EURASIAN JOURNAL OF BUSINESS AND MANAGEMENT

www.eurasianpublications.com

METHODOLOGY FOR THE STUDY OF INSTITUTIONAL SUSTAINABILITY FOR COUNTERING CONTEMPORARY THREATS AS A TOOL FOR IMPROVEMENT OF THE NATIONAL DEFENSE SYSTEM MANAGEMENT

Venelin Terziev

Corresponding Author: Russian Academy of Natural History, Russia National Military University, Bulgaria University of Rousse, Bulgaria Email: terziev@skmat.com

Mitko Stoykov

Rakovski National Defence College, Sofia, Bulgaria Email: mitkostoykov@hotmail.com

Received: May 24, 2020 Accepted: June 25, 2020

Abstract

In order to support the updating and improving of national expertise, it is necessary to develop scientific and scientifically applied tools such as methodologies for expert evaluation of the sustainability of modern administrative units and their institutional capacities, as well as the need for internal interinstitutional and international cooperation to counteract of modern threats to national security. Scientific instruments have been selected for the conduct of the study to carry out quantitative and qualitative measurements, evaluations and analyses, the application of which in a specific sequence forms a specialized scientific methodology for the complementary of measurement, evaluation and analytical techniques, as well as for the enhancement of representativeness and reliability of the obtained results.

Keywords: National Security System, Applied Tools, Development, Strategic Research, Business Game

1. Introduction

In its multiple meaning, the word "program" is widely penetrating in the field of social life and is also understood as list, index, notes (of theatre, concert performances, performed roles and their performers, in radio and television broadcasts, of authors of reports, scientific conferences and symposia), etc. Namely, the potential range of application of that term is the grounds for transferring its general meaning upon wider and wider fields of applicability, within which frames to define its aspect meaning and content. For the aims of our study, we determine the term "program" in the aspect of a certain public activity, what social activity is. We use the concept

"social program" in this sense, which definition finds manifestation in several aspects (Terziev *et al.* 2015; Terziev, 2015):

The social program is a perspective concept for the growth of wealth and development of social relations. It gives general characteristics of the country's social development within a particular historic period, the main directions for increasing the wealth and the global quality and quantity indicators that are to be reached for the period. Leading parties' program documents contain such concepts that serve as base for elaborating the relevant sections of the economic and social development plans.

Social programs appear to be special sections of the economic and social development plans (yearly or for a longer period) of the corresponding planning regions, districts and municipalities. Deeper reflecting the perspective social reference points, they form the tasks for a certain stage and the ways to achieve them, reflect the deeper introduction of social criteria in planning, in economic growth as a whole and of its single sections. More, they appear to be not only end result of the economic development's planning but also a complex of knowledge about it.

The special social programs that suggest solution of particular social problems of crucial significance and corresponding concentration of resources emerge. In this sense, the term "social program" is wider used; nevertheless it refers to a narrower concept. Often, such programs concern various sections of the social-economic plans and require special coordination in the development of the various branches of national economy.

Social programs contain specification of the goals and tasks, reflect their hierarchy, serve for forming new forms of satisfying population's social needs and for creating of corresponding new organization connections. The combination of outlined and feasible actions (measures) in one or another social field can be quite reasonably be reviewed in the capacity of a social program, in this case, if they have not got unified programming document, plan, etc., but grounded on a common concept, interconnected and directed towards achieving one complex goal. The pointed qualities of social programs such as conceptuality, targeting for satisfaction of social needs, including new forms, defining the reference points in the social development, the social criteria in economy's progress, their expression in quality and quantity indicators, type diversity and social flexibility, allow to be found as universal method for political and management activity. Using this method might vary depending on the general and specific social-economic, political and other circumstances.

Although recognizing the time in our society – the end of the 70s, social programs are reviewed within the frame of the then existing system of party management and total state directive-based planning. The term "target complex program" has established itself in the political and management vocabulary since the 70s, which is usually understood as "directive-based and addressing document, which is bound to resources, executors and time terms for conducting a complex of interrelated tasks and actions, united by a common goal".

Recognizing the significance of such programs in the practice of managing, it is necessary to note that their general name is not the most proper. The adjectives "target" and "complex" characterize the attributive, immanent features of each program, not of the ones of the particular class only. Non-target and non-complex programs simply do not exist. Each program, openly or not, contains a goal and a certain number of or a complex of means for execution. This case confirms once more the necessity of terminological analysis and of finding and adequate definition. The term "program" started being used by the American politicians and in the scientific circles for signifying part of the budgetary process, as a direction for financial funds for solving particular social and economic tasks. It is noted that in most of the aspect definitions there is identifying of the term for program, with the term "plan", where there is merging of one of the terms into the other. A circle of definitions appears of the type "a program, this is a type of program", etc. The terms project, model, etc. are put within this circle, which interpretation is also changeable.

The identifying of the term "program" with the term "plan" distorts the essence of the program-targeted approach of management and the integrity of the management phases - planning, programming, budgeting. Each one of them has certain functions in the management process and has as result certain products. And if the phase planning gives answer to the ques-

tion "what" (has to be done), the phase programming looks for answer to the question "when" (to be done), and the budgeting phase gives answer to the question "how much and what resources are necessary" (for what is to be done). The substantial is that these are the questions of each management process, united by the question "why". This is the reason for the particularism of programming to be looked for as intermediate phase between planning (defining the long-term goals) and budgeting (specifying the interrelation of the goals and the resources insuring). And this, more or less, expresses the subordination "resources-capabilities-effects", which lays in the grounds of results-based management (Terziev and Arabska, 2015; Terziev and Arabska, 2016; Terziev, 2020).

In order to support the updating and improving of national expertise, it is necessary to develop scientific and scientifically applied tools such as methodologies for expert evaluation of the sustainability of modern administrative units and their institutional capacities, as well as the need for internal interinstitutional and international cooperation to counteract of modern threats to national security. The generalized goals of implementing such an approach are: expert assessment of institutional sustainability through the state of institutions' capabilities to counter modern threats; the need to increase institutional sustainability by improving and building new capabilities in coordinated interagency and international interaction and integration; summarizing the results and empirical research using the developed toolkit and synthesizing proposals to improve strategic regulation and build the capabilities of security institutions to counter future risks and threats.

2. Methodology for the study of institutional sustainability for countering contemporary threats

During development of the methodology, it is important to consider the possibility of conducting research with systematic scientific methodologies at the first stage - scientific-expert evaluation by the Delphi method and the second stage - Management simulation game (Business Game), with a final summary of the results and development of proposals.

Main research objectives with implementation of the methodology of using the expert evaluation card and management simulation game are as follows:

- Assessment of the role of the main institutions of the national security system in ensuring the fulfillment of its basic functions (Table 1):
- Assessment of the currently available capabilities of institutions and organizations to realize the essential functions of the national security system to counter hybrid threats and their readiness to use them;
- Assessment of the current capability shortfall to fulfill the essential functions of the national security system for counteracting hybrid threats; identification of potential hybrid threats and their main characteristics, probable areas for their occurrence, which may endanger the national interests of the Republic of Bulgaria;
- Determination of the need for capabilities to counteract hybrid threats of different nature and ways to create them; identification of forms and methods of interinstitutional interaction in the construction and use of capabilities to counter hybrid threats.

The report of all the aforementioned research highlights in the development of the expert evaluation card is done by applying the Conceptual Analysis and Research Framework methodology, which allows semantic and functional alignment of different concepts in the common subject area. A thorough review of the entire legal framework of the national security system, i.e. laws, regulations, strategies and other strategic national and institutional laws which, in comparison with the nature and areas of manifestation of modern hybrid threats to national security, contributed to reporting and matching the conceptual basis of these standards and, as a result, synthesizing and arranging the basic functions of any modern national security system. In addition, the analysis of the institutional obligations in the respective legal framework of each ministry or agency allows the systematization or determination of different levels of institutional responsibility for the implementation of the basic functions. Such an approach allows the divi-

sion of institutions into several groups, in accordance with their role for the realization of the main functions of the state in the field of security.

Considering the specialization of the institutions - defence, internal security, international affairs, infrastructure, crisis management and disaster response, economics, finance, etc., as well as the possibility of pre-structuring the potential target group of participating experts, in the expert evaluation card the institutions are divided into three groups - Ministry of Defence and the Bulgarian Army, Leading institutions in the national security system with a focus on internal security, Institutions with a contribution to the realization and the basic functions of the security system (Petrova and Petrov, 2020a, b, c, d).

Table 1 presents the main functions of national security, synthesized through review and analysis of the legal framework of the Republic of Bulgaria, limited to twenty, but including all the most important functions that the modern state should activate in defending the institutional stability and protection of the national security against modern hybrid threats (Georgiev, 2019).

Table 1. List of the main functions of the national security system

	Table 1. List of the main functions of the national security system			
Nº				
1.	Observation, detection, recognition, identification and analysis of the development of			
	challenges, risks and threats to national security			
2.	Investigation, sharing and provision of information and knowledge			
3.	Horizon scanning, long-term forecasting, risk analysis and assessment, modeling and simulation of the development and manifestation of threats			
4.	Surveillance, command, control and coordination system			
5.	State border security, border control and migration			
6.	Observation, control and defence of sea and air space, protection of sovereignty, independence and territorial integrity			
7.	Implementation of international and coalition commitments for participation in NATO and European Union operations and missions			
8.	Participation in UN and OSCE operations for crisis and conflict management and humanitarian aid			
9.	Fight against terrorism, antiterrorism, counter-terrorism, management of the consequences of terrorist acts			
10.	Fulfillment of allied and bilateral agreements commitments for participation in opera-			
	tions for crisis, disaster and emergency consequences management			
11.	Public information, strategic communication, media and alert systems			
12.	Information policy, security and defence of information systems and networks			
13.	Public order protection, fight against organized crime, law enforcement, investigation and court			
14.	Health care, quarantines, epidemic control, safety and disposal			
15.	Protection of the population and critical infrastructure			
16.	Politics, government and creating capacities of the national security system			
17.	Economics, public finances, banks, stock exchanges			
18.	Research, education, innovation, training, teaching			
19.	Management of the natural disasters consequences, major industrial accidents and catastrophes			
20.	Crisis and wartime planning, government reserve and logistics			

2.1. Target group representing the institutions in the study

The research focuses on conducting an expert evaluation of the institutions' available and necessary capacities to fulfill the essential functions of the national security system. Taking into account the scope, objectives and tasks of the study, a total of 51 experts from 16 ministries, state agencies and organizations are included in the target group (Table 2).

Table 2. The institutions' available and necessary capacities to fulfill the essential functions of the national security system

Nº	functions of the national security system
 1	Ministry of Defence and the Dulgarian Army
	Ministry of Defense and the Bulgarian Army
1.1	Defence Policy Directorate
1.2	Operations and Preparation Directorate
1.3	Strategic Planning Directorate
1.4	Communication and Information Systems Directorate
1.5	Information Security Directorate
1.6	Human Resources Management Directorate
1.7	Military Information Service
1.8	Military Police Service
1.9	'Professor Tsvetan Lazarov' Defence Institute
1.10	Military Medical Academy
1.11	Vasil Levski National Military University
1.12	N. J. Vaptsarov Naval academy
1.13	Joint Forces Command
	Land Forces Command
	Air Force Command
1.16	
1.17	Command of 68th Special Forces Brigade
2	Defence Committee at the National Assembly
3	Ministry of Internal Affairs
4	Ministry of Foreign Affairs
5	Ministry of Energy
6	Ministry of Economics
7	Ministry of Finances
8	Ministry of Justice
9	Ministry of Transport, Information Technology and Communications
10	State Intelligence Agency
11	National Security State Agency
12	State Commission on Information Security
13	Municipality of Sofia
14	Ministry Of Education And Science
15	Ministry of Health
16	Center for studying, building and improving NATO's crisis managent and
	disaster response capabilities

In order to use the specialization in participant expertise, the study target group is divided into three subgroups:

- The first one is to evaluate the role and capabilities of the Ministry of Defence and the Bulgarian Army in the implementation of the main functions of the national security system;
- The second one is to evaluate the role and contribution of ministries and organizations, which are legally assigned a key role and contribution to the fulfillment of the functions of the national security system;
- The third one is to assess the role of the contribution of other ministries and organizations in the implementation of the main functions of the national security system.

The first subgroup included 33 experts in the field of defence and national security, representatives of directorates, staffs, services, military educational establishments and centers of the Ministry of Defence and the Bulgarian Army, including experts from the Defence Committee

at the National Assembly (presented as the number of participants in the Ministry of Defence and the Bulgarian Army in Table 3).

Table 3. Number of experts from directorates, staffs, services, military educational establishments and centers of the Ministry of Defence and the Bulgarian Army

No			
Nº	Ministry of Defence and the Bulgarian Army	Number of	
	ministry of Doronos and the Bargarian 7 anny	participants	
1.	Defence Policy Directorate	1	
2.	Strategic Planning Directorate	2	
3.	Communication and Information Systems Directorate	2	
4.	Information Security Directorate	1	
5.	Military Information Service	1	
6.	Military Police Service	1	
7.	Military Medical Academy	1	
8.	Vasil Levski National Military University	1	
9.	N. J. Vaptsarov Naval academy	1	
11.	Joint Forces Command	1	
12.	Land Forces Command	3	
13.	Air Force Command	1	
14.	Naval Forces Command	1	
15.	68th Special Forces Brigade	2	
16.	Georgi Rakovski Military Academy	10	
17.	Defence Committee at the National Assembly	1	
18.	Center for studying, building and improving NATO's crisis	3	
	managent and disaster response capabilities	3	
Total number of participants in the first subgroup 33			

The second group included 7 national security experts from ministries, agencies and government organizations with a statutory leading role and a significant contribution to the fulfillment of the main functions of the national security system (represented by the number of participants from the relevant ministries and agencies in the Table 4).

Table 4. Number of national security experts from ministries, agencies and government organizations with a leading role and a significant contribution to the fulfillment of the main functions of the national security system

Nº	Institutions and organizations with a leading role in the implementation	Number of		
	of the main functions of the national security system	participants		
1.	Ministry of Internal Affairs	1		
2.	Ministry of Foreign Affairs	1		
3.	Ministry of Justice	1		
4.	National Security State Agency	2		
5.	State Commission on Information Security	2		
Total number of participants in the second subgroup				

The third group included 11 experts from other ministries and organizations contributing to the realization of the main functions of the national security system (represented as the number of participants from the respective ministries and agencies in Table 5).

Table 5. Experts from ministries and organizations who contribute to the implementation of the main functions of the national security system

Nº	Institutions and organizations that contribute to the implementation of	Number of			
	the main functions of the national security system	participants			
1.	Ministry of Energy	2			
2.	Ministry of Economics	1			
3.	Ministry of Education and Science	1			
4.	Ministry of Health	2			
5.	Bulgarian National Bank	2			
6.	Executive Agency Electronic Communications Networks and	1			
	Information Systems	Ī			
7.	State Agency for Refugees	1			
8.	Sofia municipality	1			
Total	number of participants in the third subgroup	11			

The initial composition of the MoD and BA in the target group of the study (51 experts), who participated directly in the first stage of the completion of the Expert Evaluation Card and the second stage, the Management Simulation Game, during the first stage (completion of the Expert Evaluation Card) in order to increase the representativeness of the obtained results, was adjusted by 20 students in the "Strategic Course" of the National Security and Defence Faculty at the Georgi Rakovski Military Academy and by 7 experts from the Center for studying, building and improving NATO's crisis managent and disaster response capabilities.

Preliminary analysis of the results of the expert evaluation based on the summarized empirical data showed that no significant differences were obtained in the expert group of the Ministry of Defence and the Bulgarian Army when comparing and summarizing the evaluations of the majority of the investigated issues, regardless of whether the experts filled in the expert evaluation card on the day of the study or were part of the experts from the groups further included in the study and filled in the expert evaluation card later (Nichev, 2009).

After clarification of the representatives of the MoD and BA in the target study group, the total number of experts involved in completing the expert evaluation card was 78. Therefore, the summarized statistical results will also cover the participation of this additional group of experts, and subsequently the analyses and conclusions will be drawn on the data obtained from the overall systematization of the results of all 60 representatives of the MoD and BA. Following the submitted clarification, the final composition of the target group that participated in the study by completing the expert evaluation card according to the representativeness of the individual institutions is allocated as follows: 60 experts from the Ministry of Defence and the Bulgarian Army; 7 experts from institutions and state organizations with a leading role and significant contribution to the fulfillment of the main functions of the national security system and 11 experts from institutions with a contribution to the implementation of the main functions of the national security system.

The distribution of the experts of the research target group into three different subgroups with representatives of leading institutions in the defence and security sector was made in order to select and group the composition of the subgroups and participants in strict accordance with the expertise available to ensure complementarity and comprehensive coverage of the assessed institutional roles and capabilities for the implementation of the main functions of the national security system. Such an approach to structuring the target group of the study (in strict accordance with the existing institutional expertise in the field of defence and national security) allowed a wide and representative scope on the one hand, and the use of the expertise and detailed knowledge of the basic institutional and national capabilities and responsibilities on the other hand. The consolidation approach is also applied to enhance the guarantees of the consistency and credibility of the results of the expert review, as well as to increase the likelihood of validity of the main results and conclusions, as well as to support the validity of the proposals made in scientific research (Petrov and Georgiev, 2019).

2.2. Methodology for conducting the first stage of the study

Scientific instruments have been selected for the conduct of the study to carry out quantitative and qualitative measurements, evaluations and analyses, the application of which in a specific sequence forms a specialized scientific methodology for the complementary of measurement, evaluation and analytical techniques, as well as for the enhancement of representativeness and reliability of the obtained results. The first part of the study is divided into two stages. The first one is organized and conducted in the form of a scientific and expert evaluation using the Expert Evaluation Card and the application of the Delphi method and the second is in the form of a Business Management Game. The summarized assessments and analyses of the first part are grouped as the results of the first stage. The results of the study were presented in an international conference format and a discussion on the role and opportunities for interinstitutional and international cooperation in building and using capabilities to counter hybrid threats.

The first stage of the study, expert assessment of the institutional role, capabilities and needs of interinstitutional and international co-operation for fighting hybrid threats, was organized and conducted in two separate phases: completion of the expert evaluation card using the Delphi method and conducting a management simulation game in the form of a discussion between the experts involved in the study. The specifics of the organization and the conduct of the two phases in the first stage of the study, as well as the use of different forms of processing and analysis of the results, necessitated the application of different methods for processing, summarizing and comparing the obtained results.

The specialized processing of the obtained empirical data obtained from the completion of the Expert Evaluation Card necessitated the application of appropriate statistical methods for their processing and subsequent qualitative analysis of the results, the reflected opinions of the experts in assessing the ability to realize each of the main functions of the national security system. The processing of the information and the results of the discussions between the experts in conducting the Business Game was carried out by applying methods for qualitative evaluation, grouping and analysis of the proposals. Therefore, the results of each stage of the first part of the study are grouped separately, and afterwards they are integrated into the main conclusions and proposals of the research report (Terziev *et al.* 2017).

2.3. Applied scientific research methodology using the expert evaluation card

The methodology of research and content of the expert evaluation card is an original development of Stoykov (2018). The main objective of the developed research and analytical methodology is to enable the use of highly specialized institutional expertise to assess the institutional role and adequacy of available capacities of ministries, agencies, organizations, and the need to build new capabilities, in the context of the concrete contribution of each institution to the realization of the main functions of the national security system. After the requirement to assess the institutional role and available capabilities were specified during the briefing, it was further specified for the MoD and BA experts group that, regardless of the participants' affiliation to different MoD and BA structures, they would evaluate the generalized role and capabilities of the Ministry of Defence and the Bulgarian Army.

While developing the expert evaluation card, the operational functionality of the national security system is represented through the ability to implement 20 key functions (Table 1) identified through analysis of national and relevant institutional legal documents. The ability to perform each major function is realized through a leading, secondary and contributing institutional role for the institutions. The likelihood of the implementation of the role of each institution is accounted for by assessing the availability and relevance of institutional capabilities (Given the widespread entry and use of capabilities from the defence planning system, we will provide some clarifications on the nature and core imperatives, basic elements of defence capabilities/security. The capability is defined as an ability to achieve the desired effect under specific standards and conditions through a combination of means and ways to complete a set of tasks. Capability imperatives (elements of the structure) include Doctrine, Organization, Training, Material (equipment), Leadership and Education, Personnel, Facilities and Interoperability - DOT-

MLPFI) - own and/or other participating institutions (group of institutions), as well as through the assessment of the need to improve the current or to create the lacking capabilities and the assessment of the impact of the capabilities on the operability of the institution itself. Each of the assessed groups of capabilities for the implementation of the core functions is divided into a range of 5 to 7 key areas.

The assessment of the institutional role (primary/leading, secondary or supporting, as well as non-participating) of each institution for the implementation of each of the main functions of the national security system is measured on a three-level scale with options "basic", "auxiliary", "lacking". For experts who feel that they do not know enough about the contribution of their organization or have doubts about the institutional contribution to the implementation of any of the functions, the opportunity to indicate the answer "I cannot judge" is added to the methodology.

The assessment of the degree of completion of the necessary capabilities of the respective institution or organization for the successful performance of each function is performed on a five-point scale allowing the options:

- "complete" (when the necessary capabilities are completely built and allow smooth implementation of the function, including the presence of sufficient technological and operational reserves for future use);
- "rather complete" (when the estimated capabilities are built to a large extent and allow complete function):
- "average" (when the core capabilities elements are built up and allow the institution's core tasks to be accomplished without limitations (to an average degree);
- "negligible" (capabilities are minor and allow for implementation of a function with some constraints);
- "lacking" (capabilities that are not built and are lacking, meaning that the relevant institution does not contribute to the realization of the function).

Those experts, who do not have sufficient knowledge of their organization's capabilities or have doubts about their use to perform any of the functions, can again choose the answer 'I cannot judge'.

Identical 5-point scales were used to assess the impact of the available groups of capabilities on the implementation of each of the main functions of the national security system, as well as to assess the need to build new ones or to improve the available capabilities for performing the relevant function:

- "extremely high" when the presence of the assessed group of capabilities exerts an
 extremely high influence on the performance of a given core function, or accordingly
 there is an extremely high need for the assessed group of capabilities to realize institutional roles and contribute to performance of the specific core function of the national
 security system:
- "high" when the presence of the assessed group of capabilities has a high degree of
 influence on the performance of a given main function or there is a high need for the assessed group of capabilities to make an institutional contribution to the performance of a
 particular main function of the national security system;
- "average" when the presence of the assessed group of capabilities has an average influence on the performance of a given main function or there is an average need for the assessed group of capabilities to make an institutional contribution to the performance of a particular main function of the national security system;
- "negligible" when the presence of the assessed group of capabilities has low or negligible influence on the performance of a given main function or there is a negligible need for the assessed group of capabilities to make an institutional contribution to the performance of a particular main function of the national security system;

"lacking" - when the presence of the respective group of capabilities does not affect the
performance of the main function or, accordingly, there is no need to build the given
group of capabilities.

Those experts who lack sufficient knowledge or competence or have doubts about assessing the impact and the need for a given group of capabilities to make an institutional contribution to one of the main functions are also given the option for evaluation "I cannot say".

Following the assessment of each group of capabilities, a personal comment space is left on the expert evaluation card which allows the experts to provide further arguments, clarifications, comments on the measured availability, impact or need to build the respective groups of capabilities in the institution they represent.

The expert evaluation card finishes with a table with summarized assessment of the institutional availability of capabilities to perform the functions of the national security system. In this table, the measurement of institutional capabilities is done through the evaluation of 8 (eight) imperatives or constituents of capabilities:

- laws, regulations, strategies, doctrines, concepts, regulations, programs and plans;
- systems, structures, organizations;
- trainings, workshops and teaching;
- materials and equipment;
- management, command and control;
- · education personnel and training;
- critical infrastructure, infrastructure;
- · cooperation, collaboration and interoperability.

The assessment of the imperatives or elements of the structure of capabilities is also done through the already presented 5-point scale:

- rating "complete" when the assessed items or capability imperatives are completely formed;
- rating "rather complete" when the assessed elements of institutional capabilities are rather complete or are in a high degree of their formation;
- rating "average" when the elements of institutional capabilities are rated at average degree of their formation;
- rating "negligible" when the capabilities elements are underdeveloped or negligible;
- rating "lacking" when the evaluated capabilities elements are not formed or lacking.

Once again, the measurement scale provides the option "I cannot say" in case of insufficient knowledge or doubts about the extent to which the assessed capabilities imperatives are formed.

The survey procedure is intended to ensure the anonymity of participants. It is only mandatory to take into account the institutional identification of experts on the expert evaluation card, i.e. marking their affiliation with any of the participating institutions or organizations.

Statistical methods have been used in the scientific research for processing and empirical analysis of the results obtained from the completion of the expert evaluation card:

- analysis of average values to present a score based on an assessment of institutions or of the respective capability groups;
- analysis of the standard deviation from the average value to reflect the convergence or diversity (variation) of the results obtained from the assessment of identical roles or capability groups;
- Mann-Whitney and Kruskal-Wallis nonparametric methods (nonparametric methods were applied in the case of deviations from the normal distribution of the estimated parameters of the groups of capabilities). They were used to prove or disprove the statisti-

cal significance of the differences in scores between the average values of the institutional capability groups assessed (Terziev and Georgiev, 2017).

3. Conclusion

The methodology developed for assessing the role and capabilities of counteracting hybrid threats to the institutions of the national security system allows the definition of potential hybrid threats, whose manifestation may endanger the national interests and the national security of the Republic of Bulgaria; identification of the areas of available institutional capabilities; identification of the deficits of institutional capabilities; determination of the need for institutional capabilities to respond to hybrid threats and the opportunities for their creation; identification of forms of interinstitutional interaction for the creation and use of capabilities to counter hybrid threats.

The main efforts in developing such an intellectual product as evaluation methodology are targeted at identification of the main functions of the national security system and the role of institutions in their implementation; identification of the areas of available capabilities of institutions and organizations of the national security system to counter hybrid threats and their readiness to use them; identification of the deficit of the ability to counteract hybrid threats; identification of potential hybrid threats, the manifestation of which could endanger the national interests of the Republic of Bulgaria; identification of the need for the necessary capabilities to respond to hybrid threats and the ways to build them; identification of forms of interinstitutional interaction in building and using capabilities to counter hybrid threats.

The analysis of advantages and disadvantages of program-target approach in management confirms the necessity of a new view on the results-oriented approach to management as well as the organizational effectivenss discussed in the context of the management of complex systems, programming as an important element of the purposeful systems, and social programming in particular on the basis of the sociological approach to the culture, state regulation and market self-regulation and the use of system approaches. Elucidation of the essesnce of the phenomenon of social programming and its interrelations with management approaches and the concept of controlling is accomplished on the basis of a profound analysis of theory and practice both in historical and conceptual plan deducing the main dependencies between social programming as a basis of the social development and the concept of controlling.

References

- Georgiev, M., 2019. Improvement of the forming of the military professional qualities during the educational process. 21st International scientific conference: The teacher of the future, Budva, Montenegro, (07-09.06.2019), Institute of knowledge management Skopje, Macedonia, 31, 2019, 6, pp. 1945-1950.
- Nichev, N., 2009. Historical analysis of the involvement of joint armed forces in humanitarian operations. 15th International Conference on Knowledge-Based Organization 26-28 Nov 2009: Military Sciences. Security and Defense, Conference Proceedings 1, Volume: 1, Pages: 104-108, Sibiu, Romania, 2009.
- Petrov, N. and Georgiev, M., 2019. Assessing of the military professional competencies. *Proceedings of SOCIOINT 2019- 6th International Conference on Education, Social Sciences and Humanities 24-26 June 2019- Istanbul, Turkey*, International Organization Center of Academic Research, Istanbul, Turkey, 2019, pp. 462-472.
- Petrova, T. and Petrov, Zh., 2020a. Alternative Approaches for Long-Term Defence Planning. Proceedings of INTCESS 2020- 7th International Conference on Education and Social Sciences 20-22 January, 2020 - DUBAI (UAE), International Organization Center of Academic Research, Istanbul, Turkey, 2020, pp. 818-825.
- Petrova, T. and Petrov, Zh., 2020b. Analysis on the Leading Trends and Capabilities of UAV'S and Their Application in the European Cooperation Projects. *Proceedings of INTCESS* 2020- 7th International Conference on Education and Social Sciences 20-22 January,

- 2020 DUBAI (UAE), International Organization Center of Academic Research, Istanbul, Turkey, 2020, pp. 826-833.
- Petrova, T. and Petrov, Zh., 2020c. Economic Factors in the Development and Application of UAV's and the Fight With Wild Fires. *Proceedings of INTCESS 2020- 7th International Conference on Education and Social Sciences 20-22 January, 2020 DUBAI (UAE)*, International Organization Center of Academic Research, Istanbul, Turkey, 2020, pp. 811-817.
- Petrova, T. and Petrov, Zh., 2020d. Long Term Development Perspectives for UAV Potential. Proceedings of INTCESS 2020- 7th International Conference on Education and Social Sciences 20-22 January, 2020 - DUBAI (UAE), International Organization Center of Academic Research, Istanbul, Turkey, 2020, pp. 802-810.
- Stoykov, M., 2018. Managing transformation of the security system. Sofia: AvangardPrima.
- Terziev, V. and Arabska, E., 2015. Opportunities for improvement of national strategic framework in organic production and management in the Republic of Bulgaria. *16th EBES Conference Istanbul, May 27-29, 2015*, Istanbul, Turkey, 2015.
- Terziev, V. and Arabska, E., 2016. Monitoring active policies on labor market. 18th EBES Conference U.A.E,. January 8-1. 2016.
- Terziev, V. and Georgiev, M., 2017. Highlights of the evolution of the 'Balanced Scorecard' idea as a model for managing strategy development and control. SOCIOINT 2017- 4th International Conference on Education, Social Sciences and Humanities 10-12 July 2017-Dubai, UAE, OCERINT- International Organization Center of Academic Research, Istanbul, Turkey, 2017, pp. 607-610.
- Terziev, V., 2015. Impact of active social policies on the labour market in Bulgaria. *16th EBES Conference Istanbul, May 27-29, 20*15, Istanbul, Turkey, 2015.
- Terziev, V., 2020. Dependencies between social programming as a basis of regulating social development and the concept of controlling. 30th EBES Conference - Kuala Lumpur, Malaysia, Book of Abstracts, EBES - Eurasia Business and Economics Society, Istanbul, Turkey, 2020, pp. 84.
- Terziev, V., Arabska, E. and Radovic, V., 2015. Risk communications in environmental crises advent on the Balkans. *15th EBES Conference Lisbon, January 08-10, 2015*, Lisbon, Portugal, 4, 2015, pp. 2103-2121.
- Terziev, V., Madanski, V. and Georgiev, M., 2017. Offset implementation impact on technology transfer in Bulgaria. *Proceedings of ADVED 2017- 3rd International Conference on Advances in Education and Social Sciences 9-11 October 2017- Istanbul, Turkey.* International Organization Center of Academic Research, www.ocerint.org, 2017, pp. 743-747.