.003.

Ma, H., Lu, H., Xiong, X., Yao, J., & Yang, Z. (2014). The investigation of care burden and coping style in caregivers of spinal cord injury patients. *International Journal of Nursing Sciences*, 1, 185-190.

1. Özlü, A., Yıldız, M., Aker., T. (2009). Zarit Bakıcı Yük Ölçeğinin Şizofreni hasta yakınlarında geçerlilik ve güvenilirlik çalışması. Nöropsikiyatri Arşivi (Archives of Neuropsychiatry) 46, 38-42.

2. Papastavrou, E., Charalambous, A., & Tsangari, H. (2012). How do informal caregivers of patients with cancer cope: A descriptive study of the coping strategies employed. *European Journal of Oncology Nursing*, 16 (3), 258-263. doi: 10.1016/j.ejon.2011.06.001

Pierce, L.L., Steiner, V., Hick, B., & Holzaepfel, A.L. (2006). Problems of ne caregivers of persons ith stroke. *Rehabilitation Nursing*, 31, 166-173.

Raggi, A., Tasca, D., Paneari, S., Neri, W., & Ferri, R. (2015). The burden of distress and related coping processes in family caregivers of patients with Alzheimer's disease living in the community. *Journal of the Neurological Sciences*, Available online 17 August 2015. doi: <u>http://dx.doi.org/10.1016/j.jns.2015.08.024</u>

Ruiz-Robledillo, N., & Moya-Albiol, L. (2013). Self-reported health and cortisol awakening response in parents of people with Asperger syndrome: the role of trait anger and anxiety, coping and burden. *Psychology & Health*, 28, 1246–1264. doi: 10.1080/08870446.2013.800517

Ruiz-Robledillo, N., Belosta-Batalla, M., & Moya-Albiol, L. (2015). Lower cardiovascular reactivity to acute stress in informal caregivers of people with autism spectrum disorder than in non-caregivers: Implications for health outcomes. *International Journal of Psychophysiology*, Available online 27 July 2015. doi: 10.1016/j.ijpsycho.2015.07.011

Sezer, M.T., Eren, I., Ozcankaya, R., Civi, I., Erturk, J., & Ozturk, M. (2003). Psychological symptoms are greater in caregivers of patients on hemodialysis than those of peritoneal dialysis. *Hemodialysis International*, 4, 332-337. doi: 10.1046/j.1492-7535.2003.00058.x.

Shimoyama, S., Hirakawa, O., Yahiro, K., Yahiro, K., Mizumachi, T., Schreiner, A., & Kakuma, T. (2003). Health-related quality of life and caregiver burden among peritoneal dialysis patients and their family caregivers in Japan. *Journal of International Society for Peritoneal Dialysis*, 2, 200–205. Retrieved from http://www.pdiconnect.com/content/23/Supplement\_2/S200.full.pdf+html

Suri, R.S., Larive, B., Garg, A.X., Hall, Y.N., Pierratos, A., Chertow, G.M., ... & Kliger, A.S. (2011). Burden on caregivers as perceived by hemodialysis patients in the Frequent Hemodialysis Network (FHN) trials. *Nephrology Dialysis Transplantation*, 0, 1-6. doi: 10.1093/ndt/gfr007.

Tong, A., Sainsbury, P., & Craig, J.C. (2008). Support interventions for caregivers of people with chronic kidney disease: a systematic review. *Nephrology Dialysis Transplantation*, 23, 3960-3965. doi: 10.1093/ndt/gfn415

White, Y, & Grenyer, B.F. (1999). The biopsychosocial impact of end-stage renal disease: the experience of dialysis patients and their partners. *Journal of Advanced Nursing*, 30(6), 1312-1320. doi: 10.1046/j.1365-2648.1999.01236.x

Zimet, G.D., Dahlem, N.W., Zimet, S.G. & Farley, G.K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality* Assessment, 52, 30-41.

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Orhan TUNCER Institute of Management, Business and Law, Russia e-mail: orhantuncer1@mynet.com

# **Customer Loyalty Marketing in Thermal Tourism in Turkey**

#### ABSTRACT

This study is for customer loyalty marketing of thermal tourism in Turkey, customer loyalty will be applicable for thermal operation of the thermal tourism importance and aims to recommend a customer loyalty.

First place was given to theoretical knowledge about the subject in this context. After about tourism and thermal tourism, thermal tourism, thermal tourism services in addition to marketing and customer loyalty issues literature has been demonstrated with the information obtained from qualitative research.

For this purpose, the data obtained from the survey application customer loyalty in thermal tourism dealt with all aspects of the then 540 thermal tourism customers of the qualitative research done two years during the study using SPSS were analyzed by 19.0 package program.

The results obtained from our research in ensuring customer loyalty in thermal tourism sector in Turkey, perceived price, perceived quality, perceived value, customer satisfaction, demonstrated performance and the importance of word of mouth communication factors, and severity levels. The way to ensure customer loyalty in thermal tourism facilities in Turkey, passes through the introduction of the factors listed in the most appropriate level to customers.

Key words: marketing mix, health tourism, thermal, thermal hotel.

# 1. Introduction

Thermal tourism, restoring people's health, rest, tourism is a place for fun and action for change. The thermal plants; thermal products and services that are the institutions that provide income incorporates trying to be helpful to people. Today, industrialization and excessive urbanization resulting from air, water and soil pollution, damp and people of the rapid development of unhealthy urban living environment posed by environmental problems with noisy environments and communities adverse effects on the health day is increasing by day. These effects; stress, eating disorders, physical exhaustion, rheumatic diseases, digestive, respiratory, circulatory pathways are emerging as common diseases, such as diseases of the modern age. Here thermal source at this point emerges as a kind of alternative medicine therapies available to mankind. Both this point the importance of thermal tourism in the share of business services in the economy, both in our country is increasing day by day leads to an increase.

Some people are going to stay where they are the thermal waters that could cause a positive effect on human health to benefit from more natural tourism resources away from unhealthy urban environment. In addition to examining the health beneficial properties of thermal springs, transportation, lodging, and leisure needs, such as nutrition are addressed in thermal tourism. Especially in recent times, people have given rise to an increasing number of healthier and more comfortable to be in the quest for life and this quest while in unnatural drugs to avoid the use of the consequent increased demand for thermal centers in natural thermal springs. As a result the need for increased marketing of thermal tourism.

#### 2. Tourism

Tourism; People temporarily from leaving to go to other countries or regions from where they live, continuous, places strollers see they go, rest, like to have fun and learn psychological, is an action they meet social and cultural needs (Can, 1998).

According to another definition; people constantly they reside, they work and always travels outside the place where they meet the usual needs, where the usually generated by tourism business goods and services by requesting is defined as all of the incidents and relationships in temporary accommodation (Toskay, 1983).

In simple words, tourism; Any revenue not provided objective of ensuring that people living elsewhere in the action travels from the region and are associated with residing there temporarily. Based on this definition can be summarized as follows into the characteristics of tourism material;

- Tourism is a continuous action taken outside the place of residence.

- Tourism residence time is temporary. After a while people traveling is separated from that area.

- Travel during which people reside always generated by tourism enterprises

not consume goods and services from other businesses that may be in the region as well, and sometimes local public goods and services relationship.

- Tourism activities often visit - seeing, learning, recreation and other purposes such as to keep fit.

- In order to qualify as a tourism action needs to be away from the purpose of making money.

#### 3. Thermal Tourism

"Term" word comes from the Latin word meaning hot thermos. Romans baths used in the sense of time before the people "term" word was later taken place in terms of water being used. Natural hot springs "thermal" To specify the temperature properties of water "thermal", natural hot Investigation of water resources and health in order for the regulation to be used, the "thermalism" is expressed by the word (Fortune, 1978).

Known thermal springs are called the oldest and most important medical and therapeutic use thermalism briefly (Olalı-Timur, 1988).

In terms of tourism ministry publications; mineralized thermal waters and mud, in the composition of environmental and climatic factors in the region's resources in order to contribute positively to human health expert and physician supervision program; physical therapy, rehabilitation, exercise, psychotherapy, tourism movement for curing applications with supportive therapy such as diet coordinated called thermalism (Selvin, 2002).

In another definition, thermalism literally based on the nature of the thermal waters, minerals, used in health care efficiency by utilizing features such as radioactivity and addressing the effectiveness of the scientific basis (Seymenoglu-Dogan, 2005).

The shortest definition Thermalizm; "Thermal station is tourism" (Avşaroğlu, 1963) have been added. No additives and changes uğratılmaksız trained to cure made in staff supervision and private facilities Some sources thermalism the synonym used in thermal tourism, water resources, called the mine with the scientific and medical aspects of therapeutic properties, all of the activities for the benefit for the treatment of various diseases (Aydin, 1990) is defined as.

Another source of thermal tourism; According to health regulations under the reorganized medicine mineral water source is used as a therapeutic tool (Olalı, 1984).

As it can be understood from the description made thermalism sometimes defined to include recognition of the movement of tourism and sometimes also participate in tourism activities. Despite the definition of thermal tourism in some sources are not mentioned in the definition of tourism activities. In some way resources are used in the next two terms mean the same thing. In fact, thermal tourism, thermalism tourism event certainly made separately from the definition of thermal tourism movement will be more accurate. Thermal; people are or treatment of illness or the treatment of specific diseases or just relax and go to the company from where the thermal water resources being born in order to win a special treat tourism (Aslan, 1996).

According to another definition; Thermal tourism, restoring people's health, rest, tourism is a place for fun and action for change (Fidancı, 2002).

Today, industrialization and excessive urbanization resulting from air, water and soil pollution, damp and people of the rapid development of unhealthy urban living environment posed by environmental problems with noisy environments and communities adverse effects on the health day is increasing by day. These effects; stress, eating disorders, physical exhaustion, rheumatic diseases, digestive, respiratory, circulatory pathways are emerging as common diseases, such as diseases of the modern age. In return away nature of unhealthy and monotonous urban environment they are in humans, natural tourism resources of the impact on human health in order to take advantage, going to the places where the mineralized thermal water cure purposes are staying for a while with (Gencay, 1994).

Investigation of health beneficial properties of thermal springs, arranging for the source area management, transportation, lodging, in issues such as nutrition and leisure are considered under thermalism (Selvi, 1996).

#### 4. Purpose of the Research

To provide them with data that they can use the factors that determine customer loyalty spas in Turkey within the framework of examining different models for thermal facility managers bulunarak recommend a suitable model. In this way the quality of services provided to serve the development of thermal plants and thermal facility is to help their clients to receive services from the thermal plant under better conditions.

#### 4.1. Survey Sampling

The study population considered are individuals from thermal plants in Turkey, but because it is the subject of services marketing and related customer loyalty separately from the physical facilities of these issues for thermal plants will be surveyed to be more comfortable measurement is determined by some standards. Starting from this idea swimming pool, sauna, fitness room and in the TV room with thermal plant is taken as the basis of the research universe.

#### 4.2. Research Methods and Data Collection Tool

Face-to-face survey method was used to reach the data and information in the study. Survey questionnaires were administered between the dates of 05/09/2015 and 30/05/2015.

# 5. Results

#### **Table 1 Gender of Participants**

	Frequency	Percent
Male	228	42.22
Woman	312	57.78
Total	540	100.0

Overall, the particular ideas they pay much more attention to the health of women than men in urban population in Turkey is supported by these results. In qualitative research conducted prior to quantitative research to support this idea state have been identified and spread ladies next to think about their health, particularly through WOM "more they are affected by rumors of alternative medicine practices and in comparison to men, this method tendency to experiment showed that more.

	Frequency	Percent
19 and upper	18	3,3
20-29	42	7,8
30-39	45	8,3
40-49	56	10,4
50-59	147	27,2
60-69	137	25,4
70-79	58	10,7
80 and over	37	6,9
Total	540	100,0

# Table 2: Age of Participants

Particularly noteworthy point here is the low share of young population. There are mainly two reasons. The first youth when such places are usually purposeful vision therapy, such places still the second cause of young people in conjunction with the first reason is usually because of seeing them more attractive as a site for the elderly come. For the moment this idea right age, especially the middle and upper part of the thermal plant utilization rate is very high compared to younger men is shown in

Table 3 Marital Status of Participants					
Frequency Percent					
Bekâr	77	14,3			
Evli	357	66,1			
Dul	106	19,6			
Toplam	540	100,0			

When the marital status of individuals participating in the study is seen as having the highest share with 66.1% of the proportion of those married. The proportion of those widowed and unmarried married is much lower than that seen in 19.6% and 14.3% Table 3 respectively.

Table 4: Educational A	ttainment of Partici	pants
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	Frequency	Percent
Elementary school	74	13,7
Middle School	205	38,0
High school	153	28,3
University	96	17,8
Graduate	12	2,2
Total	540	100,0

When they look at the educational background of individuals who participated in the survey that the majority of secondary school graduates (38%) is observed. That is, respectively, graduated from high school (28.3%), university graduates (17.8%) were primary school graduates (13.7%) and graduate school (2.2%), followed by individuals.

Although it seems the benefits in terms of health spas can be medically acceptable, but many experts think that it is of little benefit from additional treatment. But among the people improve your own illness or the environment rather than go directly to the doctor asked a judge knows that logic, hearsay treatment methods are applied. One of these hearsay treatment (although truth, though it is exaggerated effect among the people of the spa) is a spa treatment. The level of education of mouth stuffed treatments are more likely to be adopted by low people. Table 4 is the nature of this assertion.

	-	•	
	Frequency	Percent	
Retired	87	15,6	
Worker	42	7,8	
Officer	44	8,1	
Self-employment	137	25,4	
Housewife	152	28,1	
Student	43	8,0	
Other	38	7,0	
Total	540	100,0	

#### **Table 5 Research Occupation of Participants**

Job seems to be the case when we look at the majority of women who choose individuals as a result of thermal tourism, which attracted

28.1% of those who deal with a housewife. Second came the self-employed and 25.4%, respectively, these retirees, civil servants, workers, students and other professional groups are followed.

Regression Direction	Regression Coefficients	Standard Error	Significance Level			
M3D < M1F	0,870	0,028	0,000			
M3D < MT	0,139	0,035	0,000			
M4T < M1F	0,944	0,015	0,000			
M2K < M1F	0,849	0,015	0,000			
M5S < M4T	0,099	0,036	0,006			
M5S < M3D	0,093	0,032	0,004			
M5S < M1F	0,835	0,059	0,000			
M5S < M2K	0,004	0,036	0,905			
M6S < M3D	0,097	0,050	0,055			
M6S < M1F	0,775	0,097	0,000			
M6S < M4T	0,116	0,056	0,039			
M6S < M5S	-0,097	0,067	0,149			
M3D < MT	0,139	0,035	0,000			
M4T < M1F	0,944	0,015	0,000			
M2K < M1F	0,849	0,015	0,000			
M5S < M4T	0,099	0,036	0,006			

When the regression coefficient showing which is not standardized regression coefficients in Table 6 does not appear to look at a few significant at 0.05 significance level. Perceived quality of customer loyalty (M5S <- M2K) asserts that affect the regression coefficient was not significant (r = 0.004, p = 0.905). Suggesting that affect the perceived value of word of mouth communication (M6S <- m3d) regression coefficient was not significant (r = 0.097, p = 0.055). The customer loyalty is influenced argues that the word of mouth communication (M6S <- M5S) regression coefficient was not significant (r = -0.097, p = 0.149).

### **Table 7 Standardized Regression Coefficients**

Regression Direction	Regression Coefficients	Standard Error	Significance Level
M3D < M1F	0,840	M5S < M3D	0,091
M3D < MT	0,107	M5S < M1F	0,786
M4T < M1F	0,938	M6S < M1F	0,785
M2K < M1F	0,926	M6S < M4T	0,118
M5S < M4T	0,093	M5S < M4T	0,093

Table 7 and Table 6 no significant regression containing Removal of the significant coefficients standardized regression coefficients of the regression coefficients are given.

## **Table 8 Covariance Coefficient**

	Coefficient	Standard Error	Significance Level
M1F <> MT	0,452	0,031	0,000

Covariance structural equation modeling coefficients in Table 8 shows.

# **Table 9 Variance Coefficients**

	Coefficient	Standard Error Significance Level	
M1F	0,706	0,043	0,000
MT	0,447	0,027	0,000
d2	0,086	0,005	0,000
d1	0,104	0,006	0,000
d5	0,085	0,005	0,000
d3	0,059	0,004	0,000
d4	0,142	0,009	0,000

#### **Table 10 Multiple Correlation Coefficients**

	Coefficient
M2K 0	0,857
M4T	0,879
M3D	0,862
M5S	0,926
M6S	0,794
M2K	0,857
M4T	0,879

The correlation is used in structural equation modeling Pearson correlation test, regression evaluation will be as follows.

0 <r <024 very poor relationship

25 <r <49 poor relationship

50 <r <69 moderate relationship

70 <r <89 high-level relations

90 <r <100 very high level of relations

# 6. Conclusions and Recommendations

Customer loyalty toward their studies as well as thermal tourism businesses in all sectors while consumers are so special that every consumer is different from each other; various degrees of satisfaction of the different perceptions, different concepts of satisfaction, etc. there might be. For example, some consumers being treated hoşlanırk of his friendly, some may want to seriously instead by smiling instead of by the others want to be treated seriously. As a result, customers will also be able to regulate the marketing mix for businesses that a consumer should pay attention to this issue and will appeal to both existing as well as characteristics of potential customers. Because customer loyalty holdings, the sector created a non-competition increases it will become more difficult time keeping existing customers for business. In addition, new customers constantly find it difficult to achieve success in spite of lost customers as a work philosophy. New customer acquisition costs from the cost of holding an existing customer is much more negative publicity should not be forgotten and can not be held to provide business to get out of hand. Have loyal customers to a business that should be noted is the most important tool of being able to provide competitive advantage.

Thermal tourism marketing in Turkey, a proposal for a structural model for customer loyalty in order according to the results obtained from the survey findings; thermal plant thermal tourism customer perceived for their accommodation by the price that will be formed against the loyalty directly and positively affects the thermal plant.

Surveyed perceived by customers for thermal tourism thermal plant their stay price, then the value they perceive the value they perceive their loyalty towards the thermal plant has been found to directly and positively affect the results.

Research findings based on the quality perceived by customers, the price of thermal tourism is perceived by customers, it has reached levels of customer satisfaction and word of mouth to communicate directly and positively affect the results.

#### REFERENCES

Aslan, Z. (1996). Ege Bölgesine Yönelik Termal Turizm Talebinin Analizi Ve Termal Turizm İşletme Modeli Dokuz Eylül Üniversitesi Sosyal Bilimler Enstitüsü Turizm İşletmeciliği Anabilim Dalı Doktora Tezi, İzmir.

Becheri, E. (1989). From thermalism to health tourism. The Tourist Review, 44(4), 15-19. doi: 10.1108/eb058030

Borman, E. (2004). Health Tourism: Where healthcare, ethics, and the state collide. BMJ: British Medical Journal, 328(7431), 60. doi: 10.1136/bmj.328.7431.60

Bywater, M. (1990). Spas and health resorts in the EC. Travel & Tourism Analyst, (6), 52-67.

Can, C. M. (1998). Turizm Pazarlaması Ve Doğu Karadeniz Turizm Pazarlama Faaliyetleri, Karadeniz Teknik Üniversitesi, Sosyal Bilimler Enstitüsü, Yüksek Lisans Tezi, Trabzon.

Connell, J. (2006). Medical tourism: Sea, sun, sand and... surgery. Tourism management, 27(6), 1093-1100. doi: 10.1079/9781845936600.0000 Demirbey, Ş. (1992). Turizmde Termalizm ve Bursa Termal Turizmi. Yüksek Lisans Tezi), Uludağ Üniversitesi Sosyal Bilimler Enstitüsü.

Erfurt-Cooper, P., & Cooper, M. (2009). Health and wellness tourism: Spas and hot springs. Channel View Publications.

Fidancı, T. (2002). Termal Turizm İşletmelerinde Maliyet Analizleri. Afyon Kocatepe Üniversitesi Sosyal Bilimler Enstitüsü, İşletme Anabilim Dalı, Afyon.

Fortune, F. F. (1978). Termalizm, Çev: Nüzhet KAHRAMAN, T.C. Turizm Bankası Yayını, Ankara.

Garcia-Altes, A. (2005). The development of health tourism services. Annals of tourism research, 32(1), 262-266.

Gençay, C. İ. (1994). Termal Turizm İşletmelerinde Yönetim– Organizasyon Ve Afyon İli Termal Turizm İşletmelerinin Yönetim-Organizasyon Sorunları, Yüksek Lisans Tezi. İstanbul Üniversitesi Sosyal Bilimler Enstitüsü, İstanbul.

Goodrich, J. N. (1994). Health tourism: A new positioning strategy for tourist destinations. Journal of International Consumer Marketing, 6(3-4), 227-238. doi: 10.1300/J046v06n03\_12

Köksal, A. (1994). Türkiye turizm coğrafyası. Gazi Büro Kitabevi.

Laws, E. (1996). Health tourism: A business opportunity approach. Health and the international tourist, 199-214.

Mezei, K. A. (2009). Tourist Destination Management. Revista de turism-studii si cercetari in turism, (8), 52-58.

Olalı, H. (1984). Turizm Dersleri. İstikbal Matbaası, İzmir.

Olalı, H.A. (1988). Timur Turizm Ekonomisi. Ofis Matbaacılık Şti. İzmir, 1988.

Pollock, A., Williams, P., Gartner, W. C., & Lime, D. W. (2000). Health tourism trends: closing the gap between health care and tourism. Trends in outdoor recreation, leisure and tourism., 165-173. doi: 10.1079/9780851994031.0165

Reisman, D. A. (2010). Health tourism: social welfare through international trade. Edward Elgar Publishing. doi: 10.4337/9781849805537 Ross, K. (2001). Health tourism: an overview. HSMAI Marketing Review, 27, 2001.

Sayili, M., Akca, H., Duman, T., & Esengun, K. (2007). Psoriasis treatment via doctor fishes as part of health tourism: A case study of Kangal Fish Spring, Turkey. Tourism Management, 28(2), 625-629. doi: 10.1016/j.tourman.2006.08.010

Selvi, M. S. (1996). Bir Turizm Potansiyeli Olarak Kaplıca Turizminin Değerlendirilmesi Balıklı Kaplıca Uygulama Çalışması. Balıkesir Üniversitesi Sosyal Bilimler Enstitüsü, Balıkesir.

Selvi, M. S. (2002). Termal Turizm Pazarlaması Kapsamında Devre Tatil Ve Devre Mülk Sistemleri Ve Satış Geliştirmedeki Rolleri Dokuz Eylül Üniversitesi S.B.E., Doktora Tezi. İzmir.

Seymenoğlu, D., & Doğan, S. (2005). Türkiye'de Kaplıca Turizmi, Karadeniz Teknik Üniversitesi İ.İ.B.F. İşletme Bölümü, Bitirme Çalışması, Trabzon.

Smith, C., & Jenner, P. (2000). Health tourism in Europe. Travel & Tourism Analyst, (1), 41-59. Toskay, T. (1983). Turizm, Turizm Olayına Genel Yaklaşım. Der Yayınları, İstanbul.

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JN6630-6639

Alexey SZYDLOWSKI Southern Federal University, Russia e-mail: chief@wolfcorner.org

# Recovery of the Economy of Donbass as the Main Condition of Decrease in a Conflictness in the Region

#### ABSTRACT

A problem of Ukraine crisis observed through the prism of European crisis. The safety in Europe, and, more then it, in the whole world was lost. But this unstability may be considered as a natural evolutionary process. If we accept that the next step of the state evolution is a formation of net-centric state, then the Ukraine crisis is not something unusual. This is the same process of states dissipation as in any other part of the world.

Key words: Ukraine crisis, stability, municipal feudalism, state evolution, net-centric state

Club "Valday" International discussion in Sochi was held in October 2015. There together Russian president leading European and American political figures and political experts were present. Earlier in the meetings of the club participated ex-prime minister of France Dominique de Villepin who was born in Morocco (as the French themselves say "black heels"). There were ex-presidents of Czech Republic and the USA as well. But what is really important it`s that all of them came out with the unified position that the golden age of the peace and stability is over. In the future, we are in for reinforcement of chaos, the safety becomes luxury.

The safety in Europe and in the whole world really becomes the "luxury". However, we must understand the roots of this problem. It is not terrorism of separate group, person or country that is a cause of conflicts but the expected process of state evolution. We know that the state wasn't stable in its making process. The state, like a living creature, is born, grows and then dies. We know nomadic states, city-states, multinational empires and present national states. However, we cannot think that the process of evolution is over. Today we are at the stage of changing the one government type to another. Therefore, if we understand what is the new form of a state we would realize what kind of problem we are faced towards.

Nowadays we can see that the model of European national or multinational state does not work. In the past straight after the dissipation of a state the new state appeared. Now the new states do not appear. Let's look at Somali, Syria and others, it can be a very long list of countries. Instead of failed states, only geographical territories stay behind or criminal and mafia-style organizations appear. This isn't about any modern sovereign institutions. There is neither social security nor safety. I am talking about it because when it happened for the first time it could be accidental, but now it is regularity.

Therefore, in our modern world the state itself becomes "luxury". Moreover, in the nearest future, in the future we are used thinking about, it will become even more "Luxury". It is my belief that even in current time only any stable national states will stay on. I cannot even say their names because the borders of these state formations will change like fluctuation. Expected result of such kind of changings could be a formation of so-called multinational state-corporations or net-centric states. In the modern science, we can find a special term for such kind of scenario – «municipal feudalism» – like a safety and economically stable island. Even as we speak there are most of multinational corporate giants which budgets are more than budgets of some countries and they have their own private military companies, private hospitals, mail, private logistics and at cost private corporate citizenship. I think this process will continue. These changes won`t stay away from Russia. Now some Russian companies such as Gazprom and Transneft have their own military service, hospitals, schools and universities.

Accordingly, if we accept that the next step of the state evolution is a formation of net-centric state, then the Ukraine crisis is not something unusual. This is the same process of state's dissipation as in any other part of the world. I do not want to estimate events happened, it is absolute tragedy, even more it is happened and happens less than 60 kilometers from my house. But if we looked judiciously at the processes in Crimea and Odessa region, Ukraine where the late president of Georgia Mikhail Saakashvili is the governor we could see that both Russian authorities in Crimea and Saakashvili in Odessa more or less simultaneously deal with the same matter. They clear governmental authorities from out-and-out corruption. In addition, it does not matter how expected was local elite, was it Russophile in Crimea or was it pro-Ukrainian in Odessa, in both cases they were corrupted. It says that Ukraine like a state went bad long ago and the question "When will this system ruin?" was just a matter of time. This country is pulled into pieces not by Ukrainian nationalist or Russophile separatists but corporations. It

is impossible now to turn Ukraine into stable European state. Because according to history and as I've already said the formation of new states after national states` dissipation does not take place independently any more. Today all the markers appropriate to transition stage from national state to net-centered one become apparent. We shouldn't be mistaken and discuss Ukraine without Donetsk, Lugansk or Crimea. Everywhere we can see the process of leaving the national state from safety and social responsibility field and formation of mafia-style territories on a grassroots level and proto-multinational corporation states with their own military services, hospitals, factories and banks at high level. The term "bank" has one of the high values, because the dissipation of national state principally is connected with dissipation of its financial system, in other words with its currency. Whoever will have access to upcoming banking product that includes supranational, virtual and corporate currencies he will have success on the territories of former states in the future. It is very important to realize. There are seven billion people in the world, but only one billion of them have a bank account. The rest of people are hardly loafers, they want to take part in economic life as well. However, the access to banking products is closed to them. However, the access to Internet is open. In addition, when they start to use widely the virtual currency is the matter of time as well.

I afforded a little deviation from the subject as the cryptocurrency question was one of the important ones while discussing and analyzing the situation on the East of Ukraine. In spring, South Federal University tried to work at a scenario of Donbass economic recovery under conditions of complete warfare cessation and situational shutdown as in "Abkhazian scenario". It was the recovery of financial system that experts discussed first. Upon that, the scenario of financial transactions from separative territories outwards was considered as seriously as Russian ruble adoption or multi-currency system start. However, limited self-government and incompetence of present leaders of separative territories leaves this question open.

In view of the foregoing it's becoming apparent that the solution of Ukraine crisis under present geopolitical conditions is impossible, because it cuts across evolutional way of state regenesis. Only crisis conservation based on returning of Ukraine into system of national states with their safety and social and financial institutions is possible. However, under the conditions of the beginning process of protomultinational corporations' formation without external support of European Union, Russia and the USA the situation will spiral into "Somali scenario". It can lead not only safety crisis in Ukraine or Russia but the whole Europe as well.

#### References

Legvold, R. (2015). Ukraine Crisis: What It Means for the West.

MacFarquhar, N., & David, M. H. (2014). Ukraine Crisis Pushing Putin Toward China. New York Times, 20, A1.

McDowell, D. (2015). Ukraine crisis: what it means for the West. By Andrew Wilson.

McMahon, R. (2014). Ukraine in Crisis. Council on Foreign Relations, 5.

Mearsheimer, J. J. (2014). Why the Ukraine Crisis Is the West's Fault. Foreign Affairs, 93(5), 77-89.

Trenin, D. (2014). The Ukraine crisis and the resumption of great-power rivalry. *Carnegie Moscow Center*, 9.

Wade, R. H. (2015). Rethinking the Ukraine crisis. Economic and Political Weekly, 50(9).

Walker, E. W., McGuire, S. K., Mabon, S., Durham, M. G., May, G., Rutland, P., ... & Welch, D. (2015). Between East & West: NATO Enlargement & the Geopolitics of the Ukraine Crisis. *Ukraine and Russia: People, Politics, Propaganda and Perspectives*, 141.

JN6630-6639

Vadim VOLOVOJ Lithuanian Mykolas Romeris University www.mruni.eu

# Two Years of Euromaidan and Strategic Perspective of the Ukrainian Crisis Abstract

#### ABSTRACT

Question of the future of Ukraine is globally important and requires answer before it is closed in order to be ready for final result. Ukrainian crisis has internal and external dimension. First part of the article analyzes the consequences of Euromaidan. Two years is a period of time, which makes possible some preliminary conclusions about the development of new Ukraine, and it can be said that political and economic system of the country is deteriorating. At the same time disappointment of the people about the course of development of the state is growing. Therefore theory of expectations and reality discrepancy can be applied to predict the future of today's political regime in Kiev. The conclusion is that next social explosion (revolution) in Ukraine is highly possible in a short-term, because unacceptable gap between expectations of Ukrainians and reality they live in has almost reached critical margin. Still situation in the country is strongly dependent on the position of two big external actors - the West (the United States and the European Union) and Russia. On the one hand, they stabilize the conflict – the West helps Ukrainian government to survive politically and economically and manages social and oligarchic protest potential in the state; Russia supports separatists of Donbass, but holds them from further military aggression, accentuating implementation of Minsk Agreement. On the other hand, Ukraine definitely is a hostage of "great geopolitical game" between Washington, Brussels and Moscow, and is not a subject, but object in it. Strategic perspective of the Ukrainian crisis will depend on Russia's ability to survive economically and make the West believe it is better to retreat in Ukraine; on the American "hawks" perception of this ability and on the damage they and the EU are ready to suffer from the Russian side. Supposed additional value of the article is that it tries to conceptualize (also theoretically) the current national and foreign situation of Ukraine and propose prognostic framework (the main variables) to predict its future.

**Key words:** Ukraine; Euromaidan; Theory of Expectations; Donbass; Russia; the United States; "hawks"; "ruled chaos theory"; Europe; Minsk Agreement.

# Introduction

Recently Euromaidan celebrated its second anniversary. In this context Ukrainian experts like to repeat alleged phrase of Deng Xiaoping, who, asked about the impact of the French Revolution, answered that it is too early to say. But in reality many of them just do not want to recognize a rather clear fact that the consequences of Euromaidan and the so called "Revolution of Dignity" for Ukraine are miserably terrible both internally and externally.

Inside the country new wave of social unrest is coming, because very high expectations of the Ukrainians after removal of the former corrupt president of the state Viktor Ianukovich crashed both in political and economic sphere, not to speak about unsuccessful war in Donbass. In other words the gap between exaggerated hopes of the Ukrainian society and cruel reality it faces is reaching unacceptable margin, and this, according to J-Curve theory (see the picture below) of James C. Davies (Davies, 1969), can result in a new revolution.

At the same time, externally Ukraine actually lost its sovereignty, being totally dependent on the financial support and accordingly on the political will of the West, while Russia controls big part of its territory in Donbass, not to speak about Crimea annexation (or reunification – as you like).

In such situation the country in fact feels double pressure – bottom-up (degradation of the political and economic system) and top-down (destiny of the state is decided by global geopolitical players), what makes its future unpredictable (up to the scenario of disintegration).

Therefore this article is not going to propose concrete end of the story, only to generalize the political and economic consequences of Euromaidan and provide prognostic framework (the main variables) to predict strategic perspective of the Ukrainian crisis.

#### Degradation of the Political System of Ukraine

Two main expectations of the Ukrainian people on Maidan square could be described as (1) truly democratic government with domination of rule of law (not unrestricted corruption), and (2) economic progress, also in relation to the Association Agreement (free trade zone) with the European Union.

The political problems started at once. Several points can be made in this context. First, there is no new elite in today's Ukrainian

government, and this is general problem of the revolutions in the post-soviet area (for example, in Kyrgyzstan after two revolutions there are still old generation politics in power).

If you look at the main political leaders of Ukraine, you can easily notice that their unattractive past dominates over their same 1. present. For instance, President Petro Poroshenko is an oligarch, who had close relations with "Party of Regions" and personally with Viktor Ianukovich. Other fact. RFE/RL revealed that over the course of seven years, Petro Poroshenko quietly appropriated a plot of protected land in Kyiv's elite Pechera district and recently quashed an inquiry into the damage of an 18th-century structure caused by construction work on his plot (Questions Raised Over Poroshenko's Role In Valuable Kyiv Land Deal, 2015). He also made a lot of electoral promises and continues to make them, but without implementation (in internet you can even find a long list of the things he promised to do, but did not). Finally, he hardly controls situation in the country. Many of these problematic aspects became very clear in the interview of Petro Poroshenko to Deutsche Welle Conflict Zone journalist Tim Sebastian (Deutsche Welle, 2015).

Prime Minister of Ukraine Arsenii Iatseniuk is also representative of the political past of Ukraine, once being brother in arms of 2. Iuliia Timoshenko, who had been in prison for non transparent gas deal with Russia, but now is again an active political actor. Perhaps the best story, which characterizes head of the Ukrainian Government, was told by the former head of the State Financial Inspection Nikolai Gordienko, who said: "Corruption schemes in Ukraine are headed by the government of Yatsenyuk" ("Ukraine's Chief Anti-Corruption Official Fired", 2015).

3. Finally, Vice President of the United States Joe Biden, speaking in the Ukrainian parliament, said: "I never tell people from other countries what they should do, but you can't find a single democracy in the world where the cancer of corruption is so thriving. You cannot find any such a country" ("No country in the world", 2015).

Other feature of the qualitative democracy is well functioning mechanism of elections. First post-Maidan presidential and 4. parliamentary elections took place in specific conditions and can be excused for some shortcomings. But local ones - two years after Maidan - had to prove that new system of governance in Ukraine had become transparent and fair.

ESCO surprisingly declared that they were democratic. At the same time many experts and observers noticed that the amount 5. of violations was extremely high. Only one example. MP of Mazury board (Poland) Janusz Niedzwiecki, commenting local elections in Dnipropetrovsk, informed: "Generally, the election process was spoiled very much and nowadays it is not be trustworthy. We are going to address in European Parliament with plea to consider elections in Dnipropetrovsk invalid and to organize it again" ("International observers will appeal", 2015). And such a type of evidence seems to be rather a rule than an exception.

It means that Euromaidan actually destroyed respect to constitutional order in Ukraine. Now instead of rule of law we witness there 6. rule of uncontrolled violence disparaging to democratic procedures.

#### 7. Economic Crisis and Crash of the European Economic Dream

With such a political system there is no surprise that economy of Ukraine is also in a terrible if not catastrophic condition. If we 8. look at Ukrainian 2010-2014 economic outlook, we can easily conclude that every indicator is down, and some of them dramatically (Ukraine Economic Outlook, 2015).

Ukraine Economy Data					
	2010	2011	2012	2013	2014
Population (million)	45.6	45.5	45.4	42.9	42.8
GDP per capita (USD)	2,983	3,586	3,813	4,195	3,016
GDP (USD bn)	136	163	173	180	129
Economic Growth (GDP, annual variation in %)	4.1	5.5	0.2	0.0	-6.8
Consumption (annual variation in %)	7.1	15.7	8.4	6.9	-9.6
Investment (annual variation in %)	3.9	8.5	5.0	-8.4	-23.0
Industrial Production (annual variation in %)	11.2	8.0	-0.5	-4.3	-10.1
Retail Sales (annual variation in %)	10.1	13.7	13.7	5.6	-9.6
Unemployment Rate	8.1	7.9	7.8	7.4	9.3
Fiscal Balance (% of GDP)	-6.0	-1.8	-3.6	-4.3	-4.6
Public Debt (% of GDP)	40.1	36.4	36.7	39.9	70.3
Stock Market (annual variation in %)	23.1	14.2	13.1	17.5	5.4

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	2010	2011	2012	2013	2014
Inflation Rate (CPI, annual variation in %, eop)	9.1	4.6	-0.2	0.5	24.9
Inflation Rate (CPI, annual variation in %)	9.4	8.0	0.6	-0.3	12.1
Inflation (PPI, annual variation in %)	20.9	19.0	3.7	-0.1	17.1
Policy Interest Rate (%)	7.75	7.75	7.50	6.50	14.00
Stock Market (annual variation in %)	70.2	-45.2	-38.5	-8.6	28.8
Exchange Rate (vs USD)	7.97	8.01	8.05	8.24	15.82
Exchange Rate (vs USD, aop)	7.97	7.99	8.08	8.15	12.02
Current Account (% of GDP)	-2.2	-6.3	-8.2	-9.2	-4.1
Current Account Balance (USD bn)	-3.0	-10.2	-14.3	-16.5	-5.3
Trade Balance (USD billion)	-9.6	-18.0	-21.9	-22.1	-7.7
Exports (USD billion)	47.3	62.4	64.4	59.1	50.6
Imports (USD billion)	56.9	80.4	86.3	81.2	58.2
Exports (annual variation in %)	27.4	31.9	3.3	-8.3	-14.5
Imports (annual variation in %)	33.9	41.3	7.3	-5.8	-28.4
International Reserves (USD)	34.6	31.8	24.6	20.4	7.5
External Debt (% of GDP)	86.0	77.3	78.0	78.9	97.7

9. In other words, gross domestic product is falling (also because of decrease of industrial production, and it is awful that such industrial giants as "Juzhmash" and "Motor Sich" actually stopped), national currency devaluating and inflation growing, country's external debt is near 100% of GDP. In 2015 situation became even worse, in some spheres – much worse. Therefore international rating agencies give very low ratings to Ukraine, which today could not survive without external economic help.

10. Of course, it can be said that Ukraine is a war state. But the problem is that the government of the country only makes the problems bigger. For example, cut of industrial ties with Russia (and even cancellation of air flights to it) is populistically understandable, but economically highly irresponsive – many people in this case lose their income, what inevitably augments social tension. To say more, total Ukraine's dependence on credits from IMF leads to its required "liberal shock therapy" (radical liberalization of economic system), which only deepens the problem of social impoverishment, because inefficient Soviet-Type Ukrainian economy is not ready for drastic changes.

11. Particular attention should be given to the question of the Ukraine-EU Association Agreement (already not to speak about visafree regime for Ukrainians going to Europe, which was promised for Euromaidan and still is not in place). Refusal of Viktor Ianukovich to sign it triggered revolution. Advocates of Agreement had been explaining that it would open a window of new possibilities for the Ukrainian economy. But already then it was clear that it is much more useful to the EU than to Ukraine, because Europe gets unrestricted access to the Ukrainian market, and big part of the Ukrainian goods do not match European standards and are uncompetitive in Europe.

Report of the Institute for Economic Research and Policy Consulting (Ukraine) named "Autonomous trade preferences of the EU: Implications for Ukrainian export" confirmed that trade preferences granted by the EU to Ukraine in the end of April 2014 had not brought the expected effect on the export of Ukrainian goods to Europe ("Ukrainian exports to the EU fell by 35%", 2015). In 2014 it grew by only 1,5% and in the first half of 2015 it fell by 35,5%. To be more precise, Ukrainian exports into the EU peaked in may 2014, when the growth was 36,1%, and trend was positive until the end of August 2014. Since then its dynamics is continuously deteriorating – the further, the faster. And, as mentioned report shows, this is not just because of the challenges of the Ukrainian companies from antiterrorist operation zone.

12. Finally, Russia's message to Kiev was clear from the start – in case of implementation of the Free Trade Agreement between Ukraine and the EU it will respond by trade restrictions. Government of Arsenii Iatseniuk estimated potential losses of Russia's food embargo at 600 mln. dollars in 2016 ("Ukraine estimates potential", 2015). Thus it would be logical for Ukrainian side to look for some compromise with Moscow. But Petro Poroshenko said in Vilnius: "Neither Ukraine nor the EU will respond to any blackmail, we are resolute in our desire to put into force the agreement on the deep and comprehensive free trade area with the EU on January 1, 2016" ("Poroshenko: Ukraine not to yield to Russia's blackmail", 2015).

To sum up, two years after Euromaidan victory Ukrainian economy found itself in deep crisis, which is caused not so much by war in Donbass, as by populist, irresponsive, ineffective and overwhelmingly corruptive policy of the state's government. At the same time, European trade preferences did not open for the Ukrainian business expected export window, and implementation of the free trade zone between Ukraine and the EU will bring the former even more costs because of trade restrictions from the Russian side.

All this definitely strengthens dissatisfaction of the ordinary Ukrainians with their today's government, which is evident in different public opinion polls. For example, The International Republican Institute in the United States has published the results of polling, which was conducted in the latter two weeks of July 2015 and which shows that majority of people in Ukraine (even without Donbass representatives, who were not included in the poll) thinks that the country is going in the wrong direction ("Poll results showing Ukrainians deeply dissatisfied", 2015).

In this way we get formula of new revolution in Ukraine finished: political system degradation complemented by very hard economic situation, what people of the country see as wrong course of its development. In other words, expectations-reality gap is evident, but for the moment practice contradicts theory. Possible explanation, why new revolt still did not happen in Ukraine, is that Ukrainians are tired of instability or their patience has not finished yet. But true answer can be related to the decisive role of external factor in this crisis.

#### Main Players of the Ukrainian Crisis and Their Interests

Ukrainian conflict is very complicated. It has many participants with different interests and hardly predictable trajectory of development. Still some preliminary conclusions can be proposed and some prognosis made.

First of all, it is necessary to determine who is who in the Ukrainian puzzle. In other words, it must be clear which actor(s) is decisive and which one(s) is dependent in his decisions. In this context it is evident enough that Donbass separatists are totally dependent on the Russian financial and military help (so called "Voentorg" or "North Wind"), and on its political will. At the same time Ukrainian regime decisively depends on the West plans, and it should be noted that inside the western camp position of Europe is influenced a lot by the United States (mainly because of the postinion of Germany Chancellor Angela Merkel).

In other words, direct participants of the conflict in Ukraine – Kiev and Donbass – are not its main actors: "Love is all around" – America, Russia and in some way Europe. The following step is to understand their interests in the Ukrainian crisis. To start from Russia we can determine at least three fractions in Kremlin with their own position on Ukraine and call them "liberals", "peaceful imperialists" and "militarists".

First camp was initially disappointed by the decision on Crimea, which resulted in fierce confrontation – also economic – with the West. As close to ruling regime political expert Viacheslav Nikonov said, some liberals accuse militarists of creating problems, which they – not army – have to solve now (Voskresnyi vecher s Vladimirom Solov'evym, 2015). But this line is not dominant. Further we can speak about peaceful and aggressive Russian imperialists. Former seek to concur and control Ukraine through political game or – to put it simply – through the full-fledged implementation of Minsk Agreement. It is said that leader of this camp is Vladislav Surkov, being adviser of Vladimir Putin. Finally, there are "militarists" (representatives of army and special services, like GRU), who allegedly would prefer to solve all problems in Ukraine by changing Kiev regime with the help of the Russian military.

Vladimir Putin is supposed still to have two scenarios on his table: Minsk deal and military option. And he seems to be fully ready for both of them.

For the moment implementation of Minsk Agreement requirements looks to be priority for Kremlin, because it has at least two big advantages. First and the most important – real fulfilment of the deal (as a result of Kiev compromise with Donbass) means that Russia will get its agent inside Ukraine, which will be blocking all its western initiatives. Second, Minsk process helps Moscow to bring back friendship of Berlin and Paris and expect the end of the European sanctions. At the same time, if Ukraine decides to restart military action against Donbass (to realize so called "Croatian scenario"), "North Wind" will blow again, and as a result it may lose of its territory (if not Kiev). And this time Europe may not support Petro Poroshenko.

Now about the interests of the western side. Today already many experts say that America lost its strategic orientation. To be more precise, it looks like there is no consensus in American elite on grand strategy and main adversary.

For example, well-known and well-informed Russian expert Sergei Karaganov said: "It is necessary to understand that our partners failed and went too far afield. Especially partners in America. They lost strategic guidelines, lost everything, they are in a fluster and they do not know what to do. This is absolutely evident. There is open quarrel between different elite groups" (Pravo znat', 2015). Therefore simplistically it is possible to speak about two American camps – supporters of the so called "rulled chaos theory", which they apply both in the "Big Middle East" and in Ukraine, and traditionalists, thinking in the categories of spheres of influence and balance of power in relations with Russia, China or Iran.

To make it more or less clear in faces, Barack Obama and John Kerry prefer not to create unpredictable situations, and Penthagon is more destructively aggressive. Actually, today's President of the United States is the biggest ally of Russia. For example, he supported Putin's idea on the Sirian chemical weapon when American attack seemed almost inevitable, he reached the deal with Iran and he blocks official military help to Ukraine under huge pressure of his opponents. Real traditionalist in terms of geopolitical philosophy, if listen to his speeches, is Henry Kissinger, whom Vladimir Putin likes to meet with so much.

Europe is divided in its preferences on Ukrainian crisis in the same way – partly supports American "hawks" (mainly, so called "Young Europeans" – Baltic states, Poland etc.), partly is tired of antirussian policy and wants to restore previous level of relations (primarily, "Old Europe", but not Angela Merkel as a Chancellor of Germany). The former group, for instance, votes for sanctions against Russia, the latter agrees to build "Nord Stream 2" gas pipeline.

So, for now we have two big geopolitical teams, which determine the destiny of Ukraine. First consists of Russia, American traditionalists, who are ready to recognize the whole postsoviet area as a Russian sphere of influence, and their supporters in Europe. The second is represented by American "hawks" and "Young Europe". In this way the future of the Ukrainian conflict depends on the relations between these two camps, to be more concrete – on the change of their positions.

#### When Perception Matters

The position of Russia is not going to change – either Ukraine accepts Minsk rules how Kremlin sees them or, if Kiev restarts military action, "Voentorg" will be open again. Europe because of economic costs is looking for opportunity to reconcile with Russia. But still it is strongly influenced by the American view. So, actually the main variable is the position of the United States, and it is hardly predictable.

The fact is that Russia must be in a hurry until Barack Obama is in Washington, but it has little chance to finish Ukrainian story as it wants

before new person comes to White House. Then there is a question, who will be this person? Hillary Clinton is a strong "hawkish" candidate, but extraordinary Donald Trump can make a surprise. Anyway, strategic indetermination of America does not seem to finish after presidential elections, whoever becomes the next leader of the USA.

At the same time Russia apparently finds itself in a win-win situation. It will definitely win from full-scale implementation of the Minsk Agreement, and it will win military campaign, if Kiev restarts war, feeling the support of American "hawks".

In this context "ruled chaos approach" followers in the USA has several options. First, understanding that in the long run there is no chance to win against Moscow in its "close abroad", retreat with maximal gain (initiate final Ukrainian military attack in Donbass to make as much problems for Russia as possible or get something from Kremlin for leaving Ukraine in the Russian sphere of interest, what traditionalists are already ready for). Second, protract the Ukrainian crisis as long as possible with all its aspects, such as European sanctions against Russia, expecting that Vladimir Putin will pull back.

Post-positivist theories of international relations accentuate understanding how non-material structures condition actors' actions. In other words, their perception of reality sometimes is more important than reality itself. So the choice of American "hawks" in case of Ukraine is supposed to depend on three things: real Russia's ability to survive economically, its real ability to create for America (and broader for the West) unacceptable political, economic or even (indirectly) military damage, and on the western perception of Russia's abilities.

Is Russia strong enough to win a long-term game? It seems that Vladimir Putin believes that it can, because majority of Russian people supports him and is ready to suffer for great victory against the "evil" West. Besides, the more conflict in Ukraine continues, the more the EU will wish to finish it, accepting Russian conditions, also because in historical civilizational sense Europe ends on the border of Belarus, Moldova and Ukraine.

It means that for American "hawks" it is better to start preparing final deal on Ukraine with Moscow today in order to get at least something tomorrow. But they still seem to believe that protraction of the Ukrainian crisis is in their favour, because the damage Russia creates for the West is not critical for the moment and because Moscow is not ready (mainly in economic sense) for a long fight. And maybe they are right.

To sum up, determinant factor in the Ukrainian crisis is external, not internal, and its strategic perspective depends on Russia's ability to survive economically and make the West believe it is better to pull back; on the American "hawks" estimation of this ability and on the damage they and Europe are ready to suffer. In other words, we witness simple "chicken game", and if nobody turns to the side, believing in his final success, Russia has better chances to win. Mainly, because Ukraine is a matter of its geopolitical futute (as it is seen in Kremlin).

And Vladimir Putin will do everything to succeed, having the support of Russian people, for whom sense of greatness of their state has always been much more important than economic prosperity. For America and the EU it is not, and especially patience of Europeans (primarily of "Old Europe", which determines the policy of the EU) is almost over. Of course, there is a possibility that Russian economy will collapse, not being able to feed imperialistic beast, but it seems unlikely. Therefore, perhaps there is no question, whether Russia wins in Ukraine, but only when it does.

#### Scheme of the Main Actors and Determinant Factors of the Ukrainian Conflict (Constructed by the Author of the Article)

#### Conclusion

American writer, historian and philosopher William James Durant once said: "A great civilization is not conquered from without until it has destroyed itself from within". For more than twenty years after getting independence Ukraine had been destroying itself from within like Russia had in the "wild 90s" (licence of oligarchs, deep economic crisis and finally – civil war). Euromaidan became the epic final of this process and let external forces (Russia and the West) to "conquere" the country, to make it the hostage of their geopolitical ambitions.

In other words, Ukraine is under the huge pressure – both bottom-up and top-down, and actually for now can not decide anything about its future. In this context, perhaps, there is no question, whether Kremlin wins in Ukraine, but only when it does, because it is a matter of geopolitical future for Russia. It means that for American "hawks" it is better to start preparing final deal on Ukraine with Moscow today in order to get at least something tomorrow. But they still seem to believe that protraction of the Ukrainian crisis is in their favour, because the damage Russia creates for the West is not critical for the moment and because Moscow is not ready (mainly in economic sense) for a long fight. And maybe they are right.

#### **References:**

Åslund, A. (2005). The economic policy of Ukraine after the Orange Revolution. Eurasian Geography and Economics, 46(5), 327-353.

Åslund, A., & De Menil, G. (2000). Economic reform in Ukraine: the unfinished Agenda. ME Sharpe.

Bolton, K. R., & was founded by Arseny, O. U. Geopolitics and Oligarchy at Work in Ukraine Crisis.

Davies, J. C. (1969). The J-Curve of Rising and Declining Satisfactions as a Cause of Some Great Revolutions and a Contained Rebellion. In Hugh Davis Graham and Ted Robert Gurr (Eds.). Violence in America: The History of Violence in America: Historical and Comparative Perspectives (pp. 690–730). New York: Praeger.

Deutsche Welle "Conflict Zone" interview with President of Ukraine Petro Poroshenko made by Tim Sebastian. [Video file]. Retrieved from: <u>https://www.youtube.com/watch?v=GBLt-B0ya8w</u>

Frye, T. (2014). What Do Voters in Ukraine Want? A Survey Experiment on Candidate, Language, Ethnicity and Policy Orientation. A Survey Experiment on Candidate, Language, Ethnicity and Policy Orientation (August 7, 2014).

International observers will appeal to European Parliament with request to declare elections in Dnipropetrovsk invalid. (2015). Retrieved November from: <u>http://most-dnepr.info/news/economics\_eng/128339.htm</u>

# **CONFERENCE**

Jakubiak, M., Kolesnichenko, A., Boyarchuk, D., Golodniuk, I., Mykhaylychenko, M., Paczyński, W., ... & Vavryschuk, V. (2006). Prospects for EU-Ukraine Economic Relations. Center for Social and Economic Research, CASE Reports, (66).

Korhonen, O. (2015). Deconstructing the Conflict in Ukraine: The Relevance of International Law to Hybrid States and Wars. German LJ, 16, 452.

Kravchuk, R. S. (2002). Ukrainian political economy: The first ten years. Macmillan

Mehrish, B. N. (2014). Ukraine Crisis: Legal and Economic Dimensions. IUP Journal of International Relations, 8(3), 17.

No country in the world so rife with corruption as Ukraine, says Biden. (2015). Retrieved from: <u>http://en.reporter-ua.ru/no-country-in-the-world-so-rife-with-corruption-in-ukraine-says-biden.html</u>

Ozsu, U. (2015). Ukraine, International Law, and the Political Economy of Self-Determination. German LJ, 16, 434.

13. Poll results showing Ukrainians deeply dissatisfied with government, economy and war. (2015). Retrieved from: <u>http://newcoldwar.org/15039-2/</u>

14. Poroshenko: Ukraine not to yield to Russia's blackmail concerning entry into force of FTA with EU. (2015). Retrieved from: <u>http://</u>en.interfax.com.ua/news/general/308371.html

15. Pravo znať [Right to know].[Video file]. Retrieved from: https://www.youtube.com/watch?v=45puyE7x2AY

Questions Raised Over Poroshenko's Role In Valuable Kyiv Land Deal. (2015). Retrieved from: <u>http://www.rferl.org/content/ukraine-poroshenko-land-deal-questions-tsars-village/27013945.html</u>

Rachinsky, S. (2014). Economy and Business: Real Money Heads for Virtual Ukraine. Transitions Online, (10/28).

Savelyev, Y., & Kurylyak, V. (2014). Reforming of Ukrainian Economy: The Urgency and the Priorities. Journal of european economy, (13,Nº 4), 380-394.

Ukraine Economic Outlook. (2015). Retrieved from: http://www.focus-economics.com/countries/ukraine

16. Ukraine estimates potential losses of Russia's food embargo at \$600 mln in 2016. (2015). Retrieved from: <u>http://tass.ru/en/</u>economy/837543

Ukraine's Chief Anti-Corruption Official Fired after Uncovering Millions Stolen. (2015). Retrieved from: <u>http://russia-insider.com/en/2015/03/26/5028</u>

Ukrainian exports to the EU fell by 35%. (2015). Retrieved from: http://www.liveleak.com/view?i=10b\_1438291887#GpHz9hCUjPjEeUUb.99 17. Voskresnyi vecher s Vladimirom Solov'evym [Sunday evening with Vladimir Solovyov]. [Video file]. Retrieved from: https://www. voutube.com/watch?v=FSw6SSYvxIM&feature=voutu.be

Zhavoronkov, S. (2014). Political and Economic Results of March 2014. Russian Economic Developments, (4), 3-6.

HC94-1085

# Leonid GUSEV

Analytical Center of Institute of International Studies of MGIMO-University of MFA of Russia., Russia e-mail: lgoussev@yandex.ru

# The Economic Relations Between Ukraine and Russia at the Present Stage

# ABSTRACT

The article deals with contemporary economic relations between Russia and Ukraine. It is said that Russia remains the main foreign trade partner of Ukraine. Adequate replacement of the Russian market of European market did not happen. But it is pointed out that for the first six months of 2015 60 percent of trade turnover with Ukraine were lost. The most sensible loss for Russia – Ukrainian gas market. Also according to the calculations of the Moscow World Trade Center many non-commodity exports fell. Examples are shown. It is also said that there are products whose export from Russia to Ukraine in the last year managed to increase. At the end it is stating what trade relations between Ukraine and Russia might be in 2016. Some examples of Russian investments in Ukrainian companies and Ukrainian into Russian are shown.

Key words: economic relations, trade partner, exports to Ukraine, gas market, investments.

Russia remains the main foreign trade partner of Ukraine. Despite the trade preferences of the EU in relation to the Ukrainian goods, adequate replacement of the Russian market of European market did not happen. This is against the backdrop of an unprecedented reduction of trade turnover between the two countries – in 2014 by 30% to \$ 28 billion (Kovalenko, 28 Sept 2015).

For the first six months of 2015 60 percent of trade turnover with Ukraine were lost, – the Ministry of Economic Development stated. – Affected areas in which cooperation has traditionally been strong. First of all it concerns the military-technical cooperation. Any decline in trade of metallurgical products, mineral and chemical industries (Kovalenko, 30 Sept 2015).

The value of exports to Ukraine, steadily increasing in 2000-2008 from the crisis greatly reduced in 2009 and increased sharply in 2010-2011, reaching the absolute maximum – 30.5 billion dollars, according to the Center for Integration Studies of the Eurasian Bank Development. Then, in 2013, they dropped to 23.8 billion dollars, but it is still significantly exceeded the pre-crisis level. At the end of 2014 the volume of exports narrowed to \$ 17 billion ("Tovarooborot Ukrainy s RF", 2015). Thus its commodity structure remained more diversified than Russian exports as a whole. However, fuel products were dominated here too: if all countries with an average of 69.5%, while in Ukraine – 60.4%. In addition to the fuel Russia exported to Ukraine chemical products (16%), machinery and equipment (10%), metals and metal products (4.4%) (Kovalenko, 30 Sept 2015).

"The most sensible loss – Ukrainian gas market, which for many years we have been export monopoly" – the deputy dean of the Faculty of World Economy and International Affairs Andrei Suzdaltsev from the HSE believes.

According to the State Statistics Service, last year, Ukraine reduced natural gas imports from Russia by nearly 44% compared to 2013 – up to 14.4 billion cubic meters. In January-June of 2015 deliveries of Russian gas were reduced to 3.7 billion cubic meters. on the 1 of July, imports of gas from Russia to Ukraine in general has been suspended.

"The reduction of mutual trade will worsen in 2015 – Suzdaltsev predicts. – For example, the Ukrainian side is actively promoting the project of replacement of Russian nuclear fuel for Ukrainian nuclear power plants American nuclear fuel."

In the first half of this year there was more than a halving of Russian exports to Ukraine. Exports of military and dual-purpose goods fell by 75.4% to \$ 1.3 billion (Kovalenko, 28 Sept 2015).

According to the calculations of the Moscow World Trade Center many non-commodity exports fell.

A significant decrease (43%) occurred in the section "Machinery and equipment", to 447 million dollars. Supply of products of metallurgical industry decreased to 182 million dollars, more than half. Deliveries of steel products fell to 55%.

Magnitogorsk Metallurgical Combine (MMC). In 2014, according to the Federal Customs Service, it did not put to the Ukraine products (mainly steel sheet rolling) of 134 million dollars. The share of Ukraine's exports of MMC decreased from 11 to 3%.

According to the MMC, shipment of metal entering the Ukrainian market, have been reoriented to the markets of the CIS countries, particularly in Kazakhstan, Uzbekistan, Azerbaijan, Turkmenistan, Kyrgyzstan and Tajikistan.

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Urals Pipe Works (drop of supplies to Ukraine in 2014 – 20%) refocused flows from Ukraine to Kazakhstan and Belarus.

"Energomash" plant named after Glushko completely stopped deliveries of engines and power plants to Ukraine in 2014 (in 2013 they were 23% of exports, the loss – \$ 25 million). Deliveries redirected to the USA (Kovalenko, 30 Sept 2015).

Zavolzhsky Plant, a branch of Kazan Motor software (99% of production – turbo jet and turboprop engines, gas turbines – in 2013 all products were delivered to Ukraine), in 2014, products redirected to Uzbekistan and Lithuania.

AvtoVAZ has reduced the share of Ukraine's exports in 2014 from 40 to 13%. Now, most of the products the company exports to Azerbaijan, Belarus and Egypt (Kovalenko, 28 Sept 2015).

The chemical industry is also trying to find new markets or increase supplies to traditional markets. For example, from Russia to Ukraine over the past three years, more than 65% of all deliveries of ammonia were sent. They decreased by 13%, or almost by \$ 70 million. But there was an increase of supply of ammonia to other countries. In the first half of 2015 export of ammonia from Russia to Belgium and Germany has increased by nearly 62 million dollars ("Trade and economic cooperation...").

Also nearly 15% of Russian export of mineral fertilizers was supplied to Ukraine. These deliveries were down by 15%, or 16.4 million dollars. At the same time, export of fertilizers increased to India (74 million), Brazil (23 million), Thailand (to 31 million), Switzerland (15 million dollars). Export of ammonium nitrate to Ukraine dropped by 99%, or \$ 44 million. But the traditional buyer of this commodity, Brazil, in 2015, increased its purchases by nearly 44% to \$ 212 million ("Trade and economic cooperation...").

In general, non-oil export (excluding defense goods, ores, slag, ash, mineral fuels, oils and products of their distillation) in the first half of 2015 compared with the first half of 2014 fell in 2794 from 5935 exported goods to Ukraine, from 3.3 to \$ 1.6 billion (Kovalenko, 28 Sept 2015).

But there are products whose export from Russia to Ukraine in the last year managed to increase. According to General Director of the World Trade Center of Moscow Vladimir Salamatov supply of certain types of fertilizers and other products of chemical industry, certain products of nonferrous and ferrous metallurgy, some products of the sections of "machinery and equipment" and "Means of land transport" increased. For example, more than 20 times the supply of public railway freight wagons increased (with the board height 60 cm) – from 65 to 1 704 units to 23 million dollars (Kovalenko, 30 Sept 2015).

Supplies of diesel in the first half of 2014 were not carried out at all. Its export reached 649 thousand tons from a zero value. Russian oil refineries due to flexible pricing policy in the Ukrainian market pushed the main supplier – Belarusian refiners.

In addition to the fuel sharply (33 times) increased the supply of electricity – up to 1.5 million KW h. The increase is due to the fact that Ukraine, in 2014 did not buy Russian electricity. In December of the last year against the backdrop of the fuel crisis, signed an agreement with "Inter RAO" of imports to 1.5 GW (Kovalenko, 28 Sept 2015).

#### What Can Happen to the Russian-Ukrainian Trade in 2016?

In total, the Ukrainian economy should take more than 15 thousand technical EU standards. Ukraine's transition to European standards has some fear among experts that Ukrainian companies that will not be able to meet the specified schedule periods of transition to these standards will be forced to dump on the Russian market, directing to it products that do not meet the new standards.

In addition, there will be a substantial narrowing of the range of Russian exports to Ukraine, its de-industrialization. Russian supplies of medicines, chemical products with high added value, tires, fuel, power engineering products, electric motors, electrical equipment, railway equipment, and refrigerators will be forced from the Ukrainian market.

The supply of goods, production of which is established in Russia by multinational companies (pastries, coffee, tobacco, cosmetics, cars) will remain largely in the same volume. The supply of raw materials and intermediate goods, on which the EU is not a competitor to Russia (cement, ore, coal, oil and oil products, ammonia) will also be continued.

According to the head of the department of economic history of IIEIR Sergey Afontsev, even if the worst scenario, when Ukraine will begin to use the facilities of agreement in full force, the amount of economic damage to Russia will not be catastrophic: "Ukraine's economy is in a position that to wait some mass " repressed " export of Ukrainian goods is not necessary. During the transition of Ukraine to European technical standards risks may occur, we estimate them two and a half billion dollars a year in the current dynamics of the turnover. But these risks are realized only if all the provisions of the Association Agreement are met accurately and on time. In view of the situation in the Ukrainian economy, it is difficult to expect. It is difficult to assume that Ukraine, in accordance with the schedule goes to European standards within the next two to four years, it is quite unrealistic scenario" (Kovalenko, 28 Sept 2015).

It is difficult to respond to the main question, what will be the trade regime in the triangle Russia-Ukraine-EU. Tripartite consultations are continuing, they are closed to the public.

"Unfortunately, the consultations are not subject to open debate, neither Russia nor the EU and the risk creates that everything will be decided behind the scenes without taking into account the views of business and professional community" – Sergey Afontsev says (Kovalenko, 28 Sept 2015).

No one has seen yet an open comparison of figures provided by experts of any party, no one has reason to discuss the positions of the parties on the merits. Ukrainian and European sides clearly focused on the fact that since January of the next year the agreement enters into force.

## **Russian Investments in Ukrainian Companies:**

1. Purchase of Lisichansk oil refinery (oil refining), Ukraine, the investor of TNC-BP, the volume of investments – 87.546% (an estimated 570 million US Dollars);

2. Purchase of Odessa oil refinery (oil refining), Ukraine, the investor of "Lukoil", the volume of investments is estimated to 500 million USD;

3. Purchase of "ZALK" plant (non-ferrous metals), Ukraine, the investor of "Rusal", the volume of investments – 68.01% of the authorized capital ("Trade and economic cooperation...").

#### Ukrainian Investments in Russian Companies:

Group "Energo" controls mines "Kostromovskaja" and "Zarechnaya" in Russia and develops Ivanovskoye coking coal deposit;
 "Donbass Fuel – Energy Company" bought three coal mining enterprises in the Rostov region: 100% of open Joint Stock Company

"Donskoy Anthracite", 100% of JSC "Shakhtoupravleniye" Obukhov " and 66.7% of" Sulinantratsit "(Rostov, Russia).

3. Corporation "Roshen" in 2001 bought Lipetsk factory "Likonf."

4. Company "Kiev-Konti owns "Confectioner-Kursk".

# **References:**

1. Kovalenko, A. (30 Sept 2015). Torgovo-ekonomicheskie sviazi mezhdu rossiei i ukrainoi – zhit'' pridetsia vmeste [trade and economic relations between russia and ukraine – will have to live together]. Grazhdanin sozidatel'. Retrieved from <u>http://www.gr-sozidatel.ru/articles/</u> torgovo-ekonomicheskie-svyazi.html

2. Kovalenko, A. (28 Sept 2015). Razvelis', no zhit' pridetsia vmeste [Divorced, but have to live together]. Neft' Rossii. Retrieved from http://www.oilru.com/news/480302/

3. Tovarooborot Ukrainy s RF za kvartal upal na 63% [The trade turnover between Ukraine and the Russian Federation for the quarter fell by 63%]. (18 May 2015). Rianovosti Ukraina. Retrieved from: <u>http://rian.com.ua/economy/20150518/367692380.html</u>

4. Trade and economic cooperation between the Russian Federation and Ukraine [Trade and economic cooperation between the Russian Federation and Ukraine]. Torgovoe predstavitel''stvo Rossiiskoi Federatsii v Ukraine. Retrieved from <u>http://ukr.ved.gov.ru/dvustoronnii\_otnoshenija/obzor\_torg/</u>

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#### Andrey BYSTRITSKY

Chairman of the Board of the Foundation for Development and Support of the Valdai Discussion Club, National Research University – Higher School of Economics, Russia e-mail: valdai@valdaiclub.com

# Islamic State is the Biggest Temptation of the Modern World

#### ABSTRACT

The most important thing is not to understand why IS is bad, but why it is so strong and why it is growing so fast. Conventionally, we discuss faults and crimes of totalitarian regimes, but sometimes it is better to consider what attracts people to these regimes. **Key words:** *totalitarian regime, Islamic State, political order.* 

Here (at the Valdai Discussion Club), we decided to write a book on Islamic State (an organization banned in many places, including Russia). And, hopefully, you will see it soon. Frankly, the idea is not the most innovative one. Everyone is eager to express their views on one of the hottest topics of the modern world. Nonetheless, we decided to proceed. So let me give some personal remarks on the essence of the problem. Firstly, because IS is the most important and the most dangerous temptation of the modern world. Back in his days, George Orwell wrote about the monstrous charm of fascism and quite recently Umberto Ecco spoke on the routine and the natural essence of fascism.

Certainly, the contemporary Islamic State is comparable to a fascist socio-political entity. Not because Islamists and various Salafis invented something different from the days of ancient Sparta but for the reason that humanity has a propensity to run into something similar to fascism and establish a political order aiming at oversimplification of human self-reflection and the nature of social relations. This political order suggests abandoning personal responsibility for one's life and enjoying subordination to those higher in the hierarchy while hating everyone dissenting. Back in the days, Erich Fromm wrote his book Escape from Freedom where he tried to explain the reasons behind fascism's success. Therefore, the analysis of the so-called Islamic State is very important, as we have to understand why such an archaic totalitarian entity turned out to be so successful and why it attracts tens of millions of people, including not only illiterate Bedouins but also well-educated citizens of developed nations. And, of course, it is worth understanding the genesis of IS, as well as its emergence. Essentially, there was a combination of several conditions. Firstly, the Islamic world transformation; secondly, the global transition to the postindustrial, postmodern phase; thirdly, the new communication technology that embraces the globe. The Islamic world transformation in general does not require long a introduction, as much has been said regarding this matter. The most important thing here is that the traditional society of this region – that could just recently be described as quite a patriarchal one – has collapsed. There were numerous indications that, by and large, the Islamic society went through the changes comparable to that of the Tsarist Russia on the verge of the centuries.

However, Russia is not the only example, Jose Ortega y Gasset distinctively described similar processes of his lifetime in Spain. The bottom line is that the collapse of the traditional society that ensured a smooth socialization process for the young generation led to massive outflow of millions of youngsters to the world of urban civilization that they were little aware of. In this new unwelcome world, young and not so young people became an easy target for various radical extremist organizations aiming at destruction of the existing world order and creation of a new ultimate fair world system. This is how the red army divisions, Chinese Hongweibings and IS groups were formed.

In general, totalitarian systems emerge not from direct oppression and fear but from the voluntary solidarity and democracy of its kind when millions of socially disoriented people get involved in politics. This is when we find flaming political masses worshipping their leaders, voting for them and willing to die for them. And we also find the roots of a strong totalitarian system, which is relevant to IS as well. Clearly, in order to succeed, the movement should incorporate not only fearless, though illiterate, fanatics but also a relatively big number of intellectuals believing in some form of constant and ultimate fairness. This group naturally does not have a good enough education but has very strong ambitions fueled by the words and ideas they articulate.

Now, the similar intellectual group exists in the Islamic world. It embraces those who gained top degrees in Sorbonne and got back home to the Middle East, only to realize that their chances for vertical integration are extremely low, since the hierarchy remains strong and rigid, and, therefore, they have no other option except to struggle for a new world. It also includes those who stayed at home, relying on their family's connections but facing tough restrictions on liberal arts. For example, one cannot draw people's images and research molecular biology. In the Tsarist Russia mentioned above, the similar role of people suffering from the self-realization problem belonged to various commoners, narodniks and other groups that consolidated individuals unable to develop career, dropped out of universities and, therefore,

easily manipulated by the idea of fantastic global rearrangement.

Finally, any activity requires money. And there is plenty of money available to IS because a significant part of people in control of the financial capital turned out to be open for supporting ideas of the so-called "fair struggle". In the numerously mentioned Tsarist Russia, various tycoons like Mamontov and Morozov, who were free market proponents at the same time, played an extremely controversial part in the Bolsheviks' victory. Osama Bin Laden belonged to a very successful and powerful family too. Three elements – human mass, nervous intellectual reflection and money – together engendered a grin cocktail of social, intellectual and financial threats impeding today's Islamic world. It is worth mentioning that the same elements eventually devastated Russia and other societies. Spain, Austro-Hungary and even the German Empire collapsed due to the combination of similar socio-political factors.

As a result, terrible political systems emerged on the ruins of destroyed societies: Hitler's fascism, Stalin's Bolshevism, Frankism, etc. The only question is whether the enlightened humanity is in the position to defeat IS before it is too late to do something about it. Another question is why all these devastating factors had such a dramatic impact on Russia but not on Spain or other nations. The likely reason behind it is the depth or multiple layers in the self-identification of the people involved in the transition process.

As I have said, fascism is deeply rooted in human nature, since it is a totalitarian and hierarchical social system based on the human tendency to escape the responsibility for them and pass the burden of social competition and cooperation (which are the fundamentals of human life) to a specific substitute: political leader, party, religious community, etc. Basically, there is no humanity without this psychological tendency to escape the responsibility. Social cooperation is a result of this tendency to submit to the authorities. Without it, people would never establish a civilization, adapt to constant changes and gain knowledge. The other thing is that the system of disciplined knowledge transmission and preservation has always been in [the – вырезано] conflict with another institutional goal of survival, namely [the – вырезано] production of new knowledge and research. And in this sense, the most successful civilization is the western one or the Judo-Christian civilization.

Thus, the traditional Islamic world with the inherent system of socialization has fallen. At the same time, there is a multitude of intellectually developed people with the agenda to explain a contradiction in the modern world order – abundance of money and resources controlled by Middle East Muslims against the lack of global power and authority. What should be done? How to tackle this problem? As it has always been the case, the most appealing response is to build a new fair world order. And the transition to this new world order is based on a very straightforward understanding of Islam.

But it would be an oversimplification to describe today's course of events in such traditionalistic terms. The common elements of social revolution aimed at the radical elite's renewal are there, but the circumstances are slightly different. The first element is complemented by two others. Firstly, there is the postindustrial factor. It means that the success model differs from what has been around 50 years ago. This is especially painful for the societies that do not have a track record of industrialization based on low profit margins that characterized economic growth in Western Europe, US and Russia to some extent. The rest of the world lacks this experience of labour-intensive development. Amazingly, Asian nations – the Chinese, Japanese and Koreans – were very successful and entrepreneurial in confronting this challenge. But under the combination of historical trends, these civilizations are rapidly integrating into a global progressive advance. At the same time, the story of Middle East nations is quite different. The lack of productive management and business cooperation skills seems to be a major obstacle hindering the smooth transformation process in this region. Perhaps, these are the reasons of IS' archaic (at the first glance) tilt. The modern success model is being declined in almost every aspect and ideologically IS is not aiming at a technological advance (as it was the case with Bolsheviks and fascists) but desires to put the world under a common denominator according to rigorously perceived Islamic canons. These canons postulate that the world is approaching its doomsday (to be discussed later).

And finally, the third element related to the postindustrial phase is the new communication technology. This factor includes not only the speed and scale of information distribution but also mass cognitive dissonance engendered by new media and Internet technology. The information noise has a terrible impact on an average individual with its primitive knowledge lowering their self-assessment and destroying any positive self-identification. The scale of information exuberance is so huge that anyone unfamiliar with basic skills of information handling is getting completely frustrated.

Language illiteracy, poor vocabulary and primitive school education of an ordinary man look like rubbish against the shining complexity of the Internet knowledge. However, this problem is familiar not only to subjects of the new Caliphate. The decreasing interest of the western population in politics is a result of the very same mass cognitive dissonance. Certainly, medieval people were a lot less educated but they did not face such intense information flows. On the other hand, poor living standards and hardships restrained their revolutionary potential. Nonetheless, terrible political actions happened quite frequently: riots, massacres, etc. But today's threat is much more serious. For instance, Hannah Arendt stressed in her analysis that totalitarianism owed its success to the steam engine, machine gun and radio. Today, we have much faster planes, modern arms and a new communication structure instead of radio. This new mass communication has the following effects on the society. Because of the overabundance of knowledge, many individuals shift towards social regress and brutal denial of knowledge per se (on conscious and subconscious levels), as they cannot digest it. So, the overabundance of communications does not help understand the world but, on the contrary, decreases the ability to consider complex aspects of reality. Likewise, the overabundance of communications aggravates the tendency of mentally regressive individuals, who constitute the majority by the way, to submit and trust the authorities, uncritically conceive the information from the top members of the hierarchy. Another effect is the oversimplification of self-identification and malign infantilism. Since the man finds it difficult to put himself in the perspective of different identification markers dispersed in the information flows, an over simplistic model prevails and people firmly follow it to the end. This is where we find the attraction of dangerous simplicity of a primitively perceived religion and aggressiveness.

Unsurprisingly, the enlightened world continues to drift in delusion too. The countless media reports on the Caliphate and IS do not shed any light on its real problems. And there are many things to be discussed in this context. The new Caliphate run by the 8th Caliph al-Baghdadi is a state with all its attributes, including provinces, police, healthcare, education. What is even more important is that the government is guided by the Prophet's legacy. Thefts are punished with cutting off of hands. Some illegal activities are fined. Christians are tolerated so long as they accept Muslim dominance and pay a special tax. Therefore, Christianity is not the main target of IS' expansion, the most important thing to IS is to strengthen the Caliphate. IS' theorists like to stress that, together with the Caliphate, they are reviving true Islam after the thousand years of distortions. In particular, they say that true Caliphs did not exist even in the Ottoman Empire, but al-Baghdadi is a true Caliph according to their interpretation of Islam. These claims help understand that modern Islamic states of the Middle East are the most important enemies of IS and the new Caliphate as the main goal is to restore truly Islamic order. The main struggle now is among Islamic countries, but once it is finished and if IS wins, a new question will arise: whether IS is the only alternative to the existing world order in general.

In recent days, there were many discussions regarding alternative models of further civilization development and global coexistence. Therefore, it is sad that the problem of IS is not ranked among the most important topics of these discussions since IS embodies a real and growing alternative to the world order. It is definitely worth researching and analyzing, especially for those who will face it soon. Broadly speaking, the Reckoning Day is coming according to IS, and an epic fight with Rome is coming as well. The battlefield for this fight is somewhere in Syria, close to the Turkish border, in a small place called Dabiq. IS' main theoretical journal bears the same name...

Anyway, IS represents a non-trivial, multisided phenomenon based on millenaristic ideas and a rigorous interpretation of Islam bordering with toughness. But this phenomenon requires a close analysis.

And if Napoleon could picture himself as a leader of Islamic consolidation during the Egypt campaign in the beginning of the nineteenth century, today the future of the world depends on whether IS and al-Qaeda reach an agreement (they are currently at odds) or the idea of a solemn Caliphate will dominate everything else. The biggest drama of IS story is that the temptation of a totalitarian paradise or hell of the XXI century remains magnetic for a huge number of people (not only Muslims by the way). A "paradise" where no intellectual reflection is needed, but where a heroic struggle for a fair world order hand in hand with brothers believing in the same goals is welcomed. Thus, it makes sense to learn more about IS and figure out whether we can handle it.

# References

1. Danilov, V. V. (2015). O neobkhodimosti provedeniia informatsionno propagandistskikh kampanii antiterroristicheskoi i antiekstremistskoi napravlennosti dlia obuchaiushchikhsia [The need for awareness-raising and anti-extremist campaigns antiterrorist directions for the trainees.]. Mir nauki i obrazovaniia, (1).

2. Feldman, N. (2012). The fall and rise of the Islamic state. Princeton University Press.

3. Lister, T. (2014). ISIS: The first terror group to build an Islamic state. Published June, 13, 2014.

4. Sayyid, B. S., & Sayyid, S. (2003). A fundamental fear: Eurocentrism and the emergence of Islamism. Zed Books.

5. Sidahmed, A. S., & Ehteshami, A. (1996). Islamic fundamentalism. Westview Pr.

6. Temirkhanova, A. E. (2015). Ugroza so storony igil v Tsentral''noi Azii [Threats from the ISIS in Central Asia]. Gumanitarnye, sotsial'noekonomicheskie i obshchestvennye nauki, (7).

7. Teslenko, E., & Pestruilova, N. (2015). Fenomen «IGIL» ["ISIS" phenomenon]. Politika i politicheskie nauki, (1), 3.

8. The origins of the Islamic State. – Ams Press, 1968. – T. 163.

9. Tibi, B. (2007). The totalitarianism of jihadist Islamism and its challenge to Europe and to Islam. Totalitarian Movements and Political Religions, 8(1), 35-54. doi: 10.1080/14690760601121630

10. Zelin, A. (2014). ISIS Is Dead, Long Live the Islamic State. Foreign Policy.



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In accordance with the resolution of the members of the editorial board, which has been drawn up on the meeting in the George Washington University (Washington, DC), starting January, 2014, the regional subjects make the domain of problems of the Russian Academic Journal. By general repute of the editorial board members, the international community fairly well understood any global processes, but as regards local, especially regional processes, there are considerable gaps. So, international members of the editorial board of the Russian Academic Journal are waiting from their authors any qualitative actual data relating to processes and events in their regions which are unavailable in any other scientific publications or in the Internet.

The general partner of the Russian Academic Journal is the South Federal University (Russia, Rostov-on-Don), and community of those universities which rectors are members of the Union of the South Russia Rectors. Publisher of the journal is the Research Institute "Institute for Political and Media Metric Research" with its DOI prefix (10.15535).

The Russian Academic Journal is in the catalogue of the Library of Congress and in the Russian Science Citation Index (RSCI) of the National Digital Library of the Russian Federation, and this provides a possibility to publish in the journal the main scientific results of doctoral and candidate's thesis.

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The Russian Academic Journal is one of those few journals in the south regions of Russia, which is assigning to each article of each author the international identifier of scientific article, DOI.

For to publish any scientific articles in the journal it is necessary to be registered as an author

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É-mail: editionsecretary@journals.wolfcorner.org Phone: +7-863-218-40-00

ISSN:

2221-9544 (printed) 2410-146X (electronic)

Certificate on registration of mass media: ∏IU № ФС 10 – 6814

Publisher:

Autonomous non-profit organization of higher education of the «Institute of Political and Mediametric Studies» («IPMS»)

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