ISSN 2228-9860 eISSN 1906-9642 CODEN: ITJEA8

International Transaction Journal of Engineering,

Management, & Applied Sciences & Technologies



http://TuEngr.com



The Influence of Taxpayers Behavioral Factors on Tax Evasion

Anastasia Ledovskaya^{1*}, Vladimir Kuzmenko², Vladimir Molodykh³

- ¹ Department of State, Municipal Administration and Management, Russian Presidential Academy of National Economy and Public Administration (Stavropol Branch), Stavropol, RUSSIA.
- ² Department of Humanities and Mathematical Disciplines, North-Caucasus Federal University, Stavropol, RUSSIA.
- ³ Department of Tax Policy and Customs, North-Caucasus Federal University, Stavropol, RUSSIA.
- *Corresponding Author (Tel: +7 918 168 88 21, Email: ledova@yandex.ru).

Paper ID: 12A13L

Volume 12 Issue 13

Received 09 July 2021 Received in revised form 07 October 2021 Accepted 12 October 2021 Available online16 October 2021

Keywords:

tax morality; tax legislation; experimental economics; behavioral economics tools; taxpayer decisionmaking.

Abstract

The article examines the limitations of an objective and subjective nature when studying the processes of tax evasion that arise within the framework of the concept of rational choice. Using the behavioral and experimental economics tools, it is shown that the specificity of decision-making by taxpayers leads to the need to include social, demographic, and other factors of an individual and group nature in the model. The simulation results indicate that compliance with tax legislation significantly depends on the level of trust in government authorities and the subjective perception of the fairness of the current tax system. Taxpayers have a personal opinion, which, together with existing social ties, influences the choice of an appropriate behavior model. Further development of research on tax evasion processes requires the development of more detailed methods that take into account the heterogeneity of taxpayer groups, social norms, and accepted stereotypes of behavior at the subnational level.

Disciplinary: Economics and Tax.

©2021 INT TRANS J ENG MANAG SCI TECH.

Cite This Article:

Ledovskaya, A., Kuzmenko, V., Molodykh, V. (2021). The Influence of Taxpayers Behavioral Factors on Tax Evasion, *12*(13), 12A13L, 1-11. http://TUENGR.COM/V12A/12A13L.pdf DOI: 10.14456/ITJEMAST.2021.264

1 Introduction

In most studies devoted to the empirical analysis of tax evasion processes, theoretical hypotheses are confirmed, like the influence of several factors that are not only of an economic nature. The existing discrepancies in the results obtained are explained by the complexity of

assessing the actual scale of this phenomenon. It negatively affects the quality of empirical analysis and, as a result, creates additional difficulties in the study (Mavis et al., 2018).

In contrast to the above, the methodological contradictions between the supporters and opponents of the empirical study of the influence of multidirectional factors are of a fundamental nature, which does not allow us to benefit from "the current methodological and empirical revolution". Indeed, in the economic sciences, there is a "revolution of confidence in applied econometrics", caused by an increase in the quality of initial information, ease of processing, reaching a new level of randomized trials, experimental and field research, laboratory experiments, which affects the approaches used in studying the processes of tax evasion (Balazka and Rodighiero, 2020).

Traditionally, deviant behavior means "behavior that deviates from generally accepted norms and violates the social behavior of people and groups, perceived as reprehensible from the standpoint of prevailing values". In the tax sphere, this term correlates with the concept of tax evasion. It is also closely related to "shadow economic activity" since any illegal and criminal activity corresponds to the nature of the deviant behavior of taxpayers (Ermakova and Lizina, 2020).

Tax compliance is probably the most appropriate term to describe the behavior of bona fide taxpayers willing to pay taxes in full and on time. A tax offense must be considered taking into account the subjective side of its commission. Slemrod and Gillitzer provide several definitions of tax violations, ranging from a narrow law enforcement approach to broader economic definitions that assess the taxpayer's options for decisions by tax policy goals and cooperation with the state (de Villiers, 2016).

In this case, the system of economic interests will be the basis that allows you to analyze the existing objective contradictions that arise between the state and taxpayers, the final result of which is tax evasion.

A radical change in the methodological basis in the analysis of the behavior of economic agents is associated with the emergence of institutional theory. Institutionalists practically abandoned the analysis of economic behavior in the context of traditional prerequisites, and already T. Veblen suggested using interdisciplinary approaches to study the characteristics of the behavior of economic agents, highlighting, first of all, social philosophy psychology, etc. (Czech, 2016).

It has become one of the reasons for the growing popularity of behavioral economics. According to many researchers, using methodology within its framework improves the quality of forecasts and a more objective explanation of the actual behavior and choice of economic agents (Costa et al., 2019).

Behavioral economists argue that they strive to make the economic analysis as "psychologically realistic as possible". At the same time, they actively use Simon's criticism of the methodology of positive economics based on the famous aphorism of Friedman "the better an economic theory or model describes reality, the more unrealistic its initial premises are". That said, behavioral economists view unrealistic assumptions as "inevitable evil" rather than force (Shefrin, 2009).

In this regard, the work of Falk and Heckman should be highlighted, where criticism of the methodology of behavioral research, setting up experiments and substantiating their assumptions was systematized. In their opinion, the methodological problems that exist today should not be underestimated and ignored, which is often done by economists specializing in research in the field of behavioral economics. This is also the position taken by Tyler, who argues that behavioral economists must be very careful when using their experimental data to obtain adequate results (Hagan and Hans, 2017).

Taxpayers make decisions not only for financial gain they also to comply with tax laws if they believe it is morally justified. For example, personal norms of tax morality significantly mitigate the impact of the size of penalties and the likelihood of an audit, and vice versa, the deterrent effect of these measures weakens in cases where the level of tax morality of taxpayers is low. This is especially important from a practical point of view, as taxpayers with stable and robust personal norms exhibit lower rates of tax evasion. The study also emphasizes the influence of tax ethics on decision-making and the potential losses that can arise as a result of moral standards. In addition, the stereotypes of behavior adopted in social groups influence the decisions of taxpayers. For example, if taxpayers find out that evasion is common among the group they identify with, they will feel less guilty about tax evasion. Conversely, high levels of tax ethics can enhance compliance, as taxpayers can feel guilty and ashamed (Fox and Reich, 2013; Levi, 1997; Milroy et al., 1961).

The complexity of decision-making in the real world motivates economists to use various research methods, including within the framework of behavioral economics, such as hypothetical choice experiments, laboratory research, and field experiments. However, behavioral economists often ignore forming a methodological basis for their research program to obtain adequate results. When constructing research methods, they focus their attention on creating the most psychologically realistic conditions for economic analysis and as much as possible. Despite recognizing the important contribution of behavioral economic models to explaining the motives for making rational decisions, it is necessary to consider some of the contradictory aspects of this problem. They are associated with the evolutionary development of socio-economic relations and are necessary to substantiate assumptions and test hypotheses (Balconi et al., 2019; Ma et al., 2020; Yurtseven and Buchanan, 2016).

Social norms are defined in the form of a certain socio-psychological device referring to an agreement between related parties in a community or group in terms of commands and

prohibitions that bind community members without formal rules and enforcement by order. This aspect of tax liability is influenced by their family, group, family, and community in which they live. In a general sense, social norms can be classified into subjective, prohibitive, and descriptive norms. The first group - subjective norms refer to the individual perception of the views or behavior of the family and loved ones related to taxes. Second, prescriptive norms correspond to an individual's opinion about the behavior or actions of colleagues from the same group with the same income or social class. The third group - descriptive norms refer to the individual perception of public opinion in general about taxes. For example, if a close friend or family member is prone to disobedience, or a group of colleagues usually hide their income, they will also tend to evade taxes. Thus, if the general public views tax evasion efforts as natural rather than illegal or unethical behavior, there is a tendency for tax evasion to increase (Huang et al., 2021; Kaishev, 2020).

Research shows that the relationship between social norms and tax evasion is not always straightforward. For example, some researchers conclude that social norms significantly reduce tax evasion, but other research findings show the opposite. However, rational behavior confirms that if a person is surrounded by people who, As a rule, they comply with tax laws, and the tax system is perceived as fair, this generally has a positive effect on the level of tax morality in society.

Social norms form the basis that influences tax decisions. Informing the public about paying taxes is an important element in reducing and preventing deviant choices. There is a hypothesis that paying taxes is a duty that must be performed, and if a person evades it, then such behavior will be considered immoral. This assumption will undoubtedly increase voluntary compliance with tax laws if accepted social norms condemn the behavior of taxpayers who evade taxes.

Thus, the presence of such a factor as social stereotypes of behavior is fully consistent with the methodology of behavioral economics, the provisions of which are based on assessing the influence of the socio-cultural characteristics of social strata that affect the level of tax morality through the manifestation of individual feelings, such as conscience, altruism, guilt or shame, etc., etc. The presence of even one component encourages the taxpayer to pay taxes in full and on time as long as he considers it necessary due to the presence of certain moral grounds. The inverse relationship is also true - if tax evasion seems morally justified, and this phenomenon is generally accepted, then the influence of social norms on compliance with the law becomes minimal.

This study determines the totality of factors of social and psychological nature that influence the choice of a model of the behavior of taxpayers. Achieving this goal involves solving the following tasks:

- Revealing the ability of new empirical studies to identify the picture of taxpayers' choice of deviant models of behavior;
- analysis of the results of empirical research obtained in the framework of behavioral and experimental economics, correlating with traditional models of tax evasion;

Substantiation of a set of conclusions and recommendations based on the modeling results, taking social, psychological, and demographic factors into account.

2 Materials and methods

The possibilities and limitations of using empirical tools within the framework of an interdisciplinary approach to the study of tax evasion processes are considered an initial array of materials. The existing difficulties of empirical analysis of tax evasion processes within the paradigm of behavioral and experimental economics were analyzed. A questionnaire was used as a methodological tool for obtaining data, testing of hypotheses related to the perception of the fairness of the current tax system was organized. Finally, based on the constructed model, recommendations are proposed on the prospects of its use in practice, considering the existing restrictions, and the possibilities of further development of research devoted to solving the problems of reducing the scale of tax evasion are considered.

Analyzing the processes of violation of tax legislation and tax evasion as a manifestation of an imbalance in the relationship between the state and taxpayers, it is necessary not only to distinguish between illegal and law-abiding behavior of taxpayers but also to consider the existing options for violations of tax, administrative and criminal legislation. At the same time, before considering the phenomenon of tax evasion, it is necessary to determine the boundaries of deviant behavior for taxpayers.

3 Result and Discussion

Interaction between tax authorities and taxpayers is determined by a set of basic assumptions about the goals and strategies of both parties. For example, suppose tax authorities perceive taxpayers as rational agents interested in maximizing their profits. In that case, they are likely taking on the role of "hunters" or "cops" using strategies to "catch robbers". On the other hand, taxpayers who perceive themselves as "victims" may take on a role and try to avoid punishment through tax evasion schemes, especially if they perceive the current tax system as unfair.

By the study's objectives, three types of justice in the tax system can be distinguished: procedural, vertical, and horizontal justice.

Procedural fairness in the context of payment evasion is manifested in the neutrality of administration procedures, the transparency of tax control procedures, the complexity of the regulatory framework, and the respectful attitude towards taxpayers on the part of the tax authorities. Vertical equity concerns the equivalent exchange of resources in terms of potential benefits, taxes paid, and costs of tax administration. In horizontal justice, the taxpayer's perception of the level of his tax burden, including in comparison with other individuals or groups, plays a key role. If the tax burden is perceived as heavier than others, this negatively affects the tax morality level.

Accordingly, the following postulations were tested:

- trust in public authorities is a significant factor stimulating taxpayers to comply with the law voluntarily;
- if taxpayers perceive the activities of the government as effective, then this has a positive effect on the level of tax morality in society;
- Factors of fairness of the tax system are significant and stimulate taxpayers to fulfill their obligations in good faith, regardless of the efficiency and rigidity of tax control procedures.

Ultimately, the taxpayer's perception of the tax system as fair will positively influence the level of his trust in the authorities and contribute to voluntary compliance with the law.

The methodology of questioning, construction, and subsequent interpretation of the rating scale is based on the adapted results of a study devoted to assessing the level of tax morality in society. An integral indicator of tax compliance was calculated by averaging individual scale elements for each respondent. The questions were grouped into three groups: descriptive, characterizing the level of trust in the authorities and the effectiveness of the government, evaluating the perception of vertical, horizontal, and process fairness (see Table 1).

Table 1: Questionnaire for diagnostics the level of tax morality in society

№	Content of the question						
112	*						
1	Direction of training (specialty) in which you are studying						
2	Are you a male or female respondent						
3	Indicate the region in which you studied before entering the university						
4	Evaluate the effectiveness of the activities of public authorities in the Russian Federation on a 5-point system (1 -						
	"ineffective", 5 - "effective")						
5	Evaluate the level of your confidence in the state authorities in the Russian Federation on a 5-point scale (1 - "ineffective", 5 -						
	"effective"). Rate the degree of your agreement (disagreement) with the following statements according to the system: 0 -						
	strongly agree, 1 - rather agree than disagree, 2 - rather disagree than agree, 3 - completely disagree						
6	Tax decision-making is based on facts, not opinions						
7	Tax authorities respect the rights of taxpayers						
8	Tax inspectorates willingly and fully inform taxpayers						
9	Tax officials treat me the same way they treat all other taxpayers						
10	The amount of taxes I have to pay is fair						
11	The amount of taxes that I have to pay is comparable to the benefits that I receive from the state						
12	Most taxpayers in Russia do not pay taxes in full						
13	The tax system in Russia is built in such a way that wealthy citizens and large companies can violate tax laws with impunity						

Following the developed methodology, the level of voluntary compliance with tax legislation was assessed as a traditional procedure and full readiness to pay taxes in the required amount in the absence of tax control procedures. The perception of procedural fairness was assessed as client-oriented behavior of tax authorities concerning taxpayers, namely: objectivity (question 6), observance of the rights of taxpayers (question 7), completeness of the information (question 8), equality in relations compared with other taxpayers (question 9) ... Vertical justice was analyzed in general (question 10), taking into account the public goods provided in return (question 11). Finally, horizontal fairness was assessed against statements characterizing the perception of the extent of tax evasion (question 12) and the potential for wealthy taxpayers and large companies to exploit legislative gaps (question 13).

All responses are presented in the form of a Likert scale, where participants were required to indicate their agreement on the relevant question $(1 = \text{``I strongly disagree''}}$, $5 = \text{``I completely agree''}}$). For further analysis, all variables were Z-transformed.

The assessment of the influence of tax morality on the decision to choose a strategy for tax evasion was carried out based on a binary logistic regression model, which allows one to study the influence of independent variables on dichotomous dependent variables. Since the introduction of dichotomous variables makes it possible to analyze a certain event that may or may not occur, in this case, the binary logistic regression model will represent the value of the probability of the event occurring depending on the values of the parameters of the factor variables. This probability is calculated using

$$p = \frac{1}{1 + e^{-z}} \tag{1},$$

where $z = b_1 X_1 + b_2 X_2 + ... + b_n X_n + a$,

 X_i – factorial variables, b_i – binary logistic regression parameters, a – constant.

Accordingly, if p takes a value less than 0.5, i.e., the probability of the event's occurrence will be less than 50%. In this case, it is concluded that the event will not occur and, conversely, if the probability value of 0.5 is exceeded, it is assumed that the event will occur.

Table 2: Simulation results β -coefficients

Factor	Total	Stavropol region	Republic of the North Caucasus Federal District	Male	Female
Candan	0.689**	0.418**	1.289*		
Gender	(4.014)	(6.258)	(3.231)		
Government efficiency	-1.645***	-1.204***	-2.019**	-1.901***	-1.725**
Government efficiency	(33.019)	(29.837)	(4.687)	(15.662)	(6.211)
Transfer the seath suities	-0.214*	0.166	-1.332*	-1.380*	0.105
Trust in the authorities	(2.418)	(0.601)	(2.904)	(3.611)	(1.094)
Dagion	-0.771**			-1.509**	-0.263*
Region	(6.248)			(7.215)	(3.048)
Horizontal justice	-0.257	0.064*	-0.614	-0.723	0.230
nonzontal justice	(0.991)	(2.105)	(0.447)	(0.024)	(1.317)
Vantical instica	-0.214*	-0.019**	-0.764	-0.389	-0.115**
Vertical justice	(3.417)	(6.150)	(0.314)	(0.087)	(6.487)
Procedural fairness	-0.418	0.062*	-1.642	-1.215	-0.039
Procedural fairness	(2.484)	(3.518)	(2.336)	(2.711)	(1.523)

Note: significance level of β -coefficients: * 0.05 \chi^2 are given in brackets.

The assessment of the adequacy for such models is based on the similarity function. The likelihood measure is the negative doubled value of the logarithm of the given function. The initial value of such a logarithm is taken from a regression model that includes only constants. Accordingly, when adding a variable, the value of this logarithm will decrease compared to the original since its influence will decrease. Such a decrease characterizes the improvement in the quality of the model after the inclusion of the variable, and the value of this quantity is denoted as

a chi-square (χ^2) and allows to conclude the statistical significance of the binary logistic regression model.

To assess the influence of factors shaping tax morality on the choice of a tax evasion strategy was built general and particular regression equations for the Stavropol Territory and the republics of the North Caucasian Federal District (NCFD) were in the context of men and women. The numerical values of β -coefficients and χ^2 are in Table 2. The sample consisted of 214 respondents, who were 2nd-4th year students of economic training areas of the North Caucasus Federal University.

The effectiveness of the government turned out to be significant for all groups. The factor of trust in government bodies also turned out to be significant for the entire sample. It follows from this that when the interests of the state and taxpayers are opposite, the perception of the authorities' actions as effective and accountable structures allows increasing the level of tax morality in society. The territorial factor influences the choice (the level of tax morality in the Stavropol Territory is higher than in the republics of the North Caucasus), which once again confirms the importance of social interactions and group influence, which are especially strong in the national republics, where tax evasion is not perceived as something This is reprehensible, and the share of the shadow economy in the GRP is the highest among all regions of Russia.

The influence of the factors of fairness of the tax system is ambiguous. Only the factor characterizing vertical fairness turned out to be significant. It follows from this that if taxpayers consider the assistance from the state to be sufficient, then this has a positive effect on voluntary compliance with tax laws. Overall, the results showed that compliance with tax laws, whether voluntary or enforced, depends on the level of trust in government authorities and is an important factor in reducing tax evasion.

Based on this, it is positive that the principles of a risk-based approach to working with taxpayers are being actively introduced into the activities of the Federal Tax Service of Russia, which is aimed at increasing the level of confidence in the tax authorities. This is manifested, first of all, in a decrease in the number of on-site tax audits, the ability of organizations to independently assess risks based on the criteria of the good faith of taxpayers, etc. At the same time, the tax authorities strive to use a strategy that has three sides: regulatory, law enforcement, and motivational. Following that, all taxpayers are divided into three groups according to the level of risk, and each of them uses its behavior strategy. For the first group, which includes conscientious taxpayers, a client-oriented approach is used. In the second group, taxpayers and their grouping monitoring is carried out to further stimulate the transition to the first group through closer and loyal interaction with the tax authorities. Finally, the third group includes taxpayers who systematically evade taxes. For them, a strategy associated with an increased level of tax control is applied to minimize the possibility of tax evasion.

Despite the positive results achieved in the fight against tax evasion, it should be borne in mind that a general tightening of the tax administration system may negatively affect the level of tax discipline.

Thus, the results obtained demonstrate the importance of using a customer-oriented model in the interaction of taxpayers and tax authorities as a basis for reducing the scale of tax evasion. However, more extensive research is required at the subnational level or in the sectoral context to identify the specifics of taxpayer behavior and the sources of deviant behavior patterns.

4 Conclusion

The research carried out in this article combines the ideas of behavioral economics and models of rational choice of taxpayers, which made it possible to assess the impact of perceptions of fairness of the tax system and trust in public authorities on the choice of taxpayers. The main conclusion is that taxpayers have a subjective opinion, which, together with the social connections through which information is transmitted, influences their choice of the appropriate behavior model. Furthermore, the model considers demographic and territorial differences, and the presence of subjective factors leads to the fact that the final choice of taxpayers differs from the rational option. At the same time, the conclusions obtained cannot be interpreted unambiguously since many methodological and methodological problems remain unresolved when researching the behavior of taxpayers.

The solution to these problems, despite all the complexity, is possible within the framework of closer interaction between the academic community and government bodies. Statistical data obtained as a result of experimental and field research are becoming an important source of information for empirical analysis of the causes and factors influencing taxpayers' choice of deviant behavior patterns. Most of this research is carried out in the United States based on data from the Internal Revenue Service (IRS) and in European countries, where the tax authorities have begun to actively cooperate with the academic community in the last 10-15 years through the Joint Research Center at the European Commission.

This experience of cooperation will be beneficial for Russia for several reasons. First, the state authorities have not yet come to the understanding that their own experience of interacting with taxpayers is not enough to predict the consequences of not only changes in the tax policy of the state as a whole but also individual changes in tax legislation. This is also important for the tax authorities, as their goal is to develop effective instruments for narrowing the tax gap. As the study results have shown, a wide range of factors, including social and demographic factors, as well as the presence of network effects, can influence the choice of a taxpayer's behavior strategy.

Carrying out joint field experiments with the tax service will help generate the necessary arrays of statistical information. Their placement in the public domain will reduce the cost of research and increase their diversity. Such cooperation will also contribute to the emergence of synergies since tax authorities can more efficiently and accurately identify problems, and

researchers can design experiments, the results of which will be more adequate and applicable in practice.

5 Availability of Data and Material

Data can be made available by contacting the corresponding author.

6 References

- Balazka, D., Rodighiero, D. (2020). Big Data and the Little Big Bang: An Epistemological (R)evolution. *Frontiers in Big Data*, *3*. DOI: 10.3389/fdata.2020.00031
- Balconi, M., Crivelli, D., Castiglioni, C., Lozza, E. (2019). Social frame and tax compliance modulate electrophysiological and autonomic responses following tax-related decisions. *Scientific Reports*, 9(1). DOI: 10.1038/s41598-019-41156-7
- Costa, D. F., Carvalho, F. de M., Moreira, B. C. de M. (2019). Behavioral Economics And Behavioral Finance: A Bibliometric Analysis Of The Scientific Fields. *Journal of Economic Surveys*, *33*(1). DOI: 10.1111/joes.12262
- Czech, S. (2016). Mancur olson's collective action theory 50 years later. A view from the institutionalist perspective. *Journal of International Studies*, 9(3). DOI: 10.14254/2071-8330.2016/9-3/9
- de Villiers, C. (2016). Exploring key considerations when determining bona fide inadvertent errors resulting in understatements. *Journal of Governance and Regulation*, 5(1). DOI: 10.22495/jgr_v5_i1_p7
- Ermakova, E. R., Lizina, O. M. (2020). The specifics of shadow economic activity in Russia. *Economic Analysis: Theory and Practice*, 19(10). DOI: 10.24891/ea.19.10.1896
- Fox, A. M., Reich, M. R. (2013). Political Economy of Reform. In *Scaling Up Affordable Health Insurance*. DOI: 10.1596/9780821382509_ch15
- Hagan, J., Hans, V. P. (2017). Procedural justice theory and public policy: An exchange. *Annual Review of Law and Social Science*. DOI: 10.1146/annurev-lawsocsci-121416-011426
- Huang, L., Tiezzi, S., Xiao, E. (2021). Tax liability side equivalence and time delayed externalities. *European Journal of Political Economy*. DOI: 10.1016/j.ejpoleco.2021.102110
- Kaishev, A. (2020). Compulsory collection of tax liabilities, penalties and fines from individuals-tax payers. Journal of Legal, Ethical and Regulatory Issues, 23(1).
- Levi, M. (1997). Taking the profit out of crime: The UK experience. *European Journal of Crime, Criminal Law and Criminal Justice*, 5(3). DOI: 10.1163/157181797X00347
- Ma, J., Guo, K., Yu, J. (2020). Democracy and tax avoidance: An international study. *Journal of Corporate Accounting & Finance*, 31(1). DOI: 10.1002/jcaf.22416
- Mavis, P., Samuel, G. G., Emmanuel, A. A., Philip, Y. E., Holy, K. K. (2018). Utilization of personal tax relief schemes: An empirical analysis in the context of tax evasion. *Journal of Accounting and Taxation*, 10(8). DOI: 10.5897/jat2018.0318
- Milroy, R. R., Istvan, D. F., Powell, R. M. (1961). The Tax Depreciation Muddle. *Accounting Review*, 36(4).
- Shefrin, H. (2009). Behavioralizing finance. Foundations and Trends in Finance, 4(1–2). DOI: 10.1561/0500000030

Yurtseven, K., Buchanan, W. W. (2016). Complexity Decision Making and General Systems Theory: An Educational Perspective. *Sociology Study*, 6(2).



Anastasia Ledovskaya is an Assistant of the Department of State, Municipal Administration and Management, Russian Presidential Academy of National Economy and Public Administration (Stavropol Branch). Her research interests are Models, Methods, and Means of Making Effective Management Decisions.



Professor Dr. Vladimir Kuzmenko is a Professor at the Department of Humanities and Mathematical Disciplines, North-Caucasus Federal University. He holds a Doctor of Economics. His research interests are Modern Management.



Dr.Vladimir Molodykh is an Associate Professor of the Department of Tax Policy and Customs, North-Caucasus Federal University. He earned a PhD in Economics. His research interests are Shadow Economy, Tax Policy Improvement.