
Responding to Security Threats: The Decision-Making Process in a Crisis

Submitted 14/04/25, 1st revision 10/05/25, 2nd revision 24/05/25, accepted 20/06/25

Janusz Falecki¹, Robert Socha²

Abstract:

Purpose: The purpose of the article is to present a universal concept of decision-making during a crisis situation, a concept enabling the optimal development of decisions to respond to any type of threat, in various conditions, usually related to incomplete and unconfirmed information, high dynamics of crisis situation variability, shortage of forces and resources or time pressure.

Design/Methodology/Approach: The main research problem resulting from the adopted course of preliminary research was formulated in the form of the question: What is the optimal decision-making process in a crisis situation, the system of interrelated phases, stages and activities, which is an element of effective security of people, property, critical infrastructure and the environment? In the research process, both theoretical and empirical research methods characteristic of the field of social sciences were used. A review of the literature on the subject, documents and conclusions from the expert interview were considered, in which experts from crisis management units of various levels of the system participated, and the selection of experts focused on people who have knowledge and practical experience, which guaranteed factual and reliable answers.

Findings: Decision-making in a crisis situation is a complex process that requires a few activities to be performed by a group of functionaries and experts in various conditions who develop decisions on the use of force and means to counteract various types of threats and remove their effects. The complexity of decision-making during a crisis situation makes it difficult to clearly present the decision-making system. The concept of decision-making during a crisis situation presented in the article is a sequence of interrelated phases, stages and activities that enable response during any type of threat. Depending on the time or access to information, it allows you to simplify, expand or even omit some elements of this process, or change their assumed order. The most important thing is that it provides a solution to the problem situation and prepares the decision-maker with options of action based on the analysis of the crisis situation, the assessment of factors affecting the performance of the task, which makes it possible to make a decision, i.e., the act of choosing the optimal variant of future action from among several possible ones. In addition, it allows you to prepare an action plan and develop task documents, assign tasks to executive entities, as well as monitor the implementation of decisions and adjust as needed.

Practical implications: The presented concept should improve the decision-making process in a crisis situation and should be used in security systems, especially in the crisis

¹Assoc. Prof., Pomeranian University in Starogard Gdanski, Poland,
ORCID: 0000-0001-5139-7923, e-mail: janusz.falecki@twojestudia.pl;

²WSB University in Dabrowa Gornicza, Poland,
ORCID: 0000-0003-2388-1819, e-mail: robertsocha@interia.pl;

management system at all its levels and in organizational units of systems responsible for the decision-making process in a crisis situation.

Originality/Value: The article presents a universal system of the decision-making process that allows for the development of a decision to respond to any type of threat, in a crisis situation, which is characterized by, among m.in, such features as: surprise, time pressure, unpredictability, insufficient and uncertainty of information, loss of control over the situation or the appearance of panic.

Keywords: Crisis management, risk, internal security, national security.

JEL codes: H120, H56.

Paper type: Research paper.

1. Introduction

Decision-making in a crisis situation is a complex process that requires a number of activities to be performed by a group of functionaries and experts in a variety of conditions, usually related to incomplete and unconfirmed information, high dynamics of the variability of a crisis situation, shortage of forces and resources, or time pressure.

The very essence of decision-making in a crisis situation results in high uncertainty and instability, which gives rise to a sense of risk and threat to the implementation of the decisions made. The decisions made in these conditions determine whether the crisis situation will develop, how long it will last, what forces will be used, how rescue operations will be carried out and consequently the avoidance or reduction of losses, both human and material, depends on the decisions made.

The efficiency of the management body is determined by the knowledge of the people who make up this body, the preparation of this body to perform tasks and the concept of decision-making in crisis situations. This concept, m.in. should enable the necessary analyses to be carried out, appropriate assessments to be developed, compared and to select the optimal solution, in conditions of time constraints, uncertainty and instability, dynamic changes that are not foreseen by the previously adopted principles, procedures and practice of decision-making.

In the literature on the subject, there is no uniform definition of the term *decision* that is recognized by everyone. It is a concept used in areas such as: economics, management, psychology, sociology, philosophy, computer science, mathematics or administration. The term *decision* derives from the Latin *decisio* which means: a provision, a arbitration or a resolution.

The concept is similarly described in dictionaries. And so, in the *Small Dictionary of the Polish Language*, a decision is “a provision, a arbitration, a resolution” (Mały słownik..., 1969, p. 107). Similarly, in the *Dictionary of Foreign Words and Foreign Phrases*, a decision is “a provision, a arbitration, a resolution” (Słownik wyrazów obcych..., 1990, p. 108).

On the other hand, the concept of *decision* in scientific papers is understood more broadly and at the same time more generally. And so, A.K. Koźmiński defines a *decision* as „a conscious, non-random choice of one of the recognized and considered possible variants of future action” (Koźmiński and Piotrowski, 2006, p. 64). J. Zieleniewski defines a decision as “giving priority to a particular solution among possible options, for a certain reason” (Zieleniewski, 1969, p. 406).

It should be emphasized that decisions are made based on data regarding the past and present, but their consequences concern the future. In a crisis situation, effective and timely decisions are crucial for the ability to counter threats efficiently and to avoid or at least mitigate their effects. Therefore, decision-making is a vital component of crisis management, where previously developed rules, procedures, or customary practices do not always prove effective.

Stoner and Wankel (1994, p. 74) describe *decision-making* as an important element of planning, defining it as “developing and selecting a course of action to solve a problem”. Similarly, Griffin (2002, pp. 41, 268) defines decision-making as “part of the planning process that involves choosing a course of action from a set of available options.”

He considers decision-making an act of choosing one alternative from a set, which helps maintain managerial efficiency by providing guidance for future actions. He adopts a broader view of the decision-making process, defining it as “identifying and defining the essence of a decision-making situation, identifying alternative options, choosing the ‘best’ one, and implementing it.”

Sienkiewicz (1994, p. 48) emphasizes that *the decision-making process* critically involves:

- examining the objectives of an action (or course of conduct),
- exploring possible methods to achieve the intended goals, taking alternative solutions into account,
- assessing both the positive and negative, as well as short- and long-term consequences of each possible course of action, while accounting for future uncertainty and risk,
- comparative analysis of action variants according to various efficiency criteria,
- presenting the results in a way that enables selection — a decision.

Information is the key foundation of the decision-making process, as it determines

the quality and rationality of the decision made, and thus the success or failure of the resulting actions³. The quality of a decision corresponds to the quality of the information available about the decision-making situation (or decision problem).

This information concerns the causes of the situation and the possible ways to resolve it. Proper quality and quantity of information ensure accurate identification and assessment of the decision-making situation, which in turn reduces the frequency and scope of errors in the decision-making process, thereby improving the accuracy of the decisions made.

Every decision-making process is carried out under conditions of varying degrees of risk⁴. Consequently, each decision involves some level of risk, the extent of which depends on incomplete and uncertain information. By its nature, decision-making involves significant uncertainty and instability, which gives rise to a sense of risk and potential threats to the implementation of the decisions made. Practically speaking, every real decision-making situation is uncertain and involves some degree of risk.

The greater the incompleteness and unreliability of diagnostic premises and necessary data, the greater the risk. According to various theories, the decision-making process can be classified as a form of applied art, whose main paradigm is the effectiveness of decision generation and the efficiency of their practical implementation while maintaining an acceptable level of risk. Therefore, it is essential to provide decision-makers with rational premises that allow them to optimize the decision-making process and thus reduce the risk to a minimum (Ficoń, 2007, p. 153; Velinov *et al.*, 2023; Grima *et al.*, 2023).

In the decision-making process within an organization or system, many people are usually involved, each fulfilling different roles and tasks. However, the key figure is the *decision-maker*, who has the authority to make decisions and bears responsibility for those decisions. This is a person (or sometimes a group or team) within the organization whose decision-making authority stems from their position or organizational arrangements defined in internal regulations or instructions. The decision-maker should possess specific skills, personality traits, and fulfil defined roles in the decision-making process.

³Information – knowledge obtained through the interpretation of data, which, in a defined context, has a specific meaning and pertains to objects such as facts, events, items, phenomena, processes, and ideas. It also includes raw data of any kind that can be used for intelligence (reconnaissance) analysis (Słownik terminów..., 2008, p. 51).

⁴Risk – a multifaceted and multidimensional concept, used in everyday language to describe situations and undertakings with unknown outcomes, emphasizing the possibility of failure in action or the occurrence of an unfavourable state from the perspective of the subject's (individual's, group's, organization's, state's, etc.) expectations and preferences (Słownik terminów..., 2008, p. 117).

Among the skills analysed, it is important to emphasize that the most crucial ones relate to the decision-maker's ability to cooperate with others, understand and motivate them, integrate everyone around shared goals, and coordinate the organization's activities. In contrast, skills related to using methods, procedures, or specialized knowledge are less critical, as these can be supplemented by the work of advisors or experts in specific fields (Thalassinos *et al.*, 2023).

Similar conclusions arise from the analysis of decision-making roles, where organizational predispositions of the decision-maker are seen as key (Grimaa *et al.*, 2023). As for personality traits of an effective decision-maker, important characteristics include analytical and intuitive abilities, creative thinking, stress resistance, and self-confidence. Other significant personality traits may include memory, temperament, emotionality, and aspirations. One must not forget the non-personality attributes of an effective decision-maker, such as education, knowledge, experience, and motivation.

In some organizational systems, *experts* (consultants, advisors, analysts, specialists) also participate in the decision-making process (Velinov *et al.*, 2023). Their task is to assist the decision-maker in understanding the situation, developing selection criteria, creating a list of potential actions, weighing all the pros and cons, and identifying the consequences of choosing a particular option. They should remain impartial and not favour any specific solution.

However, in practice, not only their expertise, exceptional experience, and authority significantly influence the decisions made, but also subjective preferences, tendencies, and sympathies may play a role (Kisielnicki and Turyna, 2012, p. 30).

In crisis decision-making, *staff units* are also involved. They are especially responsible for providing and managing information related to the crisis situation and for implementing the decisions made.

A key challenge in the decision-making process during a crisis is the awareness of the potential *errors* made throughout the process. These may include:

- incorrectly defining the problem situation, leading to a flawed assessment of available information,
- developing flawed variants (alternatives) for selection, for example options that are unfeasible or carry negative consequences,
- incorrect evaluation of options due to, for example poorly designed assessment procedures,
- mistakes made during the implementation phase of the decision (Kaczmarek, 2012, p. 119).

However, the frequency and extent of such errors can be reduced — or even eliminated — if the decision-making process is properly organized, tailored to the

specific conditions of the crisis situation, and supported by reliable, verified, and timely information that enables accurate identification and assessment of the problem. Furthermore, the quality of the decision-making process improves when the options are carefully developed and evaluated, and when the decision-maker selects the optimal variant. At the same time, the decision should be implemented correctly, with mechanisms for monitoring and making necessary adjustments.

2. Detailed Solutions

The decision-making process, like any organized activity, should be carried out according to a pre-established, preferably optimal model (concept), which ensures the selection and implementation of the best possible course of future action. This action should be tailored to the needs and capabilities of the organization or system to achieve the intended objectives.

In the relevant literature, this process is most often presented as a system (algorithm) of interrelated stages, phases, and activities — logically connected and forming an organized whole, which is a key to effective decision-making. However, the number and scope of these stages, phases, and activities are described in various ways.

For example, R.W. Griffin, in the classical model of decision-making, describes how a decision-maker should go about deciding. He assumes that the decision-maker operates logically and rationally and that their decisions are always in the interest of the organization or system.

It is also assumed that the decision-maker has complete information about the decision situation and the available alternatives, can effectively eliminate uncertainty to make decisions under conditions of certainty, and can rationally and logically evaluate all aspects of the decision context. He proposes six stages in the rational decision-making process:

- 1) *Recognizing and defining the decision situation*, which involves identifying a stimulus that triggers the decision-making process. This stimulus may appear suddenly and can be either positive or negative.
- 2) *Identifying alternative courses of action*, with the premise that the more alternatives there are, the better. The more important the decision, the more alternatives should be considered — both obvious and creative options.
- 3) *Evaluating the alternatives*, where each option is assessed in terms of feasibility, adequacy, and potential consequences.
- 4) *Choosing the best alternative*, which involves considering all elements of the situation and selecting the option that best fits the decision-maker's context.
- 5) *Implementing the chosen alternative* within the organization.
- 6) *Observing and evaluating the results*, assessing the extent to which the selected and implemented alternative works in practice (Griffin, 2002, pp. 272–274).

Kisielnicki and Zach (2012, p. 33) argue that despite the variety of problems and the multi-faceted nature of decision-making situations in organizations, a general algorithm (model) for action in decision-making scenarios has been developed. Their model consists of nine stages characterized by specific actions and activities:

- 1) *Recognizing the problem situation as a signal* (from the environment or within the organization or system) necessary to initiate the decision-making process.
- 2) *Identifying the problem* based on an analysis of the problematic situation.
- 3) *Establishing evaluation criteria* to assess potential solutions to the problem.
- 4) *Generating solutions (alternatives)* by developing a set of possible ways to address the problem — alternative decision variants.
- 5) *Evaluating the alternatives*, which leads to a classification of solutions (decisions) that meet the previously established evaluation criteria.
- 6) *Selecting a solution*, involving the decision-maker making a clear and final choice.
- 7) *Deciding on implementation*, which is a complex process of coordination both within the organization and in its interactions with the external environment.
- 8) *Managing the implementation*, which includes defining the scope of tasks, distributing them among executors, allocating resources, and setting a timeline for execution.
- 9) *Controlling and evaluating the outcomes*, followed by introducing necessary changes and corrections based on the evaluation.

Kaczmarek (2012, pp. 80-86), on the other hand, argues that a rational decision-making model consists of a four-stage process that helps managers (supervisors, leaders, commanders) consider multiple possibilities and select the one that offers the highest chance of success. His model includes the following stages:

- 1) *Analyzing the situation*, which involves defining the problem, identifying its causes and symptoms to obtain a clear understanding of the situation, and determining the decision's goals.
- 2) *Searching for possible solutions*, which involves developing several solution variants — especially for complex, non-programmed decisions under time pressure — often using individual or group brainstorming.
- 3) *Evaluating the possible solutions and selecting the best one*, based on an analysis of each option in terms of feasibility, goal attainment, and the potential consequences for the organization, resulting from the implementation of the variant.
- 4) *Implementing the decision and monitoring its outcomes*, by planning how to address challenges that may arise during execution, allocating resources and tasks, establishing procedures for implementation, issuing appropriate instructions, and monitoring the implementation process.

From the analysis of the above decision-making processes, it follows that decision-making is a complex, multifaceted, and intricate process. In the relevant literature,

various decision-making cycles are presented for resolving decision-making situations. These cycles aim to resolve such situations by deciding, understood as the act of choosing the optimal course of action. The presented decision-making cycles involve different actions at different stages and to varying extents.

However, all the analysed cycles represent a logically connected and orderly sequence of activities leading to a decision. Moreover, they share common areas, which can be categorized as the preparation area, the planning and decision-making area, and the control and evaluation of the optimality of the decision made.

This division arises from the diverse nature of decision-making problems (problem situations), their multifaceted character, complexity, and the types and conditions of functioning of the organization or system within which the decision-making process is conducted.

However, the structure of decision-making in crisis situations is influenced by many factors, including surprise, limited time to react, insufficient and uncertain information that prevents proper identification and assessment of the decision situation, uncertainty about the development of the crisis, its unpredictability, and the need to prepare and make decisions under stress.

This stress arises from the fact that correct decisions may determine the ability to avoid or reduce losses in people, property, and the environment. Additionally, the resources and forces at the decision-maker's disposal are often insufficient relative to the needs. Some of these factors suggest that it would be advisable to abandon collegial elements that prolong the decision-making process. On the other hand, the diversity of threats and the interdisciplinary nature of countermeasures indicate the necessity for broader, expert-based preparation of decisions.

Therefore, it is extremely important to adopt an appropriate structure for the decision-making process — one that is flexible, capable of being modified in response to the current crisis situation, allows the participation of experts from various fields, and, under time constraints, permits the omission of certain stages or activities or enables their simultaneous execution.

At the same time, it should be emphasized that the decision-making process in a crisis situation is continuous and lasts until the situation is resolved. It is carried out with varying intensity and involvement of key personnel, adjusted to the needs arising from the changing conditions shaping the crisis situation. As a result, the optimal structure for decision-making in crisis situations appears to consist of four fundamental, sequential phases, each containing specific stages and activities. These decision-making phases are:

- identification of the crisis situation,
- planning and decision-making,

- task assignment,
- control of the decision's implementation.

At the same time, within the framework of this decision-making process, and depending on needs and available time, it is advisable to conduct information, coordination, and decision briefings. These serve to inform the necessary functional personnel about the current state of the crisis situation, coordinate activities, and enable the making and announcement of decisions.

Crisis situation identification phase begins upon receiving information about a potential threat. The goal of this phase is to develop a clear, transparent, and precise picture of the existing crisis situation, which forms the basis for assessing the situation, analyzing the task, developing courses of action, making decisions, formulating intent, assigning tasks to executors, and monitoring their implementation (Nowak, 2007, p. 113).

The essence of this phase lies in obtaining, collecting, comparing, organizing, evaluating, verifying, and presenting information regarding the current situation, available forces and resources, and operational conditions. This information should enable the identification of the source and type of threat, its range, scale, duration, likely consequences — including damage to property and the environment, threats to human life and health, public order and any other data essential for the decision-making process. It is also necessary to obtain updated information on the status and capabilities of the forces and resources intended to counteract the crisis.

The information acquired should be detailed, complete — providing a full picture of the crisis — and credible, which means coming from at least two independent sources and based on verified facts. All gathered information should be collected, stored, organized, compared, assessed, and verified, and ultimately used in the decision-making process. Key information acquired during this phase should be marked on a situational map (or operational plan) or reflected within an IT-based decision support system.

The situational map or data in the IT system should be updated regularly and continuously, not only during the decision-making process but also during the crisis response operations. This is essential due to the dynamic nature of the evolving crisis and the changing positions of the forces involved in the response. Maintaining up-to-date information is critical to accurately understanding the status of the crisis and ongoing response actions (Falecki, 2012, pp. 127, 128).

During the *planning and decision-making phase*, the following steps are taken: analysis of the crisis situation, assessment of factors influencing task execution, and the development of operational variants. These proposed variants are then compared, and the optimal one is selected and recommended to the decision-maker. At this stage, the decision is made, and the decision-maker formulates and announces their

operational intent, which becomes the basis for an operational plan. Additionally, directive documents are prepared for the forces involved in crisis response and subordinate units within the crisis management system.

This phase includes four successive stages:

- assessment of the crisis situation,
- decision-making and intent formulation,
- development of an operational plan,
- preparation of directive documents (such as regulations, ordinances, and administrative decisions) for subordinate and supporting executive entities (Nowak, pp. 116-118).

The assessment of the crisis situation aims to define the scope of the crisis and the actions required to address it. It involves: analysis of the current crisis situation, evaluation of factors affecting task execution, information briefing, development of operational variants, coordination briefings, evaluation and comparison of action variants.

The analysis of the current crisis situation should result in a clearly defined objective and preliminary assignments for executors. The task analysis can be conducted directly by the decision-maker or in consultation with selected staff members or experts. This analysis should include identifying the causes and symptoms of the crisis and forming as complete a picture of the situation as possible.

Then, the objective of the response forces and resources should be defined — typically aimed at avoiding or minimizing losses in people, property, and the environment caused by the identified threat. The analysis concludes once there is a full understanding of the crisis and preliminary guidelines have been established. These will serve as the foundation for developing operational variants for managing the situation.

The findings from this analysis should be presented during an *information briefing*, which aims to inform crisis management personnel about the status of the crisis, the key idea of the lead decision-maker regarding the swift resolution of the situation and return to normalcy, and the conclusions from time-related calculations. It also helps orient the team in the process of developing operational variants, including establishing the criteria for comparing those variants⁵.

⁵*The key idea is a brief and unambiguous statement of what the subordinate forces and resources must accomplish in order to complete the task, in relation to the conditions and specific areas of activity of the authority, as well as the desired end state. It usually includes: the purpose of the operation, the main tasks or undertakings to be carried out by individual executive entities, and a description of the end state. It must not include the method of task execution.*

The assessment of factors affecting task execution aims to identify and examine in detail the determinants that will influence the way crisis response tasks are implemented. It also aims to establish realistic (usually 2–3) courses of action (including the order and method of task execution). This assessment concerns:

- the threat itself, its evolution, sources, nature, geographic scope, and its effects — its impact on the population, environment, and infrastructure,
- available forces and resources, and execution capabilities,
- the environment, particularly terrain and weather conditions, as well as technical and social infrastructure,
- the form and scope of cooperation between implementing entities,
- other factors influencing the way the task is executed within crisis response (e.g., task execution time, weather conditions, budget status, scope of international assistance or support from national NGOs) (Falecki, 2012, p. 131).

In case of doubts, new data, or disruptions in the decision-making process, it is justified to conduct a *coordination briefing*. The aim of such a briefing is to ensure up-to-date coordination and optimization of planning regarding the use of forces and resources, clarification of tasks, provision of additional information and deadlines, and if necessary, presentation of the decision-maker's remarks and observations.

Based on conclusions drawn from task analysis and assessment of factors influencing task execution, and considering the decision-maker's intent, *response options are developed*.

These options should include the following data: the goal of the response, the method of achieving the goal with division into phases, the main effort of the operation, allocation of forces and resources, a preliminary outline of advantages and disadvantages of the proposed solution, and a command-and-control concept (Majchrzak, 2013, p. 49).

Each developed option must differ in the way the task is executed, with clearly stated advantages and disadvantages enabling the selection of the optimal variant. They must be agreed upon with the heads (supervisors) of the executing entities, who will carry out the selected variant.

After the response options are developed, they are evaluated to identify the strengths and weaknesses of each option in the context of the threats and their consequences. The optimal variant is then selected and recommended to the decision-maker.

The decision-making is typically made by the decision-maker during a decision briefing. This usually involves selecting one of the response options proposed by the advisory body and formally announcing it as the official decision. Based on the selected response option, the decision-maker declares the intent of action. This intent is announced at the end of the decision briefing, with additional guidance provided if

necessary. The action intent should include:

- key idea,
- the method of executing tasks, broken down into phases including the main effort (crucial for success),
- allocation of forces and their tasks,
- priorities for the deployment of support and enabling forces and resources,
- organization of cooperation,
- organization of command and control of the operation (Nowak, 2007, p. 117).

The decision reflects the will of the decision-maker regarding the conduct of the action or operation in a specific manner, while the *intent of action* describes how the tasks are to be executed and what is expected to be achieved. The decision forms the basis for developing an operational plan and drafting tasking documents.

The third stage of *the planning phase* is developing an *operational plan* or revising an existing one. The operational plan is a graphical representation — on a map in appropriate scale or within a computerized decision-support system — of the decision-maker's intent. It should contain all the information announced during the briefing. The plan is presented graphically along with necessary annexes. It usually includes three groups of information:

- data arising from the course of the crisis situation,
- situational information about the area of responsibility (e.g., deployment of key forces and resources, logistics infrastructure),
- decision-related information (derived from the decision and intent, answering the questions: who? what? where? when? and why?).

The graphical information should be supplemented with descriptive data, such as references, tables, summaries, charts, signals, etc.

The drafting of regulations, orders, and administrative decisions (tasking documents) involves writing out tasks for the various entities engaged in crisis response and constitutes the final stage of planning. These documents may include graphical and textual annexes.

Properly prepared tasking documents should be concise, synthetic, and understandable. The decision-maker assigns the “what” and “when” of the tasks to heads of organizational units and commanders of the executing entities involved in the response — without specifying “how” they should perform them.

The decision-making phase of „task assignment” aims to communicate to executors the tasks stemming from the decision made by the decision-maker. The method of task assignment may vary depending on the specific situation and the time available.

This phase is often combined with the decision briefing attended by heads or commanders of executing entities. During the second part of this briefing, the decision-maker may verbally assign tasks to execution elements to ensure a prompt start of the operation.

Due to the scope of operations and the number of involved forces and resources, task assignment may also occur via liaison officers, couriers, or communication means. Verbal or electronically communicated task assignments must be confirmed in a written directive document (Majchrzak, 2013, pp. 51, 52).

The final phase of the decision-making process, *the control phase*, aims to verify the outcomes of the planning and task assignment phases and their implementation in practice. This phase also ensures continuity of the decision-making process since its results provide the basis for updating the available data on the situation and the implementation of crisis response tasks.

Control is carried out through: the establishment of command and coordination elements, organization of action synchronization, and situation monitoring. The conclusions drawn from control activities allow corrective measures to be taken to eliminate discrepancies between the actual and planned state.

It is important to remember that decisions made during crisis decision-making processes may become outdated due to the dynamic nature of crises. Therefore, it is necessary to continuously verify whether the extent of changes has rendered the original decision obsolete.

3. Conclusions

Decision-making during a crisis situation is a highly complex process that requires great responsibility, consistency, and expertise from its participants. It is a complicated and multifaceted process that must consider numerous factors and is typically carried out under time pressure, often in conditions of insufficient and uncertain information regarding the crisis.

Furthermore, a crisis situation is marked by characteristics that hinder the decision-making process, such as surprise, unpredictability and volatility, loss of control, the emergence of panic, uncertainty about methods and means of response, and potential consequences that may threaten human life or health, large-scale property, the environment over vast areas, or the safety of citizens and public order.

The complexity of decision-making during a crisis makes it difficult to present a single, definitive decision-making framework. The presented concept of decision-making in a crisis is a sequence of interconnected phases, stages, and actions that enables effective response to any type of threat. Depending on the available time or

access to information, it allows for simplification, expansion, or even omission of certain elements of the process, as well as changes in the planned order of activities.

What is most important is that it ensures a resolution to the problematic situation by preparing decision-makers with potential courses of action based on an analysis of the crisis situation and an assessment of the factors influencing task execution. This, in turn, enables the making of a decision, i.e., the act of selecting the optimal variant for future action from among several possible options.

Moreover, it facilitates the development of an action plan and the drafting of task-specific documents, assignment of tasks to executive entities, and monitoring of the decision's implementation with adjustments made as necessary.

In summary, it should be emphasized that for a security system to function properly and efficiently, appropriate organizational structures, procedures, and well-prepared planning documents are essential. However, even the best implementation of these elements will not ensure the effective performance of tasks related to the protection of people, property, critical infrastructure, and the environment without proper decision-making during crisis situations.

References:

- A small dictionary of the Polish. 1969. Warsaw: Państwowe Wydawnictwo Naukowe.
- Bieniok, H., Halama, H., Ingram, M. 2002. Managerial decision-making. Katowice: Wydawnictwo Akademii Ekonomicznej w Katowicach.
- Dictionary of national security terms. 2008. Collective work. Warszawa: Akademia Obrony Narodowej.
- Dictionary of foreign words and phrases. 1990. Kopaliński, W. (ed.) Warsaw: Wiedza Powszechna.
- Falecki, J. 2012. Crisis management in theory and practice. Concepts – threats – system. Kielce: Wydawnictwo Wyższej Szkoły Handlowej im. Bolesława Markowskiego.
- Falecki, J. 2013. Crisis management in theory and practice. Executive entities. Kielce: Wydawnictwo Wyższej Szkoły Handlowej im. Bolesława Markowskiego.
- Falecki, J. 2015. Organisation of decision-making games in the field of crisis management. Typewritten materials.
- Ficoń, K. 2007. Crisis management engineering. Warsaw: BEL Studio.
- Flanek, Cz. 2000. The decision-making theory elements. Koszalin: Wydawnictwo Centrum Szkolenia Obrony Przeciwlotniczej w Koszalinie.
- Griffin, R.W. 2002. Fundamentals of Management. Warsaw: Państwowe Wydawnictwo Naukowe.
- Grima, S., Thalassinou, E., Cristea, M., Kadłubek, M., Maditinos, D., Peiseniece, L. (Eds.). 2023. Digital transformation, strategic resilience, cyber security and risk management. Emerald Publishing Limited.
- Kaczmarek, W. (ed.). 2012. The decision-making process in management theory and practice. Warsaw: Akademia Obrony Narodowej.

- Kisielnicki, J. and Zach, R. 2012. Decision support systems (DSS). Concepts, models, procedures. In: Kisielnicki, J., Turyna, J. (eds.). Decision-making management systems. Warsaw: Difin.
- Koźmiński, A.K., Piotrowski, W. 2006. Management. Theory and practice. Warsaw: Państwowe Wydawnictwo Naukowe.
- Majchrzak, D. 2013. Crisis management as organised actions by responsible authorities and entities. In: Sobolewski, G., Majchrzak, D. (eds.). Zarządzanie kryzysowe. Warsaw: Akademia Obrony Narodowej.
- Nowak, E. 2007. Crisis management in non-military threats. Warszawa: Akademia Obrony Narodowej.
- Penc, J. 1997. Decisions in management. Cracow: Wydawnictwo Profesjonalnej Szkoły Biznesu.
- Penc, J. 2000. Creative management. Warsaw: Agencja Wydawnicza „Placet”.
- Romanowska, M. (ed.). 2001. Fundamentals of organisation and management. Warsaw: Difin.
- Ściborek, Z. 2003. Decision making. Warsaw: Agencja Wydawnicza ULMAK.
- Sienkiewicz, P. 1994. System Analysis. Fundamentals and Applications. Warsaw: Bellona.
- Sienkiewicz, P., Marszałek, M., Górny, P. (eds.). 2010. Risk in the crisis management. Toruń: Wydawnictwo Adam Marszałek.
- Stoner, J.A.F., Wankel, Ch. 1994. Stoner, J.A.F., Wankel, Ch. 1994. Management. Warsaw: Państwowe Wydawnictwo Naukowe.
- Thalassinos, E., Kadłubek, M., Norena-Chavez, D. 2023. Theoretical Essence of Organisational Resilience in Management. In Digital Transformation, Strategic Resilience, Cyber Security and Risk Management (pp. 133-145). Emerald Publishing Limited.
- Velinov, E., Kadłubek, M., Thalassinos, E., Grima, S., Maditinos, D. 2023. Digital Transformation and Data Governance: Top Management Teams Perspectives. In Digital Transformation, Strategic Resilience, Cyber Security and Risk Management (pp. 147-158). Emerald Publishing Limited.
- Zieleniewski, J. 1969. Organisation and management. Warsaw: Państwowe Wydawnictwo Naukowe.