

Maryna Husarova, Postgraduate

Cherkassy National University named after Bohdan Khmelnytsky, Cherkassy, Ukraine

Background of the Establishment of Tourism Cluster in the Cherkassy Region on the Basis of the Competitive Advantages of the Region

The objective of the article is to show that Ukraine has all the prerequisites for the establishment, operation, and most of the tourist cluster. However, despite the positive trends in the development of tourist areas of Ukraine, there are significant problems and shortcomings of operation that significantly distinguish the tourist area of Ukraine.

The conditions of the tourist clusters creation within the Dnipro river in Ukraine were explored. The disadvantages and properties of creation of favorable conditions for the functioning of tourism clusters in Ukraine were discovered. The possible problems associated with the creation of tourism cluster within Cherkassy region were determined.

Therefore, tourism cluster of Cherkassy region is a new opportunities, the additional platform for the development of existing and new business projects, joint exhibitions, promotions, development of strategy of promotion of tourist offers. In addition, small businesses can unite around the common providers and save through scale and scope of procurement of goods. Despite some problems, the creation of a cluster will compete at the regional and international tourism markets.

tourism cluster, competitiveness of the region, tourism development, macroregion, tourist and recreational complex, cluster policy, strategy of tourism development

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Anna Dorenska, assistant

Kirovohrad National Technical University, Kirovohrad, Ukraine

Methodical approaches to organisation of making administrative decisions by hazardous profession personnel

In this article the author describes the process of making decisions by hazardous profession representatives, including emergency services personnel. Existing key factors that influence decision-making during emergency situations were defined as follows: degree of risk, operating conditions, time, degree of team support, and personal qualities of a person who makes a decision. Also the author outlined a scheme that grounds decisions considering performance and security indicators and presented a typical diagram of management decision-making during emergency response. Also there are listed some promising directions for improving and automating decision-making, creating modern and efficient simulation models that display personnel behavior under extreme operating conditions.

management, decision-making process, emergency, risk, degree of risk

А.О. Доренська, асист.

Кіровоградський національний технічний університет, м. Кіровоград, Україна

Методичні підходи до організації прийняття рішень працівниками ризиконебезпечних професій

В даній статті автором охарактеризовано процес прийняття управлінських рішень працівниками ризиконебезпечних професій, зокрема, працівниками аварійно-рятувальних служб. Досліджено існуючі фактори впливу на прийняття рішень в надзвичайних ситуаціях (НС), визначено як ключові – ступінь ризику та умови діяльності, час, ступінь підтримки індивіда колективом, особисті якості особи, що приймає рішення. Окреслено схему обґрунтування рішень з урахуванням показників ефективності та безпеки та подано типову схему прийняття управлінського рішення при подолання наслідків НС. Наведено перспективні напрями вдосконалення та автоматизації процесу прийняття рішень, виведення сучасних та ефективних імітаційних моделей поведінки працівників в екстремальних умовах.

управління, процес прийняття рішення, надзвичайна ситуація, ризик, ступінь ризику

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Statement of the problem. Modern conditions in Ukraine are formed by a large number of factors, which are characterized by uncertainty and destabilizing actions. Due to unstable environmental conditions and extreme operating conditions, as well as the problem of frequent human-made disasters and life security issues, the state faces the task of guaranteeing safe conditions for life and functioning of the population.

Today's amending living conditions enhance the number of specialized rescue services and hazardous professions (firemen, military men, emergency response specialists (rescuers), guards and guardians, law enforcers and others). Operating under extreme conditions involves high requirements to hazardous profession representatives. Such experts should be able to constantly monitor their health condition, be ready for quick decision-making, adequate assessment of the situation, as well as be able to lay down their life in case of emergency. This requires considerable mental effort and psychological resistance. Their skills and quick decision-making impact the outcome of their work and even life and health of other people.

Analysis of recent research and publications. Nowadays managing liquidation of the complex results of emergency situations and creating effective management systems for the responding to emergencies are addressed in writings of such authors as O. Barylo [2], P. Volianskiy [4], S. Guriev [5], O. Yevsiukov [6], N. Iskra [5], S. Poteriaiko [2] and others. Also, A. Terentieva and Y. Radysh [12] research specifics of the risk management under emergency conditions. Some writings that belong to A. Terentieva [10-12] addressed the methodological approaches to making management decisions under the emergency conditions. However, the process of finding effective solutions by hazardous profession representatives under stress factors during emergency occurrence and response requires more detailed studying and practical grounding.

Statement of the objective. The purpose of this article is to study the decision-making process conducted by hazardous profession representatives, including personnel of emergency response services, in order to find the promising areas for the process improvement and automation, implementation of modern and efficient behavior and decision-making simulation models.

The main material. As it is known, making decision process begins with a statement of the emergency situation and ends with choosing a solution, i. e. choosing an action that will address the problematic situation. The decision-making process is influenced by many different factors. The most important are the following: *degree of the risk* (there is always a possibility of making wrong or delayed decisions); the *time* (which is given for the decision-making, and often there is no opportunity to analyze all possible alternatives because of the lack of time); the *degree of team support* that is granted to the individual (it impacts the team's confidence and the quality of the decision implementation); *personal qualities of a person who makes a decision* (this is one of the most important factors, because regardless of how rational the decision-making model might be, the person who makes the decision should be responsible for it, thus he/she should be able to make effective decisions).

In addition to these factors emergency response specialists as well as their decision-making are directly impacted by operating conditions. In fact, the emergency response specialist is a person who was appropriately trained and certified, has the ability to and actually is involved into disaster response. Disaster response should be understood as actions in furtherance of searching, rescuing and protecting people, material assets and cultural values, and providing environmental protection in case of emergency situations. Emergency

situation is a violation of the normal course of life and activities caused by accident, catastrophe, natural disaster or any other dangerous event that leads to death of people, causes on the facility or in the area any threats to people lives and health, and leads to the destruction of buildings, constructions, equipment and vehicles, causes breakdown of production or transport process, or scathes the environment [8].

Emergency response services of the Ministry of Emergencies of Ukraine are aimed to important social functions: warning, prevention and emergency response. Personnel of emergency response services operate during hydrometeorological, geological, natural or biological emergency situations, while locating at facilities that are chemically hazardous, fire hazardous, potentially explosive, hydrodynamic, and radiative. If we look at the working comfort zones, the emergency response service representatives are situated in the area of adverse conditions (psychological end point of safety perception) while perform their duties, as well as in unfavorable conditions zone and unacceptable conditions zone (at the physiological capabilities end point) with a high probability of death and injury.

This defines the significant dependence of the work results, safety and effects on people around on emergency response unit' decision-making. Figure 1 below shows a block schematic diagram that demonstrates grounds for emergency response service representatives decision-making options with the use of performance and safety indicators.

In the context of insufficient, intempestive or unreliable information all management and specialists of the majority of emergency response services should predict possible outcomes under different circumstances, including nature changes and changing degree of risk, when they evaluate alternatives and make decisions.

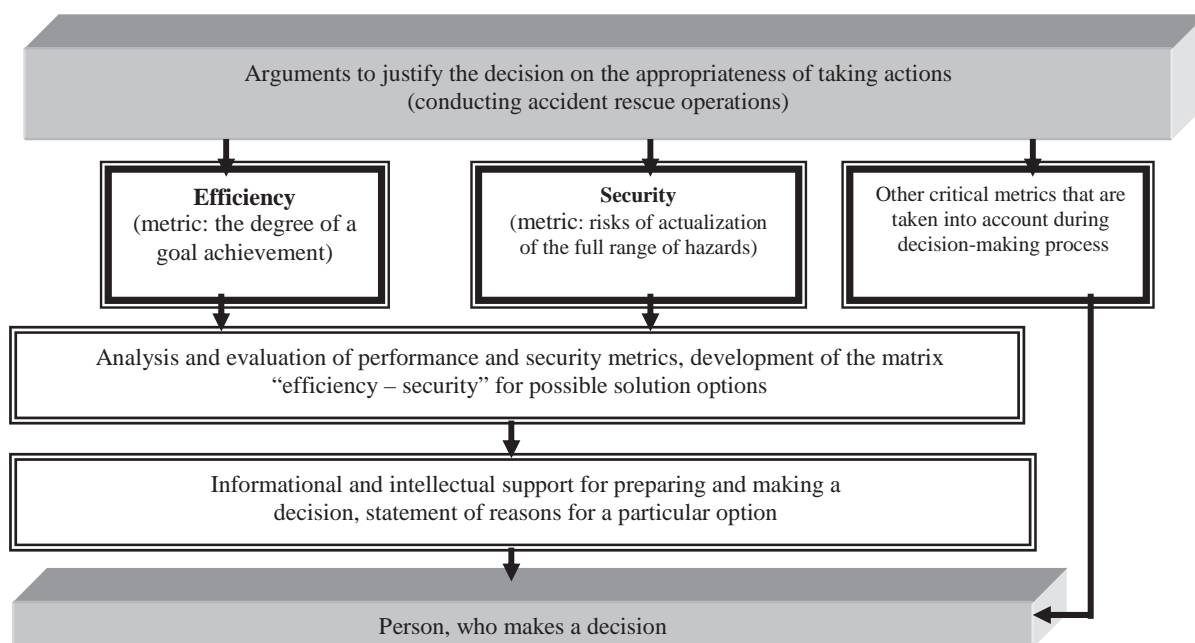


Figure 1 – Block schematic diagram that demonstrates grounds for a decision using performance and safety indicators

Source: [1].

Operating under conditions of incomplete, unclear, and unreliable information management and specialists of the most of emergency response services should assess alternatives and make decisions and at the same time predict possible outcomes in different circumstances and taking into account nature changes and the change in degree of risk.

Figure 2 represents the classic version of the decision-making.

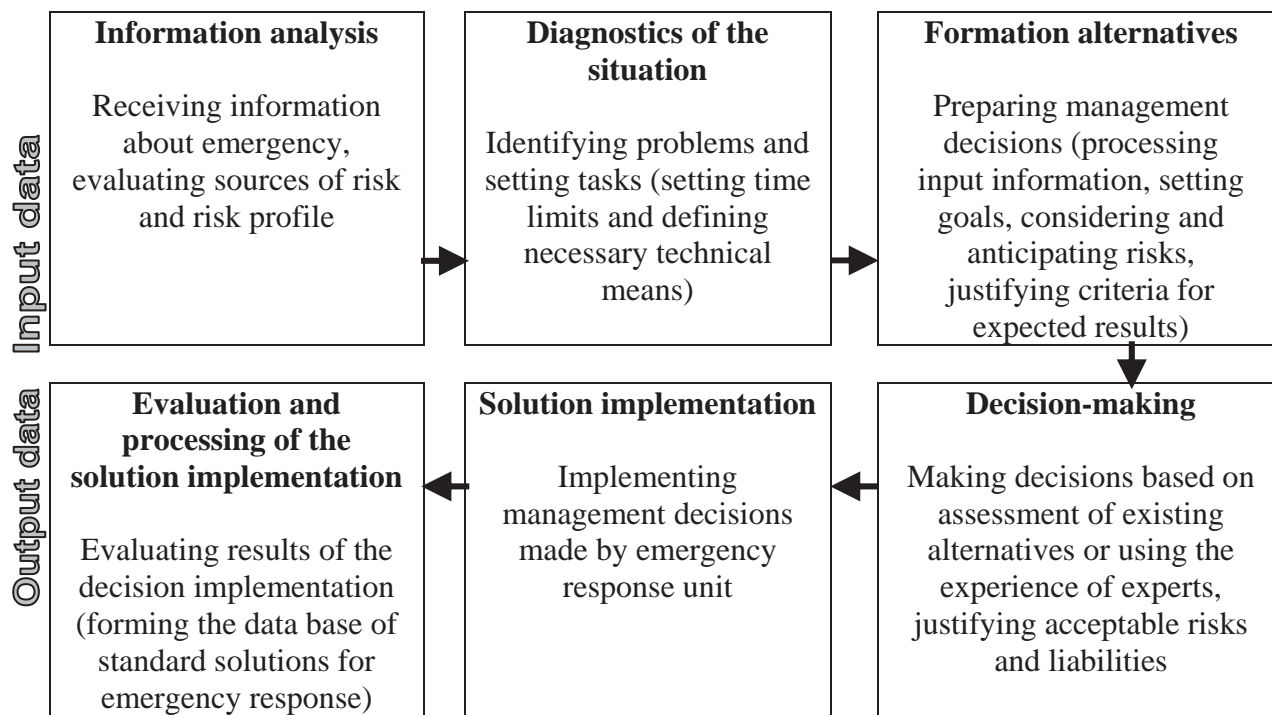


Figure 2 – Block schematic diagram of management decision-making during emergency response

Source: composed by the author.

The risk arises when decisions are made under conditions of uncertainty, strife, lack of professionalism and high risk.

For hazardous profession personnel the danger is a stress factor that reflects individual's understanding of the fact that some circumstances (fire, act of God, accident, disaster or the necessity to rescue affected people) may cause physical injury or psychological harm, provoke an accident resulting in injuries and possibly lead to death. Realizing the danger usually is accompanied by strong emotional sufferings and negative mental statuses. Depending on the degree of reality of the effect that the hazard have on the behavior of personnel, it's needed to distinguish different types of hazards as follows:

a) potential danger: from this point of view all the operations of fireman rescuer are potentially dangerous and brings the threat to his/her life, health and individuality;

b) imaginary danger: in this case there is no real danger, but the person created in his/her mind some fictional pattern of the dangerous situation and corresponding plan of actions. Often this happens because of inaccurate assessment of the situation, the behavior of specific individuals, overstating separate details of the situation like a threat to the person's safety;

c) provoked danger: without a special psychological training and knowledge about dealing with affected people or relatives of victims, a person can provoke aggression, brutality, cruelty and even an attack on him/her;

d) real danger: occurs and comes out in the dynamics of a dangerous situation that contains a real threat to life and health of a fireman rescuer.

Common dangerous situations that emergency response service personnel faces when operating are as follows: performing assigned tasks, usually on a dangerous, dilapidated facilities, under fire conditions, at the time of natural and human-made disasters, at facilities that are chemically hazardous, fire hazardous, potentially explosive, and radiative; under conditions of rectification of the consequences of major accidents and natural disasters; in the centers of nuclear, chemical (biological) or combined destruction and environment pollution at any time of a day, time of a year, and under unfavorable weather conditions, etc.

Under these conditions the risk is focused on obtaining positive results in effective ways under uncertainty and in “either-or” situations. But at the same time, such risk can lead to adverse social and economic consequences, because evaluation or selection of alternatives is based on incomplete, unclear, and unreliable (at the moment of decision-making) information.

Comparing the degree of risk to expected outcome makes it possible to select alternative operating options, that a rescuer faces in a particular situation. An experienced specialist will estimate how the risk can be reduced without lowering the level of efficiency for the operation or project.

There are four general principles that determine choosing a particular alternative operating method in a particular situation:

1. Predict and monitor the impact of risk is possible.
2. Avoid risk in situations when significant potential losses are possible due to adverse events, and the probability of incurring such losses is large.
3. Control risk in situations when low potential losses are possible due to adverse events, and the probability of incurring such losses is large.
4. Accept risks in situations when minor potential losses and negative consequences are possible due to adverse events, and the probability of incurring such losses is small.

When faced with uncertainty, the head of emergency response unit can use various opportunities: 1) try to get additional relevant information and re-consider the issue taking it into account; 2) operate in accordance with past experience and intuition, and make assumptions regarding the probability of events.

To improve and optimize the process of making decisions by responders it's proposed to use methodology for training to operate under hazardous and dangerous situations. It is based on emergency events and actions simulation model. Using this model during personnel trainings will allow emergency response service representatives to make decisions based on pre-simulated situations, that take into account acquired knowledge and experience. A functional block diagram of such a simulation model is shown on Figure 3.

Proposed model allows to generate adequate personnel behavior during emergencies, which begins with recognition of the situation as hazardous, origination of demands in efficient response, developing an adequate program of actions, and ends with making decisions to implement this program. But it should be noted that it is necessary to carry out continuous evaluation of the management decisions effectiveness, based on information and analytical support, which involves operational data collection and processing with the use of mathematical modeling.

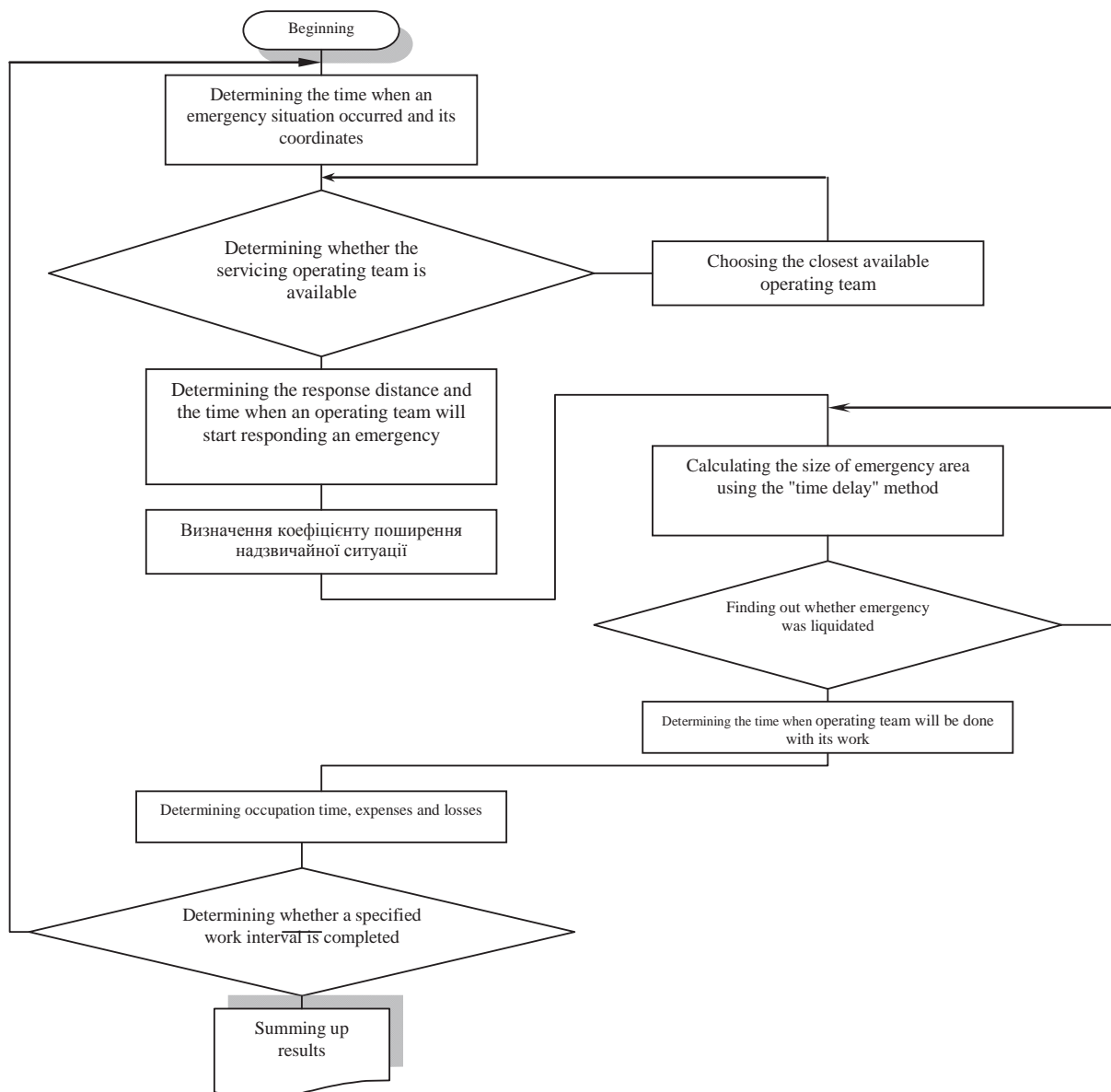


Figure 3 – Functional block diagram of a simulation model

Source: [7].

Conclusions and prospects for further research. Based on the foregoing review of operating conditions and risks that impact the decision-making process performed by personnel and management of Emergency response services of the Ministry of Emergencies of Ukraine we can conclude that the problem of forming appropriate behavior and decision-making in dangerous situations requires more profound studying and researching under conditions of constant changes and technogenic complications that might have place during emergency situations.

The emergency response services operating process is complex, stochastic and consists of a large number of components, parameters and correlations that are interconnected and mutually influence each other. Rescue work is characterized by several specific features: the object – human life and health, as well as the integrity and safety of material assets and cultural values, and environmental protection in case of human-made and natural emergency situations, which is related to the high responsibility level; increased complexity of work – individual nature of work as a result of the diversity of threats and injuries; high level of

creativity – whereas it is necessary to guarantee fast response in the framework of the formed situation and make decisions that often influences other people lives; a significant portion of human labor – it's impossible to conduct full labor automation and mechanization, that's why rescuers professional skills play a crucial role in achieving positive results; high level of mental and nervous tension related to extraordinary operating conditions, irregular work and rest time, inability to control circumstances where a difficult work situation occurred, and high level of responsibility for the high quality performance of professional duties; high risk of loss of rescuers lives and health during hydrometeorological, geological, natural or biological emergency situations, while locating at facilities that are chemically hazardous, fire hazardous, potentially explosive, hydrodynamic, and radiative [9]. All this determines the specifics of the decision-making process and increases the responsibility of personnel. Therefore, today the process of producing and processing management decisions needs further improvement not only through the use of modern information technologies and powerful mathematical tools, but also through the analysis of national experience in emergency response and adopting the best practices in creating operations plans for responding to emergencies at all levels of a public administration system.

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А. О. Доренская, ассист.

Кировоградский национальный технический университет

Методический подход к организации принятия решений работниками профессий с повышенным уровнем риска

Целью статьи является исследование процесса принятия решения работниками профессий с повышенным уровнем риска, в частности, работников аварийно-спасательных служб, для более полного понимания перспективных направлений совершенствования и автоматизации этого процесса.

Для достижения поставленной цели исследованы существующие факторы влияния на принятие решений в чрезвычайных ситуациях. Автором определены как ключевые - степень риска и условия деятельности, время, степень поддержки индивида коллективом, личные качества лица, принимающего решение. Изучен процесс обоснования решений с учетом показателей эффективности и безопасности, представлена авторская схема типового принятия управленческого решения при ликвидации последствий чрезвычайных ситуаций. Рассмотрен процесс психологической готовности к принятию решений и к действию в условиях потенциальной, воображаемой, спровоцированной и реальной опасности.

Как показывает исследование проблемы формирования адекватного поведения и принятия решений требует все более глубокого изучения в условиях постоянных изменений и техногенных осложнений возникающих чрезвычайных ситуаций. Сам процесс выработки и обработки управленческих решений требует дальнейшего совершенствования не только благодаря использованию современных информационных технологий и мощного математического аппарата, а особенно за счет анализа отечественного опыта преодоления ЧС и использования опыта создания оперативных планов реагирования на возникновение ЧС на всех уровнях системы государственного управления.

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