

REVIEW

of a dissertation submitted for the award of the scientific degree “Doctor of Sciences”

in the doctoral programme “Transformation of the Management Cycle in Intelligence and Counterintelligence through the Integration of Modern Technological Solutions”

Professional field 9.1 National Security

Author of the dissertation:

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Prepared by:

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TOPIC OF THE DISSERTATION:

“Transformation of the Management Cycle in Intelligence and Counterintelligence through the Integration of Modern Technological Solutions”

1. Relevance and significance of the scientific problem

The literature review examines the transformation of the management cycle in the field of security under the influence of modern technological innovations.

The relevance of the research comes from the clear need to adapt national security systems to the new technological environment. The integration of technologies such as artificial intelligence, big data analysis, cloud computing, blockchain and autonomous systems is not merely a technical improvement. It is a strategic necessity for achieving information and operational superiority.

Dr. Teodora Licheva formulates the main thesis that modern technological transformations change in depth all stages of the management cycle in security – from analysis and planning, through decision-making, to implementation and control. New technologies do not simply improve individual processes. They require a qualitative systemic change, turning the traditional sequence of management activities into a dynamic, automated system focused on real-time data.

A matrix model is introduced, structured along two axes with seven management stages (information collection; forecasting; decision-making; planning; organisation; implementation; control) and three levels of management (strategic, tactical, operational).

The clear significance of the topic is determined by several main aspects:

- **Scientific-theoretical significance:** The research contributes to the development of management theory in security by offering a new conceptual model for transforming the management cycle. This model combines and adapts classical management principles with the opportunities of digital technologies.

- **Scientific-applied significance:** The developed models, analyses and recommendations can provide direct practical value for state institutions in intelligence and counterintelligence of the Republic of Bulgaria. They offer a methodological basis for modernisation, digitalisation and increasing the effectiveness of intelligence and counterintelligence structures in line with the best Euro-Atlantic and world practices.

The topic is also highly relevant given the accelerated digitalisation of the public sector, stronger international regulatory requirements and the need to modernise national security institutions.

2. General assessment of the merits of the dissertation

The dissertation is a precise and systematic study of the adaptation of national security systems to the current technological environment. I can define it as important for the development of intelligence and counterintelligence in the Republic of Bulgaria.

It seeks a way to upgrade the security system through a rapid digital transition and the use of high-tech solutions. This is a guarantee not only of effectiveness, but also of dealing with contemporary challenges.

The dissertation is a thorough and extensive scientific work presented in a total volume of 475 pages of main author text. It contains three chapters that end with conclusions, a conclusion and contributions. The literature used covers a total of 514 publications in English, Bulgarian and Chinese, as well as international, supranational and national normative acts.

The author offers a new view of the development of security theory and practice, which supports the smooth transition of the sector from delayed to exponential development.

The originality of the presented topic is clear. So far there has been no similar comprehensive and detailed study examining the impact of each group of new technologies on the management cycle and its stages in intelligence processes.

The aim of the research is to identify trends in the development and improvement of the elements and essence of management in security during the transition from analogue to technological digital management. Based on the study of existing information, frameworks and concepts are proposed for modernising and increasing the effectiveness of management in security. Modelling modern intensive management scenarios facilitates practical work on effective leadership in the complex security system and at the same time

creates an opportunity for adequate response to contemporary threats. It is clear that the challenges to security are closely linked to the development of modern technologies and therefore the counteraction and management of the crises related to them can only be high-tech.

To achieve the aim of the dissertation, the author precisely formulates the following research tasks:

1. Comparing classical with digital management to clarify common points and differences;
2. Identifying the role and importance of each of the new technological areas in relation to the elements of the management cycle;
3. Defining the frameworks and development scenarios of each technology in relation to the individual phases of the management cycle;
4. Examining the synergy of modern technologies in relation to the increased effectiveness of digital management in security.

3. Characteristics of the scientific and scientific-applied contributions in the dissertation. Reliability of the material

I would summarise the scientific contributions of Dr. Teodora Licheva in two groups:

1. Original scientific contribution.

The elements of the management cycle typical of security services are clearly and precisely formulated – from traditional and analogue to modern digital processes, including the specific features of the separate levels of management according to the time horizon and structural levels in the national security system.

2. Theoretical generalisations and solutions of practical-applied contributions.

Dr. Teodora Licheva formulates a concept of digital security management that argues for the transition from a reactive to a proactive, predictive and sustainability-oriented management model based on data and technologies. She thoroughly develops an interdisciplinary model for integrating new technologies into security management. This model unites management, legal, historical, ethical and technological dimensions and examines each technology throughout the entire management cycle.

A complete conceptual framework of the management cycle in security has been developed in the context of Industry 4.0–6.0 and Security 4.0–6.0. The evolution of Security 1.0 to Security 5.0 (and trends towards 6.0) has also been systematised and analysed in close connection with industrial revolutions, changing risks and management models.

After a thorough historical-institutional analysis, a new reading of the development of the Bulgarian security services is proposed. Matrix models and

templates for the application of key technologies in the fields of intelligence and counterintelligence have been derived and formalised.

An ethical-legal and management framework for the technological transformation in security has been developed. It takes into account the risks of mass surveillance, algorithmic bias and violation of privacy, and introduces principles for democratic, legal and institutional control over new technologies.

The practical-applied contributions are clearly justified. They begin with the creation of applicable analytical tools for strategic planning and reforms in security, including comparative tables, matrices and templates that can help in formulating strategies, doctrines and sectoral policies under Bulgarian conditions. Frameworks have been developed for measuring the effectiveness of the management cycle through specific technologies in intelligence and counterintelligence. These can serve as practical guides when designing and implementing technological solutions in security services.

The author offers guidelines for improving the normative and ethical framework related to the use of new technologies in security. I recommend that these be used when preparing legislative changes and internal policies. She also defines directions and models for training and development of human resources in the context of digital transformation. These can be used when building training programmes, internal institutional training and scenario-based exercises.

Dr. Teodora Licheva builds a practical framework for a gradual transition from an analogue to a digital management cycle, including steps for mapping existing processes, gradual digitalisation and implementation of key technologies in main operational activities. She creates a reference framework for assessing technological lag and risks to national security, based on comparative cases and indicators of technological maturity. This can help justify investments and prioritise modernisation projects.

4. Assessment of the publications related to the dissertation and authorship

I find publications by Dr. Teodora Licheva in the abstract and the bibliography. They are devoted to problems of security and the management of intelligence and counterintelligence. I accept that they are related to the dissertation. I did not have access to their full texts.

5. Literary awareness and competence

The doctoral candidate knows in detail the literature on the main problems of the dissertation. The bibliography contains 514 titles. They cover the publications that are directly related to the dissertation.

Authorship is beyond doubt. It is evident from the style and the interpretation of the results of the dissertation. Of course, the expertise of the author and her deep knowledge are also clear.

6. Assessment of the abstract

The abstract reflects the main points and scientific contributions of the dissertation. It has been prepared in accordance with the requirements in our country.

7. Critical remarks and recommendations

I have no remarks regarding the scientific value of the dissertation. It is an original achievement and possesses all the characteristics and merits of a significant scientific achievement in national security.

8. Motivated proposal

The dissertation on the topic “Transformation of the Management Cycle in Intelligence and Counterintelligence through the Integration of Modern Technological Solutions” is submitted for the award of the scientific degree “Doctor of Sciences” in professional field 9.1 “National Security”.

The dissertation is a completed and thorough scientific study. It has significant and original scientific contributions.

My assessment is positive.

The dissertation meets the requirements of the Law on the Development of the Academic Staff, the regulations for its application and the rules of Varna Free University “Chernorizets Hrabar”.

The compliance and scientific value of the dissertation give me grounds to propose to the scientific jury that it evaluate and support the scientific achievements of Dr. Teodora Licheva.

I consider that the scientific jury can justifiably award the scientific degree “Doctor of Sciences” to Dr. Teodora Licheva.

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