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NATIONAL SAFETY AND THE STRATEGY OF THE PROFESSIONAL MILITARY EDUCATION DEVELOPMENT IN UKRAINE: ANALYTICAL POINT OF VIEW TO INNOVATIVE TENDENCIES

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ABSTRACT

This article considers the strategy of the professional military education development in Ukraine in context of the threats for national safety. The analytical point of view to innovative tendencies in this sphere is presented. Making accent to institutional leaders who encourage innovation through protecting academic freedom and who are open to learning through experimentation and reflection, becoming most important in contemporary conditions warfighting, such new forms of war, as “hybrid” war like main threat for national and military safety.

Keywords: development, national safety, professional military education, military education military-safety, strategy, threat.

Introduction

Contemporary warfighting confirms thought a new challenges posed by technologies such as artificial intelligence contain the potential to change the character of war in unpredictable ways, shifts in demography and climate offer the potential to stoke new conflicts, terrorists can use advanced communications to launch attacks with little warning. There is no better way of inculcating and fostering this crucial capacity than through the arts, humanities, and social sciences – in other words, through a liberal education. This much can be seen from the wealth of studies showing the success liberal arts students enjoy in the worlds of finance, business, technology, and politics. And in this reality Ukraine exists today, because is tru that the global security environment is complex, and calls on the military to interact and engage with multiple and diverse cultures in different political contexts, in order to reduce the risk of escalating conflict and to ease relationship building between different states.

Formulation of the problem. In this aspect, and it is actual not only for Ukraine, in the contemporary reality is necessity to apply the Armed Force more force more rapidly and more effectively when required, because, as the analytics accenting, “the Future Operating Environment 2035 forecasts a highly technology enabled future joint warfighting environment. The rapid development of cyber operations, hypersonics, human-machine teaming and novel weapon systems will significantly challenge the nature of war and how we prepare our people to exploit emerging technology. Preparing our people to operate within environments that are complex, congested, contested and ambiguous will require great thought and foresight and careful consideration and planning” [8]. This strategic vision is a main base of development Armed



Forces conceptual model, because really an intellectually prepared force, the officers at first, will be able to achieve the strategic objectives and remain adaptive to evolving geopolitics, technological disruptions and demographic shifts. And this situation influence on the main tendencies of the professional military education (PME) strategy development.

Analysis of recent research and publications. Experts in military education problems make main accent to the incessant pace of technological change, a renewal of serious great power competition, and persistent political pressure to decrease military budgets have all contributed to a sense that intellectual agility and innovation are crucial to ensuring that Western armed forces remain competitive in the mid-21st century. Other position connected with “how to foster independent and original thought is thus an issue of critical importance, and questions are rightly being asked about whether the existing system of military education, centered around the war and staff colleges, is suitable for the task which confronts it” [1]. But at the present time in whole there is relatively little published research around best practice and/or key performance indicators in military education generally, or within Command and Staff courses more specifically. Much of the literature that does exist is less than complimentary about traditional PME, delivered by military institutions, especially, in the American publications that dedicated to these questions. For American PME the main problem is fact that the current system fails to produce the sort of staff officers required to make effective strategic and command decisions, because military education system lost link between educational and professional components. In this case the interaction between military and academic accreditation systems at staff colleges tend to produce “generic, unfocused strategic studies curricula that fail to provide the specific skills the military needs” [7.]. But that military officers require ongoing development of their professional skills, of which staff work plays an absolutely crucial part, is obvious for American experts. That is why they focused to necessity to build and develop the new system, which was based upon “the study of concrete questions regarding organization and administration, and in solving strategical and tactical problems both in quarters and out of doors” [9].

In a whole the USA professional military education system focuses on leadership, management theory and practices, military history and operational doctrine, national defense policy, planning and decision-making, legal responsibilities, and professional ethics [12]. Emphasis is on enhancing the ability to function effectively as a leader and team member, and in staff positions of combined arms and joint service organizations. And experiential, case-based interactive learning with extensive use of simulation devices and practical field applications predominate the instructional methodologies. The PME covers a wide range of activities. In one sense it refers to a plethora of training, continuing education, and other activities designed to provide development to members of the military at various points in their career and to prepare them for the next level of responsibilities [17]. But American PME is an object of debates, where represented two main sides: critique of the civilian education priority in programs of military education and supporting of needs to entry in this programs more components of civilian education.

Point of view at first approach can be represented, for example, by Thornhill’s critique of the “generic, unfocused strategic studies curricula” which prevail at some institutions by empowering civilian academics to teach upon a wider diversity of challenging topics [16]. Other point of view can be illustrated by the General M. Dempsey position. He said, that “at a time, when armed forces insist that uncertainty is a dominating feature of future operations, education – in the truest sense of the word – has never been more important for modern militaries than it is today. As such, debate about how best to deliver that education is healthy and beneficial, and all of those involved



in professional military education ought to be proactively seeking opportunities for improvement and, if necessary, change” [4]. One of the ways in which professional military education could change in future – is by empowering civilian educators to play a larger role, and one less constrained by a rigid curriculum [5]. In result, M. Dempsey argues the purpose of PME is “...to develop leaders by conveying a broad body of professional knowledge and developing the habits of mind central to the profession” [2]. In addition to critical thinking, he lists the ability to understand the security environment, respond to uncertainty, anticipate and lead transitions through change, and operate with trust, understanding, and empathy as important skills for future military leaders [4]. Traditional military education, then, does not seem to be the answer for the development of modern military leaders, even if the need for ongoing military education is undeniable. In this case many forgets that in military education, which connected with a constantly changes of operating environment, “peacekeeping or peace enforcement and humanitarian relief operations pose very different types of challenges to those found in ‘traditional’ high-intensity, state-on-state warfare” [18, p. 143]. That determines the necessity of PME development strategy revision as a background of PME system (at first, national) rebuilding according with main tendencies operating environment development and new tasks that armed forces deciding, which characterising by issue of development such warfighting forms as “hybrid” war.

The purpose of the article is To present some base ways of deciding the problem of military education at the military academies and institutions – actual and perspectives – at experience of the military education system transformation in conditions “hybrid” warfighting as the main threat for national safety.

Presenting main material. National systems of military education, which want to make changes not only in this sphere, but transforming the armed forced in direct of NATO’s standards and procedures adopting, must pay attention to best practice is used in education of other countries. In this case the phrase “best practice” is used in education for a variety of systems, procedures, and behaviors which “may or may not have been rigorously evaluated” [1]. And as C. Goode mark [10], Arendale, while questioning the frequent use of the term, defines best practice as the “wide range of individual activities, policies, and programmatic approaches to achieve positive changes in student attitudes or academic behaviors” [1]. At present time the higher-level professional military education aims to develop strategic leaders and commanders; professionals who may be diplomats and/or scholars, as well as soldiers [13]. Command and Staff Courses, in this case, really provide and have potential for advanced education and training for mid-career personnel who have already achieved a certain status and military rank. But for focusing on professional military education is need make to accord such components as military education system in whole (at all educational and training levels), capability system high non-military education for ensuring the purposes of strategy level complexity achievement and system of the officers’ career growth.

At the same time, the changes of the military professional education have a complexity character. Those changes must make in structure, form in content of professional military education as a whole, because, as N. Murray asserts, professional military education “needs to change both what it is doing and how it is doing it” [14, p. 13]. This is an actual in aspect of the practices around assessment design and administration within military education should be regularly reviewed. But this is especially actually in condition contemporary warfighting – “hybrid” war in which some countries (for example, Ukraine) actively take part. Those conditions dictate a specific needs for define the ways of professional military education development. And not only conducting



institutional assessments and self-assessments [3] is a strategy for designing and developing quality military education system by new level.

In this aspect E. Hoffer connects “the central task of education” with “to implant a will and facility for learning; it should produce not learned but learning people” [20]. Broadly interpreted, this conception of education implies that learning is contingent and continuous. Learning is contingent in the sense that it depends on a permissive institutional structure and environment, and on individual disposition and desire. Learning is continuous in the sense that even though one may formally graduate from an educational institution, it is a life-long activity. However, unlike training which is inherently routine in nature and which, for the most part, focuses on “what to think”, education is about developing the intellectual curiosity of the individual through its focus and emphasis on “why and how to think”. While it is important to make this distinction, training and education should not be seen as mutually exclusive activities. On the contrary, they both in addition to experience are necessary for the complete development of an officer. The necessity of education for armed forces personnel arises from their unique employment which includes, among other things, defense of the nation and provision and maintenance of peace and security abroad. To be successful at these tasks, armed forces members need to be intellectually agile in order to out-think their adversary and to be able to work with allies and increasingly non-armed forces personnel. Additionally the necessity of education inheres in the need as W. Murray put it: “to prepare [armed forces personnel] for missions across the full spectrum of conflict, ranging from deterrence at the high end to peace keeping and enforcement at the low end” [19, p 4.]. Thus, professional military education is therefore designed to prepare professional militaries to deal with the ever increasing ambiguities and multi-layered contemporary security environment and battle space. A PME curriculum should be broad enough to provide new academic horizons and deep enough to whet the intellectual curiosity of all officers [8].

In contemporary situation is important to define those factors which influence to process of the professional military education system development (structure, forms, task, and results of it). In this context E. Arnold identifies several factors that influence an officer’s ability to achieve the requisite level of expertise. These are “the changing nature of weapons systems, tactics and techniques of employment, and the social, political, and economic environment. At the lower levels of the profession, a military officer is concerned with correct employment of weapons systems and corrects application of tactics and techniques. This is the apprentice level of expertise. As an officer progresses in rank and responsibility, he must learn how to combine weapons systems and units, generally within a single service, to generate the most advantageous effect upon adversaries – a journeyman level of expertise. Finally, as an officer arrives near the top of the profession, he must understand how and under what circumstances to employ force to achieve political objectives in the domestic and international environments. Because of the diversity of knowledge required to meet all the demands placed on a military professional throughout his career and the virtual irrelevance of the knowledge required late in an officer's career to the pressing demands of his early service, a single, massive dose of education (as in medical school, for example) with short, periodic updates would not suffice. Additionally, it is not economically sound to invest the resources or the time to teach every entry-level officer the knowledge and skills of seasoned professionals since many will never achieve that position” [6, p. 4-5]. J. Edwin argued, that a “professional development system that essentially spans an officer's career, interspersed with periods of formal education and field experience is required”. In his opinion, “the Army's Professional Military Education System is just such a system. The Military



Education Policy Document published by the Chairman, Joint Chiefs of Staff prescribes a five-level education system covering an officer's entire career. The system begins at the pre-commissioning level. It ends at the general officer level with a capstone course. This study will not directly address the highest and lowest levels of the system. The precommissioning level generally refers to education received through the nation's public and private education system. Military policies and reforms have little impact there. The Military Academy at West Point and other public military schools are notable exceptions. At the other end of the spectrum, the capstone course for all newly selected general officers will only receive cursory treatment. Few officers achieve requisite rank to attend that school" [6, p. 6]. But in Ukraine, truly the transition process is underway, but in whole the national military education system (first at all, as the Army Officer Education System) is a system with the singular theme of preparing officers for the conduct of war at the three levels: tactical, operational, and strategic. These levels (like in other countries' system of military education), connected with the three levels of military education, that create a useful conceptual framework within which to place the complete education system. However, it must continue to change to reflect the changing nature of war and society, because "the challenge for the system is to identify and implement necessary changes before the system's shortcomings are manifested in battlefield failure" [6., p. 32-33].

In other side, as M. Hennessey rightly accents, "professional military education scholars, administrators, and educational methodologists should incorporate frequent, methodologically rigorous interventions – or experiments – to test educational strategies" [11]. But it's right, at first, in aspect of professional military education strategy forming, developing and changing. Strategy of the professional military education must be testing on the each step of it implementation, that can to ensure in-time correction of it according the changes of operating environment, and main tasks that armed forces deciding, probably changes in future, etc. At the same time, as U. Romanovs accents, "no military leaders have ever gotten rid of the questions outside the military scope, neither during the planning nor execution of operations. Military planners at all levels have to appreciate the complexity of the contemporary operating environment, which is rapidly changing due to the significant number of variables (military, religious, ethnic, economic, information, etc.); populated with a large number of non-state actors; and influenced by the rapid development and spread of information technologies. The contemporary operational environment requires a comprehensive approach to problem solving and it sets high demands for planners and decision-makers. In order to operate effectively, military decision makers need abilities which are related to the category of productive cognitive and interactive skills associated with critical thinking, creativity, problem-solving and interpersonal communications" [15]. As an answer on those questions is the system must change whenever shortfalls occur in any of these areas. That is why Arnold assets, "however, in its quest to correct deficiencies in one area, it is imperative that the Army not degrade other areas of educational focus that are still highly relevant and necessary", and if "the United States Army Officer Education System has grown into something quite different from the Prussian model built around the Kriegsakademie" [6, p. 42]. According this situation Ukrainian model of military education system development and appropriate strategy at present time cannot abandon the concept of a "unified academy". However, this concept has recently begun to attract attention again, for example, in strategic approach to military education system building at Great Britain. Taking of this into consideration, in fact really one principle of best practice in PME could be to ensure that critical thinking is incorporated at all stages of a



military curriculum, in order to generate better leaders, and more successful military academics, in the long run.

This is actual for many state's military's schoolhouses. Is meant the expanding the experience of teaching and learning, the expanding the context of contemporary military education, especially in case of structural reforms of military education system, because it is true that context is key. In this case arising one important question about assessment of military education in whole: from content of it until the organization and structural build of it, including correlation between purposes and out-come. This all in a whole connected with common context of contemporary military education, and the national PME system must take to account the NATO's procedures and standards, which is using for joiny operations planning. The main purpose of it is needed to make adaptive changes in the content and structure of the officers and military specialist professional training. All this actualizing the necessity of the environment factors influence in-time take in attention. In result, keep the stability and flexibility of the system in the process of answer on changes is really. In fact, we can see expansion of the sphere and capabilities for change management, realization of leading potential of the system, which defining and implementing strategic purposes and key initiatives not only as a answer to the actual need, but on the background of prognostic analyze of varietal changes in the system for future periods. The system of strategic purposes and key initiatives, as an invariants way of the purposes achieve in some periods of time, making abilities for adaptive transfer in frame of system state changes, and acquisition by the system the new qualities. The system must be based on the scenario approach. This is minimizing risks of response crisis. In these conditions reforming of the military education system will be optimized by the conceptual framework program documents, which contextually closed to strategy of the defined key initiatives implementation and achievement the strategic purposes.

Professionalization of military education (development of the professional military education system) based on the principle of professional development. As result, professional military education is an ongoing process of the professionals and specialists in military sphere training for growth their knowledge about science and art of war. Integrative character of the person's professional development defining the common tendency of the military education professionalization, that provide integration of the governing bodies by the military education, military education institutions, current education and professional standards, levels of qualification, law database etc. in the united complex of the officers and military specialists' professional training. Professionalization of the military education doing on the base of the military specialists' professional training process of improvement, and is an integral part of the military education system. In this case that system need in improvement of itself character and content considering the influence of the operational environment factors, strategic course of the state development, participation of the state in armed conflicts on its territory and beyond etc. That's in whole is an object of the theoretical and methodological think for the military education professionalization, the system view of point forming on the level of conceptualization. In fact, must be decided the question about connection between the key initiatives and strategic purposes in the framework of the program document for ensuring the military education system transformation's forming. The officer's professional military education policy can be and must changing in aspect of the a more flexible model that better honors and capitalizes on the curricular expertise and teaching abilities of individual faculty, a model, which appeals to faculty strengths and improves students' incoming educational deficiencies.



Conclusion

Development of professional military education policy and strategy connected with the need to overcome obstacles to a top-tier military learning experience not only include the usual subjects of funding or technology, but fixed mindsets and tired teaching practices. Institutional leaders who encourage innovation through protecting academic freedom and who are open to learning through experimentation and reflection, becoming most important in contemporary conditions warfighting, such new forms of war, as “hybrid” war. In framework of new models and strategies of military education professional military education institutions really can take tangible steps toward achieving real intellectual overmatch. However, for this they must produce the policy of military education, which be found an optimal correlation between main priorities, financial needs and public representation main results of military education system in the public and individual consciousness.

On this way need to choose optimal balance which will make it possible to preserve national traditions and make the most of the experience of other countries. For Ukraine, like other post-soviet countries, which are on the way to euro-Atlantic integration, is important to take experience of NATO-members states, but at the same time to keep main form, in which the military education carried out. This form – union two main levels – the academic and professional education, because Ukraine, like USA and Grate Britain, have a branch of knowledge “military science” that it should and can develop. In other side, professional military education must be oriented to NATO’s procedures and standards, which is using for joint operation planning. The main purpose of it is needed to make adaptive changes in the content and structure of the officers and military specialist professional education and training. As result, the necessity and possibility to consider influence of factors of operational environment time-to-time actualizing. There are making condition for keeping the stability and flexibility of the military education system, as a whole, that can to ensure Armed Forces by officers and military specialist which are ready for such new calls of operational environment, as “hybrid” war.

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FEATURES OF THE FORMATION AND MANAGEMENT OF THE PERSONNEL SECURITY SYSTEM OF ENTERPRISES

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ABSTRACT

The article examines the peculiarities of the formation and management of the company's personnel security system. The author's model of personnel security management at the enterprise is proposed and its components are presented. It was concluded that the non-systematic nature of measures to ensure personnel security leads to the fact that a certain number of enterprises in the process of conducting business activities encounter problems that could be avoided if the entrepreneur was familiar with the method of forming the personnel security of the enterprise.

Keywords: personnel security, enterprise, components of personnel security, management.

Introduction

The problem of enterprise security goes back to the time when the victory of bourgeois revolutions in Western Europe and the industrial revolutions of the 18th – early 19th century established the dominance of the financial and industrial bourgeoisie, providing vast opportunities for the development of enterprises. The industrial revolution, which took place in the context of free competition, caused the unprecedented explosion of technological progress, dramatically changing the structure of the capitalist economy and its organizational forms. The formation of principles of disciplinary natural science in the late 18th century and the first half of the 19th century took place amidst the sharply increasing productive role of science, the transformation of scientific knowledge into a special product that had a commodity price and generated profit during its industrial consumption. In this period, the system of applied and engineering sciences began to develop as an intermediary between fundamental knowledge and production.

Research results. The late 19th and early 20th centuries were characterized by the fact that the enterprise management deepened considerably; the use of decentralization allowed reaching the best possible combination of special advantages that large and small business entities had within a joint venture. Accounting evolved, as P.-F. Drucker noted, from the usual bookkeeping to analysis and control. Planning evolved from the annoying Gantt charts of 1917-1918 to the scientific planning of military production [1]. P. Drucker stresses that any enterprise rapidly fails if it does not adopt innovations. Moreover, he mentions, any organization fails if the proper level of management is not provided [1].

I. Ansoff raises the problem of strategic management and, considering a strategy as a management institution, focuses on personnel management [2]. Ch. Argyris, raising the problem of personnel management, mentions that it is one of the most important components of the enterprise functioning [3]. R. Heat refers to crisis management as a component of enterprise security [4].

Thus, the problem of personnel security in its origins was related to ensuring the competitiveness of enterprises as a condition for economic power and national security (Fig. 1).

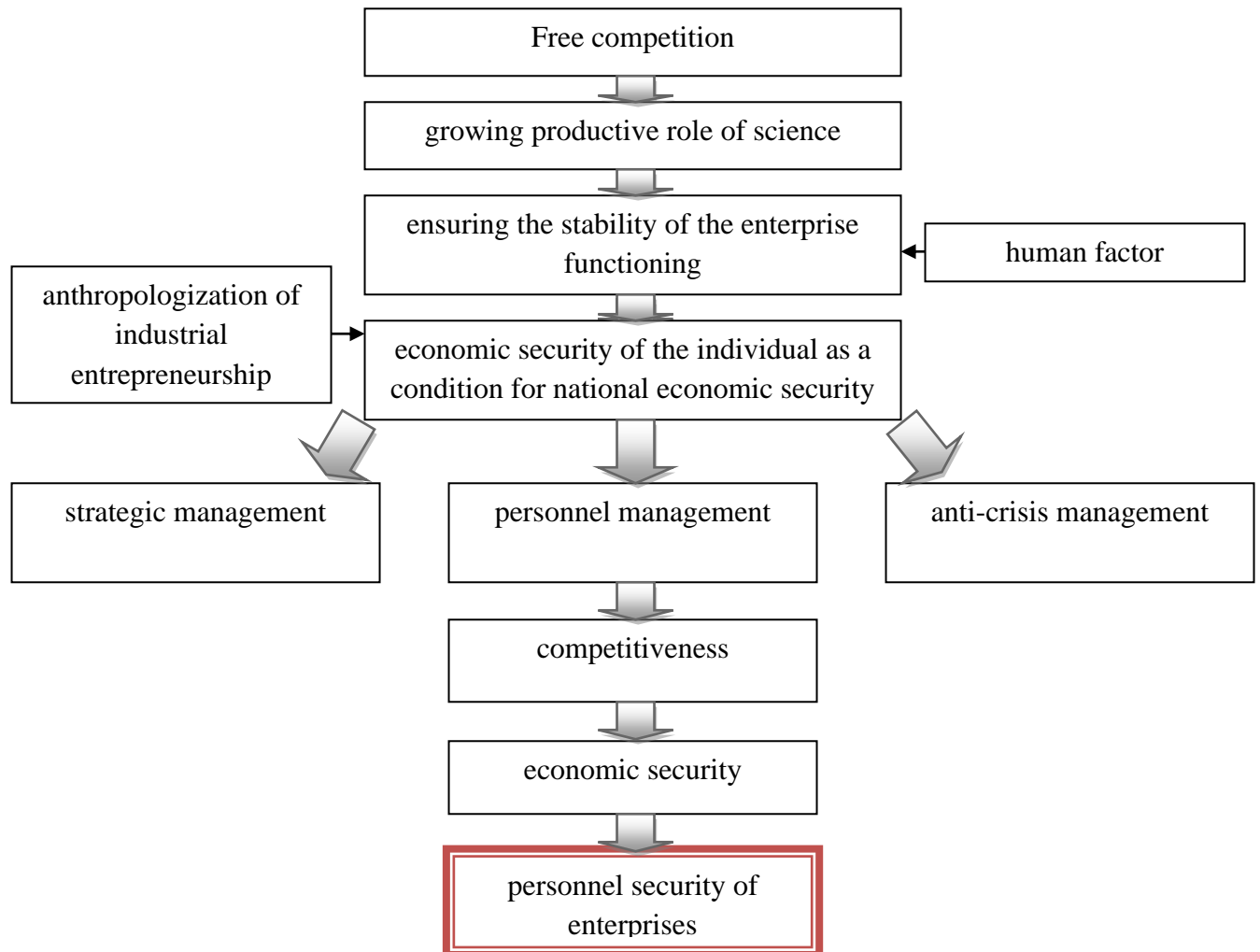


Figure 1. Formation of economic and personnel security of enterprises *

**Developed by the author based on [1,2,3]*

In the 20th century, it was the need to create favorable conditions for the functioning of business structures and the stabilization of entrepreneurial activity as the foundation for economic and social development that activated research on personnel security. Interpretation of personnel security originates from the awareness of two forces gravitating over the world economy: the trend towards globalization and cyclical crisis phenomena. In the process of the most important economic changes – the increasing share of services in the economy, the outstripping development of production of unique goods that cannot be reproduced, the formation of production structures adequate to new conditions, we can see the



creation of objective prerequisites for the transformation of social values and the expansion of economic and personal freedom. At the same time, modern production more and more depends on the creative potential of human beings. Thus, for the first time in history, the economic and technological progress is not so much implemented in the increase in the volume of production or the improvement of products as in the changing development of the human potential, their attitude to themselves and their place in the world around [5]. In these conditions, one of the dominant problems is personnel management, and therefore personnel security, which acts as a component of the enterprise security. The concept of economic security of the enterprise is interpreted as a set of measures contributing to the financial stability of business entities in the market economy, protecting their interests from the influence of negative market processes. Enterprise security is a category showing the degree of harmonization in time and space of economic interests of the enterprise with interests of related entities of the external environment, acting outside the enterprise.

O.M. Kravtsova and M.V. Minkovska consider economic security of the enterprise as the one protecting vital interests from internal and external threats, which is formed by the owner and the enterprise staff using the system of legal, economic, organizational, engineering, social and psychological measures [6]. T. Sukhorukova interprets economic security of the enterprise as protection from negative influences and the ability to quickly eliminate various threats and adapt to existing conditions. L.I. Kozheniovski considers it as a certain objective state based on the absence of threat, perceptible subjectively through units or groupings [7].

O. Mishyn and S. Mishyna in their work 'The Essence of the Concept of Economic Security of the Enterprise' describe the state of security of business processes and their resource support, which contributes to the avoidance or prevention of internal and external threats and allows ensuring the stable functioning and expanded reproduction with minimal losses for the enterprise. Economic security of the enterprise is considered as a state of the enterprise, which means that the probability of undesirable changes in certain characteristics or parameters is low. O. Novikova mentions such condition of corporate resources (resources of capital, personnel, information and technology, machinery and equipment) and entrepreneurial capabilities that guarantees their most efficient use for stable functioning and dynamic scientific, technical and social development, prevention of internal and external negative impacts [9]. H. Prus considers economic security as a comprehensive characteristic of the achieved and expected results of the enterprise gained due to the coordination of goals and implying the rational use of resources [10]. N.V. Shtamburg in his work 'Features of Economic Security of Machine-



Building Enterprises' states, "Economic security means that the enterprise implements its interests, i.e. sells products in the proper quantity, is competitive, receives profit, operates stably, meets the needs of consumers, is able to protect itself from external and internal threats"[5]. I. Y. Burda describes economic security of the enterprise as the state reflecting the sustainability and balance, protection from the negative impact of internal and external environment, neutralization of threats to the efficiency of the use of available resources, elimination of obstacles in the implementation of vital interests and sustainable development [11].

When considering the system of functional components of enterprise security, one focuses on financial security interpreted as a system of qualitative and quantitative parameters of the financial condition of the organization, contributing to the guaranteed, timely provision of the necessary financial resources, the implementation of goals. N. Y. Reverchuk characterizes financial security as the one representing the ability to protect against possible financial expenses and prevent bankruptcy, achieving the most efficient use of corporate resources [12]. I.V. Nartova, L.V. Hnypa-Chernevetska and T.A. Budkova consider financial security as one of the important components of enterprise security. As to the latter, they mean reliable protection of the financial system of the country or an individual enterprise from internal and external threats [13]. K.V. Oriekhova and K.R. Tseluiko also prefer the financial functional component, comprehending it as a condition ensuring the prevention, identification and efficient neutralization of unpredictable threats that affect all areas of enterprise activities and occur from the personnel of the enterprise, in order to ensure its competitiveness. I.Y. Burda, noting financial security, interprets it as the one aimed at ensuring the financial stability of the enterprise, high financial performance, profitability, solvency and liquidity, the acceptable level of accounts receivable and payable and avoidance of bankruptcy [11].

Functional components of enterprise security includes intelligent and personnel, technical and technological, political and legal, information, environmental, and power security [4,8,11]. Technical and technological security is interpreted as the one determining potential dangers to the technological potential and developing adequate mechanisms to enhance the competitiveness of the enterprise [11]. Political and legal security as the one defining features of the legal support of enterprise operations, controlling enterprise's compliance with the current legislation, legitimate work with contractors and the authorities, as well as solving other problems of legal regulation. Information and analytical security as the one ensuring efficient enterprise operations within the information component of economic security of the enterprise, covering the integrity and prevention of threats



to information resources, maintaining the necessary level of awareness of owners, managers, employees of the enterprise, etc. The environmental component is interpreted as the one responsible for compliance with legally stipulated environmental standards, environmental requirements for the enterprise by the authorities and helping to minimize losses from environmental pollution of enterprise activities and potential penalties for violations of the legislation. Ensuring the physical safety of owners, managers and employees of the enterprise and the safety of their property, as well as the property, health and lives of their families is carried out within the power component of economic security of the enterprise. The market component of economic security is considered as the one focused on the establishment of compliance of enterprise business activities with the market needs and conditions, as well as determining and maintaining the competitive position of the enterprise, enhancing capabilities to adapt to market changes and implement the enterprise market strategy. The interface component manages enterprise's relationship with investors, suppliers and customers, public authorities, which can affect its economic security [1-3].

In the context of post-crisis instability, personnel security is interpreted as a dominant component. N. Loginova stresses that personnel security has become the most important component of economic security of the enterprise in the new circumstances [14]. S. Vasylychak and I. Matsiuniak interpret personnel security as the most important component of enterprise security, which is aimed at identifying, neutralizing, preventing and avoiding threats, dangers and risks to personnel and their intellectual potential, as well as those coming directly from them. I. Burda notes that the priority task of personnel security, as the one protecting and neutralizing intellectual potential threats, is to protect against risks and threats in order to create conditions for the most efficient management of personnel as a defining resource to ensure a high level of the enterprise competitiveness [11]. H. V. Kozachenko understands personnel security as a subsystem of the system guarantying the stable and maximally efficient functioning of the enterprise and the high potential for development in the future [15]. According to O. M. Shtaiier, the essence of personnel security is the fact that the latter contributes to the preservation and development of the intellectual potential of the enterprise, effective personnel management, staffing [5]. Y.M. Petrovych, L.H. Klioba and V.L. Klioba interpret personnel security as protection from possible material and financial losses related to unauthorized actions of personnel, making losses less than the specified norms [7]. H. Nazarova characterizes personnel security as an activity to create conditions for the stable functioning and development of the enterprise, ensuring the legally guaranteed interests of the enterprise, owners and staff from internal and external

threats [14]. N. Shvets notes personnel security as a process of preventing negative impacts on economic security of the enterprise caused by risks and threats associated with personnel, its intellectual potential and labor relations in general. According to A. Marenych, personnel security is a set of actions and relationships of personnel, resulting in the efficient economic functioning of the enterprise, its ability to withstand internal and external impacts and threats related to personnel, diagnostics and prediction of staff impact on performance, its intellectual potential and labor relations in general.

Y. Mandryk, operating the concept of intelligent and personnel security, means the enterprise's ability to prevent risks and threats to the labor organization, directly to the personnel, its labor and intellectual potential; labor relations in general, the ability to achieve economic growth using knowledge, skills, experience, cognitive and spiritual abilities of its employees, their intellectual level and other components in the changing environment, providing the steady growth rate of available intellectual capital, and hence safety of the enterprise as a whole [17] (Fig. 2.).

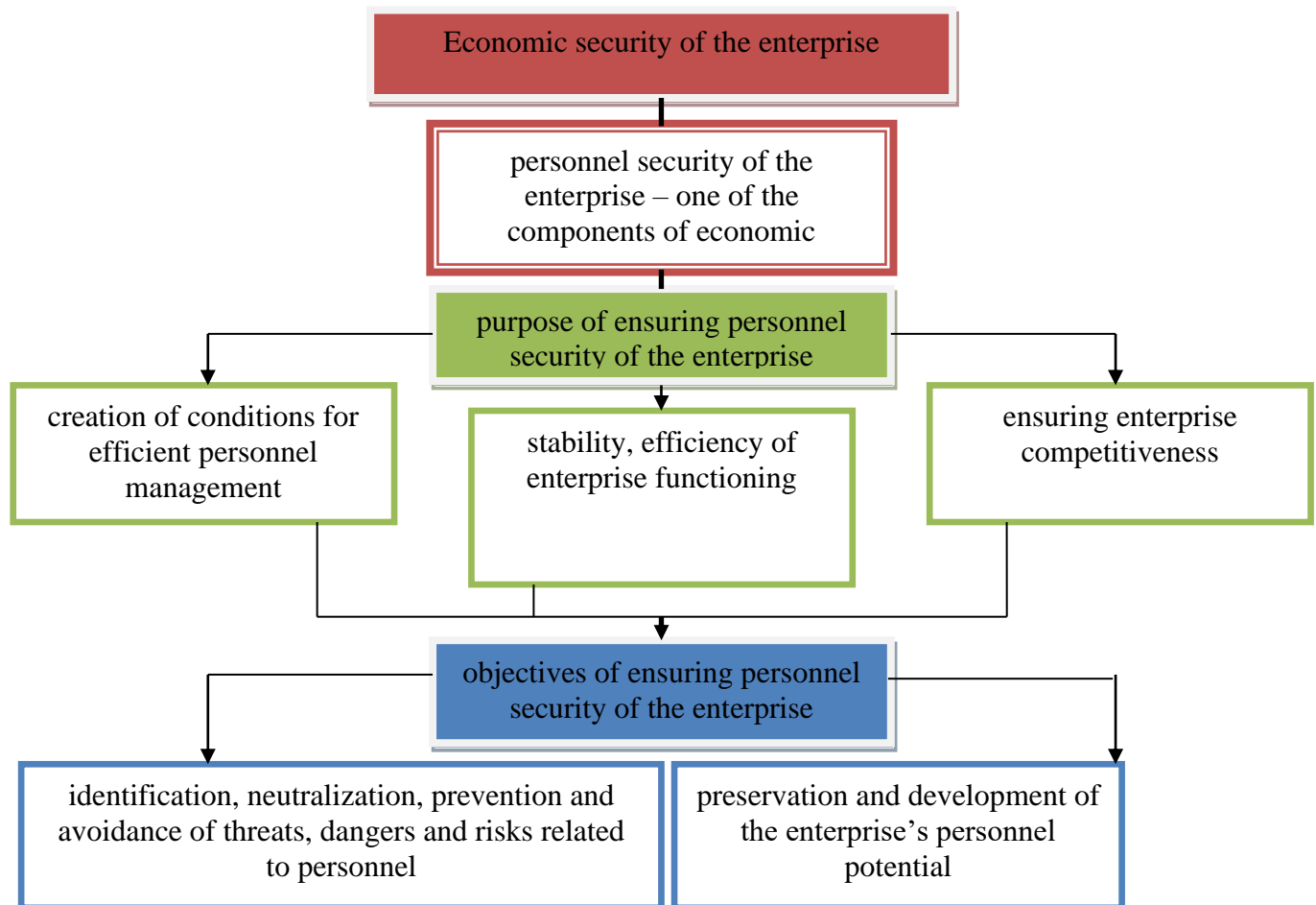


Figure 2. Formation of the enterprise personnel security system*

**Developed by the author based on [2,7,9,11,12,16].*

The internal structural characteristics of personnel security include the level of provision of the enterprise with personnel; rationality of the personnel structure; efficiency of labor potential and working hours; personnel movement; efficiency of labor regulation system and its organization; labor productivity; labor remuneration; personnel social protection (Fig. 3.).

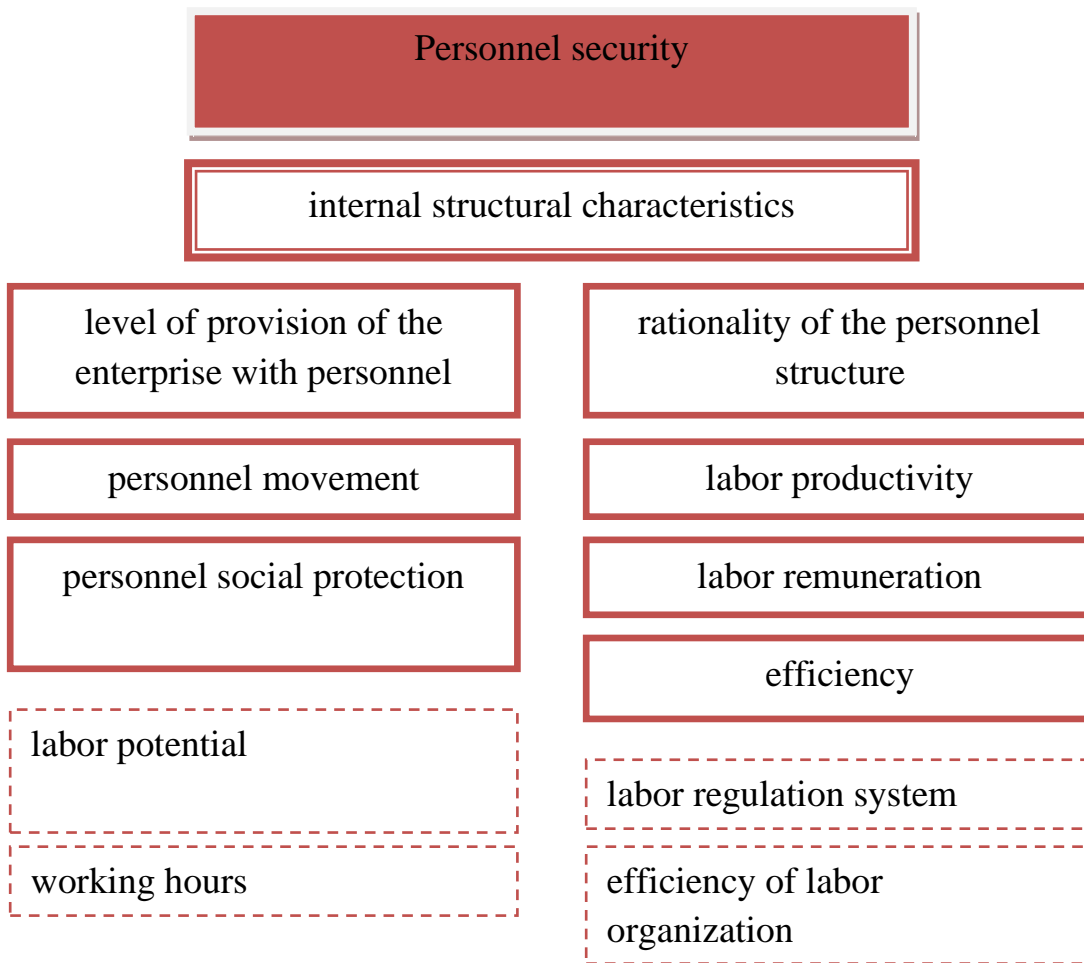


Figure 3. Personnel security system management *

**Developed by the author based on [16]*

Protection of the intelligent and personnel functional component of economic security is considered as the one including two areas of business entity operations: working with enterprise personnel aimed at improving the efficiency of all categories of personnel; preservation and development of intellectual potential, a set

of rights to intellectual property or its use (in particular, patents and licenses) and to replenishment of knowledge and professional experience of the enterprise staff [16]. L. M. Tomanevych distinguishes 4 types of security components in the structure of personnel security: life safety, social and motivational security, professional (anti-crisis) and anti-conflict security. Life safety includes health safety and physical security; social and motivational – career, financial, aesthetic, administrative and career security; professional – work safety, retirement and insurance, information, intelligent security; anti-conflict – psychological, communication, patriotic security [18]. N. Ilina, bypassing the aesthetic one, notes ethical safety, singles out administrative and independent instead of administrative and career, as well as unites psychological and communicative ones (Fig. 4).

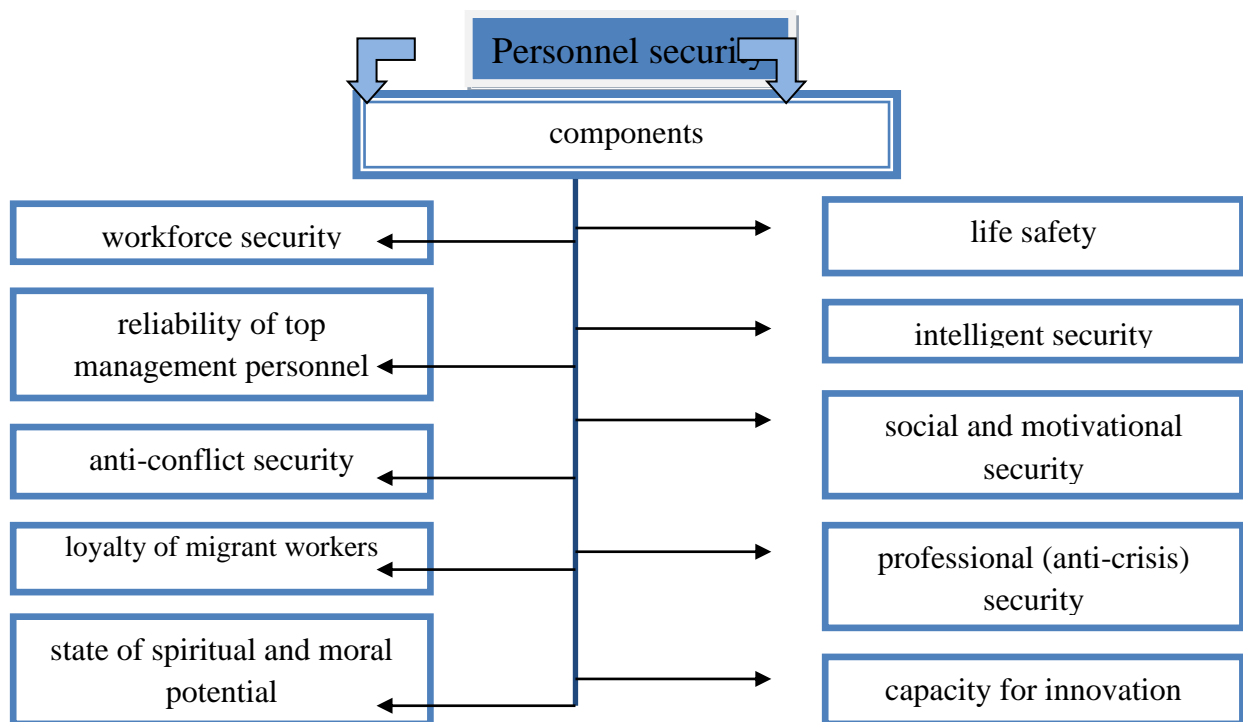


Figure 4. Components of personnel security*

*Developed by the author based on [18,14]

Forms of personnel security includes the state of the organization, the state of protection of the organization related to the personnel component; the process of preventing negative impacts on economic security of the enterprise; a set of measures against illegal actions; legal and information support of the personnel management process; staff management; a set of management measures [19].

Thus, the scientific literature interprets personnel security as a component of enterprise security. Its purpose is associated with the prevention and elimination of



personnel threats. Personnel security is perceived as the one guaranteeing the efficient stable functioning and development of the enterprise, its ability to withstand internal and external threats.

The postmodern situation does not mean destabilization of methodological principles. The demonopolization or denationalization of the methodology is a fruitful process enriching and democratizing the search for truth, liberating and stimulating research energy, as well as allowing grasping the subject more fully and comprehensively. However, methodical pluralism should not turn into methodological anarchism, into methodological indiscriminateness, arbitrariness. It is necessary to avoid methodological equalization – proclamation of the absolute equivalence of all research methods, denial of any subordination between them. The choice of research methods should be objectively conditioned by the subject of research, the need to reveal the truth, the probability of which can be proved and verified by a certain objective criterion, the capability of methods to reveal the social essence of the subject of research [20].

As part of research, we rely on general systems theory and apply the methodology of systematic analysis. The system is understood as a set of intrasystem elements. We consider the personnel system of the enterprise as a subsystem of the complex open system of enterprise security, which is a subsystem of the economic security system. The open system is interpreted as the one interacting with the environment. The environment means a set of elements with certain properties, which, despite the fact that they are not components of the system, affect its condition [7]. Decomposition of the macrosystem allows considering personnel security as a self-sufficient system. When detecting the intrasystem elements, we use the structural analysis.

Based on solutions of H. Haken [21], we interpret personnel security as a complex dynamic open system interacting with the environment at the information level. We mean the interchange of this system with other systems (subsystems) and the environment, the self-sufficiency of the non-equilibrium system and non-linearity, which determines the multivariance.

Note that the synergistic paradigm allows us to operate the category of enterprise personnel security as a multifunctional category functioning amidst a synergistic dialogue of different disciplinary matrices. Considering the category as the system, we appeal to [14] that substantiates the need to correlate multifunctional categories and offers a communicative concept of invariant stability with the simultaneous ability of relevant information fields of intrasystem category cores to change depending on information received at the inputs to the system. Appealing to the concept of invariant stability, we consider the category of enterprise personnel



security as a complex system functioning in the poly-scientific space and adapting to certain disciplinary environments, taking into account adaptive properties provided by relevant information fields of unchanging cores.

The study is based on dialectics, the doctrine of the greatest general regularities of development. Recently, there has been a tendency to deny the dialectical approach. We share the opinion that this is a reckless attitude. The point is that if distancing oneself from this or that approach is caused by a paradigm shift, it is different if it is predetermined by all sorts of excessive caution. A scientist should not go along with political layering, manipulations, etc. Certain ideological perversions, distortions, etc. have no right to take away rational tools from the researcher [22].

Taking the dialectical approach, we rely on the principle of historicism: we consider phenomena and processes in their development as the one having a progressive nature, taking into account contradictions, including internal ones. The historical approach to the subject of research includes the analysis of the key stages of its emergence, development and functioning. The principle of interconnection and interdependence is of great importance in the study. We consider the intrasystem elements of the studied systems as the ones being in interconnection and interaction. During research, we rely on such principle of dialectics as universality, which means the consideration of subjects and phenomena of reality along with internal and external relations. This approach allows us to comprehensively study the object with the step-by-step highlighting of its various sides. We follow the principles of objectivity and specificity while examining phenomena and categories.

The evolutionary approach allows us to consider economic security as a complex dynamic self-developing system, simultaneously adapting to the environment. The resource and functional approach allows us to consider economic security from the perspective of enterprise development as the one achieved by the efficient use of corporate resources by functional components. The structural and morphological approach allows us to consider the system as a subordinate hierarchical structure and distinguish leading structural elements. The protective approach allows considering the concept of enterprise economic security with the focus on prevention and protection from the negative impact of the external environment. The sustainable approach focuses on the ability of the enterprise as an economic system to balance and sustainability. The competitive approach allows us to study the enterprise from the perspective of competitive advantages. The harmonization approach allows us to study enterprise security in terms of harmonization of enterprise's interests with interests of the external environment. Each of these approaches allows comprehending a particular aspect. Together it leads to the comprehensive study of enterprise economic security and personnel security as its

component.

As part of research, we apply the hermeneutic approach, which gives an opportunity to interpret concepts and phenomena from the consumer's perspective. The hermeneutic approach allows us to interpret phenomena, processes and concepts, as well as detect features required to achieve the purpose of the study (Fig. 5.).

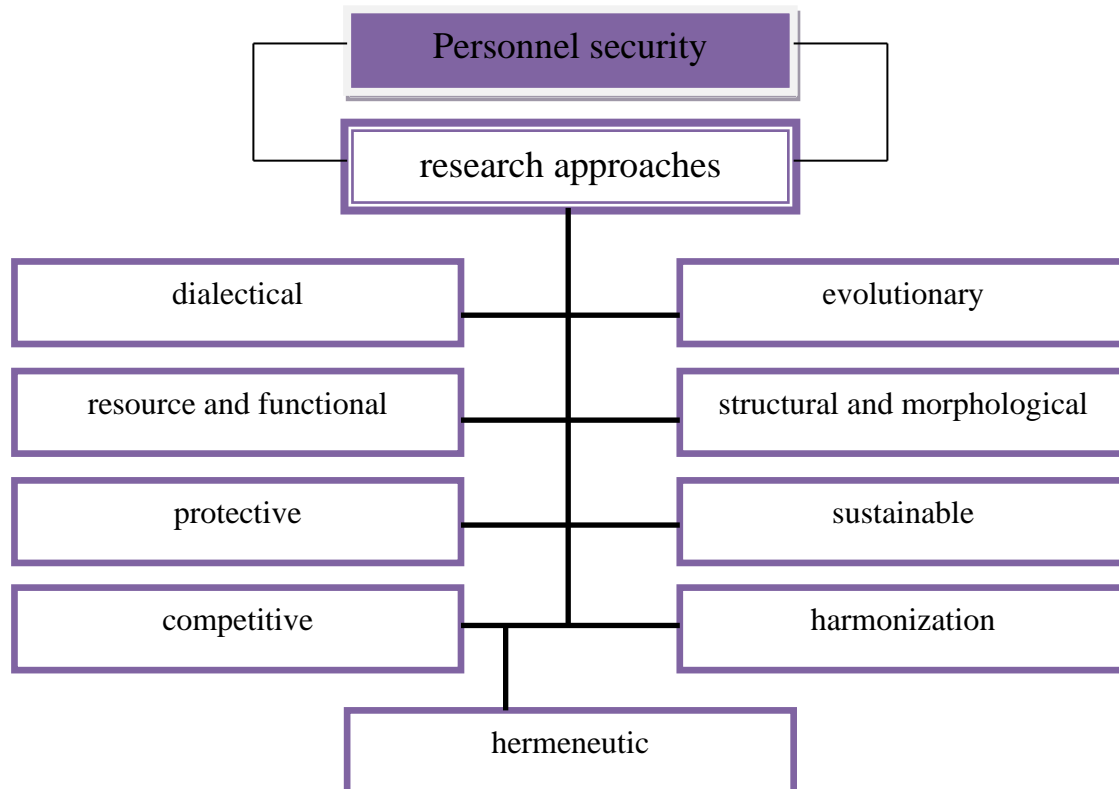


Figure 5. Methodical approaches to the formation and management of the personnel security system*

**Developed by the author based on [17]*

The non-systemic nature of personnel security measures leads to the fact that a certain number of enterprises face problems in entrepreneurial activity, which could have been avoided if the entrepreneur was aware of the methodology of formation of enterprise personnel security. Note that every operating enterprise has a personnel security system. It is an axiomatic statement. Even if the enterprise has not officially introduced the personnel security policy and confirmed the functioning of the personnel security system, such a system most likely exists. When beginning to work on such enterprises, one should primarily define the level of personnel security.



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DATA MANAGEMENT FROM MOBILE METEOROLOGICAL STATIONS FOR GENERAL AVIATION AND STATE INTEGRATED RESCUE SYSTEM

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ABSTRACT

The article deals with the problem of obtaining objective meteorological information for general aviation, which also includes the aviation component of the Integrated Rescue System of the Slovak Republic. The article aims to present a possible solution to the insufficient meteorological coverage of various parts of Slovakia, which would be inexpensive, and easy to install, with the possibility of subsequent sharing of data for the needs of the decision-making process in the environment of crisis management in emergencies, and at the same time would provide relevant data in normal aviation practice. The article identifies the specific needs of general aviation meteorological assurance based on the prevailing mode of flying in this segment of aviation. Based on this analysis, the article's authors describe the meteorological system used for educational purposes at the Aviation Faculty of the Technical University in Košice and propose a system for processing and further managing meteorological data obtained from this type of meteorological station. At the same time, the article mentions data-flow management, which ensures the sharing of data with other airspace users, which adds socio-economic benefits to the entire system in the form of increasing the level of flight safety and more efficient planning of flight routes. The article also deals with the case of providing crisis management, and metrological information from critical places, namely the operational deployment of mobile meteorological devices in areas with a declared emergency.

Introduction

General aviation (GA) is defined for statistical purposes as all civil aviation operations other than scheduled air services and other than scheduled air transportation for reward or for hire. For ICAO, statistically, these are general aviation activities classified as instructional flying, business flying, flying for the pleasure of flying, aviation work, and other flying [1]. General aviation also includes the aviation component of the Integrated Rescue System of the Slovak Republic [2]. The air rescue service is normally deployed in cases where it is convenient in terms of time or due to the unavailability of the classic Rapid Rescue Service, which uses ambulances. In emergencies, air rescue is a natural part of crisis management. The weather conditions have a significant influence on its deployment, not only at the place of deployment of the rescue helicopters, but also the weather conditions on the route to the deployment location as well as on the route to hospitals, or to other important nodes of critical infrastructure such as temporarily established crisis centers, etc. . Meteorological monitoring of these flight corridors is gaining importance for a correct and effective decision-making process within the framework of crisis management, which is often carried out under time and social stress. The absence of objective meteorological

information represents a safety risk for rescuers and people in need in the complex geomorphological environment of Slovakia. This article deals with the management of meteorological data for the purposes of the Aviation Component of the Rescue Integrated System as well as for the general public who are concerned with flying in general aviation conditions.

Formulation of the problem. Analysis of the situation and formulation of the problem. Despite its smaller area, the Slovak Republic is surprisingly geomorphologically complex. In the south of the country, there are relatively extensive lowlands with the lowest altitude of 98 m near the village of Klin nad Bodrogom. The north of Slovakia, on the other hand, is characterized by mountainous terrain, which includes the High Tatras, which form the highest mountain range within the Carpathian arc, with the highest peak, Gerlachovský štít, at an altitude of 2,655 m. With such complex mountain areas, it happens that significant differences in the state of the weather occur with the same weather situation. In the process of managing pre-flight preparation for general aviation or the air component of the integrated rescue system, objective monitoring of the weather is therefore extremely important. Data on visibility, cloud cover, air humidity, air pressure, and wind direction and speed have a major impact on the safety of aviation operations. Pilots of the Air Rescue Service often have only a few minutes to decide to assess the suitability of the weather conditions at the deployment location and on the flight path to the given intervention location [3]. In Slovakia, however, there is only a limited number of professional aviation weather stations located at the largest civilian airports and military air bases.

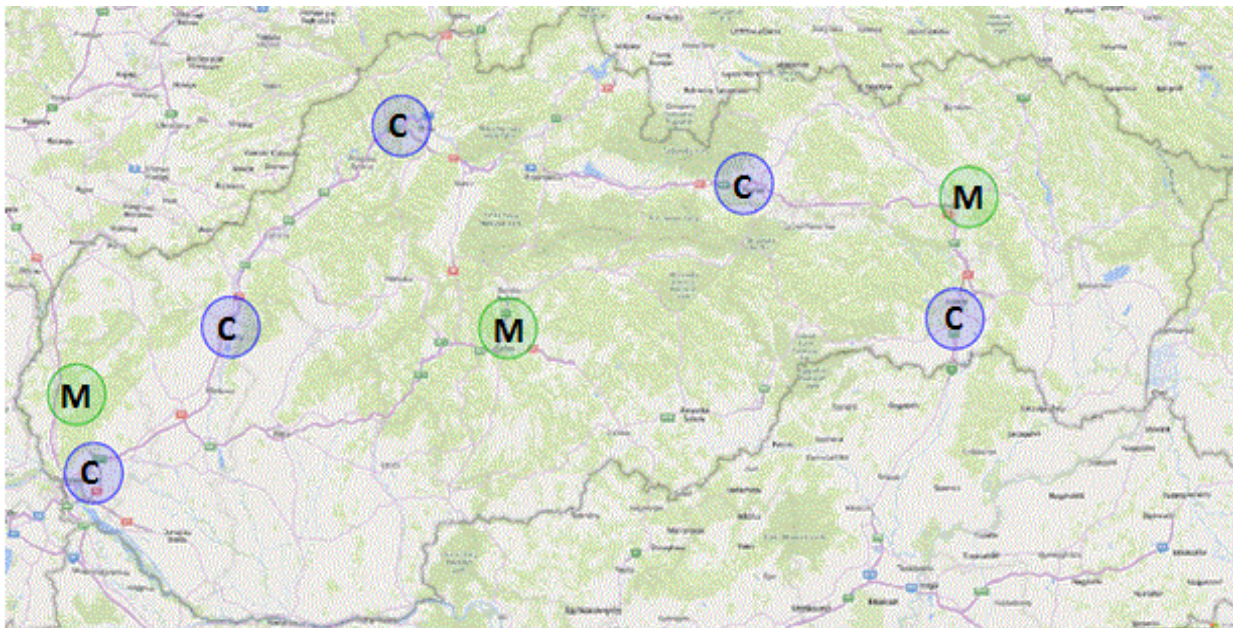


Figure 1. Spatial distribution of aerial meteorological stations on the territory of Slovakia. Map source: Bing

In Figure 1, aeronautical meteorological stations are distinguished in green as military stations and civil ones in blue [4]. This density of monitoring the weather condition is suitable for the management of "large" air traffic, whose planes climb to higher flight levels, and by overflying it, they have the opportunity to avoid adverse weather between the place of take-off and the place of

landing. General aviation and the air component of the integrated rescue system, however, operate at low altitudes on terrain that can largely reduce the possibilities of safe deployment of air rescue components within the framework of crisis management in special events. From the experience of the pilots of the airline company ATE transport Slovakia, which performs air rescue in the form of a non-state medical facility based on the permission of the Ministry of Health of the Slovak Republic [5], the need to provide objective meteorological data [3] emerges. Alternative cooperation with the operation of various types of equipment appears to be unprofessional and biased. Restaurant staff or service station staff often do not even have basic knowledge of meteorological restrictions for helicopters or airplanes, especially in mountainous areas where the risk of collision with mountain obstacles or the occurrence of areas with significant turbulence increases significantly. It is possible to assume a significant influence of local peculiarities on the state of the weather, especially in mountainous areas, when the local circulation conditions change due to the air flowing around mountain obstacles. If the rescue helicopter cannot be deployed from one base due to unfavorable weather, it is replaced by another helicopter from a sister base, provided that the weather conditions will be more suitable for the backup helicopter [Figure 2].

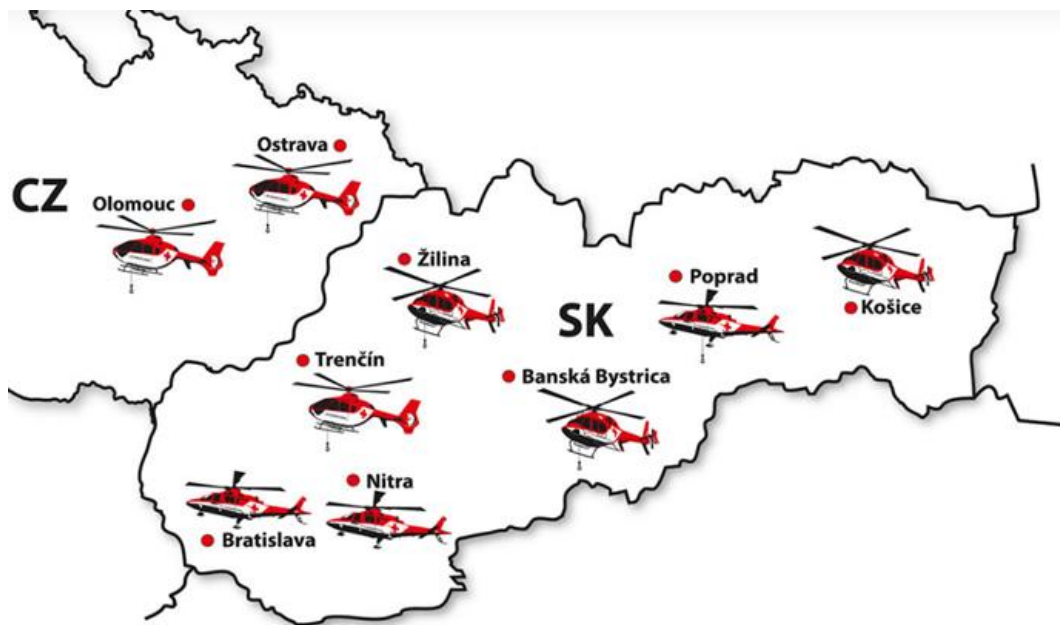


Figure 2. Deployment of the bases of the aviation component of the integrated rescue system in Slovakia and the Slovak Republic. Source: official website of ATE Transport Europe Source: <https://www.ate.sk/sk/vzzs/strediska>

In the process of managing the organization of a flight mission in crisis situations, the state of the weather means a decision-making element that significantly affects the decision-making process of the pilots and the management of the integrated rescue system. The time aspect plays a significant role in the case of rescue flights and thus contributes to the stress factor of dispatchers and pilots, which can lead to erroneous conclusions. Quality information is the basis for correct decisions. Meteorological monitoring of overflight corridors and locations with critical



infrastructure such as hospitals, general aviation airports, or areas of public interest is a prerequisite for providing objective information. Supplementing the professional meteorological network with automatic measuring devices connected to the informational meteorological network could thus eventually become an objective source of data in the process of decision-making management, not only for the components of the Integrated Rescue System but at the same time provide socio-economic benefits for general aviation [6], possibly additional social benefits for transport, energy, agriculture and other aspects of human activity that are related to the weather.

Results. General aviation, including the air component of the integrated rescue system, operates primarily at low altitudes. In case of adverse weather such as reduced visibility or low cloud cover, the risk of flying into areas that are not favorable for flying at such low altitudes increases. Objective information from the "grey" areas would contribute to the pilot's situational awareness. Solving the absence of meteorological data from uncovered areas can be solved by automatic meteorological stations known by the abbreviation AWOS. Even now, these stations are relatively densely distributed along the highway network in Slovakia, but exits from these stations are not accessible to the flying public. It is necessary to realize that the highway network does not coincide with the typical flight corridors of general aviation. Typical overflight areas for small planes are naturally created by valleys between mountains. By placing automatic stations in critical areas, the flying personnel of general aviation would obtain the necessary information for the operational management of flight routes in the pre-flight phase or, in the event of a sudden change in weather, even during the flight itself. Information coverage of non-monitored areas would thus eventually bring a benefit for the safety management of rescue helicopter crews [7], and at the same time, it would help to increase the efficiency of the costs associated with air traffic.

Identification of Suitable Meteorological Equipment. Currently, there is a wide range of different types of meteorological solutions of varying quality on the market. The options of these measuring devices correspond to their purchase price. If the station is located outside the area with the possibility of connecting to sources of electrical energy and data connection, the choice is narrowed down to autonomous devices. On unspecified means of transport, these stations could be operationally deployed in the area of interest and thus provide meteorological data for the components of the integrated rescue system. The mobility of meteorological stations will thus help to reduce the number of these devices, which means saving the costs of supplying the necessary number of them. Automatic weather stations for the needs of meteorological data management for the needs of general aviation and the air component of the integrated rescue system, these systems should meet the following requirements:

1. Independent of power supply
2. Independent of existing data connection
3. Accuracy of sensors according to ICAO ANNEX 3 to the Convention to Civil Aviation
4. Placement of sensors according to the general principles established by the World Meteorological Organization
5. Provide current data online with the possibility of visualizing measured data on smart devices [8].

The device, which is independent of the electrical network, can be installed even in remote places without the need to supply electricity, which significantly reduces the time and financial

complexity of the implementation of the work. Batteries rechargeable using photovoltaics appear to be a suitable solution even in the long term.

The advantage of the solution of its own data network, independent of third parties such as providers of GSM technology, saves the financial costs of operating the meteorological station and at the same time brings independence from coverage by the data service of mobile operators, which can be problematic in the deep valleys of flyover corridors. The solution to this problem can be the creation of a LoRaWAN network, through which the measured data can be distributed via the Internet to users (Figure 3).

MG: Airport Svidník (Runway wind speed & direction)

MeteoWind IoT Pro LoRaWAN 2205LW071 updated every 10 min

Airport Svidník MeteoHelix IoT Pro LoRaWAN 2206LH120

Current Weather Conditions updated every 10 min

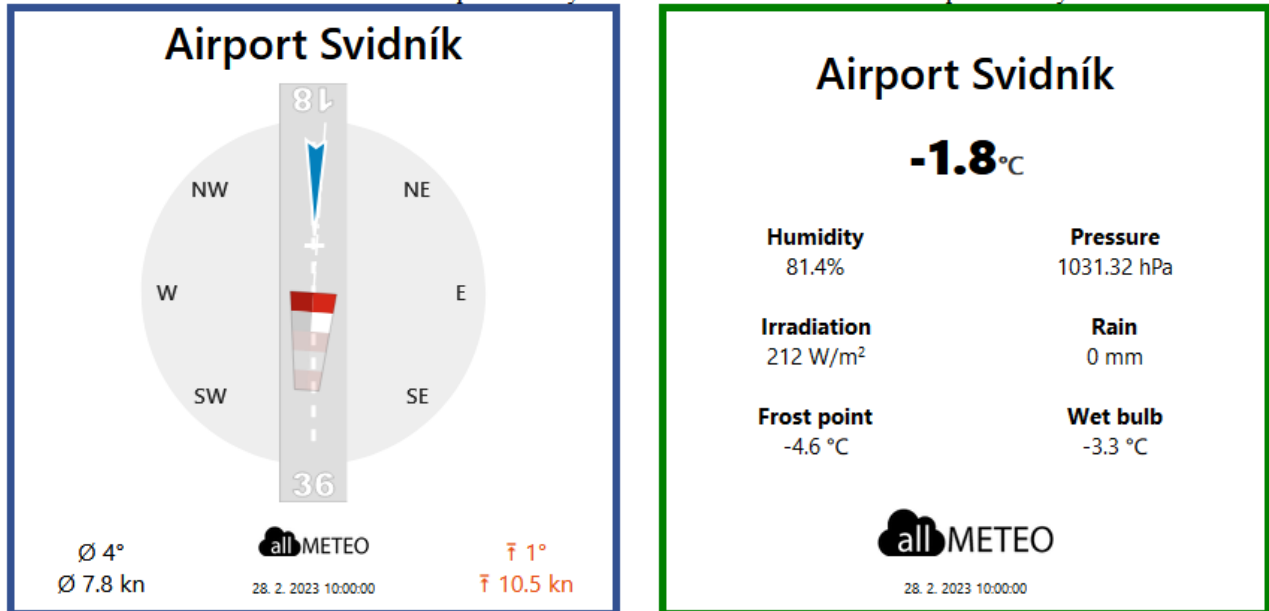


Figure 3. Visualization of meteorological data from Svidník airport using LoRaWAN technology. Source: own source.

Figure 3 shows the output from the TUKE Faculty of Aviation mobile meteorological station, located at the Svidník airport. The station is independent of the electrical distribution network and uses LoRaWAN technology for data transmission with a declared range of 6 nautical miles.

Observing the standards for measurement accuracy according to ICAO ANNEX 3 to the Convention to Civil Aviation and placing the sensors according to the principles established by the World Meteorological Organization guarantees the objectivity and homogeneity of the measured data [9].

Visualization of measured meteorological data is important from the point of view of processing and management of meteorological information in real-time, regardless of the position of the user of this data [7]. In this way, it is possible to monitor the weather condition remotely.

No less important than the mentioned requirements is the need to archive meteorological data for the possibility of additional processing. The history of the data can be used to generalize the aeroclimatic conditions of the given area, which can help to understand the influence of local peculiarities on weather manifestations at the mesoscale level. [10,11]. In the case of aviation

incidents or accidents, the measured information can be used to better assess the possible impact of weather on the development of these events, which brings an additional benefit in the process of increasing the level of safety management [12].

DATA FLOW Management. The installation of the measuring device itself in a suitable place according to binding ICAO and WMO regulations is only the first step in monitoring the weather conditions in the location of interest. It is necessary to ensure the transmission of data from the sensors themselves to the end user, who may be located hundreds of kilometers from the meteorological station. The method of data transmission from the place of installation of the meteorological mast equipped with sensors to the modem, through LoRaWAN technology, has already been described above, as well as its indisputable advantages compared to cable routing. Although the cable data connection is stable and resistant to various interferences, it cannot compete with the range of the LoRaWAN system, which is declared by the manufacturer to be 6 nautical miles [13]. From the practical experience of the authors of the article, it is known that the installation time of the network for air transmission lasted approximately 10 minutes, which is a huge financial and time difference compared to securing a cable connection.

Professional meteorological stations are connected to the international meteorological information network, within which individual member countries exchange data. This network is closed without the possibility of accessing it through common smart devices. In the case of small autonomous meteorological stations, the creation of a special information network would not be possible without additional costs for its establishment. The use of an Internet connection in a protected interface appears to be one of the forms of providing meteorological data to users, who do not have to rely on office PCs connected to the meteorological network or can update the status of meteorological elements at any time from any device connected to the Internet.

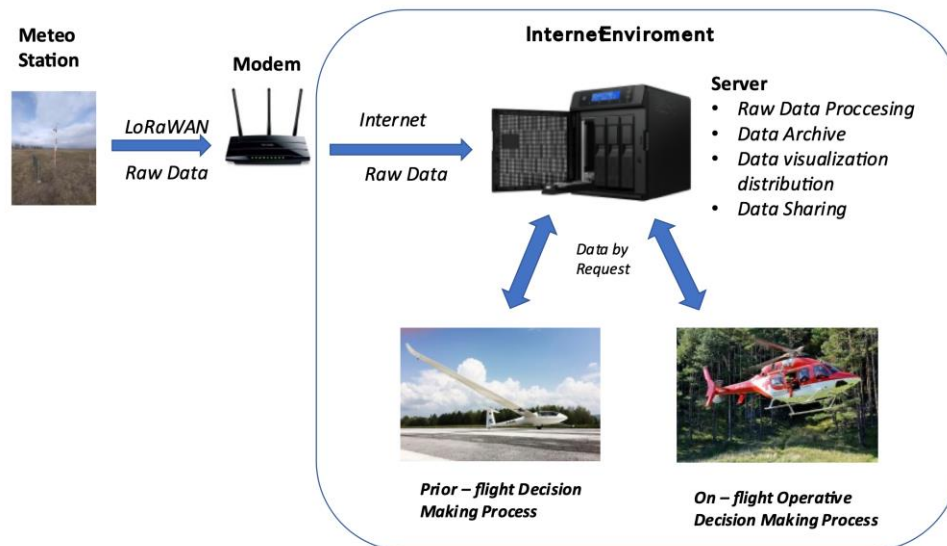


Figure 4. Meteorological Data-flow Management for General Aviation Needs. Source: own source.

Figure 4 shows the meteorological information flow with optimized costs for the establishment and operation of the meteorological information network, which is also used by the Aviation Faculty of the Technical University in Kosice to provide for the information management of the educational flights of its students in the Pilot specialization. Effective use of funds from the acquired project for the installation and operation of sensory equipment and data distribution to end users was one of the main goals of designing suitable meteorological equipment for smaller general aviation airports. In Figure 4, there are two-way arrows between the end users and the server, representing two-way communication. The data can thus be requested as needed and it allows viewing the history of meteorological elements.

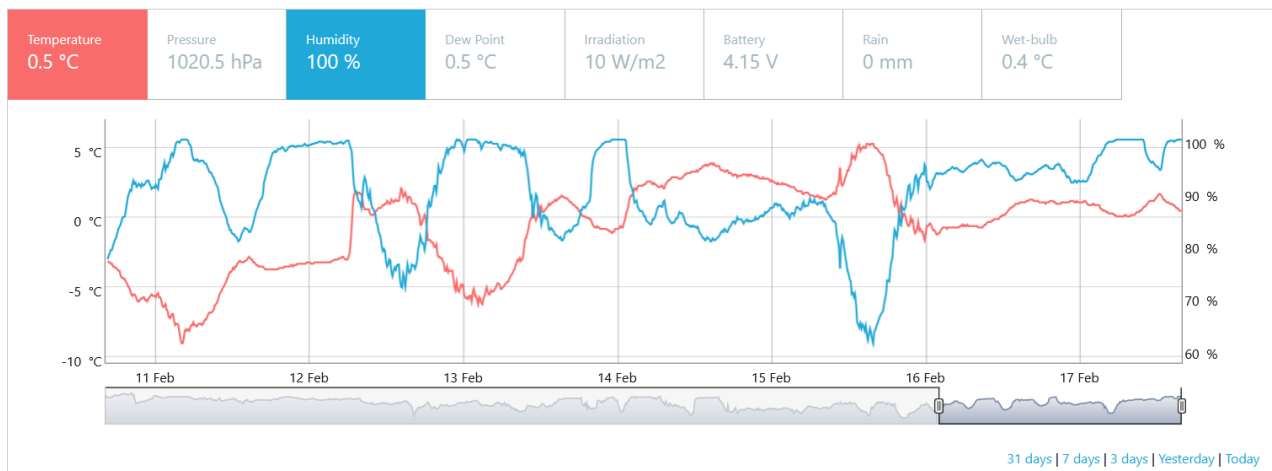


Figure 5. Air temperature and dew point temperature 7 days course at Svidník airport. Source: <https://weather.allmeteo.com/#/ws/2206LH120>]

Figure 5 shows the course of temperature and dew point temperature from Svidník airport for 7 days, but the allMeteo application allows viewing the archive of selected meteorological elements for up to 30 days of history. Another possibility is obtaining information about the state of the weather from other stations as needed, also with the possibility of viewing the progress of meteorological elements, which allows determining the tendency of their further development.

Innovations in cloud and visibility observation

For flying at low altitudes, the height of the lower cloud base and visibility parameters are decisive. Currently, ceilometers are used to measure cloudiness parameters, and forward scatterers or transmissometers are used to measure visibility. These are financially demanding devices working based on LIDAR technology. Due to their high consumption of electricity, the possibility of their installation in remote areas is complicated. Today, however, many pilots intuitively use webcams from cities, tourist facilities, etc. This is a non-systematic approach. To determine the visibility, it is necessary to know the distance of individual objects from the place of installation of the camera, which is quite problematic to find out. The same applies to determining the height of the lower cloud base, which represents a fundamental safety problem in pre-flight information management. It is necessary to know the exact location of the installation of the webcam as well as the altitudes of the surrounding terrain obstacles, according to which it would be possible to determine the possibilities of bypassing the obstacles. This method can lead to inaccurate

interpretations of images in case of erroneous identification of mountain obstacles. To eliminate these errors, it is advisable to create a kind of background or grid according to which it is possible to quickly and reliably identify obstacles and thus gain situational awareness from the place where the camera is installed.



Figure 6. Visibility and cloud determination using a webcam. Source: own source

Figure 6 shows the use of surrounding obstacles to determine the visibility and the height of the lower cloud base and visibility, which represents a significant addition to the meteorological information measured by the automatic weather station at the Svidník airport. Individual landmarks are identifiable by name, elevation in feet, and distance from the camera installation location. This minimizes the risk of confusion about reference points when compared with map documents. This significantly speeds up the process of acquiring situational awareness and creating an overall idea of the weather in the given location. With the constant technological development of camera systems, this method of indicating visibility and cloudiness parameters appears to be a suitable alternative to the disproportionately more expensive sophisticated measuring devices [14].

Data Sharing. The advantage of the selected solution from the Barani Desing company is the possibility of sharing data with other meteorological stations of the same type through the allMeteo application, which offers, after registering the device in the information network, current data from other measurement points as shown in Figure 7, while the density of this network gradually increases with a number of stations purchased and installed. We see the use of information in aviation education [15].

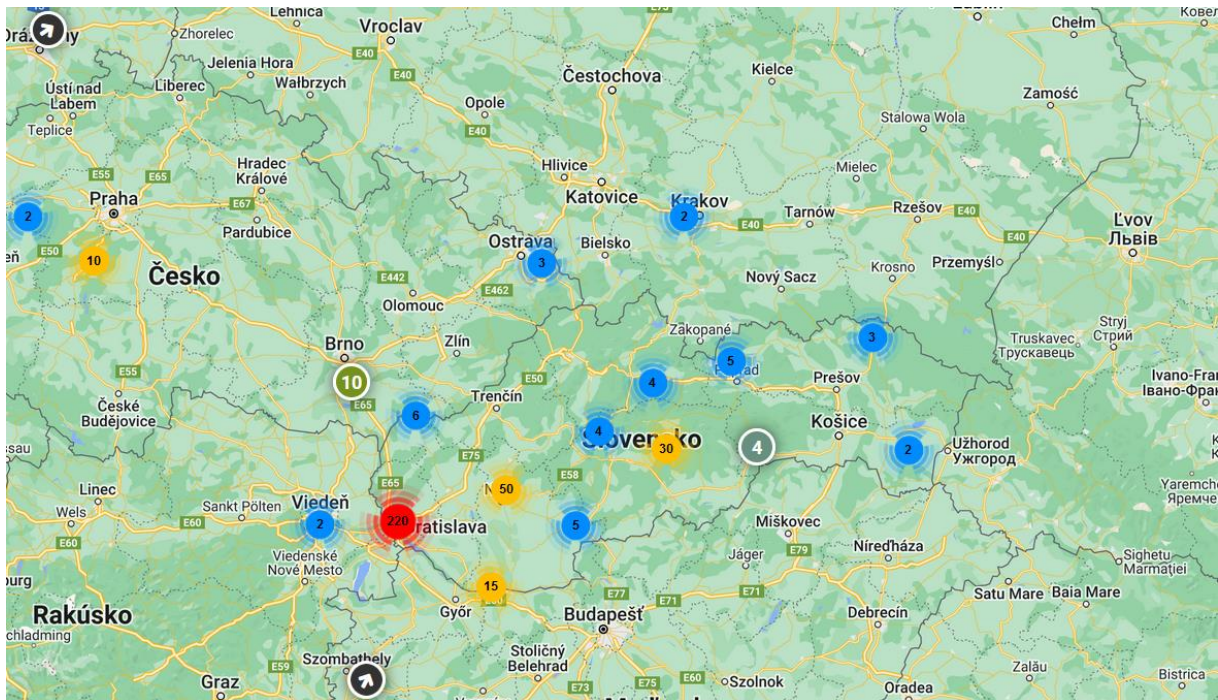


Figure 7. Overview of meteorological stations involved in the allMeteo information meteorological network. Source: <https://weather.allmeteo.com/#/world>]

As can be seen from Figure 7, meteorological data are available not only from the Slovak Republic, but also from Europe and from other continents outside of Antarctica, where these stations have already been installed and data from them are always available free of charge after registering the device. The value of a meteorological station purchased in this way increases significantly precisely by joining such an extensive meteorological network, the data of which comes from stations of the same type. In this way, the homogeneity of the measured elements and their declared accuracy according to ICAO and WMO standards are guaranteed.

Conclusion

Flying in the conditions of general aviation is different from flying in regular air transport, and therefore the management of meteorological security in this segment of aviation must also be different. Flights at low altitudes prevail here, and this requires more detailed monitoring of the weather at airports and typical flight corridors. The monitoring of heliports and landing areas at airports, which are used by the aviation component of the Integrated Rescue System, appears to be no less important. For these purposes, however, a fairly dense meteorological observation network is needed, which must be affordable and the individual measurement points must be able to be set up in a simple way. For operational use in crisis management, they should meet the condition of mobility. The state of the weather in more complex meteorological situations is significantly influenced by local peculiarities caused by geomorphological inhomogeneity in different parts of Slovakia, and weather estimation methods are extremely difficult due to the variability of the prevailing flow of air masses, in which the effects of local peculiarities have different effects.

Similarly, this method of management from mobile meteorological stations can also be used in other countries with similar orographic diversity as the Slovak Republic.

Acknowledgments

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MODERN PARADIGM AND PUBLIC ADMINISTRATION TOOLS: METHODS TO INCREASE EFFICIENCY IN UKRAINE

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ABSTRACT

The main features of the modern model of public administration formation through an analysis of the European countries experience, in particular, considering the models of public administration in the Scandinavian, Anglo-Saxon, Napoleonic and German countries are revealed in the research article. The meaning of the concepts “deconcentration”, “delegation” and “devolution” is revealed, as well as their main characteristics and influence on the modern system of public administration. Based on the research carried out, we will form a comparative table of public administration models in European countries.

Keywords: public administration, management, local self-government, European experience, models of public administration

Introduction

In recent decades, many countries around the world have undergone large-scale reforms aimed at improving the efficiency of public administration. It is no coincidence that almost simultaneous transformations were defined as a “managerial revolution.” The search for new approaches to organize public administration system made us to refuse from the traditional type of managerial rationality (in its classical, interpretation according to Weber) and to update the processes of self-organization and self-government of social systems, as well as to increase the social efficiency of public administration. Modern concepts of new public management and leadership focus on high-result public administration, political pluralism in the decision-making process, delegation of powers at the lower level of the management hierarchy, a more balanced division of power, responsibility and accountability, development and expansion of public participation.

New public management stipulates decentralization of management by expanding the powers and responsibilities of local governments. The main task of the government at this stage is to provide local communities with the opportunity to solve their problems and control the quality of public services provided independently. This approach is consistent with the core values of local government – autonomy (decentralized governance), democracy (civil participation) and efficiency (closeness of power to the population). The state transfers the functions of providing public services to non-state (commercial and public) organizations, reserving to itself the functions of control and development of a general strategy. Such decentralization allows ensuring greater flexibility and efficiency of management, and also stimulates competition between service providers, increasing civil and social responsibility. The only drawback of the new public management is the emphasis on the commercialization of the public sector and insufficient consideration of the role of social and political participation and interaction.



A key aspect of modern governance concepts is decentralization, which involves the transfer of powers and responsibilities from the central government to lower levels of government and to the non-governmental sector. In both cases, the process of making socially significant decisions and control over their implementation becomes closer to the population.

In recent years, decentralization has become a truly global phenomenon. It is no coincidence that the report of the World Bank and the Union of Cities and Local Governments was devoted to the problems of decentralization and local democracy. [1]. Researchers indicate the reasons for decentralization as follows: political changes that gave local communities the right to express and defend their interests; technological changes and global integration that have redefined the boundaries of governance and self-government; finally, the difficulties of a centralized management system and the need for the participation of regional and local governments in political and economic processes.

To a large extent, decentralization affects the relationship between the central government and local self-government, but this does not mean that the changes that have taken place are voluntary. The limits of decentralization depend on the political weight, human and financial resources at the order of local authorities. In addition, decentralization of governance does not exist outside the state, it is carried out on the initiative and under the control of the central government. However, decentralization is impossible if local authorities are nothing more than executors of the central government's policies. These extreme positions limit the space of local self-government and determine its "range of possibilities." Political systems strive for the necessary balance according to the conditions in each country.

The literature distinguishes between several types of decentralization:

- administrative decentralization, in which local authorities are accountable to the central government;
- political decentralization, in which local authorities are theoretically independent from the state, endowed with powers and responsibilities;
- budgetary decentralization is associated with the transfer of resources necessary for the exercise of the transferred power and responsibility;
- finally, market decentralization, which ensures the transfer of functions of public institutions to the private sector (companies, NGOs), including planning and administration.

In order to avoid confusion, researchers recommend using the term "decentralization" to characterize relations between levels of public authorities, but not between public authorities and the economic or social sphere as a whole [1], i.e., with some nuances, the administrative and managerial approach is seen as a priority. The authors of the work "Elements in Political Science" also adhere to the administrative scheme of decentralization interpretation. They correlate the concept of decentralization with the delegation of decision-making within the political system, where delegation is seen as an administrative technique used in both unitary and federal states [2]. However, all types of decentralization seem to be interconnected, complementing each other, thus reinforcing the general trend. Effective decentralization is impossible without real self-government at the lower levels of government and democracy as a way of exercising power.

As part of the general trend, each country has its own reasons, forms and results of decentralization. Unique to each country is its nature, genesis and evolution of relations between central and local authorities, and the basic social values reflected in them, for example: civil society in Great Britain, statehood in Germany, citizenship in France. However, the analysis of public administration reform at different times and in different circumstances made it possible to



identify three main models of decentralization that appeared and were implemented in different countries: “devolution” in England, “deconcentration” in France and “delegation” in Germany.

The concept of devolution emerged in the course of events related to the struggle for Irish independence in the late nineteenth century and implied the transfer of a wide range of powers to local governments to manage internal affairs. Later, the term came to be used to refer to reforms in the second half of the twentieth century, which consisted of the transfer of a significant amount of power to the regional and local levels. Today, it is used in a broader sense, especially outside the UK, to refer to the transfer of decision-making power in some areas of public policy to subnational levels. Devolution is thus closer to a political type of decentralization, as it allows lower levels to make their own policy decisions, albeit in a limited area.

Administrative decentralization implies that local authorities are accountable to higher levels of government. This is how it is defined by the United Nations Development Program (UNDP). Administrative decentralization is more often associated with deconcentration or delegation. In political decentralization (devolution), there are no controlled (accountable) relations with the higher authorities. Deconcentration implies the existence of a system of administrative responsibility in the management of subordinate territories, created on behalf of the central government. Deconcentration, unlike devolution, implies the management of relations and administrative hierarchy, while devolution excludes any hierarchical relations between the state and local authorities. According to the authors of the above-mentioned report, this difference gives grounds not to consider deconcentration as one of the options for decentralization at all [3].

One of the elements of deconcentration is the delegation of powers to services of territorial competence. In practice, the term "delegation" can also be used to refer to intermediate situations: state power and authority are delegated to decentralized authorities (i.e., elected rather than appointed from above) and exercised on behalf of and in the interests of the state, i.e., the decentralized authorities in this case become accountable to the state. Such situations are not considered centralization and are referred to as delegation of power and authority. In a specific case, elective legitimacy may weaken the control of a higher authority or, conversely, the scope of delegated power and responsibilities may weaken decentralization, because control is exercised by a higher authority.

Thus, in the strictest sense, decentralization is the existence of an elected government on a local scale that is distinct from the administrative power of the state, exercising its own powers and responsibilities within the framework of the law, for which it has the status of self-government under state control. In this sense, decentralization is inseparable from the idea of local self-government and democratic principles. However, the scope of powers granted is not enough to determine the level of decentralization in a particular country; the regime in which these powers are exercised and controlled by the state must also be taken into account. In a broad sense, decentralization exists in almost all countries, but in a narrow sense, in very few.

The experience of Britain, which has been at the forefront of public administration reforms, Germany, as well as France and the Scandinavian countries, allows us to see how different the preconditions, content, and results of decentralization are.

For a long time, Britain has been a model of decentralized political governance based on a culture of civil society and representation of local interests in the national government, although the position of local government in the British Constitution is ambiguous and ambivalent. As for administrative governance, two models have historically developed: "partnership" and "agency" [4].



In the "partnership" model, local governments, while having considerable autonomy in defining and implementing their policies, are equivalent with central institutions under the control of the parliament. In the "agency" model, local governments implement national policy under the control of central departments with little or no autonomy. The transfer of power from the central to the lower level (devolution) has become the most important socio-political event of recent years.

Throughout the twentieth century, the autonomy of local governments was gradually limited, becoming more and more accountable to the central government. The transition from a partnership to an agency model of relations was accompanied by increased control by the central government and administrative dependence of local authorities. Comparing the United Kingdom with the rest of Europe, researchers call it one of the most centralized states, contrary to its reputation and centuries-old traditions [5]. The center has left the territories with the least autonomy and strengthened control over them at a time when most other countries have begun to decentralize governance. But within the framework of these trends, there were opportunities to realize the potential of local governance in the new conditions, to significantly increase its efficiency and social significance. According to researchers, it was in the twentieth century that the formative characteristics and distinctive features of modern British local government were formed. M. Laughlin refers to them as: multifunctionality as responsibility for a wide range of services critical to the welfare state; inclusion in a wide network of individual organizations, where the collective capabilities of many participants are combined to effectively solve the problem [6].

The differences in the specifics of central and local governance allowed researchers in the late 1980s to draw a seemingly paradoxical conclusion. According to R. Rhodes, modern Britain is not a unitary state, but rather a differentiated policy in which the local level plays a key role [7]. The concept of the "dual state" by P. Saunders allows to further distinguish between the functions of central and local authorities, especially in the social sphere. According to P. Saunders, the state has so distanced itself from the function of social investment that it has become mainly the function of local authorities, as well as various public organizations and public-private partnerships due to their better adaptation to solving social problems and proximity to the population [8]. The functioning of the social system without state involvement is one of the most pressing problems of liberal ideology. For example, the English historian and political scientist D. Green argues that the welfare state fulfills its social obligations less effectively than a competitive social security system that combines economic freedoms with individual responsibility and civic engagement [9].

In this context, it is important to note that governance reforms in England have always been viewed from the perspective of the ruling party and cabinet responsible for the overall political climate in the country, the proposed ideology, the concept of change and development goals. This is reflected in research approaches that allow us to go beyond the analysis of local governance during the rule of a particular political party or leader and focus on comparing contexts, for example: post-war Keynesian - the welfare state, deregulated - the economy of M. Thatcher and J. Major, mixed – the "third way" under New Labour and E. Blair. Views on local government reforms are part of political ideology and social philosophy.

At the beginning of the XXI century, local governance acquired new features, which is why there is a growing interest in it. J. Chandler defines the current importance of local governance by two important points:



- 1) the ability of local authorities to coordinate individual functions to the maximum extent possible and to choose a strategy for the development and well-being of the community as a whole;
- 2) the ability of local authorities to be the only agents representing the interests of local communities at the national level [10].

To summarize, we can say that decentralization of public administration "in English" is the devolution of central government and increased responsibility of local government while expanding and developing various forms of interaction between the state and society.

Unlike the UK, public administration reforms in Germany were conceived from the bottom up. The transformations began with the functional reforms of local self-government in the 1960s. Their content and goals were to make small and dispersed communities and districts capable of performing most of the state's tasks and powers [11]. In the 1980s, Germany, like other developed European countries, faced the legacy of the welfare state. The solution to the problem of social dependency, insecurity of pensions and social benefits was decentralization of governance. Further reforms of local government are associated with a wide range of socio-economic problems.

It is important to note that the principle of decentralization was adopted for arms by the Christian-liberal coalition – CDU/CSU and FDP – as an alternative to the social democratic course. Decentralization became the basis of the country's modernization program by reducing the influence of the state and strengthening civil society institutions [11]. At the same time, the forces represented, as a rule, by opposition political parties seek not only to take a fresh look at local self-government, but also to "fit" these views into their political program, which is supported by certain social strata and categories of the population. Innovations in the field of local self-government are less a technical management solution than a fundamental issue that affects the interests of both the main political forces and the general population. Decentralization makes it possible to redistribute functions and responsibilities not strictly down the vertical, but in a variety of directions and configurations.

German local government reforms differ from those in the UK in that they are more gradual and focus on public participation than on the introduction of market principles in the provision of public services. However, in both Germany and Britain, the state is relieved of excessive social responsibility by transferring most social functions to local communities.

Decentralization of public administration in France has its own specifics. Although France is a unitary state, its political and administrative system remains one of the most complex in Europe, consisting of four levels: commune, department, region and state. Since 1982, the country has been undergoing a reform of local governments designed to expand local autonomy and limit administrative control by the state. Unlike the Anglo-Saxon countries, France did not carry out administrative reforms to introduce market-oriented mechanisms, reduce the cost of the state and increase the efficiency of the bureaucracy. The priorities of the reforms were to strengthen democratic principles in public administration and activate local self-government, and only then to introduce management principles. This reflected the basic values of French society – social justice, equality of citizens before the law, priority of public interest over private, which were reflected in a specific way in the strong paternalistic attitudes of citizens.

In France, there is no clear correspondence between party ideology and the direction of local government reforms. There is a general, with a few exceptions, turn towards decentralization of governance and deconcentration of government functions, and the establishment of a broad



partnership between politics, business and civil society at the national, regional and local levels. However, this mainly manifested itself in the transfer of significant powers from the central to the local level. Researchers do not note any significant decentralization from the local level to the population [12].

A common characteristic of the Scandinavian countries is a combination of strong central government, weak regions, and well-developed local autonomy. The Scandinavian model of local self-government, unlike the British and French models, emphasizes the aspects of functionality and participation. The political space is determined not only by the state but also by lower levels of decision-making, such as provinces and municipalities [12].

In the Scandinavian countries, modern local self-government is organized on the principle of agency rather than partnership, which resembles the British experience. In Sweden, the reforms of the first wave (1970s) were a transit from local self-government with features of direct democracy to a modern functionally organized representative system [13]. In Finland [14], the peculiarity of the governance reforms in the 1990s was the implementation of large-scale transformations at the local level. Just like in Sweden, they were oriented to the British experience: agency relations with broad autonomy between levels of government, introduction of market principles in the provision of public services, etc. However, commercialization and the transfer of public services to the local level had a negative impact on the social sphere, which was traditionally characterized by a high level and quality of service provision. After that, the Finnish governance reform began to focus on the German experience of gradual transformation using pilot projects.

European countries demonstrate different approaches to public administration reform, and it is only with a certain degree of conventionality that we can contrast these approaches with each other as centralization or decentralization and attribute, for example, two extreme opposite situations to England and France. Just as it is impossible to say that Germany is trending toward France, and the Scandinavian countries toward England. Indeed, as a result of the reforms in England, there is a tendency to centralize and control local interests. In France, local politicians influence the center in defending the interests of communes. But, as the researchers note, comparing the situation before and after the reforms allows us to draw ambiguous conclusions. The governance reforms in England have seen deeper changes, while in France little has changed [15].

The difference in approaches to decentralization is largely determined by the content of center-local relations and the potential of local self-government. An analysis of the reforms and current local government can also lead to different conclusions. Judging by the budget, the number of employees, the territory of municipalities, etc., Britain has a strong local government. If we proceed from the criterion of formal local autonomy and freedom from the central government, the conclusion is different. Reforms in England have led to the fact that local authorities have the most limited freedom from the central government.

It is quite difficult to form a general idea of the ideal balanced model of central-local relations, which seems to be necessary in the context of the development of a multi-level governance system in the European Union. Some researchers define the balance between central control and local autonomy by the adequacy of resources of each party to protect its policy and autonomy [8]. Other authors focus on the balance between the central government's desire to control the periphery and thus maintain the nation as an integrated whole and the demands made by the periphery to the center to maintain local autonomy (J. Chandler). However, from the point of view of historical evolution, J. Chandler's arguments seem to be the most convincing. The researcher



explains the specifics of center-local relations by the peculiarities of nation-building in each individual state [7]. The modern administrative-territorial organization of nation-states is the result of centuries-old conflicts in which certain models of relations between the center and the periphery were formed. Using the factor of historical development, it is possible to determine the contribution of various forces to the formation of the nation-state. It was created through changes from the top by the national elite, or as a result of local, peripheral uprisings and revolutions, or through the consolidation of small independent states into one nation. For example, in England, national integration was achieved through a government that represented local interests, and in France - through the penetration of the state into local communities through the system of prefects [15].

Historically, local administrations in Britain have had a kind of "individuality" and this has been a constant object of criticism from the central government. In France, every commune and every department was governed by the same administrative rules and was under the same control of the state. Thus, relations between the center and the periphery were initially established in different contexts. In France, these relations were closer, not only in the administrative sense, but also in the political sense, when regional elites were recruited into national politics. In contrast to France, in Britain, these ties were less close and the autonomy of the center and periphery in relation to each other was enshrined in a constitutional convention.

Central and local relations in countries have evolved in different ways. In addition, when considering these relationships, it is necessary to distinguish between the stages of genesis and reproduction. As H. Stoker points out, depending on the emphasis – on history or the present – the research can give exactly the opposite results.

In modern conditions, these relationships acquire new features. Management reforms revealed opposite trends, including in their own traditions of political culture, as it was in England and in France. The problems faced by most European countries turned out to be similar. As researchers note, the general content of the reforms of the late twentieth century was to eliminate the circumstances limiting local government and other management structures within each political system [11].

Thus, the experience of public administration reforms in European countries has shown that the limits of decentralization are determined by the specifics of central and local relations and the potential of local self-government. Political decentralization and commercialization of public services in England, the increasing role of communes and the gradual transition to market relations in the management of Germany, administrative reforms and activation of local communities in France – all these processes reflect one or another model of decentralization, which other European countries are guided by.

Based on the analysis, we will form a comparative table of public administration models in European countries (Table 1).

**Table 1.** Comparison of features of public administration models in European countries

Features of the model	Scandinavian countries (Sweden, Norway)	Anglo-Saxon countries (UK)	Napoleonic countries (France)	Germanic countries (Germany)
The level of political influence of the central government	Very low influence of central government	High influence of the central government	Significant influence of bureaucracy	
The system of law	Scandinavian legal structure	Case law	Codified law	
The model of public administration	Combination of managerial, legal and negotiation cultures and attributes in all layers of the state	The Westminster model	Hierarchical structure of the civil service	The Weberian model
Form of government	Constitutional monarchy	Parliamentary monarchy	Presidential-parliamentary republic	Parliamentary republic
Form of government	Unitary			Federal
The ratio of centralisation and decentralisation	Combining the Centre with the competences of local authorities and society	Significant impact of the Centre on the development of the state		Significant regulatory influence of the Centre
Type of administrative behaviour	Government agencies have been transformed into state-owned enterprises operating under market rules	A culture of discussion and agreement	Legal division of powers between levels of government	A combination of strictness and leniency in the application of public law

Source: compiled by the author

Conclusions

Thus, we can see that the domestic public administration system is at a turning point, since it has the features of different models and changes occurring with the implementation of reforms will be such in a few years that we will be able to clearly say which model the public administration system belongs to in Ukraine. However, in our opinion, the French model is most acceptable in terms of Ukraine.

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ASPECTS OF PUBLIC CRISIS MANAGEMENT: best practices AND POSSIBLE IMPLEMENTATION IN UKRAINE

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ABSTRACT

At the article, the experience of public crisis management in the post-war period in Japan and Germany was considered. Among the main features of crisis measures, the following were highlighted: demonopolization of the economy, support for the development of small and medium businesses, tax reform, accelerated industrialization of technologically backward regions of the country, government protectionism of local production, and prevention of foreign and domestic competition. At the article the special attention was paid to the crisis measures used by the governments of some countries in the management of certain depressed areas (Germany, Great Britain, Italy, USA). It was revealed that the key is to stimulate production, business and increase employment in the regions. However, some countries are taking comprehensive measures to improve all regions simultaneously, while others are paying more attention to economically backward regions in order to provide them with the opportunity to take an active part in the socio-economic development of the country. Separately, public crisis management decisions taken by a number of governments in order to minimize the negative consequences of the global financial crisis of 2008 were analyzed. All activities can be combined into several main blocks, namely the creation of an additional system of social protection for employees, the expansion of opportunities for employment growth, the development and implementation of retraining and advanced training programs for employees.

Keywords: public crisis management, best practices, implementation, support, government, economic development.

Introduction

During the war, the public authorities of Ukraine faced new challenges and tasks related to the provision of administrative services, ensuring the activities of economic entities, organizing the territorial defense of communities, evacuating the population, social protection of internally displaced persons, etc. The need to overcome the consequences of the military actions of the Russian Federation against Ukraine puts before the public administration the task of developing a national strategy for post-war reconstruction of the production, transport, social and scientific and technological infrastructure of the economy and overcoming the consequences of a catastrophic humanitarian crisis [11]. Solving these large-scale tasks requires great financial, organizational, technical and other resources, which can be accumulated only thanks to systematic international support, the pooling of national resources of individual countries and the coordination of efforts of the international community and supranational institutions.

Analysis of recent research and publications. For a long time, considerable attention has been paid to the problems related to the improvement of the mechanisms of development of public management in Ukraine. Thus, the theoretical and methodological aspects of public management



development in Ukraine were studied by V. Bazilevich, O. Obolenskyi, Yu. Pakhomov, I. Rozputenko, V. Tokareva, A. Chuhno, etc. The works of O. Amoshi, O. Vlasyuk, V. Hryshko, E. Libanova, I. Mykhasyuk, V. Novitsky, P. Sabluk, A. Filipenko, S. Chistov and other scientists are devoted to the question of the effectiveness of public administration in various spheres of the state's life. Regional issues of public management were studied by such authors as S. Bila, Z. Varnalii, M. Dolishniy, V. Kravtsiv, M. Melnyk, I. Storonyanska, M. Chumachenko, O. Shevchenko, I. Shkola, S. Shults, and others.

Public management under martial law has its own characteristic features and mechanisms of development that are crisis [2,5]. They require separate scientific studies in order to develop effective proposals regarding priorities and directions for improving the efficiency of public management during the confrontation with external aggression and the post-war period.

Results of the research. In a crisis, such functions-tasks as mitigating the consequences of the crisis, helping people survive, go through a difficult crisis period so that the country emerges from it economically strong and modern are put forward to priority positions. And then - the formation of favorable conditions for the preservation, expanded reproduction and retransmission of the culture of the people; maintenance at the proper level and crisis modernization of the economy, ensuring the stability of the financial and budgetary system; constructive impact on international relations in a vast, turbulent global space [5].

In this context, the issues of studying the successful historical experience of post-war reconstruction, in particular the experience of the countries of Western Europe and Japan in other fields, arises. 40s - 60s of the 20th century, which at one time solved tasks relevant for modern Ukraine with the help of international partners.

The purpose of the article is to determine the possible ways of implementing the best practices of public crisis management in Ukraine during the war and post-war times. In this article, we propose to consider the experience of crisis measures in the context of post-war reconstruction, the global financial crisis of 2008, and some aspects of crisis public measures related to depressed territories (figure 1).

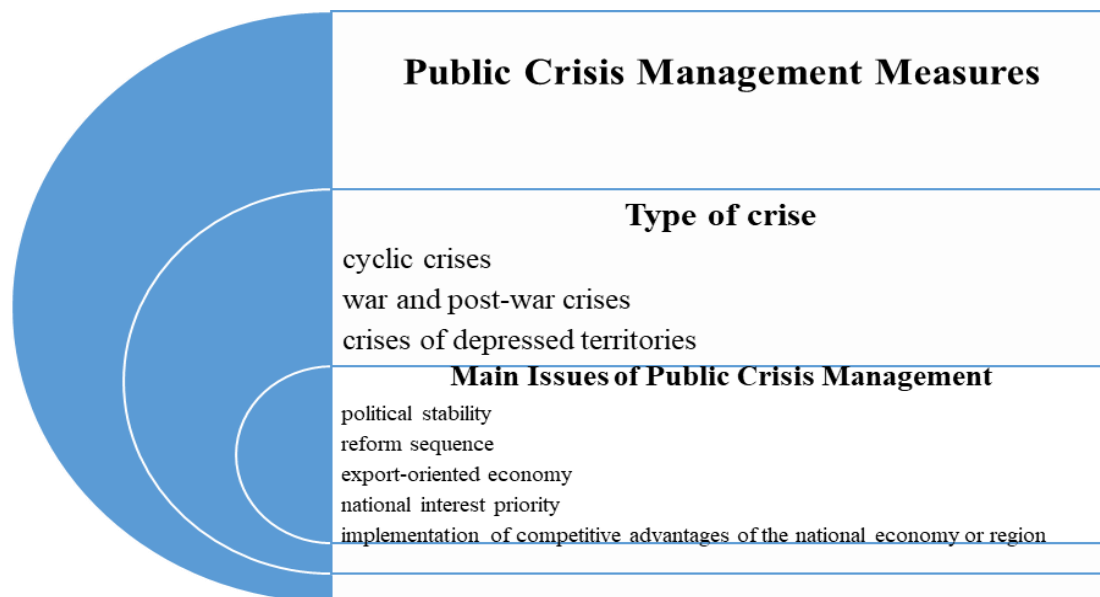




Figure 1. Public crisis management measures.

The history of the social and economic development of many countries of the world shows that they had to experience deep declines in production, financial shocks, mass unemployment, and acute social and political conflicts [2,5]. Some countries with great problems and significant costs overcame the difficulties caused primarily by the cyclical crisis of the economy. Others quite successfully coped with economic and social shocks and brought their economic and social systems out of acute crisis conditions in a short time. In this regard, we can say the crisis of the US economy in the 30s, and the economy of the post-war 40s of the XX century (Germany and Japan).

So, in due time, such programs of international assistance as the European Renewal Program (ERP) and the stabilization line of J. Dodge created an institutional framework and a resource base for the Swedish economy of Germany and Japan [6]. Despite the fact that both countries lost their economic and political independence because of the defeat in the war, reparations were paid for a long time, and the reconstruction plans developed by the victorious countries contained rather severe restrictions on the opportunities for economic growth for these two countries. However, they managed in a short time not only to restore, but also to increase their economic potential and achieve record economic growth rates. This growth in history received the name of the German and Japanese economic miracle, thanks to the fact that the countries, despite unfavorable external circumstances, consistently defended their own national interests, were able to take leadership positions in the world rankings of economic power [2,5].

The most effective mechanisms of reconstruction and economic rise of Germany were the following [6,10]:

- deregulation of business and cancellation of the most regulatory acts;
- demonopolization of the economy;
- supporting the development of small and medium enterprises, which became the basis of self-employment of the population, saturation of local product markets and economic reproduction;
- tax reform, including creation of a system of tax incentives for exporters;
- stimulation of investment inflow, as well as accelerated industrialization of technologically backward regions of the country;
- American military orders, which intensified the development of industrial production, in particular the machine-building and automobile industries.

The main mechanisms of the "Japanese economic miracle" were [4,8]:

- total demonopolization of the economy;
- government protectionism of local production;
- strict tax reform based on the principle of progressive income taxation and reduction of the tax burden on business, in particular on industrial corporations;
- policy of accumulating food stocks to ensure consumer demand;
- technical modernization of production based on the intensification of scientific research and the introduction of innovative methods into production;
- government support for the development of export-oriented industry with the development of a number of measures aimed at improving supply chains to increase export flows and expand the export of cheap Japanese products;
- import restrictions (only the import of technologies, high-tech equipment and materials for industrial modernization was allowed);



- prevention of foreign and domestic competition (with the help of tariff restrictions and informal trade barriers, which limited the entry of new foreign and even domestic firms into the markets;
- protectionism of the development of industries that are drivers of economic growth - a system of government orders, benefits and preferences for enterprises that carried out the modernization of their own production and the development of strategic industries;
- land reform, according to which large land ownership was liquidated, peasants became owners of land plots and stopped renting land;
- American military orders amounting to almost \$40 billion at current prices).

The experience of Japan's public crisis management is also interesting in the context of the 2008 global financial crisis. To alleviate the problem of unemployment and ensure employment of the population, additional funding was allocated for 13% of the cost of budgetary measures, including:

- assistance in paying housing for laid-off workers for a maximum of 6 months; payment of the costs of resettlement of persons who have found a new job;
- providing subsidies to enterprises, primarily small and medium-sized ones, that retain their staff;
- assistance to young people and older people in the transition from part-time to full-time;
- subsidies to enterprises that transfer temporary workers to permanent employment.

Despite certain national and historical features, socio-political problems that accompanied their implementation in practice, most of the named mechanisms have similar features (political stability, sequence of reforms, export-oriented economy, and priority of national interests and implementation of competitive advantages of the national economy); can be quite successfully used in the post-war reconstruction program of Ukraine.

It will be appropriate for Ukraine to study the experience of Japan, which, having taken advantage of such competitive advantages as the rapid modernization of production based on the purchase of relatively cheap imported technologies, the high efficiency and inclination to discipline of the Japanese. It made possible to increase labor productivity and reduce the cost of production, cheap labor, in a short period, the export of its goods increased several times.

At the same time, important tasks for the authorities are the creation of a favorable eco-environment for business development, which includes:

- deregulation of business and cancellation of most blocking norms and regulatory acts;
- formation of a network of resource-consulting and acceleration training centers for the activation of innovative entrepreneurship;
- development of social entrepreneurship as a self-charging mechanism for solving most of the socio-economic problems caused by the war.

Under the global financial crisis of 2008 Germany took the following public crisis management measures [1, 3]:

- creating an additional social protection system for employees, including special advanced training programs for older and low-paid workers, increasing the staff of employment services, increasing the period for paying part-time benefits from 12 to 18 months;
- expanding opportunities for employment growth by further reducing the tax burden and investing in various industries: transferring to part-time employment instead of layoffs in order to retain qualified personnel;
- development and implementation of programs for retraining and advanced training of part-time workers;
- reduction of income tax, increase in the amount of non-taxable income;



- reduction of deductions for state health insurance.

In the context of the development of depressed areas in Germany, the main activities were:

- support for new firms operating in advanced industries;
- a unified scheme for the restructuring and development of all lands is provided;
- public investment going into traditional industries (metallurgical complex and private innovation capital);
- assistance systems are being created that exclude competition between the lands.

In the United States of America, the main activities are:

- development of recreational resources;
- diversification of agriculture, including suburban;
- expansion of employment and profitability in each individual region, the use of its industrial potential.

In the UK the main activities were:

- direct investment activities of the state in the development of industrial and social infrastructure, primarily transport and housing;
- financial measures stimulating the location and growth of production in depressed regions (guarantees for capital investments, loans, tax incentives, regional bonuses for employment);
- measures of "negative control" over industrial construction, providing for permission for industrial entrepreneurship.

In general, the activities carried out in depressed areas are similar in many countries [7]. The key is to stimulate production, business and increase employment in the regions. However, some countries are taking comprehensive measures to improve all regions simultaneously, while others are paying more attention to economically backward regions in order to provide them with the opportunity to take an active part in the socio-economic development of the country. Regional crisis policy presupposes a coordinated political approach.

For example, in Italy the main activities were:

- minimizing the influence of negative factors in structurally weak regions and creating conditions for providing them with the opportunity to take an active part in the socio-economic development of the country;
- measures to create a favorable "business environment" and develop infrastructure;
- creation of long-term and competitive jobs, stabilization of the situation on the labor market.

In France, the main activities were:

- activities related to the implementation of monitoring, impact assessment and the required amount of financial allocations for each region, retraining of employees, research work, funding of universities and other government agencies aimed at improving the welfare of the regions;
- activities to increase employment and economic development, aimed at improving the "business environment" for small enterprises through the provision of grants and advice.

Thus, the Spanish government has developed a number of crisis measures aimed at reducing the tax burden on the population in order to increase domestic demand. For each taxpayer, the tax base for income tax is reduced for a period of one year. It also provides for an increase in the minimum monthly wage. A special state plan for the construction and rehabilitation of housing has been proposed, including a program for the development of the rental housing market. Crisis measures provide for direct measures to create new jobs, including the establishment of the State Fund for Local Investments and the Special Fund for Stimulating the Economy and Employment.



Thus, in the world best practices of crisis regulation, there are mainly two areas of such regulation: financial-economic instruments and social support programs for different categories of the population. All of these measures differ in both the breadth of coverage and the variety of instruments offered.

Crisis social programs were adopted by countries within the framework of their national priorities and specifics, as a result of which there is a wide variety of crisis measures. Social activities have a different scope, scale and nature, but the main purpose of which is to mitigate the consequences of the crisis for certain groups of the population.

To counteract the negative consequences, leading countries, unions of states, as well as a number of international organizations adopted various crisis programs, packages of measures and action plans, which included, along with financial and credit instruments that primarily affected the stock market and the banking sector, also crisis social programs.

Significant budget funds were allocated to support certain key sectors of the economy that were most affected by the crisis; other steps have been taken to provide direct state support to national economies and the social sphere. The analysis shows that crisis financial and credit measures mainly concern:

- adjustment of customs duty rates;
- introduction and removal of non-tariff restrictions;
- strengthening financial support for exports;
- reducing the level of tax burden on exports;
- stabilization of the currency sphere and the balance of payments;
- facilitating the inflow of foreign investment;
- stabilization of the banking sector, etc.

Conclusions

One of the primary tasks is the restoration of the living space destroyed by the war, which involves the development of mechanisms for ecological utilization and recycling of destroyed buildings and structures; revitalization of destroyed objects of civil and industrial infrastructure; responsible reclamation of lands contaminated by military actions. The priority in the context of the reconstruction of infrastructure facilities should be the planning of the construction of new industrial and civil buildings, taking into account the environmental requirements and conditions of the green transition.

At the same time, the removal of a significant share of arable land from agricultural turnover as a result of their pollution and mining necessitates the formation of food reserves in order to prevent shortages of goods and saturation of commodity markets [9].

One of the urgent tasks for public administration in this context should be to support the development of local production, aimed at creating stable sources of saturation of commodity demand.

The restoration of commodity markets and the development of the network of commodity flows must take place taking into account the need to overcome dependence on Russian and Belarusian resources and materials, which involves:

- search for new resource supply in the context of overcoming economic dependence;
- development of new production connections and logistics processes;
- investing in the development of Ukrainian mineral deposits and processing enterprises.



Given the positive impact military orders had on the economic growth of the industrial leaders of their time, attention should be paid to the potential of the Ukrainian military-industrial complex, the products of which (military equipment, weapons, expertise) can become a powerful item of Ukrainian exports.

At the same time, for Ukraine, as a country that traditionally exports mainly raw materials, an important target priority should be the development of a plan to support the development of export-oriented industries and enterprises. First of all, this support should concern those enterprises whose production extends value-added chains within the national economy and makes it possible to use its competitive advantages on the world market.

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SCIENTIFIC AND METHODOLOGICAL PRINCIPLES OF FORMING FINANCIAL MECHANISMS FOR THE DEVELOPMENT OF TERRITORIAL COMMUNITIES

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ABSTRACT

Financial mechanisms play a pivotal role in bolstering the development of territorial communities, especially in times of crises and challenging situations. These mechanisms supply essential funding to stabilize local economies, aid vulnerable populations, and establish the groundwork for future growth. By funding local enterprises, entrepreneurs, and infrastructure projects, financial mechanisms stimulate economic activity and create employment opportunities.

During crises, targeted support through grants, subsidies, and microfinance programs can assist at-risk segments of the population, such as low-income households, small business proprietors, and marginalized communities. Additionally, investing in infrastructure and initiatives that enhance the resilience of the local region against future crises, such as renewable energy sources and disaster preparedness, proves essential for sustainable development.

Public-private partnerships are lauded as effective means to harness resources and expertise from both sectors, thereby magnifying the impact of development projects. Moreover, financial mechanisms offer backing for innovative solutions that aptly address development challenges.

This article scrutinizes recent research and publications to pinpoint key components, challenges, and potential benefits of financial mechanisms for territorial community development. Scholars emphasize the significance of generating local revenue, collaborating with central governments and international organizations, engaging in public-private partnerships, utilizing microfinance institutions, and establishing community-based banking systems to empower territorial communities.

Scientific and methodological principles are explored, encompassing comprehensive research and analysis, transparency and accountability, adaptability, inclusivity, sustainability, innovation, and capacity building. These principles furnish a structured and evidence-based approach for effectively managing financial resources and fostering sustainable and comprehensive growth within communities.

The article underscores the significance of well-designed financial mechanisms in bolstering the development of territorial communities, while also laying the foundation for prospective research and implementation in this critical realm of study.

Keywords: scientific and methodological principles, financial mechanisms, territorial communities, public management, development.

Introduction

Financial mechanisms aimed at territorial development assume heightened significance during times of crisis, encompassing economic downturns, conflicts, natural calamities, and health emergencies. In such exigencies, these financial mechanisms play a pivotal role in steadying local



economies, bolstering the most vulnerable population segments, and laying the groundwork for subsequent growth and progress.

These financial instruments furnish vital funding for local enterprises, entrepreneurs, and infrastructure ventures, thereby stimulating economic vitality and engendering avenues for employment.

Within the context of crises, specific population segments, including low-income households, small business proprietors, and marginalized communities, often find themselves in precarious positions. Financial mechanisms can extend targeted aid to these groups through mechanisms like grants, subsidies, or microfinance programs.

Elevating the local territory's resilience to future crises necessitates support for infrastructure and initiatives, such as investments in renewable energy sources, disaster preparedness, and healthcare systems.

The repertoire of financial mechanisms, which encompasses public-private partnerships, holds the potential to leverage resources and expertise from both sectors, optimizing the impact of developmental undertakings.

Crisis scenarios invariably demand innovative solutions, and financial mechanisms step in as sources of funding and support for novel and inventive approaches to developmental predicaments.

Scrutiny of the local budget's income structure highlights an escalating reliance on state budget transfers. This scenario, however, misaligns with the imperative of fortifying local self-governance, as it renders the financial sustainability of most territorial communities untenable.

A pronounced issue inherent in territorial community budgets resides in the significant divergence of income and expenditure per capita. Asymmetrical financial support for territorial development exacerbates this quandary, particularly in comparison to urban and rural communities, stemming from the concentration of economic activity in urban centers. Consequently, ameliorating intra-regional budgetary support differentials necessitates not solely financing rural territorial community budgets, but also deploying tools for regulating territorial development. The task of ensuring efficient budgetary resource management in Ukraine is further complicated by structural issues within local budgets themselves, as well as their vertical and horizontal imbalances.

The amalgamation of these prevailing challenges, coupled with the novel adversities posed by conflicts, underscores the exigency of fundamental shifts in financial resource management practices at both the state and regional echelons, as well as within territorial communities. This transformation primarily entails a reevaluation of the principles underpinning the formulation of mechanisms for financial support aimed at territorial community development

Analysis of recent research and publications. The development of territorial communities is a critical aspect of achieving sustainable and inclusive economic growth. To support and accelerate this process, the establishment of a robust financial mechanism becomes paramount. By analyzing various studies, models, and approaches, we aim to identify key components, challenges, and potential benefits of such mechanisms.

Several studies emphasize the importance of enabling territorial communities to generate their revenue through local taxation, fees, and levies. A study by Panagariya [14] reveals that local revenue generation not only empowers communities with fiscal autonomy but also fosters accountability and ownership in local development projects. Furthermore, local revenue streams can act as a stable source of funding for sustainable development initiatives [20].



Many scholars argue that collaboration with central governments and international organizations is crucial for the financial empowerment of territorial communities. Das and Ghosh [6] highlight that the availability of central funding can bridge the gap between community needs and local revenue generation capabilities. Additionally, the involvement of international organizations can bring in additional funds and expertise, boosting the scale and impact of development projects [15].

Numerous studies have highlighted the significance of fostering public-private partnerships to enhance the financial mechanism for territorial community development. According to ADB [3], PPPs can mobilize private sector investments and technical know-how, thereby accelerating the implementation of infrastructure and development projects. However, researchers like Martini et al. [12] also warn about the challenges of aligning private sector interests with long-term community development goals.

Microfinance institutions and community-based banking systems have gained attention as effective tools for supporting territorial communities. A study by Armendariz and Morduch [2] underscores the role of microfinance in promoting financial inclusion and empowering local entrepreneurs to undertake income-generating activities. Moreover, community banking has shown promise in mobilizing savings and channeling credit for small-scale projects [21].

Capacity building emerges as a recurring theme in the literature, stressing its importance in strengthening local governance and administrative capabilities. Huang and Wang [8] suggest that investments in capacity building programs enhance the effectiveness of the financial mechanism, improving the planning, implementation, and monitoring of development projects. Furthermore, capacity building fosters community participation and ownership in the decision-making process [19].

Researchers indicate several benefits associated with the establishment of a robust financial mechanism for territorial communities: inclusive development [10], poverty alleviation [13], sustainable growth [16], community empowerment [11].

Results of the research. Scientific and methodological principles play a crucial role in shaping the financial mechanisms for the development of territorial communities. These principles provide a structured and evidence-based approach to effectively manage and allocate financial resources, ultimately fostering sustainable growth and prosperity within the communities.

The first principle revolves around thorough research and analysis. Before designing any financial mechanism, a comprehensive study of the specific needs, strengths, and challenges of the territorial community is essential. This analysis should take into account demographic data, economic indicators, infrastructure requirements, and social factors to identify the most pressing development priorities.

Another critical principle is transparency and accountability. A well-designed financial mechanism should ensure transparency in the allocation and utilization of funds. It should be clear to all stakeholders, including community members, local authorities, and external investors, how financial resources are being used and what outcomes are expected. Regular reporting and audits are vital to maintain accountability and build trust among the community members.

Flexibility is equally important. The financial mechanisms should be adaptable to changing circumstances and evolving needs. As the community grows and new challenges arise, the mechanism must have provisions to adjust resource allocation and strategies accordingly. This adaptability helps in addressing emerging issues effectively and maximizing the impact of financial investments.



Inclusivity is a principle that underpins equitable development. Financial mechanisms should be designed to involve all segments of the community, including marginalized groups, in decision-making processes. Inclusive participation not only ensures that the needs of all community members are met but also fosters a sense of ownership and commitment to the development initiatives.

Sustainability is a key consideration as well. The financial mechanisms should be designed to promote projects and initiatives that have a lasting positive impact on the community. Investments should focus on projects that encourage self-sufficiency, environmental responsibility, and economic viability. Sustainable development ensures that future generations can also benefit from the progress made today.

Furthermore, innovation and creativity should be encouraged in forming financial mechanisms. Communities should explore new funding sources, such as public-private partnerships, grants, or community-driven fundraising initiatives, to supplement traditional revenue streams. Embracing innovative approaches can bring fresh ideas and additional resources to support development efforts.

Lastly, capacity building is vital to the success of financial mechanisms. Empowering local authorities and community members with the skills and knowledge to manage and utilize financial resources effectively is essential. This can be achieved through training programs, workshops, and collaborations with experts in financial management and development.

In conclusion, the scientific and methodological principles of forming financial mechanisms for the development of territorial communities provide a robust foundation for sustainable and inclusive growth. By incorporating research, transparency, flexibility, inclusivity, sustainability, innovation, and capacity building, these principles can help create a prosperous and resilient future for all members of the community.

The fundamental scientific and methodological principles for forming the financial mechanism to ensure territorial development can be considered as follows (Figure 1).

The ability of financial mechanisms to adapt to changing circumstances is emphasized in the works of Chen and Lee [5]. They argue that the dynamic nature of community development requires flexible financial strategies that can respond to emerging challenges and opportunities. By incorporating adaptability, financial mechanisms can remain relevant and effective throughout various stages of community development.

Inclusivity is a prominent principle in the literature, as studies by Brown et al. [4] reveal that inclusive financial mechanisms foster equitable development. By involving all segments of the community, including marginalized groups, in decision-making processes, financial mechanisms can address diverse needs and ensure that development benefits reach all members of the community.

Researchers, such as Green et al. [7], stress the significance of embracing innovation in financial mechanisms. By exploring new funding sources and creative approaches, communities can diversify their revenue streams and attract additional resources to support development initiatives effectively.



Figure 1. Scientific and Methodological Principles of Forming Financial Mechanisms for the Development of Territorial Communities.

Capacity building is a recurring theme in the literature on financial mechanisms. Smith et al. [18] argue that empowering local authorities and community members with the necessary financial management skills and knowledge is essential for successful development projects. Capacity building programs enhance the ability to manage funds efficiently and ensure the long-term sustainability of development efforts.

The importance of sustainability is well-documented in the literature. Smith and Johnson [17] argue that financial mechanisms should focus on projects that promote long-term impact, environmental responsibility, and economic viability. Sustainable development not only ensures continuous benefits but also reduces the dependence on external aid and resources over time.

Several studies emphasize the significance of thorough research and analysis as a foundational principle in designing financial mechanisms. Adams and Smith [1] argue that comprehensive assessments of a community's socio-economic and demographic characteristics are essential in identifying development priorities. Understanding the unique challenges and strengths of each community helps in allocating financial resources strategically, leading to more impactful development outcomes.

Transparency and accountability have been highlighted as crucial components of successful financial mechanisms. In their research, Johnson et al. [9] found that transparent financial management fosters trust among stakeholders, including community members and external investors. By ensuring clear reporting and open decision-making processes, communities can build confidence and attract further investment, supporting long-term sustainable development.



Conclusions

In conclusion, financial mechanisms stand as linchpins in fostering the development of territorial communities, especially during moments of crisis and complexity. These mechanisms not only provide essential funds to stabilize local economies and support vulnerable populations but also pave the way for future growth. By backing local enterprises, entrepreneurs, and infrastructure ventures, financial mechanisms kindle economic vigor and usher in opportunities for employment. The ability of these mechanisms to cater to specific needs during crises is a key highlight. Through grants, subsidies, and microfinance programs, at-risk segments such as low-income households, small business proprietors, and marginalized communities receive targeted support. Furthermore, investments in resilient infrastructure and initiatives, such as renewable energy sources and disaster preparedness, become critical for forging sustainable pathways to development.

Public-private partnerships are heralded as effective vehicles for optimizing developmental impacts, capitalizing on the synergy between both sectors. The role of financial mechanisms is not limited to resource provision; they extend to fostering innovation that effectively tackles development challenges.

This article's scrutiny of contemporary research and publications underscores the multi-faceted components, challenges, and potential benefits of financial mechanisms for territorial community development. Scholars accentuate the importance of local revenue generation, collaboration with central governments and international bodies, public-private partnerships, microfinance institutions, and community-based banking systems in conferring empowerment upon territorial communities.

The exploration of scientific and methodological principles further enriches the discourse. In-depth research and analysis, coupled with transparency and accountability, bolster the rationale behind financial decisions. Flexibility and inclusivity are vital for adaptive and equitable development, while sustainability ensures lasting progress. The embrace of innovation and capacity building fortify community resource management capabilities.

The discussed aspects illustrate the complexity and interplay of factors shaping the efficacy of financial mechanisms in territorial community development. This analysis also accentuates the necessity for an integrated and holistic approach to address challenges that span governance structures, resource distribution, and sustainability concerns. While research serves as a guiding light, practical application and continuous adaptation to changing dynamics remain pivotal.

In light of the ongoing challenges, including conflicts and structural imbalances, it becomes evident that the discourse around financial mechanisms for territorial development is not only academically relevant but practically imperative. The synthesis of research findings, methodological principles, and real-world complexities underscores the need for a comprehensive paradigm shift in how financial resources are managed and distributed at various levels of governance.

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