

### Homeostasis of the system of public administration

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# ГОМЕОСТАЗ СИСТЕМЫ ГОСУДАРСТВЕННОГО УПРАВЛЕНИЯ

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**Аннотация:** Эта статья посвящена исследованию феномена и концепции гомеостаза системы государственного управления. Также раскрыто общее понятие «гомеостаз». Показана история генезиса концепта гомеостаза. Объяснены проблемы релевантной интерпретации и пределы применимости этого концепта к системе государственного управления.

В статье представлена авторская дефиниция понятия гомеостаза системы государственного управления. Описаны свойства системы государственного управления, определяющие ее способность поддерживать свой гомеостаз.

Статья основана на применении исследовательских методов системного анализа, синтеза, индукции, абдукции, классификации. Посредством применения исследовательских данных методов были вскрыты дистинктивные характеристики понятия феномена гомеостаза системы государственного управления и возможности применения данного концепта в теории публичного управления.

Поддержание гомеостаза системы государственного управления имеет очень высокое значение для целей и процесса государственного управления. Именно императивы и интенции удержания гомеостаза системы государственного управления выступают основаниями, условиями и причинами превенции скороспелых, необоснованных (с просчитанными рисками и последствиями), сомнительных реформ в сфере государственного управления.

**Ключевые слова:** государственное управление, инструменты государственного управления, гомеостаз системы государственного управления, общая теория публичного управления, административное право, публичное право

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## HOMEOSTASIS OF THE SYSTEM OF PUBLIC ADMINISTRATION

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**Abstract:** The article is devoted to the study of the phenomenon and the concept of homeostasis of the system of public administration. The author describes the general concept of «homeostasis». The article shows the history of the genesis of the homeostasis concept. The author explains the problems of the relevant interpretation and the limits of applicability of this concept to the system of public administration.

The author's definition of the concept of homeostasis of the system of public administration is presented. The article describes the properties of the public administration system that determine its ability to maintain its homeostasis.

The article is based on the application of research methods of system analysis, synthesis, induction, abduction, classification. Through the application of research methods, the author uncovered the characteristics of the concept of the homeostasis phenomenon of the public administration system and the possibility of applying this concept in the theory of public administration.

Maintaining the homeostasis of the public administration system is very important for the purposes and process of public administration. It is imperatives and intentions of retention of the homeostasis of the system of state administration that are the grounds, conditions, and reasons for the prevention of precocious, unreasonable (with calculated risks and consequences), and questionable reforms in public administration.

**Keywords:** public administration, public administration tools, homeostasis of the public administration system, general theory of public administration, administrative law, public law

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### The outline of the problem

According to Hans-Adam II, the Reigning Prince of Liechtenstein, “a modern state is a complex construction consisting of many systems that must be tuned in unison with each other” [Hans-Adam II, 2012].

The system of state administration is a single organism where the causal or other interrelations, the uniform topology, the logistics of interrelations (vertical hierarchical centralized and decentralized, horizontal, network distributed, parallel, etc.) are traceable in all ways.

At the same time, such a system cannot be “frozen”, devoid of dynamics, since this would be the source of its numerous vulnerabilities. Excessively large (redundant) regulation and “ordering” of the system have their weaknesses (sources of vulnerability), which means that the slightest failure of such a system can lead to an avalanche of events that disorganize and crush the whole carefully constructed system.

According to Mikhaleva N. A., “...thanks to the dialectical unity of stability and dynamism, the basic laws preserve reality” [Mikhaleva, 2010. P. 46].

As William Ross Ashby writes, “the main source of difficulties is the variety of disturbances against which regulation is directed” [Ashby, 1959].

State management is carried out in conditions (in the language of complexity theory) of the “hilly landscape” of disturbances and negative impacts, many of which are very poorly projected and described. And in this context, what is reflected in the concept of “homeostasis” is of great importance. Especially this concept is significant for the theory of deviantology of public administration.

### The general concept of “homeostasis”

In the most general sense, the concept of homeostasis (homeostasis from the Greek *homois* – alike and *statis* – state, means “to remain the same”) reflects the desire and capacity of a complex (both open dynamic and closed) system (the biological organism and its internal environment, organization and its internal manned structure, technological control system, artificial intelligence system) to maintain its own stable equilibrium state, which characterizes a certain, minimally necessary conservativeness of such a system, and its ability to confront critical changes.

The term “homeostasis” was first introduced by Walter Bradford Cannon in his articles “Physiological regulation of normal states: some tentative postulates concerning biological homeostasis” in 1926 [Cannon, 1926. Pp. 91-93] and “Organization for physiological homeostasis” in 1929 [Cannon, 1929. P. 400] and, more recently, more detailed, in his book “The Wisdom of the Body” in 1932 [Cannon, 1932], [Cannon, 1967. Pp. XIV, XVII, 24, 98-144, 263-285, 305-324]. However, it is believed that for the first time such properties were described as early as in 1865 by the French physiologist Claude Bernard [Bernard, 1865].

As Walter Bradford Cannon once wrote, “environmental changes excite reactions in this system or act on it directly so that internal disturbances of the system occur. Such deviations are usually kept within narrow

limits, since automatic corrections within the system are activated, and thus wide fluctuations are prevented, and the internal conditions remain fairly stable. The term “equilibrium” can be used to refer to these constant conditions... Coordinated reactions of the body that support most of the established states in the body are so complex and so characteristic that it was suggested to use a specific term for these conditions – homeostasis” [Cannon, 1929. P. 400].

Many ecological, biological and social systems are homeostatic, seeking a balance between changes to ensure equilibrium, and if this balance cannot be maintained, this can lead to the system ceasing to function. The advantage of homeostatic regulation is that it allows the system to function more efficiently, although such regulation requires energy [Dickey, 2009. P. 9]. At the same time, homeostasis does not regulate and does not define any and every activity, any and every process in the body (biological or organizational).

Today the concept of homeostasis is used in various sciences – biology, medicine, physics, biochemistry, but also in jurisprudence, economics, and management theory, not least in the theory of public administration.

### The concept of homeostasis in general theory of public administration: scientific and legal positions and discussions

The main characteristics of open systems (and, in essence, the government system) are that as a result of attracting energy to contain entropy, open systems tend to cope with external factors, gaining control over them, thereby maintaining a stable state of affairs, called homeostasis [Ibietan, 2013. P. 54].

In particular, within the framework of the concept of homeostasis, organizations can be considered (as equilibrium systems), which sometimes use their own pathologies to self-regulate and maintain their stability [Barouch, 2011. P. 27].

In the general theory of public administration, the issues of homeostasis are very rarely addressed but are known. From rare researchers of this issue, we will single out works of domestic authors – Atamanchuk G. V. [Atamanchuk, 2010. P. 132, 146], Glazunova N. I. [Glazunova, 2006], Dobrynin N. M. [Dobrynin, 2010], [Dobrynin, 2006], Kurtikov N. A. [Kurtikov, 2002. P. 25], Marshev V. I. [Marshev, 2005], Petrov M. M. [Petrov, 2016. P. 13], Rossinsky B. V. [Rossinsky, 2016]; and some foreign writers – the work of such authors as Daniel Katz and Robert L. Kahn [Katz, Kahn, 2003. Pp. 269-283, 277-279, 283], Abraham Maslow [Maslow, 2003. P. 150], Rachinsky A. P. [Rachinsky, 2011], Surmin Y. P. [Surmin, 2010], [Surmin, 2011].

According to Rossinsky B. V., “the problems of ensuring equilibrium between dynamism and stability in systems of different nature are paid the closest attention to both in numerous sources devoted to the theory of systems and management theory, as well as in practical managerial activity. This equilibrium is usually called ho-

meostasis, and the mechanism for its preservation is also called homeostasis. The homeostasis of any large system (technical, biological, social) is ensured both by the proper organization of its subsystems and their interrelations, in particular, the possibility for proper interaction in cases of various systemic changes, and the ability of one of the subsystems to assume the functions of another subsystem or the system as a whole. With the significant deviations from the equilibrium state that arise in them, and because of this, the threat of their instability appears" [Rossinsky, 2016. Pp. 30-31]

According to Dobrynin N. M., "homeostasis is the ability to preserve certain internal parameters that ensure the efficiency of functioning" [Dobrynin, 2010].

Petrov M. M. writes: "Homeostasis is important to control any open and nonequilibrium system. Homeostasis is the ability of the system to stabilize and maintain the constancy of its internal state, which is expressed in the presence of mechanisms of self-regulation, resistance to external factors, restoration of lost equilibrium, adaptation to the external environment and tendency to reproduce the system. Achieving a certain balance of the system through homeostasis is possible as a result of management, one of the essential manifestations of which is a similar regulatory mechanism. The determining feature of this mechanism is the ability to maintain a given degree of disorder, disunity or entropy" [Petrov, 2016. Pp. 7-24, 13].

According to the concept of Rossinsky B.V., "Homeostasis in the social system, in particular, the system of public administration, is possible only when it unites a sufficient number of system-forming functional subsystems that are in some way competing with each other... Homeostasis in the social system, in particular, the system of state administration, is possible only when it has a powerful subsystem that structurally simulates the very top system that is commensurate with it in terms of volume, and as a rule, possesses a large inertia, but still performs the basic part of the management functions of the system" [Rossinsky, 2016. Pp. 32, 33].

With reference to a political organism, the term "homeostasis" means the tendency to maintain such an organism as much as possible and achievable [Savory, 1972. P. 282].

John Dickey identifies two main roles of the public administrator: 1) the adoption of new political programs; 2) the implementation of activities aimed at their realization and maintenance, which includes ensuring homeostasis – the tendency to maintain the existing program in a sustainable state, despite numerous and possibly significant interventions in the current state of affairs [Dickey, 2009. P. 275]. Examples of homeostasis in public administration are difficult to find at the stage of adoption of new political programs, but it articulates in the stages of direct implementation of activities within such programs and the maintenance of a political strategy [Dickey, 2009. P. 83].

According to Michael Howlett, the basic model for changing public policy is the non-linear dynamics of

"intermittent equilibrium", in which long-term public policy sequences gradually move into new sequences and equilibrium. This model is based in part on analogs of processes in evolutionary biology. And one of the most popular mechanisms explaining the stability of such equilibrium is the mechanism of homeostasis, that is, a process analogous to the process of regulating human temperature, through which complex systems interact with the external environment while retaining their own basic characteristics [Howlett, 2009. P. 244]. Michael Howlett notes a system-limited homeostasis, in which various forms of negative feedback processes, such as the adaptation of institutional rules and the behavior of main actors, allow political systems to constantly adapt to changing circumstances, retaining their fundamental form until such an internal equilibrium is disturbed by changes in the external environment that exceed internal changes in the system, contributing to its phase transition to a new stable equilibrium [Howlett, 2009. P. 244].

Homeostasis in public administration is also a "factor of least action" (a factor of minimization and simplification) since often the state administration (public administration body) does not seek to spend more effort on activities of the implemented political program and its maintenance than it is necessary to continue its implementation [Dickey, 2009. P. 276].

### **The author's concept of homeostasis for the system of public administration**

The ability of the public administration system to maintain its homeostasis is determined, according to our concept, by its following properties:

- the full-fledged relevant managerial ability of the state;

- the necessary and sufficient measure of resistance (resilience, stability) of the public administration system to the impact of negative factors (embraces the concepts of sustainability – "the ability of the object to return to the initial regime or close to it after disturbances", stabilability – a "stable" object continuously maintains its stability for some time, survivability – the properties of the object to resist disturbances, preventing their cascading development with massive disruptions of the object (system), and to restore the original state of the object or the one close to it);

- the necessary and sufficient measure of the resilience of the public administration system to negative factors (it means not so much the ability of the public administration system and the state as a whole to prevent significant difficulties ("distress"), but the ability to experience difficulties with the least possible loss to the state's managerial ability);

- the necessary and sufficient "antifragility" of the public administration system (according to Nassim Taleb's concept, "antifragility is not at all what elasticity, flexibility or invulnerability is, flexible or elastic resists shake and remains the same, anti-frail, passing through trials, is better than before") [Taleb, 2012];

the presence in society (in the particular state) of a necessary and sufficient measure of “allelonomy” reflecting a state of society in which every member of society acts as a carrier and producer of order; a syncretic (a determinant of order, in the terminology of Prigozhin A. I. [Prigozhin, 2007. P. 20]), with provision of necessary, sufficient and stable solidarity of the society and support of its state;

the necessary and sufficient measure of the negentropic potential of the public administration system [Ponkin, **Entropy, Negentropy and Order in Public Administration and Law**, 2016];

the optimality of the integral architecture and interrelations in the state of superimposed “nested” or otherwise mutually overlapping existing orders (public order, legal order, law and order, public policy, and autonomous orders [Ponkin, **The Theory of Public Administration: The Content of the Concept of “Order”**, 2016]), relevant and effective consistency of such orderliness.

It appears, according to the author’s definition, that homeostasis of the public administration system is a real and/or expressive state of the state management system integrally reflecting the optimal non-entropy for it (including the ability to maintain a specified degree of disorder or entropy), stability (maintaining the conditional consistency of its internal state and its adaptation to the external environment), conservatism, and equilibrium (ability to restore the lost balance), stability, resistance

and resilience implemented in the specified parameters of the public administration system.

### Conclusion

The concept of the “new public administration” assumes active involvement of mechanisms of prudential (internal preventive) audit of risks and uncertainties, the facts, causes and consequences of errors and other failures in public administration and risk-oriented government tools (including through the use of artificial intelligence systems); and also assumes the existence of a public space for appropriate assessment and discussion.

However, due to excessive enthusiasm for the adoption of all kinds of concepts, strategies and doctrines, the number of which has exceeded all reasonable boundaries in recent years, there has been lost the understanding of the need to develop effective mechanisms for ensuring efficiency, sustainability and resilience to systemic failures, errors and other defects in public administration, to heteronomy and to other negative determinants.

Maintaining the homeostasis of the public administration system is very important for the purposes and process of public administration. It is imperatives and intentions of retention of the homeostasis of the system of state administration that are the grounds, conditions, and reasons for the prevention of precocious, unreasonable (with calculated risks and consequences), and questionable reforms in public administration.

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## ЧТО ЧИТАТЬ



**Бакурова Н.Н. Государственное управление в административно-политической сфере** Учебное пособие для магистров. М.: Издательство «Проспект», 2018. 176 с.

Учебное пособие написано в соответствии с требованиями ФГОС ВПО по направлению подготовки 030900. В учебном пособии приводится общая характеристика государственного управления в административно-политической сфере и классификация субъектов управления. Автор подробно рассматривает основные особенности организации управления, систему органов, их функции и полномочия. Учебное пособие содержит план семинарских занятий по темам, контрольные вопросы, задачи, глоссарий и т.п. Законодательство приведено по состоянию на 1 октября 2017 года.



**Василевич С.Г. Государственное управление. Проблемы и пути повышения эффективности.** М.: Издательство «ЮНИТИ», 2017. 351 с.

Рассматриваются проблемные аспекты правового обеспечения эффективного государственного управления. Анализируются взгляды ученых относительно сущности и содержания государственного управления, раскрываются его понятие, цели. Обосновывается необходимость определения критериев эффективности управления, отражена роль в этой сфере отношений государства и права. Книга написана на основе анализа законодательства и правоприменительной практики членов Союзного государства – Российской Федерации и Республики Беларусь. Монография будет полезна ученым и практикам, занимающимся проблемами государственного управления, нормотворческой и правоприменительной деятельностью.



**Государственное управление научно-инновационным развитием. Новое в мировой практике.** Монография / Отв. ред. В.И. Кушлин. М.: Издательство «Проспект», 2018. 272 с.

В монографии на основе анализа современной мировой практики государственной поддержки перспективных научно-инновационных программ осуществлена комплексная оценка формируемых в разных странах механизмов государственного управления инновационным развитием в плане их результативности и определены возможности творческого использования лучших из этих практик в современных российских условиях. Книга будет полезна как научным, так и практическим работникам, занимающимся и интересующимся стратегическими проблемами современной экономики и возможностями более активного включения творческих, научно-инновационных факторов для преодоления вызовов и опасностей для человечества, остро обозначившихся на современном этапе глобального экономического развития.