

ABSTRACTS

POLITICAL SCIENCE

Hnatiuk V. Introduction to subnational policy: from warnings to approval

Today a comprehensive analysis of political processes is impossible without the use of a subnational comparative method. Subnational issue in political science passes three stages of development and now appears to be as an independent subject of scientific analysis.

During a long period of time researchers analyze political processes in the state exclusively at the national level. There is the idea that any manifestation of political life in a diminished spatial scale is only a projection of a national political life. It symbolizes the phenomenon of "the main bias" in the theory of political science. The main array of works in the second half of the XX century, which relating to democratization, are from a national point of view. Subnational issues have obliquely arisen in studies, which characterized by fragmentary comprehension, remarks or mentioning. This conceptual content characterizes the development of subnational issue at the first stage in the 70's and 80's of the XX century, a representation stage, that symbolizes the first "meeting" of the paradigm of that time and the phenomenon that did not adapt, but existentially is always alongside with it.

This "whole-national bias" in comparative political science changes in the last decade of the XX century, when it begins to explore various aspects of subnational politics, namely: the territorial extension of the processes of democratization. The first decade of the XXI century is characterized by the presence of research that represents an increased scientific and theoretical interest in subnational politics, supported by its own methods for measuring and classifying cases within subnational units of analysis. In the 90's of the XX century by the middle of the second decade of the XXI century, which is chronologically the second interval, the stage of contact, is outlined in developing a subnational issue in comparative political science. It is a moment of "communication" between the political practice and the conceptual "embryo" (subnational comparative method), which is trying to understand it. In addition to the approval of methodological issues and a large number of studies on subnational politics, the transformation of paradigm "bias" from the "whole-national bias" to "federative monism" becomes an important change. The "federative monism" is embodied in the thesis that the only unit of subnational analysis is the subject of federative states that have a certain legally defined political independence, as opposed to the administrative-territorial parts of the unitary countries.

The research trend of the last four years (2014-2018) reflects new practical implications for using the comparative methodology in subnational politics. Studies show that "federative monism" overcomes today because work concerns unitary states in one or another way. The "assertion" of a subnational issue crystallizes in comparative science today and enters into a stage, the stage of collaboration, which, firstly, is based on the dynamism of the methodological principles of a problem, and, secondly, on the autonomy of studying one's own subject.

Key words: subnational issue, subnational unit, subnational comparative method, whole-national bias, federative monism.

Ivasechko O., Khar O. Union for the Mediterranean: features of functioning and prospects of development

It has been done the complex study of the functioning and development prospects of the Union for the Mediterranean. Based on the analysis of national and foreign historiography it considers creation and development of organization, its goals and priorities, an attitude of European leaders about the necessity to cooperate with Mediterranean countries. It was found that the Union for the Mediterranean was established in order to support the overall immigration policy, economic and trade development, common law, the environment and common development. It has been researched the attitude of certain states to implementing the Union for the Mediterranean. The author identifies promising areas of cooperation within the Union for the Mediterranean, which includes energy sector, migration issues, economic and financial cooperation, social sphere, political and security, environmental protection etc. The author emphasizes that in order to

maintain the viability of the Union for the Mediterranean EU should use more differentiated and thematic approach, with based on security and cooperation, energy agreements, cooperation on food and more targeted financial assistance.

Key words: Union for the Mediterranean, European Union, Sarkozy, the Barcelona Process, EU Regional Policy, European Neighborhood Policy.

Minenkova P. Conceptual foundations and categorical definition of «think tanks»: academic rethinking of traditional approaches

Analytical and research organizations known in the world as think tanks have become increasingly influential actors on the political scene in recent decades. In a context of constant change and erosion of the borders between internal and external policies, they are able to respond promptly, providing timely, reliable, accessible and useful information for making substantiated political decisions. The definition of «think tanks», however, creates a conceptual gap that causes serious limitations on the development of this field of study. Excessive generality or inflexibility in the use of the concept raises questions about the validity of the category. Either way, the «trade offs» of the conceptual choices have delineated a not very useful concept of «think tanks» to both inter-contextual and inter-organizational comparability and to differentiate think tanks from overlapping organizations. The article revisits some of these dilemmas. To do so, the treatment in the specialized literature of the analytic category, highlighting both the insensitivity of the traditional North American approaches to different national contexts and its obsolescence to the changes in the context of «think tanks» action, including their own context of origin, is explained.

The reasons of «conceptual stretching» and separation of the analytic category «think tanks» from the evolution of the phenomenon as a whole are investigated.

In shedding light on promising conceptual contributions to the study of the phenomenon in its contemporary features, the main contribution of the present article is specifying the contents and the proposal of definition of «think tanks» with the peculiarities of their functioning in different national contexts.

Key words: «think tanks», think tanks «conceptual stretching», «ladder of abstraction», national contexts.

Olefir I. Genesis of the information society

Current century is the century of the global information society. It is characterized by events caused by the information and telecommunication revolution, introduction of information technology to all areas of public life, development of the global information economy, introduction of e-government to public and private sectors, formation of global network society.

But before developing into the global, the information society has progressed from the origins of theories on its formation to development and adjustment of information and communication technologies to the public life area of the world leading countries.

The article deals with the information society development in the globalized world. In particular, the first theories that characterized the birth of the information society and its formation in modern conditions have been considered.

It is indicated that in conditions of globalization, information and knowledge will become the most important means by which communications are taking place in modern society. While, due to spreading globalization processes, the global information society is emerging, characterized by integrating information systems into a single world economy.

Issues of information society development for several years have been on the agenda of such leading world countries as the United States, Japan and the countries of the European Union. Since the information society in modern conditions is responsible for raising the living standards of the population, more and more countries are beginning to engage into the building of this type of society. The same applies to Ukraine.

Key words: globalization, global information society, information society, informatization, information and telecommunication technologies.

Pashkov V. The system of higher education as an object of political management in the Third Reich: objectives and consequences

The article considers main directions, stages and instruments of transformation of the higher education system of Germany in condition of totalitarian regime. Author analyses educational changes, connected with policy of nazification, and their consequences for institutional development of universities in the Third Reich. After establishment of Hitler's dictatorship in 1933 totalitarian practices were put in internal life of universities, that led to the loss of academic autonomy and merge with the state. At the same time majority of academic community didn't resist policy of nazification and cooperated with Nazi regime.

In the article author considers row of political and organizational measures of power, which radically transformed German higher education system according to Nazi ideology. Firstly, new power started repressions within teachers and students to drop undesirable elements. In result of such policy during the 12 years of the totalitarian regime about 20% of teachers were fired, and the number of students decreased in more than twice. Access to the higher education began to determine not academic achievements or social origin, but cleanliness of race and political loyalty.

Secondly, Nazi regime abolished academic self-governance and integrated the higher education system in a model of corporate state. The principle of election of the university leadership has been replaced with nomenclature nomination. Academic space was covered by a net of political institutions designed to control the educational and research activity: the ruling party committees have been established in universities, membership in the National Socialist Union of Students and the National Socialist Union of Teachers has become compulsory. Finally, the power radically ideologized curricula and research topics. Educational programs began to display the Nazi views on society, state, history and culture.

Key words: the higher education, educational policy, The Third Reich, totalitarian regime, National Socialism, national community.

SOCIOLOGY

Weston C. The decline and fall of British power

The purpose of this paper is to examine the decline and fall of British power. "Power" is defined as the ability to influence another party and Michael Mann's four sources of social power is employed as an analytical tool.

While on the face of it Britain possesses a number of indicators which suggest that it is a major power, it is argued that those indicators may not reveal the full extent of the decline of British power over a period of time and which has been accentuated by the outcome of the Brexit referendum in June 2016.

The downward trajectory of power is examined through the prism of two examples. The first concerns Korea and Britain's involvement in the war of 1950-3 but also through the influence of Britain's then prime minister with the US President over the defence of Europe as well as lobbying the US on its threatened use of nuclear weapons. The contrast with the British stance on the latest crisis on the peninsular could not be starker and the silence of the British government reflects the fall of British influence notwithstanding claims to the contrary post referendum of a "Global Britain".

The second example concerns Britain's situation post fall of the Berlin Wall, post Gulf War and even post Masstricht Treaty (which saw Britain secure several opt outs from the European Union) and its role in 1994 in securing the territorial integrity of Ukraine. British influence might be viewed as still significant although the ejection from the Exchange Rate Mechanism - a blow to its Political Power and Economic Power - was a modest harbinger of its vulnerability to economic crises - an all too familiar theme of its modern history. The events post Crimean occupation and post invasion of Eastern Ukraine witnessed the UK absent from the ensuing negotiations which were led by Germany and France from the European side. The UK was already withdrawing into itself from its (relatively modest political although not insignificant defence) role in Europe, let alone a Global role it purported to aspire to.

The curves of both events intersect at a point on a downward trajectory.

The paper, in addition to Mann's Four Sources of Social Power, is supplemented by the introduction of his fifth "Leadership" as well as considering the use of the intelligence services, which constitute a blend of both political and military instrumentality employed to achieve a desired set out of outcomes to protect its interests and further its aims in the global order. The paper also considers the interstices of the various

sources. In particular, attention is drawn to the fifth source noted by Mann – that of “Leadership” and that British sources of social power had particularly diminished during the Cameron and May governments and with it, its strategic outlook.

The paper is the first in a series that will examine the Decline & Fall of British Power since 1945.

Key words: Britain, power, sources of social power, Leadership.

Kutuev P., Korzhov H., Piholenko I., Yakubin A., Melnichenko A., Akimova E., Ishchenko A., Kostiukevich S., Andros I., Kobiak O. Integration of engineering education and business education as a driver of the development of national economies of post-Soviet countries

The article is based on the analysis of sociological data from a survey carried out within the framework of the BRFFR-SFFRU international research project entitled The integration of engineering and business education in technical universities of Ukraine and Belarus as a factor of national economic development. The research demonstrates a high level of motivation and readiness of students specializing in engineering in National Technical University of Ukraine "Igor Sikorsky Kyiv Polytechnic Institute" (Kiev) and Belorussian National Technical University (Minsk) to engage in industrial entrepreneurship. The study convincingly proves that the technical students of the former Soviet countries can be a social base for the transition to a market-based innovation economy subject to the integration of engineering education and business education in technical universities for the training of entrepreneur-engineer (such integration already exists in Western countries). Taking into account the relevant international experience, it is argued that there is a high need for training an engineer-entrepreneur in the former Soviet countries, since this is a key social figure in the commercialization of technical creativity – a global trend launched in Western countries during the development of industrial capitalism and grounded in the concept of innovative economy by a famous Austrian-American economist J.Schumpeter.

Key words: integration of engineering education and business education, engineer-entrepreneur, commercialization of technical creativity, innovative economy.

Akulow M. From symmetric anthropology to political ecology: a dramatic history of the principle of generalized symmetry in actor-network theory

This article is devoted to the history of the principle of generalized symmetry in the actor-network theory (ANT), and, especially, in the particular, Bruno Latour's approach.

The starting points for generalized symmetry are the semiotic concept of the Paris Semiotic School (in particular, the concept of actants), D. Bloor's "strong program" (especially the principle of symmetry, which in actor-network theory was spread beyond the explanations of sciences to the explanations of human and non-human actors) and anthropology.

The principle of generalized symmetry allows us to give symmetrical explanations of the agency of human and nonhuman actors, describing them in the same terms. It also allows you to switch between the reducibility and the irreducibility of the same actant, or entity.

However, it brought some problems: the unification of heterogeneous actants, implicit preservation of the dichotomy "culture-nature", from which Latour tried to move back even in his earlier texts.

The rejection of generalized symmetry, however, does not solve the problems of actor-network theory, in particular, the role of human and non-human entities, in various texts (including Latour's), varies between dissolution of actions and self-referencing (which is a special case, and does not receive satisfactory conceptualization within ANT).

Key words: actor-network theory, principle of generalized symmetry, semiotics, "strong program" of sociology of knowledge, symmetry, self-reference.

Boiko N. Online civil activity: to sociological portrait of Ukrainian Internet users

In the article on the materials of the all-Ukrainian sociological survey, the features of the civil online activity of Ukrainians are considered and the sociological characteristics of the Ukrainian Internet user are

described, which today implements civil online activity. A study of cybercrime on the Internet has shown that the overwhelming majority of Ukrainians today show civic activity online. About 64.5% of Ukrainian Internet users use the network: to meet the needs for obtaining socio-political information; formal and informal online interaction with government bodies, non-state and international organizations (e-services, e-queries, etc.); informal communication in the network on civil-political issues; search for like-minded people, initiating and supporting socio-civic activities initiated online; public control over the activities of state institutions, officials and officials (e-reports, e-budget, etc.). And only 35.5% of users noted that they "do not do anything" listed on the network.

Today, the Internet is an instrument of democratization of modern society, providing active social actors with a variety of levers of influence on the social process in the modern world, enriching the arsenal of means of control over power and officials, expanding the possibilities of civil interaction. The research revealed certain social and demographic characteristics of users who display online civic activity - age, education, settlement and regional. In addition, certain features were identified in relation to the group of "activists" to democratic principles-the attitude towards the democratic system as a whole and the attitude to freedom of speech.

Key words: Internet, civic activity, online activity, Internet users.

LAW

Bachynskiy O. State of scientific research on carrying out special assignment to expose criminal activities of the organized group or criminal organisation

Nowadays, one of the important directions of ensuring the national security of Ukraine is the fight against organized crime, which, taking into account the complicated socio-political situation, economic instability and development of the criminal situation, appears to be escalating and spreading dramatically. That is of concern due to the possibility of using individual criminal organizations and organized groups by foreign secret services in order to carry out reconnaissance, subversion, terrorist and other illegal activities, provoke destabilization of public life and intimidation of citizens, cause damage to the state security of Ukraine.

That is why the article is devoted to a research of carrying out special assignment to expose criminal activities of the organized group or criminal organization that is one of the most effective measures of pre-trial investigation of the suppressed activities of organized crime. Despite the fact, that with the adoption of Criminal Procedure Code of Ukraine, investigative actions are being studied quite actively, mentioned above type of covert investigative (detective) actions is studied in sections of the general issues, and the works that would have considered the carrying out special assignment, or its problematic issues as a subject of self-study are practically absent. This is especially true when we talk about the carrying out special assignment by the Security Service of Ukraine.

So author draws attention to current issues of understanding the essence and content of carrying out special assignment to expose criminal activities of the organized group or criminal organization comparing it with the corresponding operational-investigative action. It is said that the current status of the legal regulation of carrying out special assignment, although it seems sufficiently complete, but at a thorough examination it appears to be in need of improvement. Furthermore, inter-branch relationships, correlation of concepts and definitions, the organization and tactics especially of law enforcement activities require deep consideration. Therefore it is offered to expand researches of the theory and practice issues of the mentioned above type of covert investigative (detective) action particularly conducted by the Security Service of Ukraine.

Key words: covert investigative (detective) actions, carrying out special assignment, organized crime, organized group, criminal organization.

Berezhna A. Peculiarities of the public use of musical works as an object of copyright: analysis of legislation

The simplicity and availability of modern technical aids that give their owners the real opportunity to seamlessly use the results of intellectual activity in music field, including the possibility of their "digital"

copying in an unlimited number, has led to a large increase in cases of copyright law violations and related rights. Musical works are both the result of creative activity and objects of copyright and related rights that in commercial relations act as a subject of sale and have their price equivalent, therefore, their illegal use causes not only moral damage but also considerable material damage to the copyrighters.

Business entity for the use of musical works in a public institution, in addition to obtaining the author's permission, must also pay the remuneration to the owner of the related rights (phonograms), provided that they are commercially used. After all, from the contents of Articles 435, 440, 441, 443 of the Civil Code of Ukraine and Articles 7, 15, 31-33 of the Law it is understood that the right to use the work belongs to the author or another person who has received the corresponding property right in the permitted manner; the use of the work is carried out only subject to the author's consent or the person to whom the corresponding property right has been transferred (except for cases, the limiting list of which is established by law). Use of work without the permission of the copyrighter is a breach of copyright (related rights) provided for in Article 50 of the Law, for which according to Article 52 the possibility of bringing a guilty person to responsibility is prescribed.

Investigating the theoretical provisions in the field of intellectual property, as well as the regulatory legal acts governing the relevant relations, it may be concluded that the practical application of the collective management of property rights transferred to the organizations of collective management by the authors and other subjects of copyright and (or) related rights based on agreements. At present, the operation of collective management organizations of property copyright and related rights is stipulated by the Law of Ukraine "On Copyright and Related Rights". However, unfortunately, the said Law does not cover the legal nature, special aspects of the functioning of collective management organizations, the order of their interaction with the subjects of copyright and related rights, users, other organizations and public authorities, control over the activities of collective management organizations, etc. This, in turn, leads to the ineffective operating of existing collective management organizations, a wide field for abuse by officials of the aforementioned organizations, the lack of a transparent system for collecting and distributing rewards in favor of copyright and related rights subjects, and the refusal of users to make payments in the framework of collective management systems and, as a result, mass breach of copyright and related rights.

Key words: copyright, adjacent rights, musical works, exclusive right, organization of collective management.

Burenko R. Are administrative courts in the Republic of Belarus possible?

In the scientific article the reader is invited to familiarize himself with the history of the development of the judicial system in the Republic of Belarus for the period from 1923 to the present, the transformation of the judicial system of Belarus, as well as the historical development of administrative justice in the USSR and Belarus.

The article describes various models of administrative justice that have evolved from the historical point of view: the first - administrative, the second - quasi-judicial, the third - the administrative and judicial, the fourth - the general.

The statistical information of the Supreme Court of the Republic of Belarus on the number of administrative complaints of citizens to actions (inaction) of officials of public authorities for 2014 - 2017, including information on the number of satisfied complaints for the specified period are given.

Legal possibilities of formation of specialized administrative courts in the Republic of Belarus on the basis of the Constitution of Belarus and the provisions of the Code of Belarus "On the Judicial System and Status of Judges" are explored.

The analysis of the development of the judicial system of the Republic of Belarus, the systematization of knowledge on the topic under study on the basis of normative legal acts of the Republic of Belarus and educational literature is carried out.

The problems of a different approach in the legislation of Belarus on the settlement of administrative disputes, namely in the Code of Civil Procedure and Economic Procedural Codes of Belarus, are being studied.

In the concluding part of the article the author makes a reference to the need for a legal basis for the formation of specialized administrative courts in Belarus: the drafting and approval by the Parliament of Belarus of laws on the formation of administrative courts and administrative proceedings.

Key words: the Republic of Belarus, the history of the judicial system, the model of administrative justice, the statistics of administrative complaints, administrative courts, the Civil Procedure Code, the Code of Economic Procedure.

Komissarov S. Features of administrative proceedings in the case of proceedings of sponsors against public order

The article states that the building of a democratic society requires a citizen to fulfill his duties before the state, and from the state - to ensure the legal rights and freedoms of the individual. Solving the problems of ensuring law and order in the country largely depends on a clear, coordinated, progressively organized work of all state and social institutions.

Among the various problems in modern law enforcement activities are offenses against public order. The main legal document in the field of public order is the Code of Ukraine on Administrative Offenses. In the process of building and reforming Ukrainian society in the conditions of independence of the state, the administrative-legal reform, which is vital in the result of changes in the economic, social and political life of the country, takes on an important place. In addition to reform processes, the emergence of new management entities, the political situation in Ukrainian society, the conduct of anti-terrorist operations, etc., is relevant.

Updating the view of the place of administrative proceedings in cases of administrative offenses in violation of public order is a prerequisite for its effective reform in accordance with the requirements of the present. Also, the foregoing provides the basis for further study of the internal structure of this proceeding.

The conceptual approaches of administrative proceedings are investigated, basic scientific investigations in the investigated sphere are analyzed, modern conceptual approaches and features of manifestation in the current legislation of Ukraine are revealed.

Key words: administrative proceedings, administrative proceedings, misdemeanors, proceedings, public order.

Popivniak O. Regarding the definition of the concept of customs security in theory and legislation

The concept of customs security today is defined by the Customs Code of Ukraine, other acts of the current legislation, as well as by domestic scientists as a status of protection of customs interests or economic interests of the state in the customs sphere. It is mentioned that there is a correlation between customs and national security. At the same time, there is no established scientific approach to the disclosure of the essence of the customs interest, although this concept is basic in determining the customs security.

Several aspects have been taken into account while developing a scientific approach to defining the concept of customs security. First of all, the right to understand security as a category which is perceived as a security function of the state in respect of compliance with its rules. The next aspect concerns the definition of the subjects ensuring the customs security of Ukraine from the standpoint of following the functions assigned to them by the state. It is emphasized the necessity of taking into account the current situation in Ukraine not only in the formation of the concept of "customs security", but also the definition of national security as a rising category and socio-legal phenomenon, which is directly related to customs security. The situation means the military conflict in the East, the provision of a visa-free regime with EU countries, the entry into force of the Association Agreement between Ukraine and the EU.

The account of these aspects, current situation of Ukraine and the existing scientific thought has become the basis for the formation of the concept of customs security from a different position not the one which is supported and involves disclosing the content of this concept as the status of protection of customs, economic, foreign economic and other interests.

The author's definition of the concept of customs security is given in the article. According to it the customs security is a special legal order of the activity of authorized subjects towards ensuring the implementation by the participants of customs relations of obligatory for all rules in the field of state customs affairs.

Key words: customs security, subjects of ensuring, customs sphere, customs interests, state customs affairs.

Pochynok K. The modern status of legal nature of economic rights

The article investigates the legal nature of economic law, namely, as a branch of law, as a branch of legislation, as a science and an academic discipline on the basis of the analysis of well-known scholars of economics on the aforementioned topics.

It was found out that economic law as a branch of law is considered as: an independent branch of law, and a simple combination of civil and administrative legal rules operating in the field of economic activity; an independent branch of law, which has nothing in common with other branches; a complex branch of law in which the legal norms of the main branches of law are collected, are confined to one subject of legal regulation - economic activity.

Considering the economic as a branch of legislation it was established that it is a category of economic law, which covers the main laws and regulations that are relevant to the conduct of economic activity and regulate the legal relationship in this area.

Economic law as a science was considered through subject and tasks.

Economic law is regarded as a discipline, which is conventionally divided into 2 parts - general and special.

On the basis of the performed analysis of scientific approaches regarding the definition of the legal nature of the place of economic law in the system of law of Ukraine, the definition of economic law was formed.

Key words: branch of law, economic law, economic law, economic relations, law.

Shevchenko A. Individuals in corporate legal relationships under the Civil Code of Ukraine: look at issue

The article is devoted to the analysis of the status of an individual as a participant in corporate legal relations under the Civil Code of Ukraine.

Corporate legal relations are inherently complex and their understanding causes considerable difficulties in interpreting even the simplest concepts. In particular, there are many approaches to the definition of "corporate rights". According to Art. 167 of the Civil Code of Ukraine, corporate rights are the rights of a person whose share is determined in the statutory fund (property) of an economic organization, which includes the eligibility to participate in the management of an economic organization, obtaining a certain share of profit (dividends) of the organization and assets in the event of the liquidation of the latter in accordance with the law, as well as other powers are provided by law and statutory documents [1]. The Civil Code of Ukraine does not apply the concept of "corporate law" at all, but applies the following concepts: "the right to participate in a partnership", "share in the authorized capital". Today, the concept of corporate rights, in addition to the Commercial Code of Ukraine, is contained, among other things, in the laws of Ukraine "On the regime of foreign investment" of 19.03.1996 and "On Joint Stock Companies" of 17.09.2008.

Therefore, the concept of "corporate rights" involves problems of a theoretical and applied nature, and until now there are ongoing discussions about understanding the meaning of this term. However, definitely can say that corporate rights arise where there is a corporation. At the same time, scientists - lawyers do not pay enough attention to the fact that any corporation is represented by an individual.

A legal entity is a special subject of corporate relations, because it always obeys the purpose determined by the founders (participants) and exactly in the purpose and content of the legal entity the realization of the subjective right of the founder (participant) is.

Therefore, in practice, it is difficult to determine when a participant acts on behalf of a legal entity, and when it comes to its own, when its rights become subjective and the requisite volume of civilian capacity should be a natural person in order to become a participant (founder) of the corporation. The need to address these issues determines the relevance of the chosen topic.

An individual is a special subject of corporate legal relationships and his legal status requires a more detailed analysis by lawmakers and scholars. Analyzing the ways in which a person can become a participant in corporate legal relations, we conclude that the legal status of an individual as a participant (founder) of a corporation depends, above all, on its legal personality. Thus, a person with incomplete civil capacity has the right to create and to be a member of the corporation, if this is not prohibited by law or constituent documents, and in most cases, without the consent of the parents (adoptive parents), guardians or the guardianship. As for a person with partial civil capacity, he may become the owner of the share capital, but the question remains whether the young person can dispose of his share in the authorized capital and take active actions (transactions) concerning it, which requires further scientific research.

Key words: physical person, capacity, corporate legal relationships, minor, young person.

Shkolnyi O., Khavruk V. Mathematical methods of analysis and forecasting of the crime on the basis of seasonal indicators

Seasonality of crimes is not sufficiently studied by scholars of the legal field. The study of seasonal fluctuations of certain types of crimes has an important theoretical and practical significance. The main problem is the allocation of those crimes, which are most typical phenomenon of seasonality. In this article, an attempt is made to find out the seasonality of the most common crime in Ukraine – theft.

The investigation of crimes of theft was carried out on the basis of a statistical method that involves the identification and measurement of seasonal variations - the calculation of the average (arithmetic mean) of this type of crime by months, the comparison of monthly data with the average level for the year. The main indicator that characterizes the seasonality of the crime is the seasonality index. The indices of the seasonality of theft crimes are calculated in three ways and are summarized in the corresponding table. Analysis of theft crimes over the seasonality indexes, using statistical data for 2017, allows to state that the peak is in March, the crime rate falls during June-September (seasonality index is 72.648%), growth is observed in the autumn period - seasonal indexes are respectively: 79.542%, 87.248%. The high level of crimes at the beginning of the year – in January (29,652) is explained by the fact that the number of recorded crimes for the reporting period is chosen as statistics, which is somewhat divergent from the crimes actually committed in January.

The statistical method makes it possible to reveal the seasonality of crimes for the past period, but does not allow the forecasting of seasonal fluctuations for the future period (calendar year). For prediction of crimes of theft, taking into account the seasonality, it is expedient to use formalized methods. For the construction of mathematical models of the seasonality of crime, the Excel software environment was used, as a result four equations were obtained – polynomials of the 6th order for each time of year (winter, spring, summer, autumn). The found boundaries of the prediction of crimes of theft in Ukraine in 2018. The results of calculations give grounds to conclude that if the trend of seasonal variations in the crime rate of theft is formed in 2016-2017, one can expect that in the winter of 2018 the number of such crimes will amount to 76,799, in the spring of 2018 – 98166, in the summer of 2018 – 82104, and in the autumn of 2018 – 54494.

Thus, the study of seasonal crime variability is a methodology that includes the following stages: calculation of seasonality indices; finding the equation for the analytical equalization of the seasonal wave; finding an aligned number of crime rates and projected values of the number of crimes.

Analysis of the latest crime statistics shows that the number of crimes of theft for the period January-February 2018 is 49971, it can be assumed that in December 2018 the number of crimes of theft will be in the range of 5000-8000, and thus, at present end of April 2018), it can be argued that the prediction model obtained on the basis of the polynomial regression equation, taking into account the seasonality, gives somewhat overestimated levels of the crime rate of theft. Given these circumstances, the mathematical model of crime prediction taking into account crime should be improved, namely: it is advisable to expand the statistical base – the time interval from 2016-2017 until 2014-2017; in the mathematical prediction model (polynomial regression equation) to provide and determine a random component; find more accurate ways to determine the average seasonality index for all seasons.

Key words: random value, crime, value, seasonality index, probability, quantity, theft, forecast boundary, method, month, parameter, indicator, polynomial regression equation, forecasting, year, row, seasonal wave, arithmetic mean, formula.