



JOURNAL OF DEFENSE RESOURCES MANAGEMENT

Vol. 7, Issue 2 (13) / 2016

BRASOV - ROMANIA

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PLEADING IN FAVOUR OF STRATEGIC MANAGEMENT

Teodor FRUNZETI

Professor, Dr., Titu Maiorescu University,
Academy of Romanian Scientists, Bucharest, Romania

Strategic management focuses on future development of organizations, based on a vision and a strategy. If strategic leaders demonstrate epistemic competencies, business can take place not according to the zero sum game rule, where there are always winners and losers, but to a non-zero sum game rule, where there could be only winners and no losers. Epistemic competence is given by the scientific nature of knowledge, it breaks down the mental automatism generated by common day to day personal experience and it uses mathematical models and other specific methods. Strategic management and its practical content can best be understood within the context of the theory of organization, for organizations are indispensable for the general human and civilizational progress.

Key words: *strategic management; strategic vision; strategy; strategic leadership; epistemology; epistemic competencies; scientific knowledge.*

General management is both an operational theory and a science which appeared as a necessity in a growingly complex economic activity generated by the nineteenth century industrial revolution.

A century after its first appearance, within the general practice of management, a new component was developed in the mid of last century. That focused on leadership, but interestingly enough, not the existing one, but the future, prospective leadership that was required for complex organizations. This new management branch was called strategic management.

Strategic management is the most complex component of general management, as it is not based on a concrete reality alone, but on a vision, a strategy which is applied to daily reality, and which deals with the foreseeable, forecasted future.

Strategic management is a different type of management from the classic one, in that it is built on a strategy and not only looks for drafting a strategy (the process that is normally covered by the classic management).

Strategic management is a concept with manifold connotations, both economic and socio-political, whose thorough understanding requires emphasizing its specific features that distinguishes it from other types of management.

Although it emerged as a necessity generated by the complexity and particularly by the turbulence of economic activity, that was marked by recurrent crises, contractions and even recessions, strategic management is not only specific to economy. On the contrary, it is the most significant, consistent and difficult, but also the most creative, when applied to politics, which then

translates into public policy development and implementation, which the responsibility of public management.

Currently though, an extremely interesting phenomenon takes place: after strategic management has been elevated to the level of science and highlighted, for over six decades, as essential to sustainable development, especially in the economic field, it began to be criticized even by some of the very same authors who had supported it and transformed it into a panacea for economic development. Obviously, strategic management, based on the strategy, which is at its turn based on forecasted results, does not always produce the expected effects 100%.

This is true both for economic management as well as public management. And it is not a recent discovery: strategies (that have been invented not by the science of management, but by the military art a number of millennia back), have not always resulted in winning wars, which usually involves opposing parties confronting under a zero-sum game rule, which requires a winner and a loser.

The question that we ask is whether strategic management (both in the economic and the public arenas) can be improved so that business takes place not according to the zero sum game rule, where there are always winners and losers, but to a non-zero sum game rule, where there could be only winners and no losers.

We believe that this is entirely possible, if the managers (meaning by this the generic category of strategic leaders) demonstrate epistemic competencies. From this particular

perspective, it becomes evident that strategic management constitutes a valued utility and contribution to the epistemic competency of those who apply it, i.e. managers/leaders.

Epistemic competence is given by the scientific nature of knowledge, as epistemology is the study of the scientific type of knowledge. Scientific knowledge is different from common human knowledge that is based on common sense. It breaks down the mental automatisms generated by common day to day personal experience and it uses mathematical models and other specific methods, such as modeling, formalizing or axiomatization. What is important to note is that the products of scientific knowledge are always verifiable, though not always verified.

Strategic management and its practical content and application can best be understood within the context of the theory of organization. In a complex society like ours, organizations are a permanent presence and everything that is done at societal level is achieved through the use of organizations. Organizations are indispensable for the general human and civilizational progress. Over time, organizations have become increasingly complex and sophisticated; they shape today's values, roles and social norms and determine human destinies. There are very few things that can be done in contemporary societies without the appeal to the organizational environment, be it public, private or non-profit.

Modern organizations fulfill a wide range of functions.

First of all, organizations are meant to facilitate human activity in general and to contribute to

meeting the needs and aspirations of individuals and communities alike.

Today, we practically live in an organizational society, where almost every aspect of public or private life is organized, and every human action or activity occurs in an organizational setting.

Spiritual organizations are among the oldest types of organizations, which have operated since the dawn of antiquity. All religions and beliefs were and are practiced in an organizational setting, regulating and setting rules for their members, providing solace and comfort and mediation between them and God, regardless of its representation.

All organizations can be considered political institutions, inasmuch as they enable the exercise and management of power, and all human communities exercise power within local, regional and national organizations. Moreover, international politics or international security are managed today, more than ever, in an organizational framework. Whether we refer to the UN as a universal organization with collective security vocations, to the OSCE as a regional security organization or to NATO, as a collective defense organization, peace and war on our globe are resolved by groups/associations of independent and sovereign states.

Organizations are used as tools for maintaining and improving the existing social system in all areas of human activity: political, ideological, economic, cultural, educational, public security enforcement, defense, religious and others. Any social and political system is concerned with its own protection and as such strives to continuously improve, while

prohibiting, restricting and monitoring all potential anti-system activities.

But organizations are also agents of change, although in general, bureaucratic organizations are rather conservative and reluctant to change. The role of organizations in implementing change and even reforms in various areas and in different societies is fundamental, because they have the ability to involve large groups of people, making them indispensable to change and renewals.

Organizations create culture, as well. On one hand, there are organizations which are dedicated to the promotion, changing and shaping of the cultural norms in a society, across all arts: music, theater, painting, sculpture, and cinema. The mainstream cultural values are promoted in society through education, family, media and socialization in general. On the other hand, organizations are systems that create and promote their own culture or bureaucracy that could be different from the mainstream one, and it even contradicts it sometimes, in which cases it can be considered a counter-culture, as it acts against the social culture, which may change gradually.

Organizations, particularly the bureaucratic ones, are the best tools for implementing decisions. While people do not always act rationally, organizations can only act exclusively rationally. By belonging to an organization, people become more predictable, as they act according to their prescribed roles and their specific personalities are less important. As such, organizations ensure stability and predictability in a society.

Organizations have the role of implementing policies and

programs worldwide. In developed and developing countries alike, organizations promote science and advanced technologies, are involved in development projects and other activities that improve the quality of life.

But even as they create jobs and generate growth, organizations can also have a destructive role, especially in increasing pollution, depletion of natural resources, and the production of weapons with great lethality.

Organizations are also perceived as repressive tools, especially those used for civil order and internal security or military/defense purposes, particularly in less democratic societies. But all political systems, democratic ones included, are interested in maintaining social order and stability and therefore support the organizations that fight the challenges to political and social system.

Organizations can also be considered agents of alienation and human estrangement. Given their hierarchical structure, which is majorly power oriented, modern organizations are believed to generate alienation and inequality. Increased bureaucratization can create a feeling of alienation at work and towards the organization in general, with people feeling limited in their development. It is not unusual for complex organizations that the employees do not personally know or even see the high, strategic level managers that take decisions with direct influence on the lower levels in organizations.

At the same time, organizations have a function in handling tensions. Within modern societies, conflict between employees and organizations is an everyday reality. This conflict is primarily generated by the

difference between the individual goals and those of the organization. These differences are major topics of concern to managers. As such, organizations must be able to manage the tension between the management, which aims to increase efficiency and productivity, and employees, who seek personal development and income growth.

Organizations, especially the very large ones, tend to be overbearing on society. Members of organizations, particularly if those are public organizations/institutions, are sometimes forced to give up some of their individual rights and freedoms, such as public appearances or the right of association and political expression. In democratic societies the members of public organizations enjoy, in general, more rights than those of the corporate organizations, where such rights are generally discouraged, with the exception of the right of association. As a rule, individual rights of the people working in these massive organizations are limited and controlled by the rules, values and norms that govern organization life and that define the culture of that organization, becoming mandatory for its members.

Organizations and companies are today administered by a class of professional managers and are led by influential economic and financial elites. The modern state has become increasingly administrative in terms of structure, functions and processes. Despite the apparent and claimed decentralization, the state is highly centralized and concentrated, and the private sector is forced to cooperate and work together with the public one. The modern state, through its

functions, sets out rules for all social fields, while the corporate sector provides services and resources that are useful for the state.

Organizations are also tools of globalization. Globalization is not new, but the current wave of has a much faster rate of technology advancement and capital growth. Globalization is a process of accelerated interconnections and growth of the goods, services and capital markets, which affected organizations, primarily through the concentration of financial, economic and even political power in the hands of transnational corporate elite. Values that govern the globalized world order are shaped by the Western culture, which is also globalized. In this globalized environment, the modern society organizations are instruments of capital accumulation, cultural incorporation, integration of values and even of nations into a single, globalized system. Within this system, corporate organizations become less independent, as they integrate into global corporate networks that are motivated first and foremost by higher profits.

All these are just as many reasons in support of the strategic management, of its growing role, of the importance of continuity and durability that it gives to the corporate environment, of the predictability and high managerial efficiency it promotes and, not least, the entrepreneurship it encourages. The epistemic competence of managers, especially those at the strategic level, is a sine qua non of success. Errors and failures in business management cannot be denied, but they are not the effect of strategic management,

but rather the failure of its rules and principles compliance.

Strategic management is indispensable in a complex world, where sustainable development is increasingly becoming the enhancing factor of every social sector, without losing sight of the fact that the economy is the engine of this development. Strategic management is the one that has to generate the vision, to plan and organize actions and processes that will ensure us and the future generations a better future in a safer world.

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TRANSNATIONAL ORGANIZED CRIME. AN (INTER)NATIONAL SECURITY PERSPECTIVE

Ionel STOICA

Ministry of National Defense, Bucharest, Romania

For the past two decades organized crime has become a transnational phenomenon, and its impact is still far from being fully known and understood by common people. Its forms of manifestation, whether explicit, or subtle, are permanently evolving and adapting. As a result, its interference with the activities from the legal area makes it difficult to identify and counteract. After a long period of time when it was more a peripheral phenomenon, current transnational organized crime tends to become a major danger to the political, social and economic stability of the states. Through its nature and goals, as well as through the complexity of its forms of manifestation, transnational organized crime represents a major challenge for the state and non-state organizations that deal with national and international security

This paper focuses on the phenomenon starting from some of the most influent theories in international relations, presents the current features of transnational organized criminal groups and analyzes the causes and the favoring factors of the phenomenon, as well as the impact of the phenomenon upon national and international security at political, economic-financial and military level. The approach is an interdisciplinary one and also covers the nexus between transnational organized crime and international terrorism.

Key words: *organized crime, international relations theories, criminal organizations, terrorism.*

1. DEFINITIONS

The rapid developments and turbulences during the last two decades have determined a continued redefinition of the notion of transnational organized crime [1]. Thus, at present, there is no universal accepted definition regarding this phenomenon.

The conceptual framework built around the notion of transnational organized crime is influenced by two main variables: the space within which the phenomenon occurs and the required time for its analysis. In this context these two variables gain sense if they are understood either

as an assemble of conditions and historical, socio-political, economic and technological developments (in the case of space), or as a set of specific ideas, concepts and perceptions (in the case of time). In this respect it is worth noting that definitions themselves evolve continuously but their contents is influenced by the theoretical approaches to the phenomenon they describe.

Moreover, the variability of the definitions referring to this phenomenon is pretty much rendered by the discipline itself, the level of analysis and the methodology for research. The particularities of different geographical spaces, the

political and economic interests (not always convergent) of states, as well as the differences in approach specific to different theories in international relations further hinder reaching a consent regarding what transnational organized crime represents, even for a delineated period of time.

But the lack of the consent regarding what transnational organized crime represents does not prevent researchers from reaching an agreement regarding some features of the phenomenon, considered intrinsic to its transnational character [2]:

a. perpetrators - they are persons or organized groups crossing national borders (physically or virtually - by using advanced technologies in informatics and communications) while developing their activities;

b. the object of the organized crime - is represented by: "illicit goods (manufactured or from the services field); licit goods stealth or those that make the object of smuggling outside the country; the licit goods purchased from a country by violating the restrictions regarding their export; the licit goods imported from a country by violating restrictions regarding import or international embargo" [2] ;

c. the subject of the organized crime - consists of foreigners engaging in illegal acts on the territory of other state;

d. the motive of organized crime - consists in gaining profit from illicit activities. The involvement in illicit activities presupposes exposure to risks incurred by national legislation constraints. That does not mean that transnational organized crime organizations avoid high risk states. If the latter offer attractive and

lucrative markets, then they will become targets for transnational organized groups, that will engage in illicit activities, trying to limit or to minimize their risks, but continuing to operate, mainly, from states where the jurisdiction presents diminished risks for them ;

e. the digital signals - refer to the sending of the electronic messages aiming at attacking or destroying the informatics systems or robbing the financial institutions.

According to the operational definition emerging from all of the above, transnational organized crime has three distinct features which distinguish it from its early national manifestations: a) it operates at regional or global level; b) it has created extended trans-border connections; c) it has the capacity to challenge national and international authorities.

2. CONCEPTUAL PERSPECTIVES

As previously stated, the approach to the phenomenon of transnational organized crime suffers from the impact of different trends in dominating international relations theory, namely Realism, Liberalism, Marxism and Social Constructivism.

From the perspective of Political Realism, each member of the human society has the obligation to obey the fundamental values of the community. As such, the state is authorized to intervene (violent means included) in order to keep social order under its control. State institutions have the function to preserve the dominant legal system to the benefit of the whole society.

From a Clausewitzian perspective, organized crime represents, in its core, a continuation of economic activities using illicit means (transnational organized crime groups combine legal working methods with illegal ones- the use of violence, corruption, intimidation, blackmail).

This theory proposes, as the only one solution to eradicate the phenomenon, strong measures against those who engage in such kind of antisocial deeds. That should represent, in fact, clear signals to individuals who are part of a given social organization that the state is strong enough and determined to take the measures that it considers necessary to discourage those that, otherwise, would intent to challenge state authority, be them persons or organized groups.

Liberalism emphasizes human freedom and views society as a harmonious and unitary mechanism, in which citizens share a common set of values specific to their community. Within this general framework, criminals are defined as persons with a deviant behavior.

The theoreticians of Liberalism recognize that globalization, in general, and trade liberalization, in particular, have contributed to extending transnational organized crime. However, they argue that this represents a secondary effect which cannot shadow the benefits of free trade and globalization.

According to this theory, there are two solutions to the issue: either the criminals give up (on their own will or under the pressure of the society in which they live) their behavior and become alike other members of the society, or they exclude themselves

from the society and will bear the consequences of their behavior. The adepts of Liberalism argue that the phenomenon can be fought through cooperation among states and by creating strong international institutions with attributions in this field.

The Marxist theory explains the phenomenon of transnational organized crime as the continuous effort on behalf of capital owners to maximize their own profit and, implicitly, as a result of their rapacity or lack of interest, to limit the access to well-being for other social classes. The latter, once marginalized, do not have any alternative to survive. For the researchers belonging to this thinking trend in international relations, the solution consists in adjusting the ratio between work and capital as far as goods and services on the world market are concerned, in favor of work.

Social Constructivism approaches crime as an ensemble of elements whose origin is at the crossroad between the social process sphere and the concrete reality. Constructivist researchers argue that reality is a social construct, and the manner in which people act or react in society has a significant impact upon people's behavior.

The researchers belonging to this school of thought argue that the phenomenon is a consequence of the current social organization, of the way in which society's members perceive themselves in relation to the institutions defining the state, as well as of some individual psychological features. Regarding the things from the perspective of Alexander Wendt, we may say that organized crime is strongly shaped by the ideas and the interests prevailing in society.

From the perspective of this school of thought, the solution should be sought in the direction of rethinking and redefining the social processes that currently regulate people's behavior in society.

Each of the above mentioned theories has its own limits in explaining the phenomenon. The Realist theory ignores that in every society there are "social misfits" for the treatment of which special means are necessary. Nonetheless, almost all contemporary societies are not prepared or in tune to invest in this direction since such effort is considered too costly and, therefore, ineffective. Liberalism admits the hypothesis mentioned above, but also considers that this is a natural fact, and the citizens themselves are the only responsible for their acts, taking into consideration that state institutions should have only a limited (or minimal) involvement in regulating a given society's activities. In its turn, the Marxist theory cannot explain why only some individuals from the exploited social categories engage in criminal acts, and others do not. Social Constructivism, beyond its merits in uncovering the limits of the other schools of thought and apart from its contributions to elaborating a theory on the challenges that societies face nowadays, is not so coherent in formulating solutions to the problems under discussion. It can be said that the research programs proposed by Social Constructivism is suggestive and ad yet less conclusive in identifying concrete solutions.

Regardless of the perspective from which the phenomenon of transnational organized crime is approached, it suffers from a partial

analysis and, implicitly, from an insufficient understanding. That is also underlined by the numerous concerns linked to drug, human and arms trafficking activities, illegal immigration or other illegal activities, as well as by the ignorance or, simply, exclusion from the definition of the phenomenon of other illegal activities carried out by legal actors or in which these actors have an important involvement. Thus, the crimes carried out by transnational corporations (especially those which operate in the field of tobacco, oil, chemical products or international finance) or those carried out by some state institutions (such as intelligence services), including those of democratic states, are excluded. The causes of this approach lie in the politico-diplomatic relations generally accepted by states, but also in "the existential symbiosis between state and the non-state criminal groups" [3]. Thus, the limitative and somehow subjective character of the current research in the field can be better explained, even though the objective character which scientific research claims should rise above these practices that, many times, have a temporary character and are not necessary anchored in the social needs of the citizens which they are supposed to serve.

Essentially, transnational organized crime is defined by illegal activities orientated towards profit that cross national borders. Not all organized crime forms are transnational, but, currently, there is a range of activities in this sphere that are carried out on transnational bases, some of them even at a global scale. At the same time, there are premises for extending the criminal activities

beyond the national borders, firstly, because of the differences in the character of the demand and supply of the illegal goods and services.

A non-exhaustive list of the criminal activities includes: drugs trafficking, persons' trafficking, persons' smuggling, arms', ammunitions and other forbidden substances trafficking, fake goods trafficking, maritime piracy and cyberspace crime. The most important activities of the transnational organized crime, by the profit they generate, are presented in **Figure 1**.

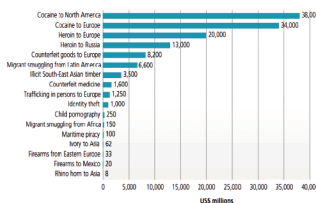


Fig. no. 1. The main activities of the transnational organized crime; Source: UN Office for Drugs and Crime, 2010.

3. CAUSES AND FACILITATING FACTORS FOR TRANSNATIONAL ORGANIZED CRIME

Transnational organized crime has deep roots in humankind history. The phenomenon is a consequence both of some causes spread in all the regions on globe and of some specific premises that are linked to social, political and regional developments. The following are some of the most important causes:

- the disparities in the socio-economic conditions. The high level of global poverty and increasing economic and social inequalities, within the last several decades, have stimulated the phenomenon. From the market's perspective, organized

crime represents an answer to poverty and inequality. Therefore, it is characteristic not only of poor states or communities, but also of developed ones that are characterized by a high level of social inequality and by social and economic discrimination;

- the demand for goods and illicit services. Increasing wealth and excessive consumption in developed countries have created new opportunities for spending spare time, associated with an increase in the demand of goods and illicit services. Sometimes, criminal groups become involved in the development of some projects of local interest [4], as a way to prove that they are more reliable and more effective than state institutions;

- the demographic boom in developing countries - has led to the marginalization and social and economic exclusion of an increasing part of the population in those countries, all of which is overlaid over the social and economic difficulties that those societies are facing. In the absence of the opportunities, that category of population is the most vulnerable to the actions of organized crime groups that have developed their capacity to intervene where state institutions do not involve themselves or are not engaged enough;

- differences among the legislative and juridical systems of the states. A range of transnational crimes are caused, or at least stimulated, by the existence of some differences between the national legislations regarding the fiscal regime for some goods [4]. The smuggling of different goods would not be possible - at least not at the current level - if big differences among states would not

exist in goods' taxation. In addition, the commercial barrier unilaterally imposed by developed states facilitates illicit and smuggling activities. The harmonization of different states' legislation can reduce the level of transnational organized crime;

- globalization. Globalization represents a cause and facilitating factor for transnational organized crime. The liberalization of markets and the free movement of capital flows and, to some extent, of people have created new stimuli for the criminal groups interested in raising their profit. The modus operandi of current criminal organizations follows the logic of market; they succeed in avoiding national boundaries and quickly adapt to the current global economic environment, in which states exercise a more limited control over national business than in the past. Currently, the illicit criminal activities are mixed with licit business [4], an aspect which makes the activities associated with combating organized crime even more difficult, both in terms of distinguishing the legal aspects from the illegal ones, as well as in terms of their effectiveness, as decision-making factors at local and central level are involved in legal/illegal activities.

In the context of globalization, organized crime expands, both geographically (the spatial level), and numerically (the number of the countries affected, the number of groups that operate and the fields of illegal activities). The revolutions in communications and transports - the main vectors of globalization - have facilitated these developments, leading at the same time to the improvement of criminal groups' methods of actions.

On the other hand, some processes associated with globalization diminish the facilitating causes of organized crime. The liberalization of markets, for instance, has diminished the possibility for criminal groups to interfere with the capital flows;

Last but not the least, organized crime is a consequence of attitudes and practices promoted by persons that do not integrate socially or that do not care about the consequences of disobeying social norms.

Transnational organized crime would not have reached the current development level without the support of some favorable factors. Some relatively recent developments at international level have facilitated the intensification of transnational organized crime activities:

- a) the geopolitical events occurred for the last 22 years.

The strategies of transnational organized crime groups are closely linked to regional and global geopolitical developments. A range of events with regional and global impact (the Cold War ending, the Soviet Union disintegration, the civil war in the former Yugoslavia, the emergence of new commercial blocks and newly industrialized states), that occurred within the last two decades, have stimulated the activities of transnational organized crime [5]. Terrorist organizations, such as Islamic State in Iraq and Levant, (ISIL), is gaining substantial resources from production and trading oil and natural gases, by imposing taxes on the commercial activities in the territories it controls, drugs trafficking, protection taxes, funds extortions, kidnappings for ransom, bank robberies, terrains

and properties confiscations etc. According to a study realized by IHS Inc. at the end of 2015, ISIL gained between 75 and 80 million euro, monthly, from illegal activities [6].

This plague prospers in the context of political turbulence and economic uncertainties, and the last 20 years do not lack this kind of developments at all. The dissolution of the Soviet Union has encouraged, to a large extent, the expansion of transnational organized crime. In the context of collapse of the communist regimes, the criminal groups have established links in all former socialist states from Eastern Europe. Currently, the Russian organized crime operates without restrictions within the entire ex-Soviet space, being engaged in drug trafficking, illegal migration, and money laundering or illegal arms' trade. Often, the links between Russian organized crime groups and those from other ex-Soviet states is established through the former Soviet nomenclature.

Transnational organized crime has also proliferated as a result of local conditions and developments. In the ex-Soviet space and in the former satellite-states of the Soviet Union, for instance, the continuation and the spreading of the phenomenon were facilitated by the following evolutions:

- the elimination of the interdependence between states belonging to the former socialist block has permitted the extending of the space for action for the new illegal groups, which involved themselves in identifying new markets for goods manufactured in these states. Much of these states represent key elements in the movement and production

of drugs because they are fragile states that present lesser risks to the transnational organized crime's groups than it is the case of stronger states. States caught up in these illegal activities can be perceived as victims of circumstances since they are not the final destinations for these activities. As Kleiman said, "the United States is central to Mexico's drug problem, whereas Mexico is incidental to that of the United States [7]";

- developing opaque privatization processes. The economic liberalization has weakened state authority in Eastern Europe, partially as a result of unfair privatization processes;

- lack of strong political institutions and the increasing and consistent interference of capital owners in political decisions with a view to quick enrichment, illegal ways included.

The political, economic and social transformations in the '90s have led to reframing former structures of authority, to domestic disorder, to strengthening popular resistance to the control exercised by new state authorities, to the revival of ethnic antagonism, as well as to the collapse of the juridical and security systems, often subordinated to or cooperating with the organized crime in the new political context [8]. The power vacuum and the previous experience of organized crime, as well as the rapid deterioration of the living standard of the population have constituted important premises for reviving and extending organized crime groups' activities. At present, the overlaying of legal activities with those illegal in the majority of the new market economies is intrinsic to the new situation;

b) the increasing role of non-state actors. As a consequence of economic deregulation and globalization of world politics, especially after 1989, the non-state actors have gained a more prominent role in world politics. Sometimes, these non-state actors have succeeded in obviating the control and authority of the states. Against this background, an increasing number of groups and organizations became involved in trans-border activities, such as drugs, arms or persons trafficking;

c) the convergent evolutions in the fields of new technologies and in that of the liberalization of illegal flows of goods and services have created a range of opportunities for transnational organized crime. As already stated, the sphere of activities developed by transnational organized crime groups has extended and diversified, as a result of the peaceful coexistence between geographically dispersed criminal groups and the interdependence between national governments and criminal organizations [3].

The same elements that have facilitated the intensification of the business - economic liberalization, globalization, elimination of customs barriers, and development of new technologies - are now exploited by organized crime groups. They have taken advantage of the new context even more than the legal organizations that obey the regulations of the states in which they operate and, hence, make higher profits than the latter. Organized crime networks can currently use the free market advantages and the opening of state borders for their own advantage as a result of being encouraged by

officials' corruption, and by launching threats and intimidations,

d) intensification of international migration. Immigrants that did not integrate in their host societies may find themselves in what Manuel Castells calls "areas of social exclusion" [9]. In Western Europe, for instance, a large part of the Muslim immigrants is marginalized and alienated. Even those who are the second and third generation living in these countries face discriminations on the labor market or in the educational systems. For them, engaging in the informal economy and in criminal activities represents an alternative - many times the only one possibility to survive.

4. TRANSNATIONAL CRIMINAL ORGANIZATIONS

The bulk of studies regarding transnational organized crime presents criminal organizations as the core element (a considerable smaller number of studies focus on the illicit market) of organized crime. A special interest is related to the way in which these entities are organized and function.

The UN Convention on transnational organized crime defines organized crime group as "a structured group of three or more persons existing for a period of time and acting in concert with the aim of committing one or more serious crimes or offences ... in order to obtain, directly, or indirectly, a financial or other material benefit" [10].

According to the UN Convention [10], a serious crime is transnational if:

(a) it is perpetrated in more than a state;

(b) it is perpetrated in a state, but a substantial part of its preparation, planning, direction and control occur in another state;

(c) it is perpetrated in a state, but it involves a criminal group that engages in criminal activities in more than a state, or

(d) it is perpetrated in a state, but it has substantial effects in another state.

We may notice that the UN definition regarding the organized criminal group does not encompass those entities whose main aim is not gaining financial or material benefits, as it is the case of terrorist or insurgent groups. By referring to the financial or material benefits it was just indented the exclusion of the political or social motivated groups.

The UN experts consider that transnational organized crime activities are characterized by: the extensive use of violence; corruption, penetrating the legal economy; carrying out activities in three or more states; cooperation among criminal groups; an extended area of activities and the political influence (**Figure 2**).

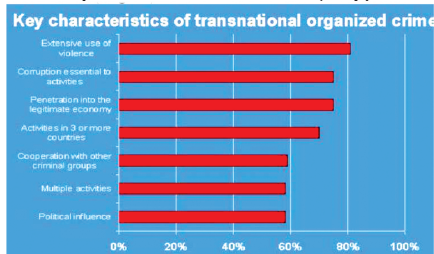


Fig. no. 2. Features of the transnational organized crime groups' activities;
Source: UN Office on Drugs and Crime, 2006.

In an attempt to characterize the behavior of transnational organized crime groups and organizations, Kees Zijlstra mentions that they are [11]:

a. orientated towards committing infractions;

b. structured either hierarchically, or on the bases of personal relationships and able to consolidate that structure through strict sanctions;

c. ready to use violence, intimidation and corruption in order to gain profits and control over the territories and markets;

d. forced to laundry their illicit gains either by extending their area of activity or by penetrating the legal national economy;

e. able to extend in new activities, beyond the national boundaries;

f. more and more interested in cooperating with other transnational organized crime groups;

g. able to infiltrate governmental institutions, including custom services, police, judiciary organs and even national parliaments;

h. in a permanent quest for legal covering.

5. THE IMPACT OF ORGANIZED CRIME ON (INTER)NATIONAL SECURITY

Although it has only recently been included on the international agenda, transnational organized crime has quickly become a priority on states' agenda. The UN Convention on transnational organized crime has been in place since 2003. In 2004, the UN Committee has identified transnational organized crime as one of those "six groups of threats that the humankind must be concerned currently and in the next decades" [12], and in February 2010, the UN Security Council underlined the threat raised by transnational organized crime in certain cases for the international security in different regions of the world and

suggested to the General Secretary of the organization to consider these threats as a factor in the strategies for preventing conflicts, conflict resolution, assessment and integration of missions.

Indeed, through the extension and depth of its involvement, organized crime threatens a range of state interests. Thus, *“the physical violence and the intimidation of the population the illicit way of gaining wealth undermine the political, economic, social and cultural wellbeing of the state; attack the legislative and executive systems power... The organized crime creates a parallel economy that instead led to the loss of the public trust in the state's institutions and the latter's capacity to ensure equity in society.”* [1]

In such conditions, one should not wonder that criminal violence is the first reason of concern for people, according to a survey conducted in 2005 by Human Security Centre in 11 countries.

What distinguishes organized crime from other security threats is that it anchors in corruption and systematic violence in order to gain high profits, often laundered through their reinvestment in the legal economy [13].

Quantifying the impact of organized crime upon society is desirable and yet very difficult to accurately measure due to the fact that the specific activities of organized crime develop clandestinely. Most often, this impact is estimated on the basis of some statistical data like how many persons die annually because of drugs consumption, or how many persons were trafficked, sexually exploited or were the object

of forced work along a certain period of time, or how legal trade is affected by competition from counterfeit or fake goods.

The literature in the field reveals a range of opinions regarding the level of the threat represented by transnational organized crime. Some researchers reduce its impact at a potential risk; others, more recently, consider it a challenge for national security (even an issue of hard security, through its nexus - sometimes proved, other times only inferred - with international terrorism, violent conflicts or traffic of nuclear materials). The variety of the viewpoints and approaches to the phenomenon at the international level reveals the necessity for specialists in international relations to reach explicative theories able to adapt themselves to the emergence of transnational organized crime as a major threat - perhaps the biggest - raised to the whole world in the 1990 decade and after that [3], as the first step in an effective approach to the phenomenon.

Beyond the nuances, a thing is certain: organized crime affects the way in which institutions and democratic processes function. In the case of states without powerful institutions, the threat is straightforward, while for powerful states, it creates the premises of some vulnerability. But in both cases, transnational organized crime threatens: good governance, state institution, legal markets, economic development and people's life.

Regardless of the point of view that we share as far as the level of the threat coming from this flagellum is concerned, we have to admit that,

given the current globalization wave, transnational organized crime has become more than ever an increasing threat (both hard and soft) for national and international security. The negative effects of organized crime propagate themselves in all society spheres, as follows:

a) in the political field:

- it affects state sovereignty by *“creating parallel routes of goods distribution, aiming at violating national frontiers”* [5]. Susan Strange argues that the current international system suffers crucial transformations that lead to an excess of power in world politics in favor of the non-state actors that have the tendency to govern the world [3]. As Strange argues, against this background, states lose their power (which is to be understood in terms of the distribution of capabilities) in favor of markets, sometimes illegal ones. Strange also points out that criminal groups challenge the power and the sovereignty of the states. The result is a kind of “existential symbiosis between the state and the non-state criminal groups” [5] and governments get accustomed with the eroding of the political framework, accepting the cohabitation with criminal groups. Thus, organized crime transforms itself, in the writer’s opinion, from an amount of illegal criminal economic activities in semi-legal enterprises with different covers, frequently supported by governmental or local officials. In other words, between organized crime, legal business and state authorities mutual relationships are established.

According to the 2015 U.S. National Security Strategy, rapid pace of change provided new possibilities

for individuals and governments to get involved into illegal activities that *“creates shared vulnerabilities, as interconnected systems and sectors are susceptible to the threat of transnational crime”* [14];

- it intervenes in the democratic process, fueling the idea that the political life is governed rather by money than rules and principles; sometimes, organized criminal groups seek to replace genuine political representation providing their own candidates and electors [15]. Criminal organizations can take part (illegally) in the development of the political process penetrating the executive and legislative structures by corruption and blackmail, weakening thus their legitimacy. The final effect can be the destruction of political institutions and of the governing system;

- organized crime can bring serious prejudices to the affected societies when it interferes with the values and norms that contribute to citizens’ understanding of political activity. By distorting the line that cuts off the legal sphere from the illegal one, organized crime changes the perceptions and the understanding of the public opinion, generating alternative loyalties to state institution, with negative effects upon the overall way society functions [5];

- it has an impact on political institution functions through the influence it can exercise on the executive, legislative and juridical decision making-factors. Its influence upon these fundamental links of the states provide criminal organized groups two important advantages: on the one hand, these tend to create their own system outside state justice,

and on the other hand it tries to use state infrastructure and institutions for their own benefits;

- the criminal groups can resort to manipulating the electoral process, providing their own candidates, to whom they provide large amounts of money and compromising information on their political enemies. Even when they support the candidate required by the public, they make it in exchange of the help given by that candidate furthermore (after he is elected). The economic power of criminal organized groups, that gradually becomes also political power, extends so much that they can sometimes subordinate the political parties or can create their own political parties [16] in order to obtain an increased degree of influence over the political decisions in a state. When the result of the political elections is uncertain, as it happened in many countries in the last years, even the control exercised over a small party can be effective in the play of the political alliances and can have profound social consequences over citizens' life;

- when they get involved in mass-media, organized criminal groups can manipulate and even instigate the populations (by selecting the disseminated information flow), hijacking its attention from the real problems in society;

- criminal groups can use intimidation and blackmail in order to eliminate those that oppose to the promotion of the illegitimate interests (be they state officials, union leaders, etc.);

- when it infiltrates state institutions, organized crime can block the implementation of public policies, by intimidation, corruption and blackmail.

b) in the social field it generates high costs with the treatment of those depending on drugs consumption, with the social reintegration of those who have been the object of human being traffic [17]. The costs also include economic productivity loss of such individuals.

c) in the economic and financial fields:

- criminal organizations penetrate state authorities and, implicitly, the legal business. Concerning this aspect, two distinct points of view have taken shape. The first point of view, which we can consider optimistic, argues that, in spite of this risk that is frequently invoked in the specific literature, there is not enough proof regarding criminal groups' infiltration scale. For this reason, the supporters of this opinion consider that the risk represents an exaggeration. The other point of view, that we may name it pessimistic, considers that the lack of sufficient proof should not constitute an argument in the sense of reducing the threat level, because a range of transnational crime can be carried out without a significant level of penetration or corruption of state structures. The obviation of the law is often more facile to realize than corruption of governments. Moreover, a range of services provided by the legal firms can be used by criminals without these companies being aware of that;

- it generates additional costs for the economic activity, because of the use of violence and eroding the legitimacy of the political regime. The costs required to solve the conflicting interests between the criminal groups and legitimate state institutions hinder the penetration

and maintenance of legitimate participants to economic life on the market. In these circumstances, the investments in the capital are discouraged and create the premise for the massive outflows of the capital from the affected country;

- it generates disturbances in the financial system of the affected countries. The existence of the off-shore banking system, for instance, has eroded not only the capacity of the states to resist to the speculative attacks against their national currencies, but it also facilitated the money laundering operations. The financial stock markets, that are more and more internationalized, make it more difficult to track the so-called "hot money", being permanently in search of speculative investments. This risk is more acute in the new economies in transition, where new financial markets have developed, but where the regulating bodies cannot keep the pace with these changes. The result of these effects consists in less impersonal distribution processes, more inequitable and of structural dysfunctions in economy, with negative effects upon citizens' life and the stability of the domestic political system;

- it discourages free participation of the citizens and of the companies on the market as business entities, distorting market functioning, and may endanger firms' investments and citizens' personal economies;

- it undermines the role of the state, by seriously impacting its effectiveness [18]. Under the pressure of organized crime, the stability and predictability provided naturally by the state disappear. As such, capital owners will tend to

invest their money on the short term, seeking the immediate profit, with an impact on the long term economic development. A weakened state that is vulnerable as far as the guarantee of contracts execution is concerned provides organized crime new opportunities to fill a more extended economic and social space and directs economy, and society, in general, towards personalized structures, to the detriment of public interest. The flexibility and the dynamism of the new transnational organized crime groups provide them a comparative advantage towards the bureaucratic and complex state structures in their fight for economic and political control in society;

- the illegal character of organized crime activities leads usually to less productive investments in economy [19]. The known cases reveal that the extension of organized crime often occurs by acquisitions in the real estate field and by exercising a degree of control over banks and financial companies. The productive investments realized by criminal groups, when they exist, are made in order to launder money and not to generate economic growth or long term social and economic benefits. These investments are directed towards markets that generate a small added value. The strong and consistent demand on behalf of organized crime contributes to an increase in the prices of real estate goods, with further negative consequences on citizens' life and public policies;

- the criminal organizations threaten, firstly, the financial sector of the state, to the extent that they promote the financial institutions

that operate without qualm and thus erode the functions of legitimate state institutions through complex mechanisms of money laundering, that finally can undermine citizens' trust in these institutions. At the same time, the volatility of the capital, as a result of the latter being in the hands of criminal groups, destabilizes banks and financial markets and that may lead to profound economic and social crises.

The combined effects of organized crime in the economic field are inflation, inequitable distribution of income, obviation of free markets and economic regulations [20]. All these have as a result a short term approach of investments, which is counter-productive from the perspective of the economic-social development of a society.

Organized crime has the capacity to provoke major economic disequilibria and long periods of economic recession, seriously affecting international competitiveness in the current increasing globalized framework. In countries with economies strongly dependent on the productive system of a criminal nature, any attempt to eradicate it and to come back to a market led by the efficiency principle risks to provoke economic recession and strong social reactions. That makes it more difficult to combat criminal organizations, especially because the last ones have seldom an explicit antisocial and antidemocratic program.

d) in the military field.

The involvement of criminal organizations in military conflicts, especially in areas where the control over territory and institutions is weak, makes transnational organized crime

an issue of hard security. Organized crime influences the intensity, the dynamics and the duration of armed conflicts, by providing armaments and ammunitions to the combatants. The Kosovo conflict, for instance, has been prolonged due to the fact that Western Europe Kosovo diaspora financed the guerrillas of the Kosovo Army for Liberation. Similarly, the Iraqi insurgency has been fueled for a long time with armaments from the neighboring countries (including with stealth cars that were further transformed into vehicle-born improvised explosive devices). Also, a large part of the African conflicts are fueled with arms from different countries, interested less in the consequences of these conflicts upon the countries affected and more in gaining consistent profits from selling these arms.

The possibility of terrorist groups to get access to the WMD materials through global drug trafficking routes represent a threat that cannot be neglected nowadays, as it is highlighted in the May 2015 issue of Dabiq, the English language ISIL periodical, that suggest the possibility of ISIL to move such materials into the U.S. via Libya, Nigeria, South America and Mexico [21].

6. CONNECTIONS BETWEEN ORGANIZED CRIME AND TERRORISM

In the last years, the threat coming from organized crime has also been increased by the connections, some of them proved, others only presumed, between organized criminal groups and terrorist organizations. These ideas are based on several convergent

elements existent between the two categories of groups:

- terrorist organizations carry out some activities which are specific to criminal groups, in order to finance their terrorist activities [22]. Moreover, terrorist organizations have inspired themselves from the working methods of criminal groups. Thus, the terrorists in Iraq, or the Talibans in Afghanistan or Pakistan, gain large amounts of money from kidnappings, money swindling or drugs trafficking - activities specific to organized crime. It is worth mentioning that, currently, frauds of any kind, together with drugs and persons trafficking, represent an industry in which extremism adepts in Western Europe are more and more involved;

- organized crime groups use tactics specific to terrorist organizations (violence) in order to shape the environment in which they operate, to make it more productive for their own goals;

- the existence of some hybrid groups (an example is the Columbian Revolutionary Army Forces - an insurgent organization that operates in Columbia and carries out extended operations of drugs cultivation, production and trafficking).

However, despite these clear similarities, there is a range of important differences between the two kinds of groups that make their long term cooperation unlikely:

- organized crime has an economic motivation. As such, it focuses its activities on gaining material advantages. In this respect, criminal groups seek to weaken, but not to destroy state institutions.

- on the other hand, terrorism has a political motivation. Terrorist organizations seek to destroy states or to radically change the political regime in a country.

- criminal groups want to remain in the shadow, while terrorists seek to be as visible as possible.

Currently, a radicalized trend can be noticed among the traffickers operating in Western states against the background of an increasing social polarization at international level, marginalization of immigrants from this geographic space and increasing feelings of frustration, as a result of the current inequitable redistribution of resources around the globe. If concretized, the phenomenon will have the effect of strengthening the actionable capacity of terrorist groups.

7. CONCLUSIONS

Through the dimensions that it has gained, organized crime has become a transnational phenomenon and a threat to global security. The challenge raised by organized crime, latent for a long time, tends to become a major danger for the political, social and economic stability of states. The current stage of organized crime has evolved in parallel with and has been facilitated by new frameworks in which international trade has been carried out, as well as by the revolutions in communications and transportation. The extended access of new technologies, the diminishing barriers in human mobility and financial resources allow criminal groups to challenge states' stability and undermine the democracy in many areas of the globe, especially in the weak states and where pluralist regimes are not consolidated.

Given the transnational nature of this phenomenon, states are constrained to forge international cooperation relations in order to provide an effective response to this flagellum. The effectiveness of countering measures depends essentially on two aspects: the understanding of the phenomenon and the integration of national responses within an effective international strategy.

Currently, two different patterns of analysis of transnational organized crime have taken shape: one focuses on the criminal groups operating in different fields of human activity. The studies corresponding to this pattern approach the way in which illegal activities develop and the entities involved in these activities. The other pattern of analysis focuses on the illicit markets. None of these two approaches do reflect the problem in its complexity because they do not grasp all the interactions between the relevant elements.

Up to the moment, the first approach benefited from an increased attention on behalf of researchers. However, this approach is not an effective one because it is rather reactive than pro-active. The annihilation of the current organized crime groups does not eliminate the risk for other groups to replace the current ones, as long as there is a demand for illicit goods. As a UN report on the issue has showed [12], the majority of the goods and illicit services flows are firstly the result of market forces and less the result of the activity of criminal groups. When the states refuse goods and services for which there is a strong and constant demand from a part of their population, there will always

be persons or even groups, organized more or less hierarchically, that will try to provide those goods and services. From the perspective of the criminal groups, organized crime represents the most common opportunity of making businesses, a choice from many possibilities, that permits gaining a large profit in a short time. Illicit markets function because their clients are not morally injured by the effects of their gestures. Therefore, the strategies of annihilating organized criminal groups have to be joined by interventionist measures concerning the illicit goods markets in order to effectively counter the issue.

Combating transnational organized crime has to be regarded as an extended project that should be linked to global governance. An argument in this sense is the fact that, regardless of whether they are generated by the demand side (that is by the markets) or by the supply (that is by criminal groups), transnational organized flows are, mainly, transcontinental (the majority of these flows are initiated on one continent and commercializing on other continent, after the transit of a third continent). In these conditions, what occurs in one region of the globe produces effects in others region, sometimes situated a large distances. As such, only an intervention of a similar scale as the issue is – namely a global one – can produce the desired effects.

The effectiveness of the current combating measures of the flagellum has been affected also by the speed with which a range of processes have occurred at the global level. More often than not, the speed of these processes exceeded the reaction and intervention capacity of states

and international institutions in the regulation of these processes. Sometimes, there is not even the will on behalf of powerful states to exercise control over international institutions.

As many other challenges at international level, transnational organized crime will presumably lead to effective actions at international level only when its threat will reach a level considered unacceptable by powerful states. At least two arguments support this idea: 1) only these states possess the needed capabilities (material, financial and human resource, level of training/expertise); 2) only in these societies sufficient social pressure can appear so that, under its impact, the current nexus existing between state level decision-making factors and capital owners (regardless the way this capital has been obtained) - could be uncovered.

A complete eradication of this flagellum is hardly expectable, but the diminishing of its current extension - by a more active and more effective involvement, both of states and international organizations – is a feasible goal.

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A VUCA ACTION FRAMEWORK FOR A VUCA ENVIRONMENT. LEADERSHIP CHALLENGES AND SOLUTIONS

Aura CODREANU

Regional Department of Defense Resources Management Studies,
Brasov, Romania

The 1990 coinage describing the surrounding environment as volatile, uncertain, complex and agile (VUCA) is becoming a cliché in the absence of a more profound analysis. To try and uncover its causes would take a comprehensive study that covers multiple areas such as economy, sociology, psychology, history, etc. and that cannot be covered in just few pages. Nonetheless, the reality it describes signals a high need for intervention. Consequently, what this article proposes is an overview of the possible solutions that leaders may have at their disposal or they can build in order to counter the effects of the phenomena derived from such reality via vision, understanding, clarity and agility (VUCA). Thus, its assumption is that by depicting the overt aspects of the phenomena, possible solutions may emerge in the form of a general action plan. Hence, the potential flaw of the ideas to be expressed: the general aspects need to be adapted and matched to specific environments, which hopefully becomes possible should a specific mindset be assumed via the aforementioned action framework.

Key words: volatility, uncertainty, complexity, ambiguity, vision, clarity, agility, strategic leadership, environment, dissonance, entropy, disengagement.

1. FEATURES OF A VUCA ENVIRONMENT

The VUCA acronym standing for Volatile, Uncertain, Complex and Ambiguous was coined in the military after the Cold War to describe a new emerging type of warfare. From this perspective, the coinage was meant to refer to:

“...a world order where the threats are both diffuse and uncertain, where conflict is inherent yet unpredictable, and where our capability to defend and promote our national interests may be restricted by materiel and personnel resource constraints. In short, an environment marked by

volatility, uncertainty, complexity, and ambiguity (VUCA).”[1]

Nowadays, the acronym accurately reflects the consequences of the high mobility of people and goods triggered by state border dissipation or reconfiguration at a mental, technological and physical level, as well as the evolving technical interconnectivity.

Volatility captures sudden, extreme and multi-layered fluctuations in economy, socio-politics, geopolitics and indicates the difficulty of identifying and describing these changes in a pattern like manner as it used to be the case in a stable world where certainty about

the course of events was the salient feature. Thus, past experience and best practices no longer provide solid indicators for identifying solutions for the present, or for the future.

Given the incapacity to read the present through the lenses of past, that is “to sift, discern or decide” [2] it becomes obvious that the predictability of future is more than **uncertain**, which “makes forecasting extremely difficult and decision making challenging”. [3]

Increased mobility of people around the globe or simply the burning of frontiers via intensive use of technology, along with diversity of mental patterns contributes to an increased **complexity** of the surrounding world and inherently difficulty in mastering if not at least understanding the current intricacies underlying the external and internal environment of states and organizations. As a result, systems’ complexity leads to fuzzy depictions of the “causes and the ‘who, what, where, how, and why’ behind the things that are happening [that] are unclear and hard to ascertain” [3]. Additionally, “the ease of accessibility to, and prevalence of, big data has only increased this level of complexity, and will continue to do so at an ever-quickenning pace”[2].

The **ambiguity** of the environment is the result of all the above features. It is rendered by the inability to provide “yes/no” solutions and, hence, by the multifariously valid alternatives that might prove true depending on how, when and where a butterfly flaps its wings. The “it depends” answer becomes prevalent and it proves cumbersome for whoever has been accustomed to living in a world in which certainty about the future in

terms of present decisions, stability of environmental factors, simplicity in terms of expectations and polarity in the world, clarity of game rules were the norm. Moreover, as one author exquisitely summarized the conundrum: “Our decisions are only as good as the view of the future they rest on”[15].

But how can anyone tell whether the surrounding environment can be described as VUCA or it is prone to evolving by VUCA features? In this respect, there are a number of symptoms [2] by which to diagnose and intervene: dissonance or disbelief in what is visible and tangible and hence loss of/threat to comfort zones; entropy or disorganization, loss of purpose and perspective, incapacity to further pursue goals and “impaired effectiveness”; disengagement or retreat from what is hard to understand, withdrawal into a comfort zone/group. All of the above can become manifest at macro organizational level, but also at group and individual level.

What makes the difference in terms of the cure to be chosen is the level at which action is triggered. In this respect, we believe that taking a two-way perspective to a 5 P model (philosophy, policy, programs, processes, and practices), that can be applied for any organization, can yield good results. What that means is for current practices to exist or be molded in a desirable direction, as well as the presence of a clear cut philosophy. On the other hand, whatever changes occur at the level of practices, if they are in consonance with the stated philosophy, then they must naturally flow bottom to top, moving and transforming processes,

as well. In this respect, the chapters to follow are to build on this idea more or less overtly.

2. A VUCA ACTION FRAMEWORK

The solutions to the challenges raised by a highly volatile, uncertain, complex and ambiguous world are proposed by Bob Johansen [4] who suggests a positive reading of the VUCA acronym as Vision, Understanding, Clarity and Agility. In a similar vein, Peter Hinssen proposes the VACINE [5] acronym to point out the need of organizations for Velocity, Agility, Creativity, Innovation, Network, and Experimentation. Nonetheless, this article is to approach the first view, since that actually presents both the prerequisites necessary to be in place (i.e. vision, understanding, clarity), as well as the tangible result (i.e. agility). On the other hand, Hinssen makes valid suggestions through the acronym proposed, but in our opinion they overlap to a certain extent or need to be in place at the same time to produce results (i.e. creativity, innovation and experimentation). One of the concepts though would be worth investigating, namely that of "network". Nonetheless, approaching it would require a paper on its own and therefore, at the risk of presenting an incomplete perspective, this article is not to cover it.

Based on the presentation of each of the concepts proposed by Johansen and by resorting to specialized literature in the field we aim to establish the theoretical grounds for identifying an action framework that any leader could rely on when

challenged to make decisions on short notice, with little if no information whatsoever and simply probing the consequences with no direct and immediate evidence on these.

Thus, when it comes to **vision**, one needs to have one is not forecasting future, but creating future through action [6]. In this respect, it is worth noting that, if not stated as such, than as part of any organization's mission statement the vision may go unnoticed for lack of managers' ability to actually translate it into "*changed business practices*" [7] which means that it should be linked to specific behaviors, structures, and practices".

In this respect, to translate such a vague word into a real life solution is to look at it through the lenses of what Charles Duhigg [16] calls "*keystone habits*", namely those routines at individual, group or organization level which, if identified correctly and hence acted upon, can lead to ripple like change. Thus, vision is about identifying the key priorities that matter most and which, if approached, "start to shift, dislodge and remake other patterns". Nonetheless, the real difficulty appears when it comes to identifying what everyone agrees as being important for running the organization (even though they may or may not explicitly state it as such) while still clashing over the means to make it important. Thus, by identifying the key word that sets the priorities and which is not viewed as negotiable by either of the stakeholders because it reflects their best interests, one can actually claim to have a vision. And that only incurs identifying the root causes that may impede upon its realization and the means by which the latter can be

best addressed. Consequently, vision becomes a matter of identifying that behavior which everybody trusts as essential for their own interests, and such agreement can only lead to the sense of community and communion that is required for any organization to have.

For that, **understanding** becomes a key word and entails a number of requirements on behalf of leaders, such as [8]: openness; accountability; setting boundaries through clear expectations and objectives; willingness to tackle tough issues; listening and relational skills; regular communication; mirroring the behavior you want to see; giving trust to others.

Clarity is the opposite of simplicity and certainty [9]. It is more about direction, rather than about the end point, and it incurs “great flexibility about the detail” [9]. Thus, if clarity is about the power to admit lack of knowledge in a field and, hence, willingness and patience to learn and gain new information through dialogue and conversation, certainty is impatient with multiple viewpoints and favors crystal clear rules and norms even when common sense and reality contradicts them.

Clarity is required nowadays to deal with complexity, even though, as some literature in the field emphasizes, it is not so much complexity as “complicatedness” which makes organizations stall: “...while complexity brings immense challenges, it also offers a tremendous opportunity for companies. Increasingly, the winners in today’s business environment are those companies that know how to leverage complexity and exploit it

to create competitive advantage. The real curse is not complexity so much as “complicatedness,” by which we mean the proliferation of cumbersome organizational mechanisms—structures, procedures, rules, and roles—that companies put in place in an effort to deal with the mounting complexity of modern business (see the sidebar “The Complicatedness Trap”). It is this internal complicatedness, with its attendant bureaucracy, that destroys a company’s ability to leverage complexity for competitive advantage. Even worse, this organizational complicatedness destroys a company’s ability to get anything done. However, although complicatedness is a curse, it is not the fundamental root cause of the problem; it is ... only a by-product of outdated, ineffectual, and irrelevant management thinking and practices.” [10]

In terms of how to achieve clarity over complicatedness, Morrieux and Tollman [10] suggest rules that are related to understanding the root causes of employee performance, as well as several means to encourage cooperation rather than competition.

Thus, as far as performance goes, the authors suggest that in order to properly react to a complex world and avoid complicatedness, people behavior and performance need to be interpreted and intervened upon in relation with organization behavior. The latter is actually dictated by the interplay among organization structures, overall performance measures and indicators, incentives, systems and subsystems that shape the goals, resources and constraints that ultimately direct or restrict action and decision making. Therefore, understanding the context of employee

behavior from the aforementioned perspective can bring clarity over what works and what does not and avoids making piecemeal decisions like restructuring, transforming, expanding, etc. to the detriment of critical nodes based improvements.

Concerning the means by which cooperation can be achieved, Morrieux and Tollman encourage using integrators as a role to be assumed by anyone in a management position, rather than resorting to or establishing positions labeled as coordinators, cross functional groups, etc. that only add up to the level of complicatedness. To assume such a role several prerequisites are necessary:

- the management position has the power to generate value (in this respect, the health check questions by which to have the position at all are: what would happen if the position would not exist?, how would team members cooperate?), as well as the interest to do so.
- the rules imposed on the management position selected to act as an integrator are few and simple so that whoever fills it can encourage people use their autonomy and judgment, rather than becoming disengaged as a result of performing activities without real value to the organization, or stumbling against cumbersome decision making silos.
- the person acting as an integrator is given the freedom to set goals, success criteria, evaluate and reward result based performance and not behavior based performance, rather than being imposed all of the above.

Nonetheless, one of the most important highlights of the aforementioned authors is the following: *“Beyond a certain threshold, clarity only encourages mechanistic compliance and “checking the box” behaviors, as opposed to the engagement and initiative to make things work.”*

In conclusion, for clarity to emerge, people accountability, process accountability, discipline and integrity should be key ingredients. In other words, *“Accountability plus discipline equals integrity and results in clarity”*. [12]

Agility is related to being **“networked and flexible, lightweight, and replicable”** [13]. When it comes to organizations, agility is about withstanding difficulties by changing in a flexible and swift manner [5]. In this respect, Patrick Hollingworth [2] uses two important metaphors to depict the differences between linear based, traditional organizations anchored into long term planning and agile organizations, namely the expedition style climbing and alpine style climbing:

“Expedition style is all about identifying an outcome, and then doing whatever it takes to ensure it is won. It has a ‘summit at all costs’ mentality. Once the goal has been attained, once the climbers have returned to base camp, they can go home – the game has been won. Expedition style is extrinsically motivated, focusing only on the goal, leading to problems with goalodicy and increased exposure to the fallibilities of poor leadership.

Alpine style, on the other hand, is intrinsically motivated, focusing on the task at hand. The reward

is learning from the journey as a whole, rather than just the moment of attaining the goal.”

If agility is to be approached from a leadership perspective [14], it refers to two types of ability: one focused on results, and the other on people.

Thus, according to Mulcahy and Meister, an agile leader focused on results is:

- transparent, namely able to share information and take immediate and adequate action upon positive or negative feedback;
- accountable in terms of: allowing people and himself/herself to learn from mistakes and thus take and not shun responsibility, and clarifying behaviors expected for established goals;
- intrapreneurial, namely keen on identifying opportunities and encouraging others to act imaginatively and courageously;
- focused on the future by encouraging innovation, experimentation and giving credit whenever the case may be.

When it comes to working with people, the landmarks of leadership agility are related to the capacity to:

- resort to team work by identifying the right team leaders behaviors and encouraging them, as well as allowing for team work to become part of the functions that are characteristic of a human resource management system;
- promote inclusiveness by cherishing and encouraging both the diversity of employees' social and professional backgrounds, as well as the

diversity of opinions via formal events like “community and civic diversity projects and cross-cultural organizational initiatives from community days to hackathons”;

- encourage learning not only from formal dedicated programs, but especially from non-formal media, as well sharing and dissemination of information.

The barriers to agility raised within complex (and not necessarily complicated) organizations that are designed to react as part of a stable environment, are [11]: hierarchical structures, well established routines, “conventional strategy making process” that is not only about a time frame (3-5 years for strategic planning) within which events evolve at a much higher pace than the development of strategies, but also a given leadership “mindset” acquired as a result of people not filling a position long enough which does not allow them to become proactive, complacency, adversity to taking risks, and paralysis by analysis. In this respect, the signals that allow detecting the existence of such stumbling blocks are: “‘silo’ mentality, conflicting departmental priorities and goals, slow response times, processes becoming disconnected from the customer or from each other, duplication of effort, lengthy decision making, political behaviour and lack of accountability” [11].

3. CONCLUSIONS

All of the above considered, it becomes obvious that the VUCA perspective on tackling a VUCA environment is but a reemphasis of

ideas that already underpin traditional approaches to management. Thus, in our opinion, the action framework that can be proposed under such circumstances needs to be simply a reminder of what most organization employees are empirically aware of and yet, forget to put in practice, when reaching leadership positions.

In this respect, one possible high level approach, which in our opinion, does not necessarily provide a tangible solution to leadership in a VUCA environment is that proposed by Harry R. Yarger [17]: *“The role of the strategist is to exercise influence over the volatility, manage the uncertainty, simplify the complexity, and resolve the ambiguity, all in terms favorable to the interests of the state and in compliance with policy guidance.”*

Nonetheless, two ideas are worth remembering from the above quote. First, awareness of the best interest of a higher authority, and we could add, more often than not, to the detriment of the best interests of individuals or groups, is essential. Second, a compliant behavior is mandatory. But here, the challenge that leaders and not strategists need to tackle concerns the compliance framework and the extent to which that impedes upon the very idea of acquiring an agile state of mind and action.

Consequently, the principles that are worth underlining are presented below.

Principle 1: Trust your instincts to make decisions, as long as you are a professional and hence your “guesses” are educated ones. It is only thus that setting and following a vision from a pattern based behavior perspective becomes possible.

Principle 2: Assume accountability for your actions and

thus empower other to do the very same. In other words, to be a leader in a VUCA environment is simply setting an example and requiring the others to follow. But to do that and ensure the right decisions are made, accountability should become the keystone for attitudes and their related behavior.

Principle 3. Talk the talk and walk the walk. Leadership is not only about preaching, but also about setting an example. Nonetheless, one is not possible without the other, which means that for people to follow, they need first to understand. In other words, taking people’s understanding for granted and asking them to replicate the leader’s behavior is nothing but a huge leadership mistake.

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AN ETHICS RELATED APPROACH TO HUMAN RESOURCES MANAGEMENT IN THE MILITARY

Rares-Mihail PLACINTA

Romanian Land Forces

In all countries there is a new interest in all matters concerning ethics, with a sum of questions that are increasingly hard to answer – like who's to blame for terrorist attacks, why different people are reacting so strange, so “away” from our way of thinking. As a result, there is an increase in the number of people, teaching or attending courses in ethics than before. Doctors, politicians, prosecutors, professors are developing new rules acceptable for the whole spectrum of their profession, with a declared intent to follow up on living up to the new codes. As part of most societies, the military have made a tradition of studying ethics, mostly through case studies, through examples, and least through a philosophical approach. The process of making decisions is something that comes like breathing to an officer, so are we taking all steps in making sure that those decisions are ethical ones too?

Key words: *military ethics; ethical principles; senior management; ethical decision-making; integrity.*

1. INTRODUCTION

The word ‘Ethics’ derives from the Greek word ‘Ethicos’, meaning in a very broad understanding “habit” or “custom”. Ethics or moral philosophy is the branch of philosophy that involves systematizing, defending, and recommending concepts of right and wrong conduct.

Military Ethics applies to a very specialized profession and has evolved in time in order to respond to certain situations, furthering mission accomplishment. The armed forces must be led to preserve the nation, secure its national interests in an ethical way. Ethical leadership embracing the ideals of the military profession is going to happen only if the proper methods and the right tools are in place: an educational

system that has a very good connection with the present realities, a support from the members of that particular armed forces and of a tradition of doing the right thing at the right time.

In the ultimate quest for success and fame in the contemporaneous competitive world, we all seem to have become obsessed with “doing the thing right” rather than “doing the right thing”. Intense struggle to mount the social ladder to success and the craving for quick results in the face of complex pressures are a more than possible cause of a certain departure from the values and principles defining the society. One only have to read a media report to find out about new human rights violations, or different scams perpetrated by one of the people considered representative

for a large group of people, successful in their careers and lives. We all can notice the decline of values and principles, and its effect on our present and future leaders.

2. GENERAL ETHICS RELATED CONSIDERATIONS

As a profession, the military is a very stressful one. A large majority of that stress comes from trying to accomplish a mission, in a certain context or situation, following a predetermined set of rules. The moment of decision making for the military professional is determined by the obligations set by the missions, the rules, and the context of the situation. Ultimately, each individual is responsible for establishing the weight to all these criteria and for determining which is the road to take, and to deal with the consequences of his decision.

One of the best arbiters of ethics is our conscience, our moral judgement which, if properly trained, produces actions and in absence of actions or in the presence of the wrong ones, produces guilt. A prepared ethical conscience consistent with our own value system strengthens a leader to make the right choices when dealing with certain problems, no matter if the path to accomplish the goal is easy or hard. Ethics is ultimately about individual character as manifested in the decisions and actions of all who are considered leaders within the profession. Leadership is best understood as a matter of character that demands individual moral decisions, and its exercise can never be an application of popular and simplistic formulas.

2.1. Rule obligations

The primary criteria for ethical judgments are provided by rules. The questions “What do I have to do?” and “What is right for me to do?” reflect not only a sense of responsibility but also an understanding that a standard exists for establishing what is mandatory and what is correct. Military personnel, more than most people, live under a sense of duty, aligned with a strong base of order, deference, and discipline. We have taken oaths admitting us into the ranks of the military and also, as citizens we are required to honour legal justice, civil law, and the social and ethnic customs of our communities. The primary ethical pressures upon us, however, are such formal mandates as telling the truth, keeping promises, respecting property, and preserving life. These norms are the linkage without which social institutions would collapse. While such norms need not be regarded as unconditional moral boundaries, the burden of proof is always upon those who would take exception to them.

The rule-oriented approach to ethical theory establishes in given standards the criteria for determining right and wrong. Dilemmas exist when two or more obligations conflict. Making choices lies at the heart of ethics. The ethical conduct is finding the best reasons for making particular choices or crafting particular sets of rules. One must sometimes choose between what a superior officer orders and what regulations prescribe, or between what law exacts and what personal conscience dictates. The philosopher

Immanuel Kant is the premier exponent of a method for determining fundamental obligations. For Kant the supreme principle of morality is good will, and “the first proposition of morality is that to have moral worth an action must be done from duty” irrespective of consequences, so the duty is considered the imperative determining the right course of action. A second valuable expression of the categorical imperative is: “Act so that you treat humanity, whether in your own person or in that of another, always as an end and never as a means only” – so pay respect to people and their inputs, because the final judge of your actions will always be your peers. [1]

Ethics has a special meaning to the military profession because it calls upon its members to make the unreserved supreme sacrifice of life at the bidding of a superior in the hierarchy. Therefore, unless a man has absolute faith in the ethical correctness of the superior’s motives and conduct, he will lack conviction in his act and will avoid risks to his life.

This institutional ethic is derived from the imperatives of military effectiveness and the values of society whom the armed forces serve. Leaders at all levels are supposed to guard the integrity of their profession including its ethics. They set standards to met for conduct and performance, teach those standards to others, establish systems that develop members to meet standards and take rapid action against those who fail to achieve the standards, all this in the best ethical traditions of the military profession.

Being a senior officer implies that he/she is at the top of the hierarchy and, by virtue of merits, can effect

influence over his/her subordinates and the professional context. Unlike command at junior levels, the senior officer is under the watch of a much greater audience, within and without the military, so his/her conduct and character are on display for a more in depth observation. It is important for leaders, especially the more senior ones, to make sure that everyone’s behaviour in the organization is based on clear rules, and set up the proper personal example, because if there is duplicity towards standards at the top levels, then it is more than likely that the subordinates will not consider a rules guided conduct to be important enough. Usually, the senior leaders are certain that by virtue of their status, rank and position they have the power to obscure all deviations from the rules. Added to this is that they are insulated from critical feedback, because no one around them is ready to risk his status trying to confront them with their ethical problems.

2.2. Mission oriented aspirations

In addition to following rules, we determine which decisions and actions are ethical by referring to missions. The questions addressed are “What is good?” or “What is my purpose?” The criteria for shaping right and wrong are no longer historical standards but future consequences. The good decision or action is measured by its ability or promise to attain a desired scope. Aristotle defined happiness as the good all men seek.[2]

In terms of the society, we can say that the mission is to reach the greatest good for the greatest number of people. For the military professional, goal-oriented aspirations are a

combination of the public good and personal happiness. On the public side is a conglomerate of national desires and military objectives. The more immediate objective is accomplishing the mission. This may range from training personnel and maintaining weapon systems to delivering personnel and supplies, striking targets, or defeating enemy forces. On the personal side, we want job satisfaction, recognition, promotion, financial security and an overall sense of fulfillment in life.

Conflict between missions and rules is common, because there are situations when the rules that must be observed are in a direct opposition to the mission to accomplish, and you have to make conscious and educated decisions to ignore some rules that are not applicable to the current situation in order to fulfil the mission.

2.3. Situation-oriented decision

In situation ethics the particular circumstances of a situation provide the criteria for determining right and wrong. Here, each situation is unique, without precedent and judgments must be relative to the circumstances; the circumstances determine what actions should be taken. The significant questions are “What is appropriate to the situation?” or “What is fitting?”. One of the proponents of this approach to ethics, Joseph Fletcher, was saying about the rule-oriented judgments that “Situation ethics keeps principles sternly in their place, in their role of advisers without veto power.” [3]

A major limitation of situation ethics is its focus on the unusual, once-in-a-lifetime circumstance. It

is not fitted to everyday life, because the situations, in which we must make ethical decisions, can be extrapolated to different rules or goals applicable. Any realistic person knows that under certain conditions we must act accordingly. Situation ethics resists systematization; it can never be normative. Without appropriate checks and balances, situation ethics could lead to ethical anarchy. Military professionals do occasionally find themselves in circumstances where regulations and mission objectives fail to provide sufficient guidelines. In those rare instances the aptitude for innovative leadership can be a virtue. When followed inflexibly, any of the three approaches to understanding the bases for our ethical judgments can result in moral aberration: exclusive attention to rules can result in legalism; rigid adherence to the utilitarian goal of the greatest good for the greatest number can promote a tyranny of the majority; and preeminent attention to situations can result in loss of directives and moral chaos.

3. MAIN ETHICAL ISSUES WITHIN THE MILITARY

Studying ethics theories without relating them to the predominant ethical problems of military professionals would be merely an intellectual exercise. These theories are tools to help us think more clearly about our decisions and actions. Three overlapping areas in which our theories may be applied to problems are people, integrity, and career.

3.1. People

Human needs are a military commander's prevailing problem.

Probably the most difficult part of being a commander is making people decisions, because people have needs, they have frailties, and they have great potential. People need consideration, recognition, and encouragement in order to reach that potential.

It is an enduring principle of the Army leadership that we mentor, coach and counsel subordinates. Senior leaders have a moral and ethical responsibility to develop subordinates while balancing both short and long-term needs of the service. Grooming and mentoring is one of the primary tasks of every senior which is avoided, for some reason or the other.

Mentoring plays a big part in developing competent and ethically sound future leaders. It is not limited to people with high potential or favourites. Counselling is an interpersonal skill essential to effective mentoring. Effective counselling helps subordinates develop personally and professionally. Ethical leaders talk with and not to the soldiers. Regular, effective counselling is essential for ethical development, and responsibility for this problem must be equally shared by the institution, its leaders and subordinates. The second-in-command or somebody else with a similar senior position and influence in a unit could be considered for being designated as the "unit ethics counsellor".

Leadership is more than giving orders; anyone can give orders. The skilled leader knows how to motivate the people on whom he depends to accomplish the mission. People are the focus of every command and the heart of every mission, the gears that make all things going in the right direction, towards the desired end-state.

3.2. Integrity

The second major ethical concern for military professionals is integrity. The quality of being honest and having strong moral principles is defining for us, as instructors and role models to our subordinates, by showing them how to do what is required and to encourage them to do so. Leaders must model appropriate behaviour and expectations. They must hold themselves to high ethical standards and strive for honesty, humility and integrity in their professional lives, while accepting responsibility for their own ethical failings.

Ethics and integrity, therefore, have to come from within and cannot be overlapped. To help a person to behave ethically we have rules, laws, codes of conduct, and a standard of what is acceptable to society, but these by themselves cannot create morality, honesty or ethical behaviour. That has to come from within the individual. [4]

For example, for a certain degree it is understandable why somebody while making a report, is trying to show the best aspects from his command, because he's worried about his subsequent rating, but we have to convince people that the institutional interest is in having a realistic view on all institutional facets.

Military leaders cannot take corrective action if they do not know what needs to be fixed, so an important aspect of a unit's ethical culture is the effectiveness of the unit's system for reporting ethical failures to the chain of command. Usually, there are few problems in this area if the misconduct is witnessed by a leader, but it is less certain that a member

who is not in a leadership position will report any misconduct he or she observes.

Integrity is a human concern; people operate, perpetuate, and validate any system, no matter the amount of pressure existent or the errors within the system. Each individual is responsible for his moral integrity. The military system is trying to make honesty as easy as it can, but the system only reveals what an individual's values really are. Ethically alert military personnel will always be disturbed by the variances between the ideal standards proclaimed by the services and the actual practices that deviate from those standards.

3.3. Career

Integrally related to the problem of integrity is the problem of placing career before honour. The military professional should be concerned about his or her career. For almost all officers, achievement ranks really high in their code of values. A fine line, however, separates valid concern of one's success in the military from excessive, unhealthy careerism. The nature of the military system in itself is able to breed some of the ethical dilution visible presently.

The primary reason is the military structure, which is pyramid-shaped and bureaucratic. High ambition leads to a drive for success in which ethical sensitivity is bought off or sold because of the personal need to achieve success. Also, faced with the lack of self-esteem and an ethical crisis within, the military creates a superior image for itself, which is to be protected at all costs.

Personal ambition can cloud ethical judgment whatever

the profession. In the military, preoccupation with career can lead us to be yes-men for the commander instead of constructive critics. It can lead us to cover up for the commander, to think that any hint of criticism, howsoever justified, is a form of disloyalty to his policies and commands. Going further, this will determine, after a while, a deviation to sycophancy, which will be embraced as the path of least resistance.

We cannot and should not tolerate, by virtue of misplaced loyalty, unethical behaviour. It can lead us to keep unwelcome reports from him. It can lead us to cover for ourselves in our effort to look good at all costs. It can lead us to do what we know is morally wrong.

Establishing priorities between goal-oriented career aspirations and rule-oriented obligations can be on top of the most difficult moral choices officers face.

Careerism is an ethical threat. It thrives in the military because most individuals wish to be promoted, but it is a two-edged sword. On the positive side, the prospect of promotion can encourage people to work hard and to seek greater responsibility, thereby contributing to the organization. But careerism can also entice individuals to avoid their professional responsibilities by playing it safe, creating no waves, and being "politically correct". [5]

At its worst, careerism can also lead subordinates to curry favour with their superiors by engaging in unethical behaviour, such as complying with ethically ambiguous orders, keeping problems quiet, failing to voice dissent when a situation calls for it, and basically "going along" to get ahead. [6]

Competition among individuals, units, or organizations that is not kept in check can result in an unhealthy lack of cooperation, which, in turn, can lead to neglect of some stakeholders' interests and ultimately cause ethical failures. On reading about the disagreement around the proper management of detainees in Afghanistan, [7] one wonders if competition between military officers and officials participating in this operation may have contributed in some way to the development of unsatisfactory detainee handling procedures, which resulted in scandal.

4. ETHICAL PRINCIPLES

Military professionals can never deviate from the time-honoured principles of "Duty, Honour, Country" and remain true soldiers. The three ethic concepts defined-rule oriented obligations, mission oriented aspirations, and situation oriented decisions-are useful in the service of "Duty, Honor, Country." These theories together with the three principles mentioned can be applied to the previous issues said under the topics of people, integrity, and career.

4.1. Duty: conduct and person-oriented leadership

The military service is, at the end of the line, only a service, oriented towards the nation, the people that support that service. They exist to defend and support human values.

The key personnel in the military for promoting these services are the military professionals. The duty of the military professional is to conduct person-oriented leadership, leadership consistent with the fundamental commitments of the nation.

Most military professionals are aware that those they seek to lead are people first and soldiers, sailors, or airmen second. They have entered the military with unique personalities and individual sets of motivations, interests, attitudes, and values. They share basic needs for survival, belonging, esteem, and self-realization. Each of these needs must be met in turn for the next to become operative and efficient. Although servicemen wear uniforms, they also are a part of an intricate network of civilian relationships. They have wives, children, husbands, parents, hopes, fears, dreams, religious ideals, and names. The successful leader remembers that he or she is dealing with whole beings, people who are infinitely more than soldiers, squad leaders, platoon commanders, mechanics, artillerymen, or pilots.

In our desire to achieve our military missions successfully, we are sometimes tempted to depersonalize those with whom we work along with those against whom we fight. The latter attitude is especially prevalent. We try to keep our own sense of self by pretending that the enemy we are fighting is less than a human being with a name and with a family.

Similarly, but more slyly, we depersonalize our associates in the military when we treat them as hands or troops who are there to do our bidding or to advance our careers.

Person-oriented leaders respect the individuality of each person in the command; they establish direct relations with each member of the team. Kant's dictum applies: people are ends in themselves, never means. One major problem can be derived from treating people as objects, as things rather than as persons. As a leader, you should maintain your

vigilance; develop relationship with each member of the team as well as a relationship with the team as a whole. That will involve you in talking and listening to each individual, and will facilitate your role of a counselor. If you work for in the military, you probably will have to appraise each team member, an activity that you will have to take steps not to become a formal and bureaucratic procedure.

Also, sometimes overconfidence can bring failure, because teams with an excellent record can start to act in an arrogant way and make unexpected mistakes that can endanger the whole organization.

Some trainers and unit leaders address the issue of operational ethics wherever they can; for instance, encouraging trainees to think about the moral aspects of particular situations. This approach is welcomed, but probably a better choice would be an integration of moral decision-making training within military pre-deployment training scenarios. In this way, operational ethics training objectives will be attended more explicit, the short term memory of the trainees will have a basis of the particular challenges pertinent to the theatre of operations and the organization's commitment to accomplish this objective will be evident.

One cannot emphasis enough the importance and impact of the previous experience, lessons learned, that must be made to focus and include moral and ethical decision-making challenges in operations, making sure that, when confronted with a particular situation, the soldiers will react accordingly – in the right way.

Considering the fact that the military training systems and

schedules are already burdened in providing the proper training, one possibility available to integrate ethics training is to include moral decision making into selected training, in addition to the other objectives already in the curriculum.

Some researchers have suggested that ethics instruction is more effective when it is included within professional training rather than taught as separate courses. Providing ethics training in the form of stand-alone courses delivered by civilian experts or others from outside the professional community will simply reinforce the notion that ethics is not a core military competency. So, having it taught by leaders from within the organisation will demonstrate that ethics is an integral element of military operations.

Romanian military have recently integrated moral decision-making challenges into training in a manner consistent with this approach. For instance, during the training for pre-deployment in Afghanistan, in the final complex, live-action field training exercise designed to replicate the conditions as much as possible, there are injected a series of ethical problems, with the purpose of observing the way soldier react and solve them. For example, during a patrol, they could encounter a woman being beaten, or hear of sexual abuse, hazing, and/or theft by some of the Afghani security forces. Experienced exercise controllers determine how effectively the inject was handled by all soldiers: Does the incident get responded to properly at every level? If there are shortfalls in the reaction, the exercise controllers can either repeat the event, insert another ethical inject, or stop the action to talk to the leadership concerning the

training objective and which are the appropriate reactions.

The benefits of this kind of training will be to mitigate many of the risks in the theater of operations, practiced with the leaders and peers with whom one will deploy, in realistic, but nonetheless safe conditions.

4.2. Honour

Any code of ethics devised for military professionals undoubtedly will contain articles that emphasize the importance of professional and personal integrity and that recognize the professional officer's responsibility to be an example of integrity for subordinates.

If you want integrity to prevail in the military, act ethically yourself and expect ethical actions from your subordinates. Integrity, like person-oriented leadership, is a whole-person concept. Integrity is not just truth telling, or kindness, or justice, or reliability. Integrity is the state of my whole life, the total quality of my character, and it is witnessed by the moral soundness of my response in every life situation. [8]

Integrity is not something that can be turned on and off. It reflects the value systems in which our lives are grounded. Our code of behaviour must not tolerate expediency or deception. This rigidity and uncompromising adherence to standards does not in the least mean that we must be lacking compassion. On the contrary, individuals who recognize that people make mistakes, even when they are doing their best, not only display integrity themselves, but reinforce that of their subordinates. In the last analysis, integrity is an entirely personal thing.

Important to anyone, it is absolutely vital to the military professional who has responsibility for human life and public property.

4.3. Country: initiate moral concern

The moral quakes the last twenty-six years have fractured the confidence of many in our country's commitment to honour and integrity. Those events that perpetrated ones of the most preeminent figures in the business, media and political life as having a different code of conduct, based on cheating, stealing, abuse of office, promoting only self-interest, waste, have changed the way we think about themselves: they have produced a wave of moral uncertainty, self-doubt, and rebellion.

Recapturing of a spirit of moral integrity in our nation can be our mission. Military professionals are occupying a favourable position, as always, in the hearths and minds of our people. They can show and lead the way. They can become the catalysts who initiate throughout society a reawakening of integrity and moral awareness. Through philosophy and ethics, is it possible for the military-and through the military for the nation-to regain its moral concern and its concomitant moral self-confidence.

Military professionals can start a return to essential integrity, though not by bold front attacks. They must start with themselves as individuals who pledge themselves to first moralities and to altruistic goals. They must be daring people who place "Duty, Honor, Country" ahead of careers, people who say the illegal

and immoral plots stop here. The abuse and objectifying of people can stop if leaders in sensitive positions consistently treat people as ends, never as means to ends; consistently perceive enemies, peers, subordinates, and superiors as persons of great value. Dishonesty, misrepresentation, and false reporting can only be reversed if key professionals insist on honor and exemplify integrity. Selfish careerism that lifts personal advantage above the well-being of others and of the whole can only be reduced if commanders stop rewarding self-glorification and become models themselves of accountable service. Reforming the moral climate within the military and the nation needs only a few dedicated professionals to make a beginning. Then, beyond the level of individual example, must come unit example—a platoon, a company, a battalion, a division, a service, to generalize and be the model to follow.

5. CONCLUSIONS

In the literature associated with ethical development and education of military professionals, there are social scientists agreeing that morality is a process that continues as one grows and is educated. Also, others think that this process may be accelerated through an educational system, with an implied need on the requirement for reflection.

This character education will remain between the most important dimensions of military academy education, with the provision of including this education in other higher education programs, no matter the format used: lessons, conferences, hands-on training, etc. The amount

of information available regarding all aspects of ethics, morality, and in particular professional military ethics, is vast.

As professional military officers, while some may be born with leadership abilities, most have to continuously develop the many traits leaders must live up for. Furthermore, moral behavior is not just something people show up with, but IT is learned through practice and habit. As representatives of warfare, this basic yet violent facet of the human condition, professional military officers have a moral obligation to not just practice ethical conduct, but to teach it as well.

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IDENTIFYING INTERNAL MOBILITY PATTERN DIFFERENCES WITHIN THE CANADIAN ARMED FORCES

Michel G. GAUTHIER

Defence Research and Development Canada, Ottawa, Canada

During their career, members of the Canadian Armed Forces (CAF) are frequently assigned to a new position and can even change profession. This high, but normal, level of mobility within the CAF can potentially hide indicators of mobility pattern differences among women and men. This article presents a method to study the mobility of the CAF members over the last decade. We propose a series of statistical tests to detect trends and identify a list of conditions for which the mobility indicators differ from one subpopulation to another. Our analysis uses Fisher's exact test to compare various populations for which sizes can vary from very small (less than 50) to large (tens of thousands). Since our approach allows us to do tests of statistical significance on small samples, we were able to perform a detailed breakdown of the CAF population (down to the occupational level).

Key words: personnel management and training, career analysis, workforce mobility, categorical data, statistical testing, Fisher's exact test.

1. INTRODUCTION

Throughout their careers, members of military workforces around the world are frequently changing position or rank. In addition to that, some military personnel also occasionally change profession during their career. The Canadian Armed Forces (CAF), with its 68,000 Regular Force (RegF) members, is a good example of this high level of mobility among the military workforce. Such high mobility is intrinsic and essential to the military structure in order to maintain its readiness at all times, while also accommodating members' wishes to the extent possible. However, high frequency changes within such a large organization can also prevent managers from detecting potential issues such as mobility pattern

differences among subpopulations that can be defined based on gender, age or ethnicity, for example.

The aim of this paper is to present a method to analyze military occupations at the individual level in order to identify differences in workforce mobility patterns between men and women. We will illustrate our method with examples showing the career trajectory differences among women and men from the CAF RegF; however, the focus of this article is the analytical scheme, which could apply to any other dichotomous characterization of a population.

The approach we propose is based on a statistical comparison of a series of mobility indicators between two subpopulations that can be very small (approx. 10) to very large (approx. 10⁵). This

characteristic makes our technique extremely relevant to the study of military environments since some subpopulations (e.g. specialized occupations) can be very small and thus challenging to statistically compare with other groups.

2. METHODOLOGY

This section presents the steps we followed to obtain our results, from the data collection process to the statistical analysis.

2.1. Data

The data source used to conduct this study is derived from the Human Resources Management System (HRMS) of the CAF. It consists of end of fiscal year (FY) snapshots with demographic and occupational information about all CAF Regular Force (RegF) members. For this paper, we used the HRMS employment records of the last 10 FYs, i.e. for FY 2005-2006 to 2014-2015. More precisely, we extracted the information regarding the occupation and the gender of all RegF members. For each individual, we identified a series of yearly mobility events. A mobility event can either be:

- staying in the same occupation;
- changed occupation;
- or releasing from the RegF the following year.

At this point, we should point out that a few occupations were grouped together during the pre-processing of the data because they are feeder-receptor groups. Transferring occupation within such groups does not represent a fundamental occupation change and we did not want to capture

these “false” occupational transfers during the analysis.

We broke down the dataset in a series of 2x2 contingency tables like the one presented in **Figure 1**.

In this study, the first key used

	Male	Female
Yes	a	b
No	c	d

Some population answering the mobility question (e.g., members that are in the occupation AND that are not releasing the following year).

Answer to a mobility related question. For example: is the individual changing occupation the following year?

Fig. no. 1. Example of contingency table used for this study. The first dichotomous key (columns) was always based on gender defined as male or female. The second sorting key was always based on a yes/no mobility question such the one presented.

to classify mobility events was always the gender defined as male or female (other or unknown were not considered). The second sorting argument was always the yes/no answer to a precise mobility question (e.g., Was the member released from the RegF the next year?). The actual content of the contingency table presents the aggregate of all the mobility answers collected over the ten-year period.

2.2. List of populations and mobility questions studied

We use 3 case studies to illustrate the utility of our analysis technique. Each case study is defined by a subpopulation of the CAF and a mobility question to be answered (presented in Table 1). Each of these case studies led to many separate analyses since the population was broken down into 83 different occupations (or occupation groups). Our approach thus led to the analysis of hundreds of contingency cases. This illustrates how one can detect statistically significant mobility pattern differences at that small

population level. We used our technique to identify occupations where there is difference in mobility patterns between men and women.

2.3. Statistical analysis

Each of the contingency cases discussed in **Table 1** gives a direct measurement of the mobility

Table 1. Populations and mobility questions studied.

	Population	Mobility Question
Case Study 1	Trained members that are still in the RegF the following year.	Did the members leave their occupation for another one?
Case Study 2	All members.	Did the members leave the RegF the following year?
Case Study 3	Untrained members that are still in the RegF the following year.	Did the members leave their occupation for another one?

difference between two (male and female) subpopulations. For example, one can report that men from a given occupation are leaving their occupation in a greater proportion than women from the same occupation, but is this information significant? That depends on several factors such as the size of both populations, the proportions of the positive answers and the level of confidence one is trying to reach.

The approach we propose is to use Fisher's exact test for statistical significance [1,2] in order to accept or reject the following null hypothesis (based on 95% confidence intervals):

Null hypothesis: *there is no significant difference between the proportions of men and women answering yes to the mobility question.*

Fisher's test is an exact inferential method that can be used to determine the statistical significance of the differences between populations based on two classification criteria [3]. Such a contingency test can be performed using other approaches (e.g., chi-squared testing) but these methods usually imply approximations that

make them valid only for large samples. Fisher's test, on the other hand, calculates the exact probability of observing a given difference between proportions, regardless of the population sizes.

The disadvantage of the Fisher's test is, given its exact nature, that the computational cost increases rapidly with the sample size (due to the usage of factorials). Despite this limitation, we were able to analyze our data in all of the considered scenarios within seconds using built-in routines in R [4]. Consequently, all results from all study cases were obtained using the same calculation methods. Therefore, decisions to reject or accept the null hypothesis are consistent for all case studies presented in this paper.

2.4. Example of detailed results

Table 2 presents an example of the data and results used for Case Study 1 (see Table 1). The first column presents the occupation. The actual occupations are not provided in this paper for confidentiality reasons [5]. The next three columns show the

contingency table values for female members as well as the transfer rate (percentage of individuals that are leaving the occupation). The next three columns present the same information for males.

The last columns summarize Fisher's test results:

Table 2. Example of the data and results obtained for the Fisher's test of Case Study 1 (see Table 1) based on 95% confidence intervals. The letters at the bottom refer to Fig. 1 to indicate the contingency table values.

Occupation	Female			Male			Fisher Test			
	Transferred	Not Transferred	Transfer Rate (%)	Transferred	Not Transferred	Transfer Rate (%)	p-value	Ratio	Statistically Different?	More Likely to Leave
Occ. A	16	1054	1.5	75	4257	1.7	0.691	0.9	NO	-
Occ. B	13	827	1.5	165	11745	1.4	0.648	1.1	NO	-
Occ. C	24	781	3.0	112	6199	1.8	0.027	1.7	YES	F
Occ. D	57	923	5.8	223	4815	4.4	0.068	1.3	NO	-
...	↑	↑	...	↑	↑
	b	d		a	c					

- The ratio column shows the proportion of women leaving the occupation divided by the proportion of men also leaving the occupation. In terms of the contingency table values, $ratio = (b/(b+d))/(a/(a+c))$. A ratio value greater than 1 indicates that women are more likely to leave the occupation than men.

- The second last column is simply an interpretation of the p-value. The null hypothesis is rejected with a 95% confidence limit for occupations where the p-value is smaller than 0.05. For example, the null hypothesis is rejected for Occ. C since $p\text{-value} = 0.027 < 0.05$.

- The p-value represents the probability for the null hypothesis to be true for a given occupation. For example, we estimate to 69.1% the chances that men and women are equally likely to transfer out of Occ. A and that the observed difference between the two transfer rates is simply due to randomness.

- The last column interprets the ratio value in the cases where the proportions are statistically significantly different. It indicates which gender (M or F) has the greatest tendency to leave.

2.5. Limitations

An intrinsic limitation of our results is strictly related to the underlying structure of our raw data and has nothing to do with the methodology itself. As mentioned, our dataset lists the occupations of the members at the end of each FY. Consequently, we are limited to a one-year resolution of the professional

activities. Occupational transfers that are occurring at a higher frequency are therefore neglected. However, since it is highly unlikely for RegF members to change occupations more than once a year, this data limitation should have a negligible impact on our results.

3. RESULTS

Tables 3 to 5 present the Fisher's test results for the Case Studies 1 to 3 respectively (see Table 1). For clarity, we only show the p-value and the gender that is more likely to leave [6]. Also, results are sorted by increasing p-values, and only occupations where the null hypothesis was rejected ($p\text{-value} < 0.05$) are shown.

Case Study 1 - Table 3 presents the list of occupations for which a

statistically significant difference was observed between occupation transfer rates for trained RegF male and female members. Our method allowed us to study large (see Occ. A) and very small populations (see transfers for Occ. H). Out of the 83 occupation groups studied, our analysis shows that 12 of them present significantly different transfer rates for men vs. women. Out of these 12 cases, 10 of them indicated that women were more likely to leave the occupation. It is worth noting that for almost all occupations (11 out of 12), the gender with the smallest population is the one that is more likely to transfer. Occ. I. is the only exception where the members that are more likely to transfer from their occupation are also the one with the largest population.

Table 3. Fisher's test results for the analysis of Case Study 1 (Table 1): Are members that are still in the RegF the following year leaving their occupation?

Occupation	Female			Male			Fisher Test	
	Transferred	Not Transferred	Transfer Rate (%)	Transferred	Not Transferred	Transfer Rate (%)	p-value	More Likely to Leave
Occ. A	102	16658	0.0	129	10677	0.0	0.000	M
Occ. B	14	393	0.0	192	18829	0.0	0.000	F
Occ. C	13	592	0.0	46	6804	0.0	0.001	F
Occ. D	6	265	0.0	20	3906	0.0	0.005	F
Occ. E	10	281	0.0	186	13290	0.0	0.009	F
Occ. F	8	225	0.0	46	3729	0.0	0.012	F
Occ. G	12	188	0.1	1434	51475	0.0	0.013	F
Occ. H	3	247	0.0	1	1338	0.0	0.014	F
Occ. I	16	3134	0.0	383	41313	0.0	0.018	M
Occ. J	10	663	0.0	22	3755	0.0	0.021	F
Occ. K	14	1788	0.0	55	13236	0.0	0.040	F
Occ. L	11	382	0.0	142	9847	0.0	0.049	F

Case Study 2 - Table 4 shows a different situation. This table presents the occupations from which the release rate from the RegF differs between men and women. In this case, members leaving one occupation for another are counted as “Not Released” and are summed with the members that are staying in their occupation. We found 17 occupations with a significant difference. For 10 of these cases, men were more likely to be released than women. In order

to interpret these results, one might want to look at factors such as the age distribution of males and females in each of these occupations, as this could help to explain the reason for the difference in release rates. This goes beyond the scope of this article; but it is mentioned here to emphasize the fact that our method only identifies cases where the null hypothesis is rejected. A deeper understanding of the situation, and its underlying causes, will require further investigation.

Table 4. Fisher’s test results for the analysis of Case Study 2 (Table 1):
Are members leaving the RegF?

Occupation	Female			Male			Fisher Test	
	Transferred	Not Transferred	Transfer Rate (%)	Transferred	Not Transferred	Transfer Rate (%)	p-value	More Likely to Leave
Occ. A	1092	17855	5.8	983	11282	8.0	0.000	M
Occ. B	321	6278	4.9	789	11093	6.6	0.000	M
Occ. C	243	2402	9.2	2028	28610	6.6	0.000	F
Occ. D	49	256	16.1	5828	59280	9.0	0.000	F
Occ. E	26	815	3.1	421	6313	6.3	0.000	M
Occ. F	306	3778	7.5	3115	48442	6.0	0.000	F
Occ. G	32	954	3.2	1053	17916	5.6	0.001	M
Occ. H	59	168	26.0	132	649	16.9	0.003	F
Occ. I	51	1313	3.7	376	6461	5.5	0.007	M
Occ. J	3	8	27.3	62	1241	4.8	0.014	F
Occ. K	39	647	5.7	153	1649	8.5	0.019	M
Occ. L	20	381	5.0	175	1897	8.4	0.019	M
Occ. M	11	316	3.4	104	1430	6.8	0.022	M
Occ. N	34	697	4.7	50	629	7.4	0.033	M
Occ. O	20	159	11.2	262	3644	6.7	0.033	F
Occ. P	82	727	10.1	201	2378	7.8	0.041	F
Occ. Q	109	1766	5.8	28	282	9.0	0.042	M

Case Study 3 - Finally, **Table 5** shows results for the populations of RegF members that are leaving their occupation while still undergoing training [7]. In this case, 13 occupational groups presented a statistical difference between men and

women. Out of these, 11 occupations showed a greater transfer rate for women. Also, the gender that is more likely to transfer from their occupation is systematically the one with the smallest population (as we observed for most occupations in Case Study 1).

Table 5. Fisher's test results for the analysis of Case Study 3 (Table 1):
Are untrained members that are still in the RegF the following year leaving their occupation?

Occupation	Female			Male			Fisher Test	
	Transferred	Not Transferred	Transfer Rate (%)	Transferred	Not Transferred	Transfer Rate (%)	p-value	More Likely to Leave
Occ. A	16	36	0.3	380	5106	0.1	0.000	F
Occ. B	22	233	0.1	71	3026	0.0	0.000	F
Occ. C	10	63	0.1	67	2001	0.0	0.000	F
Occ. D	9	68	0.1	44	1707	0.0	0.000	F
Occ. E	5	26	0.2	18	682	0.0	0.002	F
Occ. F	11	1177	0.0	18	638	0.0	0.005	M
Occ. G	16	109	0.1	186	2912	0.1	0.007	F
Occ. H	31	393	0.1	233	4964	0.0	0.012	F
Occ. I	15	86	0.1	196	2378	0.1	0.013	F
Occ. J	6	44	0.1	40	958	0.0	0.019	F
Occ. K	13	75	0.1	75	970	0.1	0.020	F
Occ. L	9	69	0.1	16	356	0.0	0.024	F
Occ. M	11	795	0.0	11	287	0.0	0.026	M

4. CONCLUSIONS AND REMARKS

We proposed an analysis method that can be used to detect workforce mobility pattern differences. One main advantage of our approach is that its validity is not dependent on the population sizes. We demonstrated

this feature in our results using small populations, but we could break down our dataset even further (based on rank, for example), and we would still be able to obtain meaningful results for some of the subpopulations.

One key result obtained from the current analysis is that, in all cases studying the propensity-to-leave

an occupation, we observed that the underrepresented gender of the occupation is consistently the one that is more likely to leave (when there is a statistically significant difference between the transfer rates).

Our examples in this paper were limited to male/female comparisons leaving an occupation or releasing from the RegF. However, any question that can be addressed using a 2x2 contingency table can be analyzed using our approach. In fact, Fisher's test is not limited to 2x2 tables and our technique could therefore be extended to more complex problems (or mobility questions) that can be summarized using larger contingency tables.

We would like to emphasize the fact that finding a statistically significant difference between two groups does not necessarily mean that there is an actual bias explaining the results. Such results simply indicate that there is a difference between the observed proportions that cannot solely be explained by randomness. These results can potentially be explained by a number of factors, including demographics (e.g. age and years of service profiles of the members). If one is interested in identifying gender-biased situations for example, we suggest using our method as a first mining tool to investigate a large datasets in order

to identify areas that warrant further investigation. At this point, more thorough analyses must be carried to establish the underlying reason(s) explaining the observed differences.

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[4] Software environment for statistical computing and graphics (www.r-project.org).

[5] The data reported is real, only descriptive name of the occupations were removed to preserve confidentiality. For the same reason, the generic occupation labels (A, B, ...) are not consistent from Tables 2 to 5.

[6] The ratios and the yes/no answers presented in Table 2 are straightforward to obtain for the results presented in Tables 3 to 5.

[7] In this context, training refers to early career training. For this study, this includes the training required to become qualified in one's occupation, including subsidized university training where applicable.

THE ROLE OF OCCUPATIONAL STANDARDS IN THE ROMANIAN ARMED FORCES HUMAN RESOURCE MANAGEMENT

Mihaela HARALAMBIE

Human Resources Management Directorate, Bucharest, Romania

Given the fact that for more than 50% of the total human resource (military and civilian) and more than 90% of the military personnel, not only the continuous (after employment) training, but also the initial one (before employment) is provided inside the military education and training system, it becomes a matter of utmost importance for the Romanian Ministry of National Defence to make the best possible use of its resources in order to get the right person, with the right qualification and skills, in the right position, at the right time.

The first step in the attempt to accomplish this ambitious objective has already been made by establishing the classification of the military occupations within the Romanian Armed Forces. The next step should be that of performing an occupational analysis in order to have each military occupation described by occupational standards. These standards will make possible a better match of the qualifications and skills get by the graduates of the initial training programmes to the requirements of their first job assignment. This will be possible trough a revision and, wherever it may be necessary, a curriculum correction, in accordance with the identified occupational standards, so that the real training demands can be effectively met and the full potential of the human resources can be exploited.

Key words: competence, skill, qualification, curriculum, occupational standards, occupational analysis.

1. INTRODUCTION

Any organization has its specific work processes and activities. Each of these activities, in turn, can be divided into tasks and sub-tasks with different contribution to the final result, which can be a product or a service. The quality of the final product or service is a measure of the degree to which the organization was able to manage the available resources in order to produce the desired outcomes.

At individual level, it can be stated that the results generated by the activity of an employee is

a direct measure of his/her level of competence. In the knowledge society, any working person is labelled as 'competent' if he/she is able to perform different tasks in a certain context, in such a manner that the results of his/her performance are acknowledged as adequate and valid. It has also become obvious the fact that people's success on the labour market and in their career depends primarily on the dimensions of their set of professional competences. Therefore, it is essential for the education and training providers to understand the importance of adjusting their services to the real

needs of competences on the labour market.

Taking all these into account, the aim of this paper is to highlight the importance of establishing a clear and effective mechanism of cooperation between education and training providers, on the one hand, and the employers – which, in the Romanian military are referred to as “beneficiaries” or “beneficiary structures” – on the other hand, in order to implement a competence-based military education and training in accordance with national approved competence standards which are, in fact, the main elements that represents the structure of occupational standards and qualifications.

2. CONCEPTS

In most contexts, the terms competence and competency are used interchangeably, with approximately the same meaning that can be found in dictionaries: the ability, coming from knowledge, practice, aptitude, etc., to do something well. According to the Oxford Advanced Learner's dictionary, for example, competency is the less frequently used synonym for competence with the meaning of “*the ability to do something well*” and that of “*a skill that you need in a particular job or for a particular task*”. [1]

However, there are some researchers who have argued that although they have something in common, in the sense that they reflect human behaviour characteristics driven towards a certain performance environment, as concepts, competence and competency differ in their definition and area of focus.

2.1. Competency

Competency remains one of the most debated terms in the management development sector and occupational literature. Nevertheless, the most agreed approach in human resource management is that initiated by Richard Boyatzis, according to whom competency should be seen as “*an underlying characteristic (a motive, a trait, a skill, aspect of self- image, social role, or a body of knowledge) which an employee uses and that can result in effective or superior performance*”. [2] This definition shows competency as a mix of elements such as motivation, personal traits, skills, knowledge etc., and evidence of these elements can be found in the way the person behaves. Boyatzis considers that a person's knowledge and skills are traditional competencies that individuals either bring with them to their jobs or acquire them while on the job, but they are only part of an individual's compendium of job competencies and there is a range of factors that differentiate successful from less successful performance.

David Dubois, a leading expert in the applied competency field, defines competency in the same terms as Boyatzis, highlighting the fact that knowledge and skills are “*the more obvious competencies that employees use to achieve many of their outputs or results expected of them*”. [3]

Another approach that supports the purpose of this paper is the iceberg model of competency, developed by Lyle M. Spencer and Signe M. Spencer, shown in **Figure 1** [4]. It is known that only 1/9th of an iceberg is visible above the water and the

rest is hidden deeply beneath the surface. Similarly, competency has some components that are visible and these are knowledge and skills, while other components related to individual behaviour are not visible, but still add up to a person's success or failure in a job, and these are: attitude, personal traits (self-control, flexibility, inspiring, building trust, good listener etc.) self-image, organizational fit and others.



Fig. no. 1. The competency iceberg model

As it can be inferred from this model, competencies refer mainly to individual characteristics and abilities that are key-factors to success and effectiveness in work due to the fact that they can lead to superior performance. Competencies are not fixed; they can be developed with effort and support. Some examples of competencies looked for by employers are: adaptability, motivation, commitment, creativity, analytical reasoning, foresight, leadership, emotional stability, communication skills. Every job, at every level in the organization has a threshold competency, which is the bare minimum required to perform the job.

Question is if there is any relation between the competencies which are above the surface – knowledge and skills - and those lying beneath? In the book *Competence at Work Models for Superior Performance*,

the authors Lyle M. Spencer, Jr. and Signe M. Spencer state that “*The aspects of competencies which lie below the surface like attitude, traits, thinking styles etc directly influence the usage of knowledge and skills to complete a job effectively.*” [5]

The authors also state that in more complex jobs, these behavioural aspects, motives and traits become more important than the skills and knowledge required to do the job. An example in this respect may be the following: a soldier on the war front who knows very well how to use the weapon he is holding, but refuses to fire because he considers that the war is unjust. This means that, in order to accomplish the established missions and objectives it is essential to establish the alignment between the organizational and individual motivation and aspirations.

Developing the two main types of competencies supposes different routes. Unlike the visible competencies - knowledge and skills – which are usually easy to develop through training and skill building repeated exercises, the behavioural competencies are somewhat difficult to assess or develop. It takes more time and effort intensive methods, such as coaching and mentoring, counselling, psychotherapy, developmental experiences, etc.

Traditionally, when hiring people most organizations used to check only the visible components of competencies. However, with major shifts in the field of human resource management, the hiring process has also undergone a change in the sense that a lot of emphasis is being put on the hidden behavioural aspects. Hence, a complete image regarding

the competence of an individual consists of both visible and hidden aspects and it becomes necessary to understand both in order to identify the best person for a job.

The term competency understood from these perspectives are used in the competency-based human resource management, to inform and improve human resource management processes, especially those concerned with recruitment and selection, learning and development, performance and reward management.

2.2. Competence

The concept of competence is defined by Dubois as *"the employee's capacity to meet (or exceed) a job's requirements by producing the job outputs at an expected level of quality within the constraints of the organization's internal and external environments."* [6]

Hence, competence is related to the condition or state to be competent, which, in turn, can be defined as *"having the necessary ability, knowledge, or skill to do something successfully' or, in other words, being qualified to perform to certain standards the activities, tasks, processes etc. of a job"*. [7]

A comparison between these definitions of competence and competency reveals from the very beginning a major distinction: competence is related directly to certain outcomes ('what results' are evidence of competence seen as capacity to perform adequately), while competency is more related to certain inputs ('what factors' can contribute to successful performance).

Charles Woodroffe raises a similar issue, distinguishing between competence and competency and proposing that competence is a performance criterion while competencies are the behaviours driving the competence. [8]

According to Roe, competence is *"the acquired ability to adequately perform a task, mission or role"* and *"the notion of competence is closely linked to the activities that individuals, groups or other entities in organisations are expected to undertake in order to fulfil the organisation's missions"*.

He also states that *"competences are conceptually close to performance. They can be seen as immediate antecedents of performance that will express them in the way the person fulfils his/her duties, given a sufficient level of motivation and situational resources"*. In 2002, he described a model for assessing psychologists' competence during training that could be applied to any occupation.

As shown in **Figure 2**, he depicts competence as capping a Greek temple building that has at foundation some layers of abilities, personality traits, and other personal attributes. The pillars are the so-called 'KSAs' (knowledge, skills, and attitudes) which are created by means of learning processes that have taken place partly at school, partly at work and partly in daily life. Intellectual aptitudes, personality traits and other features determine what, how much and how well is learnt and can contribute to successful performance. [9]

The question that may arise here is how different researchers define

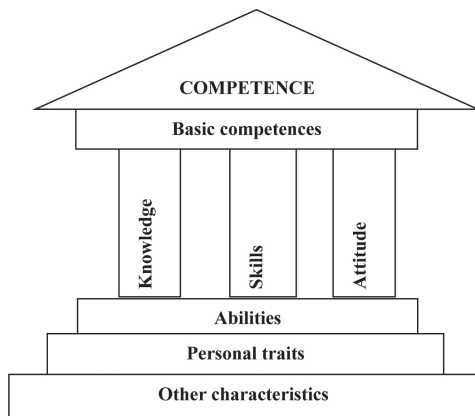


Fig. no. 2. Roe's architectural model of competence

the 'A' from KSAs? The first who used the concept was Bela Banathy, in 1968, with reference to the term 'attitudes', stating that: *"We can say that the purpose of education is to impart specific knowledge, skills, and attitudes-in other words, the purpose around which the system is to grow is instruction. On the other hand, we can propose that the purpose of education is to ensure the attainment of specified knowledge, skills, and attitudes-thus, learning, is the purpose around which the system is to grow"*. [10]

Mention should be made of the fact that the acronym KSAs is mainly used in the American educational and occupational literature, but there is no unique understanding of what the 'A' from KSA stands for. While some researchers such as Banathy speak about 'A' from 'attitude', others like Miguel Quinones and Addie Ehrenstein use the 'A' from KSA as coming from 'ability.' Nevertheless, they make a distinction that could explain why the acronym has two different meanings. They distinguish between instructional objectives and

learning outcomes. [11] Instructional objectives act as a link between the design of training and assessment needs, therefore they focus on describing the performance required from the learners. Taken this into account, ability, rather than attitude, makes more sense. On the other hand, learning outcomes act as a link between the design of training and the selection of instructional strategies, and when formulating instructional or learning strategies, one normally has to refer to taxonomies such as Bloom's taxonomy or Krathwohl's and Harrow's Cognitive, Psychomotor, and Affective domains. Thus, attitude starts to make more sense when used in this context.

In the European Union educational area, the term 'competence' is also used with reference to the concept of learning outcomes. According to the Recommendation on the establishment of the European Qualifications Framework for lifelong learning (EQF) issued by the European Parliament and Council, learning outcomes are statements of what a learner knows, understands, and is able to do upon completion of a learning process. These are defined by EQF in terms of knowledge, skills, and competence. [12]

The document defines knowledge as *"the outcome of the assimilation of information through learning"* and as *"the body of facts, principles, theories, and practices that is related to a field of work or study"*. In the same context, skill is understood as *the ability to apply knowledge and use know-how to complete tasks and solve problems*, and competence means *"the proven ability to use knowledge, skills and personal,*

social, and/or methodological abilities in work or study situations and in professional and personal development". Knowledge is divided into theoretical and/or factual, and skills into cognitive (involving the use of logic, intuition and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments). The competence level is graded 1-8, based on different degrees of responsibility and autonomy.

We can infer from here that competence can be acquired through learning, training and exposures to tasks. That may be one reason why in the educational and training area the term 'competence' is more used than that of 'competency' which seems to be preferred in the human resource management field. However, there is also some uncertainty regarding the correct term to be used in the educational field as well. For example, a number of articles that contain the term 'competence' in the title – such as *Competence Based Education and Training: Background and Origins, Competence and Standards, Can Competence and Knowledge Mix?* – are gathered in a volume with the title *Competency-based Education and Training*. [13] In fact, a simple search on Google for 'competence-based education and training' will generate a list of results in which 'competency-based education and training' also appears with absolutely the same meaning.

Taking all these into consideration, as well as the fact that other languages than English do not have two different terms that translate competence and competency, there will be no substantial difference

considered in this paper either. However, since the paper is focused on occupational standards and qualifications and taking also into consideration the aspects that are going to be presented in **Section 2.3**, the term competence is preferred.

2.3. Qualifications and occupational standards

In the attempt to distinguish competence from competency, it may be useful to refer to the classification of competencies, developed in UK that is mentioned in The Armstrong's handbook of Human Resource Management Practice: behavioural competencies, technical competencies and National Vocational Qualifications (NVQs). [14]

According to Armstrong, behavioural competencies define behavioural expectations, i.e. the type of behaviour required to deliver results under such headings as team working, communication, leadership and decision-making while technical competencies define what people have to know and be able to do (in terms of knowledge and skills) to carry out their roles effectively, and are sometimes referred to as 'hard skills'. The term 'technical competencies' is closely related to that of 'competences', and the latter has a particular and more limited meaning when applied to NVQs.

NVQs are work-related, competence-based qualifications. They reflect the skills and knowledge needed to do a job effectively by specifying the minimum standards for the achievement of set tasks and activities expressed in ways that can be observed and assessed with a view to certification.

In UK, NVQs are based on national occupational standards. These standards are statements of performance that describe what competent people in a particular occupation are expected to be able to do. They cover all the main aspects of an occupation, including current best practice, the ability to adapt to future requirements and the knowledge and understanding that underpin competent performance.

In Romania, the definition of the occupational standard used by the National Authority for Qualifications is *“the document that describes the professional activities specific to the occupations from an occupational area and the qualitative standards of performance for the respective activities, in accordance with the labour market requirements”*.

Another definition accepted by the National Authority for Qualifications is that used in UK for their National Occupational Standards (NOS): *“statements of the standards of performance individuals must achieve when carrying out functions in the workplace, together with specifications of the underpinning knowledge and understanding”*. [15]

As it can be easily noted, the key-term of these definitions is ‘standard’. Due to this fact, occupational standards can be looked upon as a benchmark of competence required in a specific occupational area and form the key component of qualifications.

In the context of EQF, the term ‘qualification’ is defined as *“a formal outcome of an assessment and validation process which is obtained when a competent body determines that an individual has achieved learning outcomes to given*

standards”. [16] Qualifications are detailed in standard documents which describe the learning outcomes in accordance with the labour market’s demands, specified in the occupational standard. In essence, qualification represents a set of competence standards derived from the occupational standards.

Therefore, it can be said that occupational standards are the basis for describing qualifications. First, the occupational standards are developed based on occupational analyses. The purpose of the occupational analysis is to gather information about an occupational area and translate it into a format that can be used to develop occupational standards. At the end of the occupational analysis the following elements regarding an occupation are identified and described: major functions, specific activities, qualitative standards, knowledge, skills, attitudes and level of responsibility. As a rule, a major function identified through the occupational analysis is translated into a unit of competence in the occupational standard, which, in turn, becomes a unit of competence in the description of a qualification. This means, basically, performing a functional analysis which is going to be detailed in **Section 2.4.**, as one of the main procedures used to develop a competence-based curriculum.

2.4. Competence-based education and training

Developing a curriculum is one of the essential functions within an education or training system, providing guidelines to trainers and educators for planning, conducting and assessing learning.

Unlike traditional education and training, which would focus mainly on theory and acquisition of knowledge in the detriment of applied performance, competence-based education and training is an approach to education and training, especially in the vocational domain, in which the focus is on providing and facilitate the acquiring and development of the knowledge, skills and attitudes that can contribute to the achievement of the established competence standards.

The design of competence-based educational programs requires careful planning and continuous monitoring throughout the development phases. The organisation and management of such programs has to be efficient and able to assure the quality of outcomes and learning processes.

The first step is to define competence standards by translating work-based requirements into nationally authorized occupational standards. This requires experts in relevant occupational fields who are able to describe essential work activities, tasks and functions with respect to a specific job profile. The two most commonly used methods for competence-based curriculum development are DACUM (acronym for "develop a curriculum") and functional analysis.

Functional analysis is widely used in the UK [17] and starts with defining the central task of an occupation and deriving its complex functions. Next, basic sub-functions and simple tasks are derived from these complex functions. Therefore, functional analysis may be characterised as a process of disaggregating complex functions into smaller components.

Functional analysis leads to small units and elements of competence which compose the design of a competence standard. Thus, competence standards become the core feature of a competence-based curriculum, as well as an important instrument for identifying training needs, specifying career paths and recruiting personnel.

The typical format of a competence standard consists of: units of competence, elements of competence and performance criteria. Units of competence (like, for example „maintaining workplace safety”) consist of a coherent group of elements of competence (which are, practically, the workplace activities that make up the broader function expressed by the unit of competence; for the above mentioned unit of competence, some examples of elements of competence could be: carrying out regular safety checks, maintaining workplace equipment and tools, applying established procedures for emergency situations, watching employees/subordinates while working to spot unsafe work practices etc.) and associated performance criteria (a description of the level or standard for competent performance of a task, function or activity indicating what and how well needs to be achieved). Finally, range variables are added in order to set the range of application, in terms of context and circumstances, for an element of competence. They outline the range of the activity in material or personal terms.

Units function as modules or sub-areas of competence profiles defining a vocational qualification and are supposed to have an independent

value on the labour market. Thus, even if a national qualification is not entirely achieved, the awarded units of competence already qualify an individual seeking employment.

3. OCCUPATIONAL STANDARDS IN EU POLICIES

3.1. EU policies on skill and qualification mismatch

Affecting both workers and employers, qualification mismatch occurs when the qualification of a worker does not match to the job or when theoretically it should match but the level of qualification or the level of some competences characteristic to that qualification is higher or lower than that required by the job. A Survey of Adult Skills performed in 2013 by OECD confirmed that both overqualification and overskilling are associated with a significant underuse and waste of human capital and skills, including numeracy, literacy, ICT and problem solving at work. The survey revealed the fact that, on a five-point scale, ranging from no use to daily use, overskilled workers tend to underperform in terms of skills use compared to individuals in matched jobs. In addition, unused skills will atrophy, resulting in a partial loss of the initial investment in them. [18]

Some cases of underqualification might occur when workers have lower skills than expected at their level, due to either poor performance in their education or to depreciation of their skills over time. Another situation is that of workers who might have the skills required at work, due to the fact that they developed those

skills by learning in non-formal or informal contexts, but they do not have the qualifications to show for them, meaning they did not get an official valid qualification document - certificate or diploma. In either case, qualification mismatches reflect a misalignment between people's formal educational background and labour market demands.

Although the match between what people can actually do and the content of their jobs may improve over time, qualification mismatch can be long lasting and may affect the individual's career. Even when adjustments can be done, it may be costly and it sometimes prevents the implementation of new equipments and technologies.

In the European Union, such discrepancies have already triggered policy interventions designed to reinforce communication between education and training, on the one hand, and the labour market on the other hand, because it has been understood that reducing skills mismatch with lasting effect and helping economies make the most of their workforce skills require collaborative effort from all stakeholders.

First, measures are required in order to diminish the gap between the knowledge generated in the educational system and the skills and qualifications demanded by employers. Second, continuing intervention is necessary during the employment life cycle, aiming at continuous skill development and improvement.

Improving educational-system receptiveness to labour market needs and ensuring that students are developed the skills needed to find a job and be successful in career, require

collaboration between employers, education and training providers as well as public authorities.

Therefore, bringing education, the working world and public authorities closer together may be the key for success in the attempt to find solutions to the above mentioned issue. In order to effectively reduce qualification mismatch and constantly build up and improve the use of skills it is necessary to develop comprehensive long-term strategies, involving public private partnerships among governments, education and training providers, employers and workers unions.

In 2010, the European Commission launched the New Skills for New Jobs initiative, a pilot initiative as part of the EU's overall strategy – Europe 2020. This initiative proposes a set of concrete actions that will help: stepping up reforms to improve flexibility and security in the labour market („flexicurity”), equipping people with the right skills for the jobs of today and tomorrow, improving the quality of jobs and ensuring better working conditions. [19]

Within the New Skills for New Jobs initiative, in order to help bridge the gap between education and training on one side and the labour market on the other, the European Commission has been developing the multilingual classification of European Skills, Competences, Qualifications and Occupations (ESCO). ESCO is available for use in an open IT format and can be accessed through an online portal, free of charge, by everyone. By introducing a standard terminology for occupations, skills, competences and qualifications, ESCO can help

education and training systems and the labour market to better identify and manage the availability of required skills, competences and qualifications. In addition, taking into account the fact that education provides people with qualifications that differ between Member States the multilingual character of ESCO facilitates increased international transparency and cooperation in the area of skills, qualifications and occupations. [20]

The European Qualification Framework represents another useful instrument developed by EU with the purpose to provide a common reference for the national qualification systems of the member states. Most EU member states, including Romania, have developed National Qualification Frameworks (NQF) in accordance with EQF. The main outcome is that it facilitates transfer of qualifications, mobility of learners and workers between the member states, bringing benefits to the education and training systems, the labour market and citizens as well.

3.2. Romanian policies on skill and qualification mismatch

Romania has generally followed the line drawn by the EU policies in this area. As it has already been mentioned before, the National Qualification Framework (NQF) was developed in accordance with EQF and was implemented through a Government decision issued in 2013 and modified in 2015. [20] NQF establishes the type of certification documents and the type of education or training providers which can issue them for each level of qualification.

There is a national authority, belonging to the Ministry of National Education and Scientific Research - the National Authority for Qualifications - which is the expert body and leader in the qualifications and lifelong learning areas.

There is also a comprehensive and coherent legal framework that regulates almost all the aspects related to the legal ways of getting a qualification, not only through formal learning within the national education and training system, but also through learning in non-formal and informal contexts.

In addition, in order to address the most important issues raised by the Europe 2020 initiative, several national strategies have been recently developed with focus on professional qualifications and lifelong learning.

The National Strategy for Lifelong Learning 2015-2020 highlights the necessity to increase the efficiency of education and training in order to provide the students and trainees with the knowledge and skills they need so that they can be successful in their future jobs and careers. There is also highlighted the fact that in order for the aforementioned objective to be fulfilled it is essential to have, first of all, a realistic evaluation of the competences demands existing on the labour market.

The Strategy of Professional Development in Romania 2014-2020 emphasizes the necessity to update the instruments used for defining occupations as a prerequisite to develop qualifications in strict accordance with the knowledge and skills demanded on the labour market. The idea is also developed by the Strategy of the National Authority for

Qualifications 2015-2020, according to which the occupational standards must be used as the main instrument for a standardized description of occupations.

4. OCCUPATIONAL STANDARDS AND HUMAN RESOURCE MANAGEMENT

4.1. Use of occupational standards

As public documents that specify the standards of performance that people are expected to achieve in their work as well as the knowledge and skills they need to perform effectively, occupational standards are of great importance, value and help for education and training providers, employers and individuals.

For both individuals and organisations, occupational standards are a valuable resource that can be used to improve their capacity and capability, to better define jobs, measure staff performance and identify and develop routes for progression and professional development.

Some examples of how both individuals and organisations can use occupational standards are shown in **Table 1.** [22]

Occupational standards are also of utmost importance for education and training providers. As it has been previously shown, competence-based education and training offers the advantage of better matching the learning outcomes of the future employees with the competences they will need to successfully perform the tasks specific to their future jobs.

As Lindsay Mitchell states: *"Instead of education and training*

being the driving force behind qualifications and consequently determining the nature of competence that was to be trained for and accredited, it was suggested that the whole process should start from the other end. That is 'standards' of

competence should be set for each occupational area and these would drive in the future the vocational qualifications and the learning routes which help individuals achieve that competence." [23]

Table 1. Use of occupational standards

(source: <http://www.skillsactive.com/standards-quals/national-occupational-standards>)

Individuals can use occupational standards to:	Organisations can use occupational standards to:
Develop their self confidence and enhance their personal effectiveness	Identify and plan personnel requirements
Provide a means for determining gaps in knowledge, experience and skills	Design and implement recruitment and selection processes
Offer an objective process for identifying training needs	Develop job descriptions and person specifications for staff and volunteers
Ensure best practice	Design, deliver and evaluate training
Support their professional development	Use common standards of performance and quality in partnerships with other organisations and agencies
Open up a wider range of career opportunities	Demonstrate the competence of the organisation when applying for funding or tendering for projects
Help to transfer their competence to other work situations.	Plan appropriate development and training

Therefore, if accurately established and then transposed into educational and training programmes, occupational standards can significantly contribute to reducing the gap between the qualifications and the underlying competences students and trainees get through their learning experience, on the one hand, and the competences they have to prove in order to get a job and be considered competent in the workplace, on the other hand.

4.2. Role of occupational standards in the Romanian Armed Forces human resource management

The Romanian military organization has a very specific system of recruitment, selection, education and training. First of all, mention should be made of the fact that in the Romanian Armed Forces, for more than 50% of the total human resource (military and civilian) and more than 90% of the military personnel, not only the continuous

(after employment) training, but also the initial one (before employment) is provided inside the military education and training system.

This system has had a very long tradition and the military education institutions have gained recognition of their value and prestige within the national education system. When assessed by the National Agency for Quality Assurance in the Pre-academic Education in 2011, the military colleges and the military schools for warrant officers and NCOs were ranked among the best education institutions in the country. The National Defence University 'Carol I' and the military academies were also awarded the title of 'Education Institution with High-Degree of Trust' by the National Agency for Quality Assurance in Higher Education.

However, there has been evidence that some improvements are necessary from two perspectives: 1) the degree to which the requirements and expectations of the military structures where the graduates are first assigned (the so-called "beneficiaries" or "beneficiary structures") are met and 2) the efficiency of the training viewed in terms of outcomes (how well are the graduates trained to accomplish the requirements of their first job assignment) compared to the time and other resources invested in training.

The main areas that need improvement are the initial education and training of officers and NCOs belonging to combat arms and military specialties (such as: infantry, mountain troops, military police, tanks, paratroopers etc.) which do not really match the qualification they get at the end of the post-secondary or tertiary (bachelor level) studies. For

example, the qualification obtained at the end of the initial training programme by the future officers in the above mentioned arms and military specialties is 'organisation management' and for the NCOs is currently 'driving instructor' (after being 'mechanical technician technologist' for a couple of years).

What is more, even for arms and specialties which better match the qualification – as it is the case with the engineer officers trained at the Military Technical Academy and The Naval Academy or with the warrant officers – it is still room for improvement regarding the military training and the development of the competences specific to the military occupations.

In order to compensate for the shortfalls of the initial military training provided by the military academies and schools, the graduates have to attend other courses that have the objective to develop the competences required to perform the duties specific to their first assignment. This means other months of training that add to the period spent in school or academy as well as other expenses for training. In the end, despite all these efforts, the beneficiary structures still complain about the professional performance and the military skills of the new employees.

One might argue that it would be enough just to change the qualifications which mismatch the military specialties and train the above mentioned categories of future military personnel to the standards of the 'graduate profile' – the document which, according to the Romanian Armed Forces training doctrine, is developed by the beneficiary military structures and it constitutes the

reference set of competences starting from which the military education institutions design the curricula.

The main problem with changing the qualifications is that it can be done only through special legal procedures which all have the same starting point: a corresponding occupation in the Classification of Occupations from Romania (COR) for each new qualification to be introduced in the approved national registries of qualifications.

Another problem is that the graduate profile can be considered a reliable and acceptable set of required competences established by the beneficiary structures on condition that it is developed through established and valid methods such as functional analysis or DACUM. What is more, since one of the principles of the military education and training is that of compatibility with the national education and training system, it is necessary to align the type and format of documents used in this domain to those established at national level, which, in turn, are aligned to the EU policies and good practice.

To conclude with, given the new threats and challenges that have to be faced under the circumstances of an increasingly unstable economic, financial and security environment, and taken into account the fact that as a NATO member Romania has to ensure the interoperability of its armed forces with those of the Alliance, it is of utmost importance for the Romanian Ministry of Defence to make the best possible use of its resources in order to have the right person, with the right qualification and competences, in the right place, at the right time.

The first step in the attempt to accomplish this ambitious objective has already been made by establishing the classification of the military occupations within the Romanian Armed Forces. The next step will be that of performing an occupational analysis in order to have each military occupation described by occupational standards.

Finally, once the requested standard competences for each military occupation will be established through the nationally accepted procedure, with the involvement of the beneficiary structures, a correction of the curricula and qualifications should be performed, in accordance with the identified occupational standards.

However, an important aspect that should not be neglected is that it is unrealistic expectation assuming the fact that an employee new to the workplace will have all the required job skills. Employers/beneficiary structures need to have stronger involvement in establishing the real demand for qualifications and skills. Moreover, employers/beneficiary structures must offer on-the-job learning opportunities for the new comers, in order to help them develop and adjust their previously acquired competences to the real working conditions.

5. CONCLUSIONS

Competence seems to have gained a central position and a crucial role in all the processes related to the employment and development of the human resources; it represents a sort of currency used by different actors and services involved in these

processes: education and training, counselling and guidance, mediation between the supply and demand for labour, etc.

There is growing recognition of the fact that to succeed in an increasingly competitive world any organisation needs a competent and adaptable workforce and any employee needs to have an appropriate and comprehensive set of professional competences. In addition, it should be advantageous for individuals to possess and be able to develop a set of valuable competencies/abilities/attitudes like adaptability, motivation, commitment, creativity, analytical reasoning, foresight, leadership, emotional stability etc. In the same time, it is in the interest of the organisation to have very clearly established both the set of technical or professional competences and the set of competencies/abilities/attitudes it requires from its employees for each job and position. In other words, it is necessary for the organisation to have very clear recruitment, selection, promotion criteria and job descriptions, and for the individuals to be very well trained and fit for the desired job or position.

As it has been previously shown, the occupational standards are a very good starting point in getting closer to the above mentioned desirable end states, even if they cannot guarantee a total and rapid accomplishment of these objectives, since it has been highlighted the fact that apart from knowledge and skills which are the most visible and measurable elements contributing to building competence and possible to provide and develop by education and training, all the other elements represented by

abilities, attitudes and other personal characteristics are difficult to develop and assess. However, the occupational standards provide a sort of minimum acceptable competence requirements which guarantee that the basic major functions of a job can be performed. All the other elements add up and help differentiate more from less successful learners and employees.

Last, but not least, mention should be made of the fact that occupational standards are meant to put in place a clear and effective mechanism of cooperation between education and training providers, on the one hand, and the employers/beneficiary structures on the other hand.

Applying this mechanism in the Romanian Armed Forces will increase the chances for any qualification or skill mismatch to be identified and resolved, for the real training needs to be effectively met and for the full potential of the human resources to be exploited.

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THE PREMISE OF LEADERSHIP: THE TRUE SELF

Daniela BELU

“Henri Coanda” Air Force Academy, Brasov, Romania

To leaders, life is to learn how to be aware of the separation from the false self every day by renouncing the stake of the petty survival and valorising the true self as the love of one's self and the love of the others, without which the notion of leadership would make no sense.

Key words: perception; leadership; idorganization; consciousness.

1. INTRODUCTION

The difference between a leader and a common person lies in one's application to self-improve starting from the identification of the true self, materialized in such aspects as:

- the deep search of his/her own desires;
- the awareness of the desires that yield enthusiasm, starting from the possibilities that life offers;
- the guidance/support of one's own effort to change one's own non-productive habits by appealing to the force of the ideal self.

The growth of the self materializes in:

- the identification with one's own aspirations;
- the identification with the ideal self, respectively with what we want to be in our personal life and in our work;
- the capitalization of one's own potential;
- the manifestation of the capacity to resonate by conveying positive emotions (enthusiasm/ joy/bliss/ inspiration) to our fellowmen.

The development of the self is an important task, as it consists of becoming aware of what we truly are in our capacity of members of this species (our needs/impulses/ feelings/pleasures/sorrows) from the perspective of our:

- biological construction,
- character (active/non-active; emotional/non-emotional; primary/secondary),
- constitution.

The leadership equals one's discovery of what is general and universal, as well as one's discovery of what is impersonal/trans-personal/trans-humane and it presupposes the attempt to change our thinking/acting habits by pretending: the overthrow of decades of learning that has been practiced/fixed repeatedly in the neural circuits, the renunciation to the practice of the habits of thinking and acting in some ways that were pre-established through the education received in the family/at school/in the organization; the deep commitment towards a future vision of what we want to be (Daniel Goleman, Richard Boyatzis, Annie McKee, 2005). The leaders' authenticity is the true self, i.e. the courage to constantly stay focused on the ideal self (Abraham Maslow, 2009), by:

- practising the capacity to find connections between the immediate goals they set and their long-term dreams/expectations in life (AUDACITY);
- holding the ebullient energy and enthusiasm by maintaining the contact with their own ideal self at every moment in life; (ELATIVE VISION – choosing to aim high even when the odds are against them

rather than aim low for the certainty of winning).

- facing the fear of not meeting the expectations of the others or even the rejection of their peers when the self that has been imposed on them is contrary to their ideal self; (CAPACITY TO LEAVE THE COMFORT ZONE)

- emotional involvement in their own development by focusing on what is truly important for them and for the humankind as well; (CAPACITY AND WILL TO CONSUME THEMSELVES THROUGH PHYSICAL/MENTAL/PSYCHOLOGICAL EFFORT)

2. THE TRUE SELF VS. THE FALSE SELF

Parents, partners, bosses and teachers keep telling us what we should be like, in fact offering us their vision of our ideal self. The imposed self is our educators' version of what our ideal self is supposed to be. The superposition of the imposed self over the person that we believe we must become is sometimes possible (the disciples are those who choose their mentors). When the imposed self differs from the ideal self, the person feels trapped in some sort of cage; as a matter of fact, that is how the subject perceives the enchainment of his/her free will. While speaking about the life situation in which the imposed self differs from the true self, Max Weber uses the phrase "our iron cage" in which we move and hit against imaginary walls. The premises of the construction of the imposed self in organisations, in opposition with the ideal self, are the following: the idea that promotion can only be done vertically in a hierarchy and compelling the people to define their personal success by gaining access to a higher hierarchical level (in reality,

promotions can not only be done hierarchically, but also diagonally and horizontally, in accordance with the ideals/values/dreams about success that can differ from one person to another) and the standardisation of success in an organisation (Marcus Buckingham & Curt Coffman, 2004).

When the discrepancy between a person's ideal self and the education-imposed self becomes obvious, the result is either apathy or sedition.

The challenge is to look towards a much farther horizon to answer the question of "What might we do from now until we pass away?" while accessing a much wider spectrum of possibilities. Naturally, a leader is able to enumerate at least 80% of the things s/he would like to do until the end of her/ his life, without any connection with her/his job/career. Leaders possess/use certain patterns (principles) that help them make their dreams/ambitions come true (Daniel Goleman, Richard Boyatzis, Annie McKee, 2005). Some examples of patterns (guiding principles) that are specific of authentic leaders are the following:

- they choose to be themselves, without making any effort to appear different than what they are, by politely saying what they think, even when that is likely to upset the others.

- they respect the rights of the others, thus inviting their peers to respect their rights (the right to expression, to make decisions, to get help and understanding) at their turn, without reacting aggressively if the others choose not to follow the example.

- they grow, while constantly turning into an improved version of their own person.

- they do not manipulate/cheat on anybody, even if that might be reason why they have something to lose.

- they forgive those who have done them harm (they give up revenge

and they give up considering those people responsible, while trying to understand what triggered that kind of behaviour)

- they rejoice what they have (without focusing on what they lack) and they are aware of the fact all the might happen in life depends on them above all.

3. DISCOVERING THE TRUE SELF

To discover one's true self is one's capacity of being aware of one's different perception, by learning to become aware of one's own relationship with the affective experiences that s/he perceives as threatening without allowing herself/himself to be defined by those experiences.

Deep inside, we are nothing more than a real form of capacity of conscious perception, but the experience of living this perception inside cannot be reduced to a single thing. What we call "I" is a sort of intrinsic mental construction that our mind automatically reduces to an unconscious stage. Are we the sum of our experiences? Are we our thoughts and experiences? Are we the sensations that we have about ourselves? Are we our body? The beginning of human misery is represented by an individual's identification with her/his own physical body, religion, nationality, profession, social status or parenthood. To live in complete ignorance about our true nature as conscious beings is to identify ourselves as creatures that belong to a certain category or as a sum of our feelings, convictions or roles. We need to get into the depth of the nature of this illusion to demonstrate these false identities and we have to learn to how to live in the elementary form of our true self (Richard Moss, 2009). Our body is a space filled with sensations, feelings and passions

in an endless process of change. A part of our perception of the self is „well-built“, it exists intrinsically in our bodies. We transcend our own bodies (we move and we feel, but that space of perception is not located in a particular part of our body or in a sensation existing in it). The suffering arises from our getting identified with “me/self” that does not exist. The idea is to find the state through which we remain present, without a single thought, and through which our body, as a space filled with sensations, becomes peaceful, our conscious self always accompanying us unaltered throughout this process. Our conscious self can have the sensation of disease or agony without being truly ill or dying. The same state of awareness is also present regardless of whether we are fearful, desperate or, on the contrary, we experience acceptance or the peace. The consciousness is also present when we are ill. Thus, the vivacity of the spirit is characterised by the same greatness when the person is ill. The transformation appears if we renounce the defence strategies in our most intimate relation with our pain, and that is called “conscious sufferance” (Richard Moss, 2009).

As we are better and better trained to stay fully focused, without manifesting any sort of reaction (without going to pieces or allowing ourselves to drown in sufferance), grief loosens its grip of our reality. Then we start to rest in a natural state, and life can flow from the deepest sources of the true self. The peace, the tranquillity, the plenitude and the gratitude appear even in our darkest moments, when we feel like stopping to fight. Gradually, as our capacity of resistance to distress increases, faith shall grow stronger as well. Even if we feel the fear, we shall discover that we are a lot freer in front of

our strongest fears or anxieties from the past. The clearly manifested intention to live in the present and to consciously face our sorrow allows us to get liberated organically, from the depth of our perception of the sorrow (the conscious perception). The transcendence of the survival mission (learning to renounce the perpetual self-protection of the ego or, to put it differently, the renunciation to the false self, the imposed self), starts from the conscious perception of one's fears (Richard Moss, 2009). From the perspective of the true self, the ego, as a set of ideas about the survival through acceptance/rejection/withdrawal, lacks real basis and is absolutely irrelevant

(several examples are presented in **Table 1** of different survival strategies, respectively combinations of the real unaware self and combinations of the false self that appears by way of compensation). In what concerns the false self, the open-mindedness towards the true self appears as an annihilation hazard.

Nevertheless, in the end, the image of the false self-disintegrates, which happens when one is ill or loses someone dear, or when one experiences sudden bankruptcy or after the divorce, as well as after some undeserved success that we sabotage ourselves unconsciously.

Table no. 1 Different survival strategies

Examples	The true self	The false self
Example no. 1	The person doesn't really know about him/herself that she is submissive and lacks will (his/her true self).	If the maternal psychology has left a mark, than the false self resides in being loyal to the maternal feelings and needs.
Example no. 2	In fact, the true self that s/he isn't aware of consists of never knowing her/his own feelings or needs very accurately because they originate in what s/he actually rejects/judges rather than in herself/himself.	If the strategy of survival is rejection, the false self consists of being combative and reactive, of manifesting a heroic intolerance to injustice, of manifesting cynicism in front of the authority in general, of considering oneself superior in terms of the capacity of understanding the world and its needs.
Example no. 3	The true self, which s/he isn't aware of, is the lack of condescendence towards the peers that s/he considers unworthy of a deeper involvement in the relationship with them.	If the adopted strategy of survival is to adapt for purposes of defence, then the false self relies on yielding to external stimuli, on the tendency to withdraw in an imaginary world, to spend more time alone in the world of fiction/computers, thus becoming closer to the inner side than one's fellowmen.

When we decide to choose the true self, this process of development presupposes the confrontation of the „uncontrolled” emotions (the sensation of hopelessness and angst), the approach of these emotions without any reaction of resistance. At times like this we may plunge in such despair or irrational anger and hatred for ourselves that we could feel broken and could come to release a true “inner Armageddon” (a battle between our false self and our true self). At times like this we must learn to train our force of perception through the reluctance-free attention to everything that surrounds us and through an unlimited understanding of our own suffering. The journey of awaking to the full awareness, kindred with the dark night of the soul, might be perceived as a loss of the self (due to the long time during which we mistook our survivor’s personality for ourselves). The self-transcendence and innate healing power goes through a fundamental idorganization crisis. The confrontation and our deliverance finally help us become aware of our ego’s fear of nothingness.

4. CONCLUSION: THE PROJECT OF SURVIVAL OF HUMANKIND IS LOVE AS THE CORE OF REALITY

Humankind’s collective project of survival is governed by the ego’s fear of nothingness. The society and culture that the society has built represent an imposed collective false self, a collective survivor’s personality that is based on affective experiences that we neither cope with, nor control. The aim of survival that so much redounds upon our lifestyles will continue to be the burden of a possible threat to our future, our fear giving birth to even more fear individually and collectively. As the fear disappears, love appears. Love is

the backbone of reality. It represents the continuous relationship among all things. There is nothing beyond it. There is nothing in life that does not belong to the domain of love, not even fear. Love is an organization within us all and it is superior in terms of size to any form of manifestation of fear. Fear is our first trainer in survival techniques. The acolytes of fear are power, control, strictness, jealousy, greed, blame, hatred and revenge. Fear gives us hope and imposes us submission. Love requires the stability of conscious relationships; it requires togetherness and the awareness of the immediacy of each and every moment. The purpose of love is to discover and express the entirety of our being.

The process of self-identification starts by understanding “who we are”, so that the survival should consist of becoming what we think that we are. Therefore, in order to return to the true self, one must start from not knowing (Richard Moss, 2009). The process of getting to know is not the same as ignorance, but it is a state of receptivity that labels our sensations while creating a space of our knowledge in which we can present ourselves as more authentic. In this process of incognizance we shall start by simplifying the nature of our experiences in 3 categories of consciousness:

- Reasoning (ideas, memories, fantasies, speculations);
- Feeling (the use of senses through the mind and body altogether);
- Action (voluntary forms of action that exist in our behaviour);
- The conscious perception (I - am).

Our psychological balance is related to manner in which these 3 categories of the consciousness are linked to one another (Richard Moss, 2009). The most well-balanced states of perception presuppose that the individual perceives her/his

thoughts, feelings and behavioural manifestations while keeping a certain distance, and this ineffable space allows her/him to stay anchored in the present. The fluency of the consciousness is synonymous to a higher level of consciousness and it consists of a clear delimitation of the thoughts/sensations/actions/perception. The connection to the present turns us into conscious creatures. When the delimitation from the feelings is notable, we have a larger space for the apprehension of the positive traits and of the limitations, and we become more comprehensive and more tolerant.

Getting identified with any of the 3 categories of consciousness (reasoning, feeling, action) leads to the creation of certain forms of idorganization (survivor's personalities called false self, in which we either believe that we are what we think (psychopaths, sociopaths), or we believe that we are what we feel (schizoid, paranoid, or histrionic personality), or we believe that we are what we do (narcissist, obsessive personality). When a certain idorganization replaces the root of our conscious personality (I-Am), the consciousness diminishes and we use our intellect as a tool meant to defend the needs/objectives of this idorganization.

A distinction has to be made between the roles and the identities that we assume. The role is the totality of thoughts, knowledge, behaviours required to fulfil a certain function (manager, parent, physician, professor etc.). We either prepare ourselves for these roles, or receive the needed models of action from others and learn to imitate them to play the role better. The roles are intelligent because they allow us to function at the highest level in a specific domain (they are conscious).

As opposed to the roles, the identities are not conscious aspects and they can exist in the structure of our roles in ways that diminish their efficiency and by sabotaging us. Idorganization works to protect the ego from the threats that it senses. It can be assumed rapidly, based on the characteristics of that particular situation.

The borderline between the roles and the identities is uncertain when our role becomes our idorganization as well. For example, if I get identified with the mother's role, I might see my offspring's marriage as a devastating loss of the self. If we are aware of our identities, we are also able to transcend them. The transcendence of the self is not what we are/feel/do. Everything that we can put in words, everything that we can imagine or express about ourselves does not represent the person that we are in reality. Going towards a superior level of functioning will start with the efficiency of our becoming aware that we are neither who we are, nor who others are, and this has to do with our open-mindedness, with our being anchored in the present, with our compassion, forgiveness, love and nothing to do with productivity and efficiency.

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COMMUNICATING FOR SUCCESS

Brindusa Maria POPA

Regional Department of Defense Resources Management Studies,
Brasov, Romania

Organizational communication, both internal and external, affects organizational efficiency and effectiveness and consequently, the objectives of the organization. Communication is one the elements of the organizational life which is taken for granted and most of the times overlooked. It is pervasive and inherent in all activities thus, it cannot be analyzed in isolation, but in an organizational context. A well structured communication system will impact the performance of the organization through the quantity, but mostly the quality of the information it transports. Information should be clear, concise, specific, open, multi-directional.

Key words: communication, organization, control, effectiveness, efficiency, strategies, goals, objectives.

1. ORGANIZATIONAL STRATEGY AND COMMUNICATION

Effectiveness and efficiency are two basic management concepts, which determine the analysis of what and how needs to be done by the organization in order to attain the desired objectives. Now, a question arises: Why some organizations seem to be more effective than others and attain performance quicker? The answer could be an appropriate organizational system composed of multiple elements working smoothly together and all connected through good communication.

Summing up and simplifying definitions, communication appears to be a process in which a sender will send a message to a receiver through a communication channel. The message will be decoded, analyzed and then acted upon in accordance with the information received and understood from it. Therefore, the way the information is encoded by the

sender, transmitted and then decoded by the receiver will influence the results of the action it triggers.

There has been done a lot of research work in the field of organizational communication aiming to discover and develop methods to use this process to improve performance.

The interest in communication is not a new thing, but it has remained of interest ever since the second half of the 20th century when it became more of interest. In 1973 Mintzberg in his work "The Nature of Managerial Work" [1] analyzed the presence of interpersonal communication in the managerial activity. Other recent studies state that organizational efficiency involves the usage of communication instruments in order to create sense, develop loyalty, explain vision and build a common purpose.

Organizational communication, both internal and external affects

the organizational efficiency and effectiveness and consequently, the objectives of the organization. Communication is one the elements of the organizational life which, unfortunately, is taken for granted and most of the times overlooked. It is pervasive and inherent in all activities thus, it cannot be analyzed as an isolated sub-system of a larger system, but in an organizational context. It runs through every department and it feeds the activity inside the organization. William Scott provides one of the most comprehensive definitions which says that *“organizational communication is a process which involves the transmission and accurate replication of ideas ensured by feedback for the purpose of eliciting actions which will accomplish organizational goals.”* [2]

Organizational communication shares information as well as organizes relations among the speakers, it is an exchange of information with the internal and external environment thus influencing the functioning of the organization.

Every organization has its specific style of communication which is shaped by the domain and scale of activity and mostly, by the specifics of their organizational culture. However, there are common communication elements among the organizations, but results are always influenced by the specific elements, i.e. certain conduct rules that must be respected in a Japanese organization as opposed to those from an American or middle-eastern

one. Multinational organizations are a specific case, combining the elements of the founders and those pertaining to the nations constituting the staff, all of them adapted to the local characteristics.

A well structured communication system will impact the performance of the organization through the quantity, but mostly the quality of the information it transports therefore, information should be clear, concise, specific, open, multi-directional.

We can break down organizational communication into two main elements: operational communication which includes every message that is used to communicate about work related aspects in order to comply with work procedures and to achieve organizational objectives (what helps the entire organization operate) and personal communication which comprises discussions among the individuals which are not related to the achievement of organizational goals.

Operational communication covers: orders and instructions, dialogues about work-related aspects; work documents. It is the central part of the organizational communication since the work activity is based on the information it carries.

Communication is more than an exchange of information, it is one of the most efficient and refined tools for controlling and channeling the work environment towards the right direction. Rules and regulations just establish the general framework, but the fine tuning requires more subtle keys. However, for the purpose of imposing certain direction, transparency and lack of ambiguity

are not always the purpose of organizational communication.

Communication used for controlling implies that there are also some secondary objectives which are not always stated openly. These hidden agendas surface whenever there is a personal or less officially stated gain targeted. Therefore, communication is not always objective and fair play, its principles are not obeyed as long as this approach suits the individual purpose best.

Modern management relies a lot on communication and openness. According to Luthans and Larsen managers spend between 60 and 80% of their time communicating [3] which represents a very big amount of time devoted to communication-based activities. It can be concluded that *“the purpose of managerial communication in any organization is to achieve correct and effective information, both vertically and horizontally, in order to accomplish in good conditions the internal and external requests according to the managerial and organizational objectives”* [4].

2. COMMUNICATION AND ORGANIZATIONAL PERFORMANCE

Professional communicators build their messages taking into account their effectiveness. Communication effectiveness signifies that the message delivered is understood exactly the way it was meant, without any alteration, trying to overcome all the barriers and filters that could hinder it.

Ricky W. Griffin touches this issue and he defines effective communication as *“the process of sending a message in such a way that the message received is as close in meaning as possible to the message intended”* [5]. According to Terry and Franklin, *“effective communication involves the most accurate sending and receiving of information, full comprehension of the message by both parties and appropriate action taken upon completion of the information exchange.”*

Unfortunately, sometimes effective communication is considered time consuming and it is replaced by an efficient style of communication. Well, what might look like a gain for the short term, but in many cases it proves to be more of a loss on the long term.

Efficient communication represents the fast delivery of the message with the purpose of being decoded and acted upon the way it was intended. So, efficient communication offers only the necessary information in the shortest period of time while effective communication maintains all the details of the message.

This communication form might not transmit the message comprehensively and the way it was meant. The receiver might need more information for the task of the message to be performed effectively.

Effective communication takes time because it takes into consideration the receiver. It is a two-way process, it allows time for understanding and clarification of information. Its purpose is to

motivate the receiver to act as good as possible. Communication efficiency is not always the best approach. Not allowing time for clarification and validation leads to confusions and reluctance to act.

Organizational performance depends on an effective communication system. Performing management functions and attributions efficiently and coordinating these functions with one another requires communication. Thus, communication is link between all the elements needed to obtain organizational success. Efficiency in an organization does not imply efficiency in communication.

There are several factors that could affect success in an organization from the point of view of communication:

- poor intra and interdepartmental communication which can lead to shortcuts or erred results in the work process. Therefore, a good information flow would improve the activity. Proper action requires enough and relevant information from the main people involved in the activity and through official channels. Both the quantity and quality of the information matter;

- scarcity of information about the activities which are conducted in the organization under the guise of not being relevant for the entire staff. Such mentality is also damaging since it can induce the sensation of worthlessness from the part of those who are not participant in the sharing of information;

- mentality is also another issue when dealing with poor

communication. Traditionally, it is considered that a superior should not provide clarifications, detailed information to a subordinate. Well, it can be true if we see this from the point of view on “need to know basis”, but we should never assume that our interlocutor can read minds. Sufficient and detailed information is necessary for the good accomplishment of tasks;

- insufficient feedback vertically and horizontally is another problem. It is never enough to say something went wrong, there should always be provided an argumentation for the point of view and, as much as possible, attempts should be made to identify the causes and solutions to the problem together with the people involved in the matter.

The individuals involved in the communication process must be interested and sensitive enough to recognize the constraints of the situation and adapt their message and manner of conveyance to the specificity of the situation. Such a requirement is necessary to render the intended meaning otherwise, some of the messages appear ambiguous.

Strategic ambiguity is a common form of strategic control. Strategic ambiguity describes the ways people deliberately communicate ambiguously to accomplish their goals under certain circumstances.

Strategic ambiguity is used when contrary goals are targeted and reaching them openly is not easy or advisable. The notion of strategic ambiguity was first mentioned by James G. March and Johan P. Olsen

and later elaborated by Eric M. Eisenberg. Strategic ambiguity is defined as a *“strategy for suspending rational imperatives toward consistency [that helps organization] explore alternative ideas of possible purposes and alternative concepts of behavioural consistency”* [7].

Strategic ambiguity is used when contrary goals are targeted and reaching them openly is not easy or advisable. But then, strategic ambiguity is questionable because the same words may mean different things to different people under the same circumstances or their meaning can be easily reversed when the need appears.

Although its usage can be justified for higher organizational purposes from our point of view, it is not advisable except for very specific and highly sensitive situations. Such uncertain manner of communication leads to distrust, confusions even conflict. Clarity of purpose and clarity of communication will always bring better results for the long run, strategic ambiguity might produce the desired result for the moment, but it should never be seen as a permanent communication strategy.

3. CONCLUSIONS

Communication satisfies three main functions within an organization: transmitting information, controlling activities, and exposing emotions and creating loyalty towards the organization. All these functions are necessary for a successful organization. Information flow is vital for the individuals working there to perform their activities as

well as possible to accomplish their objectives. Controlling the activity provides people the right direction and feed back for their work. Exposing emotions give people a sense of unity and loyalty both for good and bad moments. All these three aspects are characteristics of effective communication, efficient communication will reduce the amount of time and apparently speed things up, but it will never create a positive work environment for the long-run.

No great organization can perform well without a good communication system. Communication unites the individuals and makes success possible, but effective communication is the only way to achieve stable and long term performance.

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MODELLING THE OPTIMUM LEVEL OF INFORMATION TRANSFER IN RADIO COMMUNICATION

Valentin Eugen GHISA*
Lavinia Nicoleta GHISA**

*Transylvania University,

Department of Electrical Engineering and Computer Science, Romania

** Manager, Romanian Radio Broadcasting Company, Tg. Mures, Department
of Regional Studios

Information that is broadcast live via radio involves complex human interactions between the sender and the receiver. The work done in radio programs benefits and builds upon numerous scientific studies conducted in fields like natural language processing, emotional and prosodic modelling, as well signal processing. With a view to all of the above, this article focuses on the means by which direct verbal communication characteristic of radio broadcasts can be made more efficient by optimizing the level of information conveyed by new messages, considering the level of information absorption on behalf of radio audience.

Key words: radiophony, hybrid algorithm, optimization.

1. INTRODUCTION

The evolution of media from the written form, to radio and TV broadcast, as well as to online and social media has increased the level of interest in accessing media content, and concomitantly has augmented information flows quantity, quality and transmission speed. Verbal language is the main communication means. All the more, in radio communication which is based on direct verbal exchange, information transfer, regardless of its unidirectional or bidirectional character, needs to comply with the standards of a field that is exclusively, systematically and scientifically focusing on the former's aspects [1].

Radio communication is viewed as the fastest "mass communication" channel given the reduced processing speed, as well as the short timeframe required to obtain information and then to broadcast it. Thus, the listeners need to feel that the content of messages is directed at them. Therefore, the messages that are broadcast and received need to be first of all correct, coherent and dynamic, grammatically and stylistically speaking. It is obvious that optimal unidirectional communication needs to observe the meaning of the text that is read, without distorting it by using tendentious intonation. Apart from the prosodic parameters of communication, the pace and speed used to read a text are important. Reading too fast, makes the message difficult to follow,

whereas a too slow pace makes it boring. A sustained tempo provides the necessary tension and increases interest. However, if maintained for too long it can become tiresome [2]. Thus the speed of the message needs to fit its content and type, since any mismatch gives the feeling of artificial and unprofessional. The pauses made while reading messages need to render its tempo and underline the most important ideas, while also giving time to the audience/interlocutors to understand and conceive an internal/explicit message. Moreover, stressing key words along with the conveyance of emotional messages should not go beyond a certain limit.

All of the above considered, the notion of direct information sent via radio is very general. Hence, measuring it and deciding the optimal level for transferring messages are required. Given the existence of two messages concerning the same event in radio based communication, several questions emerge:

- a. Which of the two messages gains greater amplitude?
- b. Which of the two messages is more important and, thus, more useful?
- c. How complete is a certain message?
- d. What is the level of redundancy, as far as the listener is concerned?
- e. How much and what does a listener perceive/retain from an information package?

In both cases, the comparison between the two messages requires a system to quantify the amount of information obtained as a result of an event in order to exclude the uncertainty as to whether the event took place or not [3]. Moreover,

approaching radio communication from a cybernetic perspective, namely as a system that is self-organized via feedback, it is necessary to model the latter's evolution in terms of the constraints generated by the rate of information absorption on behalf of the audience or a by the resource consumption triggered by information aggregation and conveyance.

As part of a general information transfer process, the methods by which optimal technical solutions can be found consist in first establishing some so called "objective functions and constraints". An objective function is the mathematical expression of the quantitative influence of the most significant parameters on system quality. Constraints are functions that limit the level of variation that is accepted for an objective function and system parameters. In order to find optimal technical solutions, that is the constraints that match the maximum and minimum levels of the objective function, the latter needs to be investigated through analytical and numerical optimization methods [4].

2. A HYBRID ALGORITHM FOR CONSTRAINTS BASED OPTIMIZATION

The first optimization model proposed by this article is derived from the nonderivative models that are used do deal with a relatively small number of variables. These methods are based on bracketing a number of points along which the values generated by the minimization of function decrease. Moreover, the methods are characterized by the fact that the algorithm that determines

the minimum is only built on the values of the objective function with no estimation procedure in place, nor with any use of the information from the derivative of the function that would determine an upward direction [5]. Given a current point x_c for each iteration and an x_t test point, the algorithm needs to determine the acceptance of this point ($x+=x_t$) or its rejection ($x+=x_c$). Thus, the methods that are theoretically underpinned by the Karush-Kuhn-Tucker optimality conditions are considered primal-dual methods and they can be applied both as primal and dual variables. Consequently, for a problem with equality constraints (as it is the case with the optimization of the prosodic component):

$$\min f(x) \quad (1)$$

given the bounds:

$$r_i(x) = 0, \quad i = 1, \dots, m \quad (2)$$

where functions f and r_i defined on \mathbb{R}^n with real values, can be differentiated at least twice. Thus, such a method resides in solving the $n+m$ equation system that is made of Karush-Kuhn-Tucker optimality conditions:

$$\nabla f(x) + \sum_{i=1}^m \theta_i \nabla r_i(x) = 0 \quad (3)$$

$$r_i(x) = 0, \quad i = 1, \dots, m \quad (4)$$

As for the unknown parameters $x \in \mathbb{R}^n$ and $\theta \in \mathbb{R}^m$, the previous system yields a solution by evaluating the Hessian matrix of the Lagrangian function, which is a rather difficult method. Therefore, one can continue with a Newton type method. In the case of inequality like bounds for the same function (with the same properties):

$$\min f(x) \quad (5)$$

given the bounds:

$$r_i(x) \leq 0, \quad i = 1, \dots, m \quad (6)$$

the Karush-Kuhn-Tucker conditions that need to be solved are:

$$\nabla f(x) + \sum_{i=1}^m \theta_i \nabla r_i(x) = 0 \quad (7)$$

$$\leq 0, \quad i = 1, \dots, m; \quad \theta_i \geq 0, \quad i = \quad (8)$$

$$\theta_i r_i(x) = 0 \quad (9)$$

To solve this nonlinear system one can introduce a supplementary variable and then apply a Newton method. For any of the two situations, the model is linked to an amortized Newton algorithm. Thus, with every iteration, Newton step and decrement are computed, which involves determining the inverse Hessian matrix of the objective function (to be minimized).

The amortized Newton algorithm is:

Step 1: An initial $x_0 \in \text{Dom } f$ point and tolerance $\varepsilon \geq 0$ are selected, where $k = 0$.

Step 2: Newton step is calculated:

$$p_{nt} = -\nabla^2 f(x_k)^{-1} \nabla f(x_k) \quad (10)$$

Step 3: Newton decrement is computed:

$$d^2 = \nabla f(x_k)^T \nabla^2 f(x_k)^{-1} \nabla f(x_k) \quad (11)$$

Step 4: If $d^2/2 \leq \varepsilon$, then STOP;

If not, step 5 is next.

Step 5: A linear search employing backtracking is conducted in order to find the t_k size along Newton step.

Step 6: The approximation of the optimal point is updated:

$$x_{k+1} = x_k + t_k p_{nt} \quad (12)$$

where $k = k+1$ and step 6 is executed [6].

3. A MODEL FOR OPTIMIZING THE AMOUNT OF INFORMATION TRANSFER

One approach to making verbal communication via radio efficient can focus on optimizing the level of information load conveyed through new messages by taking into account the capacity of retaining a whole package of messages on behalf of the audience. In more specific terms, the amount of information that is transmitted can also be viewed as the amount of editorial outputs (whether daily or based on a predetermined schedule) within a given timeframe $[0, T]$.

The programming of information transmission process can be described by the equations below:

$$\frac{dC}{dt} = E - R; \quad \frac{dR}{dt} = -\alpha E \quad (13)$$

where:

$C(t)$ is the average amount of at t moment, in (bit);

$R(t)$ is the average retention rate at t moment, in (bit/sec.);

$E(t)$ is the average information transmission rate at t moment, in (bit/sec.);
 $\alpha \geq 0$ is a constant.

The average rate $E(t)$ at t moment can be controlled and can apparently increase in an uncontrolled manner. Moreover, the consumption of resources for broadcasting purposes is proportional to E^2 . In this case, the objective is to determine by how much the average transmission rate can be improved in order to reflect a transfer leap from $C(0) = C_0$; $R(0) = R_0$ to $C(T) = C_1$; $R(T) = R_1$ within $[0, T]$ time frame. All of that occurs while the average consumption of resources is kept to a minimum. That actually triggers a problem of optimal

control where status variables are C and R , the command variable is E and the objective is to minimize the nonlinear function:

$$F(E) = \int_0^T [E(t)]^2 dt \quad (14)$$

The Hamiltonian associated to this problem is:

$$H(t) = z_0(t)[E(t)]^2 + z_1(t)[E \quad (15)$$

The command variable is not bounded by any increase constraints and hence needs to satisfy equations (13):

$$\frac{\partial H}{\partial E} = 2E(t)z_0(t) + z_1(t) - \alpha z_1 \quad (16)$$

that upon yielding results generate the **optimal modality**:

$$E^*(t) = \frac{1}{2z_0^*(t)} [-z_1(t) + z_2(t)] \quad (17)$$

where z_0^* , z_1^* and z_2^* are solutions of equations (16):

$$\dot{z}_0 = 0; \quad \dot{z}_1 = 1; \quad \dot{z}_2 = z_1(t) \quad (18)$$

By integrating these equations, we obtain:

$$\dot{z}_0 = a; \quad \dot{z}_1 = b; \quad \dot{z}_2 = bt + c \quad (19)$$

Where a , b and c are constants determined from the initial and final constraints on x_0 , C and R . Thus, necessarily the optimal modality is:

$$E^*(t) = \frac{ab}{2a}t + \frac{ac - b}{2a} \quad (20)$$

That, when replaced by status equations, generates:

$$\dot{x}_0^* = \left(\frac{ab}{2a}t + \frac{ac - b}{2a} \right)^2; \quad \dot{R}^* = \quad (21)$$

and

$$\dot{C}^* = \frac{ab}{2a}t + \frac{ac-b}{2a} - R^* \quad (22)$$

The first two equations are integrated and thus we get:

$$x_0^* = \frac{\alpha^2 b^2}{12a^2}t^3 + \frac{ab(ac-b)}{4a^2}t^2 \quad (23)$$

$$R^* = -\frac{\alpha^2 b}{4a}t^2 - \frac{\alpha(ac-b)}{2a}t \quad (24)$$

where d and e are constants of integration.

If $x_0(0)=0$ and $R_0(0)=R_0$ and $C(0)=C_0$, then $d=0$ and $e=R_0$. By replacing these in equations (21) and (22) it results:

$$\dot{C}^* = \frac{\alpha^2 b}{4a}t^2 + \frac{\alpha^2 c}{2a}t + \frac{ac-b}{2a} \quad (25)$$

which, when integrated, results in:

$$C^* = \frac{\alpha^2 b}{12a}t^3 + \frac{\alpha^2 c}{4a}t^2 + \left(\frac{ac-b}{2a}\right)t \quad (26)$$

and yields the final conditions:

$$C(T)=C_1 \text{ și } R(T)=R_1 \quad (27)$$

and the following system results:

$$\begin{cases} \left(1 - \frac{\alpha T}{2}\right)\frac{b}{2} - \alpha\frac{c}{a} = \frac{2(R_1 - R_2)}{T} \\ \left(\frac{\alpha^2 T^2}{b} - 1\right)\frac{b}{a} + \alpha\left(\frac{\alpha T}{2} + 1\right)\frac{c}{a} \end{cases} \quad (28)$$

and $\frac{b}{a}$ and $\frac{c}{a}$ can be identified.

By introducing these into x, the optimality criterion can be deduced.

$$F(E^*) = x_0^*(T) = \left\{ \frac{T^3}{4} \left(\frac{\alpha^2 T}{3} - \alpha + 1 \right) \left(\frac{b}{a} \right)^2 + \frac{\alpha T}{4} (\alpha T - 1) \frac{b}{a} \frac{c}{a} + \frac{\alpha^2 T}{4} \left(\frac{c}{a} \right)^2 \right\} \cdot k^2 \quad (29)$$

where k is the factor of proportionality reflecting the average consumption of resources. Relation (29) provides the minimum value of average consumption of all emission resources.

4. CONCLUSIONS

Apart from eliminating uncertainty, information is also an interaction based on a communication process between a transmitter (radio) and receiver (radio audience).

The constrained hybrid optimization algorithm proposed solves the nonlinear system that is characteristic of information transfer general processes by introducing supplementary variables and, afterwards, applying an amortized Newton algorithm.

For any of the equal or unequal constraints, the solution to link the model that is theoretically underpinned by the Karush-Kuhn-Tucker optimality conditions with an amortized Newton algorithm manages to avoid rather complicated analytical procedures.

Building a model to program the process of information transmission helps quantifying the average emission rate. Thus, it reflects the transfer leaps among the information levels that are described by the quantity of transmitted information and the rate of information retention. Information transfer takes place under restrictive conditions that impose a minimum level in terms of the average consumption of all resources.

Thus, by optimizing the load of information that is transmitted on radio via new messages under the

constraints imposed by information retention rate on behalf of receivers and the resources required for conceiving, editing, recording and conveying information, a more efficient process of direct communication via radio can be built.

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THE CYBERSECURITY OF AUTOMATED CONTROL SYSTEMS AS A KEY COMPONENT OF NATIONAL SECURITY

Galin R. IVANOV

LTC, PhD, Chief Assistant Professor,
Security and Defence Management Department,
Rakovski National Defense Academy, Sofia, Bulgaria

This article focuses on the current problems raised by the necessity to provide and ensure national cybersecurity. Moreover, it suggests measures for adequate counteraction to present-day cyber threats to automated control systems employed in the sector of national security.

Key words: *information security, cybersecurity, cyberspace, cybercrime, national security.*

1. SOME GENERAL REMARKS ON CYBER SECURITY

Currently there has been a sharp increase in cyber information security breaches which are widely spread and are acquiring threatening proportions. Many such attacks are affecting a wide range of government and private entities. The cybersecurity accidents become more frequent, more significant, and more complex and there are no borders for them. Those accidents can cause significant damages to the security and to the economy of any country, as well as to the individual members of society.

The content of the term “cybersecurity” is based on the word “cybernetics”, derived from the Greek word that reads as the “science of management”, namely the science for the laws of reception, storage and transmission of information, as well as artificial intelligence systems [1]. The abstract cybernetic system represents an entity of entities initially

interconnected in volume that are also called elements of the system and are capable of reception, storage and procession of information, as well as information exchange.

The subject area of cybernetics and cybersecurity includes all contemporary information and telecommunication technologies. It is essential to point out that the elements of cybersecurity in the framework of the cybernetic approach are treated as intermittently interacting among each other as building elements of cyberspace as presented in **Figure 1**.

In this respect, they are:

- real time information;
- people, as active participants in the field of information exchange and use of information resources;
- software and hardware;
- global information environment.

There is a number of proven facts about cybersecurity nowadays that are worth revisiting for the purpose of this article and they are as follows:

- Cybercrime causes a wide share of accidents in the cyberspace.

- According to the World Economy Forum there is a 10-percent probability of significant collapse of critical information structure throughout the next decade which could cause damages of 250 billion US dollars.

- Eurobarometer's survey on cybersecurity in 2014 found that 38% of internet users in the EU have changed their behavior for reasons of cybersecurity: 18% are less likely to purchase goods online and 15% are less likely to use online banking. The poll also shows that 74% of respondents agree that the risk to become victims has increased, 12% have already been a victim of online fraud and 89% avoid disclosure of personal information [2].

- Every day about 150.000 computer viruses circulate and 148.000 computers are being compromised.

- According to Eurostat data as of January 2014, only 26% of the enterprises in EU have officially defined a policy about the protection of information and communication technologies [3].

- According to a research of Symantec, cybercrime victims worldwide lose about 290 billion EUR

every year. Another research of McAfee indicates that income from cybersecurity are 750 billion EUR annually.

All of the above considered, the main aspects of cyber threat nowadays are as follows:

- increased number of attacks, many of which lead to great losses;

- increased growth and complexity of cyber attacks that can include several levels and special methods are applied for protection against possible methods for counteraction;

- impact on almost all electronic (digital) platforms, including almost all mobile devices;

- the more frequent attacks on the information infrastructure of large corporations, important industrial sites, critical infrastructure and even government agencies with the assistance of mobile devices;

- using the most advanced countries in the field of computer technologies, through their intellectual resources and new cyber attack methods to carry out cyber attacks against other countries [4].

It is of paramount importance to formulate the notion of cybersecurity and to define the main goals for protection of the cyberspace and the possible arising threats. Cybersecurity at national level cannot be aimed at defending against the maximum number of threats. From a national security standpoint it is necessary to guarantee the most favorable environment for all users and systems in cyberspace, while the users, who are elements of the national security of the country, should have priority.

Cybersecurity encompasses not only classified information as an entity to be protected, but also the technical means, which are used for definition of the information

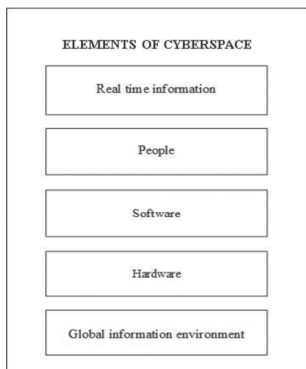


Fig.no. 1: Elements of cyberspace

exchange among the users, the ways and the means for protection in cyberspace.

2. (NEW) EMERGING TRENDS FOR CYBERSECURITY IN THE AUTOMATED CONTROL SYSTEMS OF THE NATIONAL SECURITY SECTOR

In the contemporary environment, in order to effectively counter threats for cybersecurity on national scale it is necessary to build capabilities for symmetric response to cyber attacks or preemptive cyber strikes. The available automated systems of military and civil administration establishments need improvement by enhancing the level of automation and computerization, i.e. the building and development of automation in the protected design.

At present it is vital to review the building principles of the automated control systems in terms of ensuring the support of security in cyber space, both in peace time and in time of hostilities.

According to U.S.A. military experts in this field, on technical level comprehensive and adequate cybersecurity includes the building and use of the following subsystems:

- subsystem for defense (protection capabilities), which can guarantee shielding of the radiation of radio electronic devices and communication systems, Computer Security, Information Security.

- subsystem for detection (detection capabilities), which ensures the identifications of anomalies in the web through use of systems for detection.

- subsystem for reaction to changes in the technical parameters and

conditions (reaction capabilities), which provides capabilities for recovery (including the reboot of part of the system) and completion of other processes and information tasks.

The evolving intelligent automated system for control in the sector of national security has to give information not only about the discovery of new and unknown cyber threats and cyber attacks in the process of surveillance (intelligence gathering) in cyberspace, but also to ensure its own cyber-security in real time, and to analyze the identified cyber threats (cyber attacks). The same should make an automatic selection of parameters for action of the automated system for control regarding degrading influence without impairment of its own characteristic features.

In the system of cybersecurity as depicted in Figure 2, the automated system for control in the sector of national security has to feature the following capabilities:

- Automatic change of the properties and the parameters of the system and the assets for ensuring of the cybersecurity depending on the fluctuations in the state of the cyberspace (detection of activity of potential threats for cyber threats, identification of cyber attacks) and the results of the cyber attacks.

- Automatic estimation of the changes of the level of defense against cyber threats on the automated system for control in case of change of the working conditions.

- Automated decision-making for resistance to cyber attacks and automatic reaction to the sources of cyber- attacks [6].

- Automated decision-making for allocation of resources and assets for cybersecurity in case of functional

losses as a results of cyber attacks on the automated system of control.

- Forecasting, based on inherent knowledge or one accumulated in the course of exploitation, about the factors, which can influence on the level of protection of the automated system for control against all kinds of cyber threats.

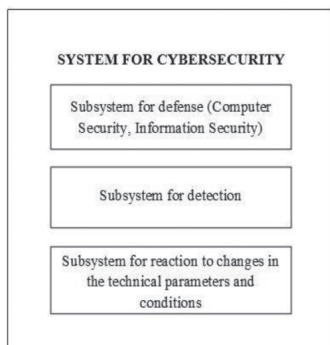


Fig. no. 2: System for cybersecurity

While defining the purposes of fight against cyber threats, we cannot reject the advancement and the application of active ways and methods, which guarantee the security of the cyberspace. That is why, with the perfection of the available automated systems for control in the field of national security a possibility should be procured for pro-active hardware and software effects (pre-emptive strikes) and active attacks against the identified sources of cyber attacks and the information systems and resources of the opposing force, as well as increase of the capacity for disinfor-mation of the opposing force as to the real characteristics and parameters of the automated system for control and its systems for security.

The most important condition for building systems for ensuring the cybersecurity in the automated control systems employed by national

security is the utilization of hardware and software platforms from a trusted (authorized access) environment.

The authorization strictly guarantees the observation of the relevant requirements with regard to the Information Security, reliability and functional stability in the contemporary environments of cyber threats, while sticking to certain conditions for technological independence of the automated system for control [6].

By “trusted hardware and software environment” we understand the set of technical and program assets, organizational measures, which guarantee the building, the application and the ad-vancement of systems with special purpose, which meet the necessary requirements of the Information Security, reliability and functional stability, confirmation with certificates for compliance, in the relevant obligatory systems for certification in Bulgaria as presented in **Figure 3**.

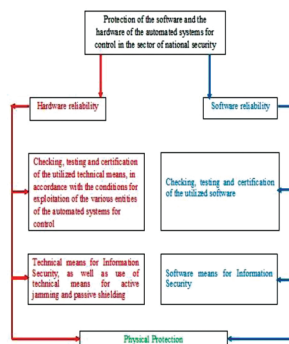


Fig. no. 3: Model for realization of cyber protection of the automated systems for control in the sector of national security

3. PROBLEMS AND POSSIBLE SOLUTIONS

Nowadays, Bulgaria’s system for national security is still not ready to

a great extent for the building and the maintenance of effective and reliable protection of cyber space in the interests of the country and for effective counteraction of the constantly increasing threats for all organizations in the sector.

One of the main problems is the lack of profound scientific research on the problems of cybersecurity. A large amount of regulatory documents, doctrines and standards and other documents in the field of Information Security were developed more than ten or fifteen years ago, and they did not take into account the contemporary capabilities for leaks of information. Critical is the situation in the field of the telecommunication systems that serve the needs of the state administration and the transfer of information with limited access, built with modern imported equipment.

The automated systems for control in the field of national security, as a rule, are based on computers or based on imported components, which also creates prerequisites for preventing against the leak of information and for successfully countering the effect of cyber attacks against them.

An important characteristic in this respect is the technological delay of the Bulgarian IT industry and its dependence on international producers, which will inevitably lead to the danger of massive failures when using imported hardware and software.

The world practice in cybersecurity in the sector of national security bespeaks of the necessity of the creation of an integrated system, which combines organizational and technical security measures with the use of advanced methods for forecasting, analysis and modeling of

situations. With these systems one of the main tasks has to be the ensuring the cybersecurity of the automated systems for control in the sector of the national security.

The criticality of guaranteeing the cyber defense of such automated systems for control is rendered by the damage they may suffer. Thus, the application of threats for the cybersecurity may lead to the impairment of the control function of the government and armed forces, and, therefore, to the degradation of the national security of the country and personal security of its citizens.

4. CONCLUSION

In the future it is necessary to study the main characteristics of cyberspace in detail and carefully, the dynamics of its development on different scales and to develop multi-variant procedures for its management. Without a systematic analysis and reception of realistic evaluation of the application of the security measures it is impossible to build effective systems for cybersecurity at national level.

As a conclusion, it is necessary to take the following short term and long term measures for cybersecurity improvement at national level in the sector of national security:

- Building a unified approach towards monitoring the control and defense of cyberspace in the form of a dedicated center, as well as specialized centers for counteracting cyber terrorism and cyber- attacks that rely on information and telecommunication infrastructure and inter-organizational relations to conduct their mission in this respect.

- Improvement of personnel education system including the education and requalification in the field of cybersecurity.
- Development and application of import-independent technologies, materials and components used in the building and perfection of automated system for control in the sector of national security.
- Creation of national basic information technologies, encompassing the necessary and sufficient set of software assets for ensuring the safe work of control automated systems in the sector of national security.

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INFORMATION IN THE AREA OF SECURITY. NEW PARADIGMS

Roman KWEĆKA

Col. (ret.) PhD, Assistant Professor, Institute of Security Systems Engineering,
National Security Faculty, National Defense University, Poland

This article proposes a qualitatively new approach to concepts such as: information, area of information security, information security and information warfare. Moreover, it presents the information paradigm and information security paradigm. The diagnosis of processes and information systems of the organization in information warfare has been focused on praxeological aspect of the warfare itself, especially on its unarmed form, as the climax of a negative cooperation between the entities in their security space.

Key words: security, information, data, paradigm, information warfare, information security.

1. INTRODUCTION

The revolution in information technology has led to the creation of subspace in the area of security of organization (1), which dominated it completely, and the previous models of acquisition and protection of information assets have been placed under uncompromised verification. The information subspace (later: the information space) not only is a kind of 'melting pot' of the exchange of data between components of the security system of the organization, but also a reflection of their mutual relations and connections. Information resources of the organization are not a qualitatively new phenomenon in the area of security. In contrast, a completely new quality are the phenomena and processes (2) related to their generation and their availability,

which results from the aforementioned revolution. So what is the nature of these phenomena and how they affect the area of security of organization?

Security of organization (3) is dependent on the efficiency of cyclical processes, including early typification of challenges (4), allowing creation of entities' ability to eliminate threats and seize the opportunities in the area of security. These processes are executed by the tools at the disposal of the organization.

At the beginning of the creation of the foundations of the modern world, space and time were a kind of shield for the flow of information - a shield that allowed as unthreatened and stable development of those who created these foundations. Next to each other grew and vanished civilizations knowing little about themselves, their desires,

aspirations, and accumulated knowledge. Knowledge was the domain of cult centers and was a taboo for the uninitiated. It was easier to govern, pass judgment and provide everything. With the development of means and methods of communication, the world began to shrink rapidly. Various dimensions of good and evil were explored, acquired were new technologies and ways of using them to shape the area of security. Tribes and groups began to gather to form the foundations of modern statehood. The objectives of a single man slowly became objectives of specific societies [1].

For centuries, the world made choices of lifelong friends and enemies, connected, shared, appointed and dissolved coalitions. Ancient tribes and groups were replaced by certain subjects which today follow the same goals and objectives, which have contributed to their creation. However, thanks to the ubiquitous information processes, their territory is no longer limited only the immediate surroundings, as in the past. The influence zone can now reach hundreds of kilometers away from the state - hegemony, therefore nothing stops the realization of even the most extreme aspirations and ideas.

The problem of general access to information, devoid of political superstructure and interpretation, stands in the way of the creation of positive cooperation between the parties today, just like centuries ago.

The information policy of the governments of the era of the Cold War prevented the free exchange of ideas and experiences in the creation of global and regional security, as seen in a simplified way, through the prism of good and evil. This view for many years focused the definition of security on the prism of threats and ability of effective defense (or lack thereof). The end of the twentieth century brought the destruction of one of the hegemonic powers. In its place arose a void, there was no 'bad' (5), only 'good' remained. However, this 'good' had and still has too many middle shades in its palette, because too many colors and substances have been mixed throughout the twentieth century. With the lack of pressure by 'bad', the forces between these substances and colors, within these human creations, dissolved as well. The world has become a patchwork of different aspirations and ideas, although in this 'society of the information age' - as defined by Tofflers, we do not notice or we try not to notice the problem.

The beginning of the twenty-first century has brought revolutionary technology development in the field of collecting, processing and use of information. Holders of information, this contemporary 'golden fleece', can build up and tear down any pieces of the puzzle, which our world consists of, in accordance with their intentions. In our eyes coalitions broke down and formed, as well as links and systems in the area of security of subject, which - together with

technological progress and increase in the possibility of obtaining and distribution of information - undergoes rapid transformation.

Free access to information and, above all, its uncontrolled flow can consequently lead to information chaos and manipulation of information in area of security, and thus generate a negative (less positive) effects of its impact on the actors and their tools. The boundary between the neutral use of information processes for the benefit of entities, and their use for social engineering ways and methods to shape society according to the will of the political elite is very subtle and unstable.

What this may result in, the world discovered already in the era of bipolar structure. Modern hypermedia (6) have much greater strength and range of impact than their early counterparts from the sixties of the last century.

Area of global security, composed of actors and tools that these entities have, along with the information processes, necessary for their functioning, as well as phenomena independent of business entities - is the same for all states, phenomena and processes that depend on these entities. Information processes create specific relationships between entities and their instruments, they form their cooperation with each other and form its inherent characteristics. This means that information processes or derivatives of their functions are the determining factors for all states, phenomena and processes in the global security area.

2. INFORMATION IN THE AREA OF SECURITY OF SUBJECT - IMPLICATIONS

The globalized world surrounding us, and its ubiquitous "holy grail" - information, convince us daily of the need for a qualitatively new approach to the problem of security of the organization. Knowledge and findings in this area based on existing theories of information, war, peace or theories on globalization deviate too far from the real challenges of everyday life.

Today there are qualitatively new development megatrends in the area of security of entities based on the multi-faceted use of information in the fight for global domination. This phenomenon is not fully noticed by the political elites not being global HEGEMONS.

Is the above thesis correct? What arguments can confirm it or disprove? It should be noted that the utility of entities (including special services) have instruments that may be used to manipulate the information available in hypermedia in real time, infiltrate the end users and distribution of content in line with the needs of specific political elites at all available media, especially social networks. If we add to this the ability of the media to create a "live" real relationship with false events [2], we can easily see that the modern hypermedia, are a "Pandora's box", the "opening" for the use of certain players can bring events over which no one will have control in critical moments.

Changing character of security area and its "submission" in relation to information processes happening both in its core and environment, is clearly visible in the space which includes the virtual and the real world of modern man, where truth is not always true, and false ideology can become truth.

Modern capacities and hypermedia's driving force in the activities of public relations agencies and their ability in influencing the development of the structures of global security, can raise understandable concerns. They can also, as well as other above comments, confirm the thesis of a qualitatively new megatrends in security area.

The eternal processes of acquiring, holding and processing of information invariably accompany man in all cognitive processes. They become the "Achilles heel". Why? It's easy! The result of these cognitive processes is the knowledge [3] that we have, but it can be "forged" for certain entities (states, organizations, political elites, etc.). If we remain passive recipients of hypermedia "pulp" information, without a thorough knowledge of our history and the world around us – we will speed up the time when Orwellian (7) perception of the world, through the prism of the matrix (8), will be ours.

Information is the strength and power of political actors (players) who have it. In this group we can also include the world media and their owners. Indeed, like the language that we use every day, the

media in their basic functions can transmit information, express or induce specific internal states, which can finally become a impetus to the implementation of certain actions or omissions.

Media administrators, using undeniable human need for reliable information, as well as the human desire to create the vision of the world around us, sometimes reach for sensational and unverified information, or deliberately manipulated. In the area of political struggle the media constitute a tasty "morsel" for any opposition, both the internal and international actors, unfavorable towards policies and strategies of the organization, power over which they are currently seeking. It should be emphasized that the information processes are a key element of the power of the organization and are not equivalent to the power of the military, economic or otherwise, they are far above them in order of importance and they determine the stable development and survival of the organization.

The rapid development and dynamic changes in the sphere of information technologies, result in a well-known saying that the world begins to "shrink" and change in the proverbial "information village." In a world dominated by hypermedia means of social communication and hypermedia systems of managing elements forming the structure of the organization and its tools, occurs a specific reduction in time and space. We intensively explore all possible spheres of life and

dimensions of our world, mutually combine them together, connecting, among others, artificial intelligence with virtual reality, universe with nanotechnology, and we do everything at a rapid pace with even greater precision.

In the context of these phenomena, we can accept the thesis that information processes will dominate security area of entities in an irreversible manner and independently of the general population. Information technologies of the future and what they bring with them are therefore a challenge for the present and future political elites responsible for strategy building of information security of entities. There are a challenge that may represent both an opportunity and a threat to shaping the security of organization.

Unlimited access to information processes in modern societies brings closer the moment in which "power will come in the hands of the people." Society, having unlimited access to information, the ability to quickly share it and spread, can increasingly affect the nature of the policies and strategies implemented in the area of security. Ubiquitous media have substantial impact on the attitudes of politicians who create action of entities (their policy and strategy). They are taking activities of the organization in the international arena and in the area of domestic policy "under the microscope", exerting enormous influence on public opinion, and thus they can help or ruin many political careers. The very awareness of this fact, for

many of those responsible for policy and strategy of the organization, is sufficient "brake" of their actions or, on the contrary, opens the way for demagogues and people struggling to make political capital [4]. The existence of a discussed trend can significantly affect the shape and nature of future conflicts and thus can mean an unprecedentedly strong, direct trend of impactful social factor in the area of political decisions concerning the nature and time of committing organization's tools to action in the area of security.

In the area of communication with the public and openness in terms of information about the political aspects of the actions taken - we should expect major changes on the part of the elites in power - changes to reduce these trends.

Openness in dealing with the media threatening the loss of information vital to the security of the organization is difficult and even impossible to accept, of course, assuming that the political elite of the organization are ready for functions that they serve.

Social engineering pillars and tools of influence determine the process of informing and communicating with the public. Social engineering, which is rare between sciences, allows controlling human behavior through the manipulation and influence. Derivative associated with the impact of social engineering tools is the ability to create facts, using tendencies in societies for

cheap sensationalism in search of alleged hidden motivation, helping themselves with a conspiracy theory and modern techniques of virtual reality. These actions may not only lead to the collapse of morale, but also can erode the value system and influence the behavior of societies [5]. Information processes are a qualitatively new, not fully noticed by decision makers, environment of the future war. The problem of war "with" and "for information" will increasingly absorb the operations of the organization and its tools in the area of security.

Information is in essence an elementary factor in all organized activities. Without information on the current situation of decision-making it is difficult to take steps, which will provide a guarantee of achieving the intended objective. In other words, every purposeful action requires information, which bring the active organization border, which that organization seeks. This thesis does not refer only to the area of information war or generally armed struggle. The assessment of each decisive situation, that is taking action with specific purpose, after all, it is the domain of our everyday life in all its manifestations.

What then is the very information that is so important for any intentional actions? This is the basic concept, difficult to define using simpler concepts. S. Koziej defines information as "intangible factor aggregating other factors of armed struggle in a harmonized whole armed conflict". L. Ciborowski defines information as "stimulus" (9)

affecting man's reception system, causing creation of the object of thought in his imagination, reflecting the image of things material or abstract, [...], which in his opinion (consciousness) is associated somehow with this stimulus. [...] Its existence is relatively connected with the existence of man and his mind [6]" J. Seidler defines information as "all that is utilized to a more efficient selection of activities leading to the realization of a particular purpose," thus emphasizes trade of information with intentional actions. Father of cybernetics N. Wiener defines information "as the name of content taken from the outside world, as we adapt our senses to it," assuming that "the process of obtaining and using information is the process of our adaptation to various contingencies of external environment and our active living in this environment. "

It should be noted that in information theory emphasizes that the information is all that is neither energy nor mass. Can we uncritically accept this point of view? Is information really neither energy nor mass?

Man has a limited perception of most of the available signals in nature and artificially generated electromagnetic spectrum, which needs specific "sensors" to allow free access to information.

Indirectly aspect of "adaptation of the senses" can be found in Wiener's determining of the information. The fact that we just do not have a "transmitter" of signal does not mean that there is

no information currently available to the world. It is only our limited perception that deprived us of the possibility of direct reception, which is a carrier of information. This seemingly obvious fact is often overlooked in the discussion about the nature of the information.

We define information customizing each of its definition to the current needs, refuse it having energy and matter, but while speaking of information we are in fact talking about carrying the signal. With its energy, mass and characteristics shaping the signal. If we agree with this reasoning, the consequence of this would be a statement of fact that information may also exist without the human mind. However, it cannot exist without carrying signal - which means that the information is essentially a form of matter, along with the specific energy for this matter.

In the information processes we deal with signals, which are the carriers of information, or a certain form of matter (10) and energy (11).

In reality around us we do not have access to the information in its "pure" original form. We have access to the data, which are a form of mapping signal carrying information. In the theory of information, the data used to be called potential information [7]. In the language of description, the data is as if in a "hibernation" information which is "excited to live" in a specific decision situation. In other words, the system receives outside information, and according

to its content responds to an apparent state of affairs, or process. How, then, to define the information to meet all the conditions outlined above? Assume, therefore, that:

"Information is a specific portion of the energy accumulated in the material mapping [8]" - the basis for creation of information in general, is the existence of the signal carrying it, materialized in the form and shapes possible to process and interpret it by man. Accordingly any information protection from the point of view of existing solutions (information and technology) and the possibility of access to the signal carrying it is a much complicated matter - if not impossible.

Cognitive abilities and the desire of man to acquire specific knowledge are sufficient driving force to allow for breaking all barriers, even the methods commonly considered to be unlawful, on the way to taking over sensitive information to other entities. The road, on which information must "travel" from its creator to recipient (the organization or entities for which the benefit has been produced), is its ability to protect against "hostile takeover." These abilities do not stem only from the technical conditions or technological means of communication, but depend largely on the organization to which the information is addressed. The final recipient of the information and its further "distributor" is usually the man who, knowing the strength and the causative abilities of information processes may use it contrary to the assumptions of

its creator, regardless of the danger threatening him - including legal repercussions. A typical example is the so-called "Snowden affair" [9] (Edward J. Snowden, a former employee of the CIA and NSA, wanted on charges of disclosing state secrets and espionage for providing information on PRISM to the press - footnote RK).

3. INFORMATION PROCESSES IN THE AREA OF ORGANIZATION SECURITY

Elements of the structure of the security are so interrelated that a change in any of them entails changes in the other components. These changes synergistically influence the course of the processes taking place in security area. Elements of the entrance and exit "encoded" in the security area are generally consistent with the "input and output" elements of all subspaces, which affects the security process. This process is generally an unstable process characteristic for any artificial system. Its environment is the set of all subspaces which do not belong to the security of the organization and which properties affect it and also change under the influence of its (organization's) actions. It is obvious that the security area of organization defined as artificial framework of its security system must interact with all systems functioning in its environment.

Recognizing the priority role of information in a deliberate

action, we should also identify it with the informational processes of organization's security area. How, then, information processes are implemented in organization's security area? How do these processes affect the evolution of the decisive situation? How to locate information processes in the area of security of organization?

Surrounding area of security stimulates information processes external to the control systems (decision-making) (12) and interaction objects (13), meaning it directly affects the power processes. This means, among others, the fact of direct impact on the signal carrying the information in the internal information processes. Thus, it is possible to input disturbance in the operation of these processes. This is obviously an aspect of information war (warfare) (14). The interior of security area in the information processes is described by the processes controlling shaping of information security policies and strategies of the organization, information processes and internal control systems (decision-making). Reverse information processes provide specific feedback loop of control system with a temporary state of affair or process. In each of these processes, we can identify a specific type (15) of information, reflecting the correct phase for the cycle stage of organizational activities. Let us mention therefore three basic types of information: external information - manifested in the control function of the

decision-making system or the impact function of the environment on the object of interaction; inside information - reflecting the state of knowledge of the decision-making system about impact objects or external conditions (system environment - note the fact that the object of the impact of the control system are all objects that can be found in the impact area; this applies both to own tools of the organization, as well as a potential ally or the opponent and the facilities included in the information systems) and feedback - as a reaction of impact objects or effects of the decision on the external information. Feedback is essentially a reflection of the information processes carried out by specialized tools of organization (for example special services). It means the relationships between systems of decision-making and interaction of objects (including perceptual systems) in the information processes taking place in the area of security. In other words, they are the feedback between the decision-making system and all the tools of the organization. Discrepancies fixed in relation to feedback allow management processes informational organization, thus allow achieving a higher degree of determination in the creation of the area of security.

Dual interpretation of information processes (in the light of the principles of information theory and activities organized), allows you to define their essence

in the process of creating a security of organization. It also enables the formulation of specific features that modern information war (warfare) imposes on information processes. Without taking into account these characteristics it is impossible to "design" the appropriate power process in this area. In light of the aforementioned theory, we can distinguish at least eight such specific features. These are undoubtedly creativity, interdependence, autonomy, integrity, availability, flexibility, regularity, and punctuality (16) and they are to be understood as follows:

- Creativity - information processes represent both cause and effect of power processes.

- Interdependence - information processes and power processes are inextricably linked.

- Autonomy - each subsystem of information war (warfare) should have its own, independent subsystems fulfilling the functions of systems of perception. The data obtained through them should fully protect the needs of the rational use of subordinated instruments of influence.

- Integrity - any information processes performed by the subsystems of the information war (warfare), are an important complement to studies and analyzes conducted by specialized structures of tools of organization. This means that the data from stand-alone information systems should be strictly transmitted for study activities of specialized structures of tools of organization.

- Availability - due to the nature of information processes, and particularly the need to ensure the security systems of perception, collection, preparation and distribution of the acquired information is provided by specialized tools of organization. However, the difference between the need to preserve the security of the data and blocking it on the wrong levels of decision-making (or tools) should be definitely distinguished. The data should be available on any request of an authorized decision maker, without revealing their source, but with a specific clause stating degree of reliability and validity.

- Flexibility - permanent order, formalized and established procedures in the processes of information increases their efficiency. System of operation and procedure, however, cannot limit the imagination and initiative of subordinate subsystems. Information processes have to meet unexpected changes in the area of information war (warfare), so the information must be capable of immediate response to this decisive situation in the area of security.

- Regularity - in information processes it is necessary to analyze the data, distribute information and it is necessary to manage systems of perception of tools of organization. The continuity of these processes determines achievement of advance information, thereby avoiding surprise with a potential crisis in the area of security of organization.

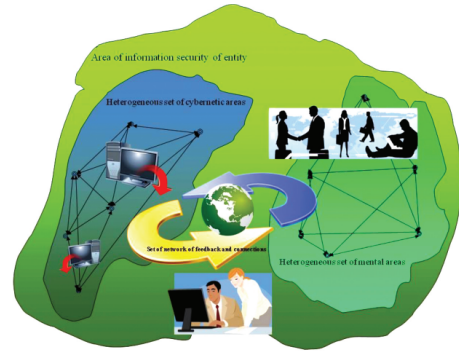


Fig. no. 1. Information processes in the area of security of organization

Source: R. Kwečka

Creating an overall strategy of activities of the organization is performed in an area dominated by time and information, because regardless of changing governance and political order in the area of security of entities, these two factors are still *spiritus movens* of all organized activities. Force, once necessary in the struggle for hegemony, was replaced by a synergy in the activities, and the need to take over the area of the opponent - the precision impact on it and its entourage. Precision based on accuracy, clarity and exactness in creating the rules of the political game and strategy of entities in relation to the interaction of objects.

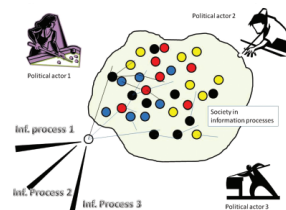


Fig. no. 2. Transformation of determinants of changes in creating the strategy of entities

Source: R. Kwečka

4. INFORMATION SECURITY OF THE ORGANIZATION

Specified complexity of the structures forming the organization

(the state), the number of its component elements and a multitude of internal and external relationships, create a situation where the researcher is able to create only general regularities that govern its development. Dynamic changes in the security of the state, including in the area which belongs to its environment may lead to the thesis that only intellectual and conceptual preparation might allow reducing risks, minimizing the consequences of their occurrence and the skilful use of the opportunities that arise, and thus meeting the challenges of the future [10].

Ubiquitous media have a substantial impact on the attitude of the political elite in power, which create actions of entities. They are realizing their own objectives (audience, profit, informing the public), and they take activities of the organization in the international arena and in the area of domestic policy "under a magnifying glass". They have enormous influence on public opinion, both in the internal and external aspects of organization (state). Particularly noteworthy is the strategy of national security that determines its activities in the area of information security. Information is an essential, if not decisive about everything, determinant in shaping policy and strategy of organization. If we attempt to grasp hierarchical determinants in terms of their importance to the security environment, no doubt the information would be

on top of this kind of "top list" in relations between the entities. Let us note that the above findings clearly indicate the dominant role of information in the process of creating a security strategy of organization.

Information security strategy is a kind of polystrategy of security of organization. It is present in all sectoral strategies, plays a dominant role in their creation and protects the vital interests of the organization, while providing the key to the creation of superiority and information domination of subject in the area of security (17).

If, in the steps of Józef Kukułka, we accept the rules of the evolution of the concept of strategy, generated by it, along with the reasons accompanying them, the above observation is fully justified, because as prof. Kukułka writes: "the way from the classic military strategy to polystrategy means the process of withdrawing its monopoly from a narrow group of specialists and bringing it to the various groups of professionals. Thanks to this, the rank of polystrategy seriously increases because its formal and substantive relationships with the general policy of the state are much closer than the compounds of classic strategy [11]" The words on the "narrow group of specialists" can be applied not only to military strategists, but also to the representatives of the so-called group of IT specialists (Information Technology) (18).

Information security goes far beyond information technology, it is present in every manifestation of the organization, deciding on its capacity for sustainable development and survival.

In the available literature, the security information is usually identified with security in cyberspace, information technology area or telecommunications infrastructure of the organization. In the vast majority of studies, especially in the US, we find references to cyberspace (19) understood as a specific physical domain, which is "[...] the result of the creation of information systems and networks that allow interactions electronically. [12] " In a similar manner information security is defined through the lens of the computer area or telecommunications infrastructure, thus narrowing the area of the security only to the structure and level of security existing in the area of information technology. Such an approach to the problem causes significant "blur" to the essence of information security, which usually manifests itself as the lack of a common (combined) strategies, the effect of such an approach are uncoordinated activities of the organization in the field of security, usually carried out based on the guidelines and principles in different sectoral strategies.

Implementation of the information security strategy is in fact a manifestation of the implementation a strategy of information warfare by

the organization. A war that does not need to be officially "declared" to another organization.

A war that takes place in the mental (20) and virtual space (21), and the objects of its massive attack are (or will be) not only tools at the disposal of the organization or its critical infrastructure, but also the decision-makers and their political supporters, which may be up to new heights of power or deprived of it at any time, assuming that this may not necessarily be realized in a democratic way. It is therefore not possible to create a stable area of information security of organization without understanding the nature and significance of the issues of national security and the security area by the political elite, as well as decision-makers of all institutionalized forms of social activities, both from the public and private sectors. To this group we also need to include decision-makers of the tools at its disposal, or what an organization could have in the implementation of the strategy of national security. If we enlarge the above group with the remaining part of the society, along with the proper understanding of security and its space, we get a specific set of mental spaces. The network of connections and internal links in the mental areas and a network of connections with a group belonging to their cyberspaces, is kind of the first and the biggest area of risk for the stability and

durability of the information security of organization.

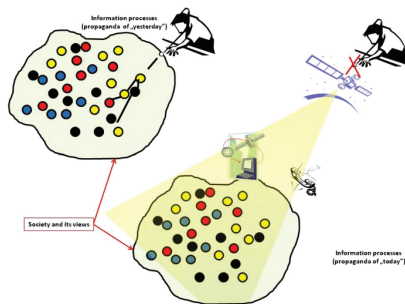


Fig. no. 3. The area of information security
Source: R. Kwečka

As a result of the abovementioned conclusions, we can state that the area of information security of organization, is the sum of three disparate sets, meaning a set of cyberspaces, a collection of the mental spaces of the organization and between them (**Figure 3**). Assuming that the "C" means a collection of the cybernetic spaces, "M" - a collection of mental spaces, "S" - a network of connections and internal links between the C and M sets, and assuming that the common element of those sets is marked by "x" and it is information - the above definition of the information security of organization can be written in the following way:

$$C \cup M \cup S = \{x : x \in C \vee x \in M \vee x \in S\}$$

$$C = \{x_1, x_2, \dots, x_n\}; M = \{x_1, x_2, \dots, x_n\}; S = \{x_1, x_2, \dots, x_n\}$$

Let us note that the "x" (the information in its original form) is a specific form of the signal in both the mental and virtual

space, as well as in a network of connections and internal links, thus it (information) plays special role in activities of the organization. It constitutes a specific response to external or internal stimulus that causes the generation process, reflecting the image or the state of affairs of material or abstract object (phenomenon, concept, etc.), which is associated directly with the adopted stimulus. Said reaction to a stimulus refers to both human (22) (mental space) as well as systems and computer models (virtual space).

The combination of two spaces, distinct in nature, along with cyberspace, placed above the virtual space, and network of connections and internal links relevant for them, creates the right area of information security of the organization.

With this in mind, we can formulate a qualitatively new definition of the information security of organization. Therefore, let us assume, that: security information of organization is the process (or momentary state), implemented (held) in of mutual positive cooperation, led by the tools at the disposal of the organization and for activities in the area of information security. These activities are carried out in an integrated National Security System of organization.

Information security is manifested in actions and processes ensuring: the integrity of information resources of the organization; effectiveness

in obtaining them; purposeful implementation of actions aimed at propaganda and social engineering to produce the desired attitudes and social behavior in a real or potential risks arising from the information processes that do not have a source in the classic war.

Therefore, the above definition does not refer to the classical definitions of security and security sector of organization - absence of risk, but clearly refers to its constant presence and absence of the possibility of eliminating it. Information Security is therefore an important subsystem of the National Security System, it includes certain structures and tools of the organization, outlines its general ability necessary for stable growth and survival in the conditions of use of the opportunities and minimize the threats.

Information processes, not being a classical form of war, are the sources of threats as destructive, if not of much more character and importance to the subject, than the armed struggle.

5. THE PARADIGM OF INFORMATION AND INFORMATION SECURITY

The paradigm of information security, just like other paradigms in science, will always remain incomplete set of definitions, theorems and axioms, forming theory constituting an area of knowledge. At the same time in the course of assimilation of qualitatively new knowledge

paradigm, it is constantly subject to be changed. We can therefore say that we are able to generate only certain abstracted paradigms of information security of organization, which will be an expression of the specific characteristics associated with it, rather than the paradigm as such, describing the security information in a holistic manner. It is also consistent with the approach to the essence of creating paradigm presented by T. Khun, who connected it with specific scientific achievements in the world of science and not to the notion of universal rights and points of view [13]. Referring to the security paradigm J. Gryz indicates the attributes of knowledge, defining and describing the man as the basis of its creation over the centuries. It is assumed that the basis for security paradigm of the organization are: communication, ideas, tools, aimed at ensuring the existence, development and satisfying desires, as well as feelings and passions [14]. Let us note that these four elements, interconnected and complementing one another, not only form the basis of knowledge and the theory of knowledge while they have a utilitarian use in the context of the creation of the security of organization or the creation of processes aiming at its future desired states but they also have one elementary thing in common, which is INFORMATION.

COMMUNICATION is not possible without information,

any, even the best IDEA will not survive the test of time, if it is not propagated and perpetuated in society with the information about it available in the mass media. Is it possible to WANT something even without a priori knowledge (information) about desired object? The PASSIONS and AFFECTIONS are an external manifestation of the environment, is to inform about goals and intentions, this is kind of feedback in building their own "I" and individual security of organization.

According to J. Gryz "security paradigm - containing in itself the subject of security, the matter of security, the environment in which security is provided or implemented as well as interactions between these - refers to three domains that while overlapping and penetrating are creating context of knowledge and the concept of that knowledge. The first domain is the man and the surrounding world - the world of human activities, its products in the natural world of their mutual overlapping. Second, the environment in which he resides - social as well as natural. Third, the world of ideas by which the man recognizes the reality around him (ideas and ideologies build on their canvas can be distinguished due to their specific features and characteristics that define human activities, communities, societies, nations). [15] "

In both the views of K. Darwin and K. Mannheim, which J. Gryz refers to, the strong influence of

information processes and creative role of information in regard to the nature of the organization's security paradigm can be found. In line with the views of K. Mannheim, those three domains penetrating each other create a context in which the organization identifies its place. Let us note that each of the domains depends on the knowledge which subject currently possesses. Knowledge is the derivative of information. Man (original organization) and his creations are a direct manifestation of knowledge based on internal information, which he possesses. Social and natural environment generate external information processes that provide knowledge of other entities (their goals, aspirations - feelings by K. Darwin), which is the basis for the expansion of their "own" knowledge of the original organization, and the search for solutions that will allow it to develop in stable way and survive in the world of ideas (ideology), which define the objectives and aspirations of others.

It can therefore be concluded that the elementary determinants shaping our perceptions of security and its paradigms are certain states of knowledge (awareness) of the organization (either a single person or entire communities and organizations created by man - the original organization). As emphasized by B. Czarnecki and W. Siemieński, prevailing in this area are psychological aspects and their relationship to the material factors [16]. Let us note that this

fact may constitute a strong impact of propaganda in the information warfare (war) where we can take advantage of unrestricted range of methods, means and ways of acting on the mind and emotions of the original entities. During the Cold War, the essential concepts defining the paradigm of security was a threat, fear, and preventing them in the international forum. Dynamic changes in the international environment changed approach to security issues, as well as the peculiar evolution of the paradigm. At the end of the twentieth century, understanding security from the position of paradigm focused on the state as the central organization in a hostile international environment, gave way to a positive and constructive vision, referring to international cooperation as the basis for its development. According to J. Świniarski and W. Chojnacki "new security paradigm should in fact allow an understanding of the complexity of the modern world and reflect the real and actual changes in the international environment. An important element of the emerging new security paradigm is stressing the need for international cooperation in the process of providing it. [17]" This change in approach to security paradigm is only seemingly "revolutionary". Its essence is continuously based on communication, ideas, desires, feelings, and three domains, which are a kind of reflection in international relations, where the

original organization (person) is replaced by organizations of all kinds. It should be remembered that state in accordance with the views of L. Krzyżanowski is a special organization, governed by the laws, which are subject to other "organized actions" created by man.

Scientific research on information, its essence and paradigm has been ongoing for decades. Although some interesting research approaches were created (represented by: Claude Shannon, Warren Weaver, Fred Dretske, Mieczysław Lubański), there is still no general theory of information. Information is in fact a problem for researchers already at the time of selection of methodological approach to research. It is considered, that the information processes and phenomena are too complex and varied so it has become impossible to describe them in unified way. Is this a correct thesis? With the current state of knowledge, certainly yes, but in the future, the answer will also be positive?

In 2008, Elsevier BV publishing house released the eighth volume of textbook series, "The Philosophy of Science" edited by Pieter Adriaans and Johan van Benthem entitled "Philosophy of Information". The manual is one of the most comprehensive studies of scientific disciplines, in which information plays a crucial role. At the same time it was an attempt to summarize the achievements of science in the field of information theory in general, which was

successfully carried out by both authors. P. Adriaans and J. van Benthem state, *inter alia*, that we can now talk about three main paradigms of information. These are the paradigms of logical-cognitive, probabilistic and algorithmic. As the authors say this is due to the existence of three basic types of information, which they describe as the information as A, B, C:

Information A - Knowledge, logic, what is conveyed in informative answers;

Information B - probabilistic, information-theoretic, measured quantitatively;

Information C - Algorithmic, code compression, measured quantitatively [18].

P. Adriaans and J. van Benthem claim that presented types of information, together with the corresponding paradigms, complement each other. It comes from the fact that, although the first logical-cognitive approach (information type A) is relatively loosely associated with the probabilistic approach (information B) or algorithmic (information C), the other two, established mainly by C. Shannon (B) and A. Kolmogorov (C) are essentially similar. They also found that, after analysis of existing theories, they can attempt to formulate a general theory of information, although in some of its aspects lacking "something" else.

In the theories analyzed by P. Adriaans and J. van Benthem the essence of information was "blurred" in the diversity of approach, although traces of its

"connection" with the wider information technology and its tools can clearly be seen, as well as a from a purely mathematical models and statistical understanding. An obstacle is too brief and too colloquial understanding of information as to communicate to someone - something with the transmission of specific signals, while rejecting the fact, that information cannot exist without the signal carrying it (!). Mieczysław Lubański omits this also, although he underlines that "today we are only in the era of information technology, rather than the information itself. We process, strictly speaking, signals that - as we say - carry information. [19]"

The result of dogmas encoded in the minds of researchers is the fact that each time information is being tailored and defined according to the canons of the methodology adopted and although the researchers point out the necessity of the existence of the signal to talk about information in general, it is refused its energy and matter. Wiener also emphasized that the information is as fundamental as energy and matter, but at the same time claimed that it cannot be defined by the fundamental concepts (!)

Meanwhile, as already signaled earlier, in the information processes we deal with signals which are the carriers of information, or a certain form of matter and energy. In reality around us, we only have access to the data, which is a form of mapping (matter) of signal (energy) carrying information.

To emphasize the essence and importance of this statement, we can discuss a topic of information through the prism of "black holes" (23). For years it was thought that they contribute to the total "destruction" of given information. Meanwhile, according to quantum mechanics, information cannot "die"! This information paradox, well known to physicists for years, demolished the principle of unity of foundations of quantum mechanics. Stephen Hawking, who in the early seventies discovered that black holes may disappear along with absorbed information, in February 2014 published work [20], in which he "says that around the black hole there is no absolute horizon, and therefore never forms a closed area outside of which nothing can escape." No event horizon means that there are no black holes - in the sense that light cannot escape from them," - writes Hawking. In short, in his opinion there are no such black holes, which a hitherto unheard of - objects that they do not let anything from the inside. No event horizon means that there are no black holes - in the sense that no light can escape them - writes Hawking. For a limited time there is only "apparent" horizon that [...] allows information to get out of the depths of the black hole - information about its victims. It can be imagined as earthly horizon, which is the border, where the sky descends to Earth - on the surface it seems that you can walk to it, but it does not really exist. So there is

no paradox - the information is not lost without a trace, escapes, before the black hole has time to evaporate completely [21]".

It is not important at the moment that it implies a serious distortion of information and causes trouble in reading the original content of the "mapping", the important thing is that the man who years ago contributed to the "creation" of paradox of information, as of today, using the development of knowledge (including the achievements of Polish scientists) could make significant changes in the theory, which he created, admitting thereby to an important error. In conclusion, proving "not directly" and basing on the assumptions and theories which are only indirectly "recognize" the thesis that the information is in its original essence, a specific signal form and is as fundamental as matter and energy, we can validate the definition of information adopted in earlier considerations.

Information is specified portion of the energy accumulated in its material mapping. Speaking in description language, the energy and its changes are a scalar physical quantity characterizing the state of the information, which is the real object that exists objectively, independently of the knowledge, perceived also sensually (matter). In the same time information, just as matter, is characterized by the extent of the time-space, movement and changing character, taking a variety of forms, including even extreme distortion of the content

"reflecting" information while passing through the "apparent" event horizon of a black hole.

It leads to the "duality" of information as its immanent feature, which can be found in two basic processes occurring in any activity organized, and in any system, including artificial systems. Power processes and information processes are subject to permanent transformation (24), which is possible thanks to "duality" of information.

In information processes, in praxeological terms, "information" is a factor which puts subject closer to one of the expected final states, in cognitive terms it is required for the organization to change its state of knowledge (in the deliberations of P. Adriaans and J. van Benthem we can assign these attributes to "A" type information – own footnote). In the power process, seen through the prism of praxiology, as effective action, "information" belongs to the set of streams describing the information processes, in cognitive terms it is necessary for the organization to make the subject of its typification (in considerations of P. Adriaans and J. van Benthem we can assign these features to information "B" and "C", because each of them addresses the problem of "measurability" of information, they differ only in approach to the methods and scale of "measuring" - author's footnote).

In conclusion, we can assume that on the basis of the above considerations, supported by

existing research in the field of information theory, conducted over the years 1994-2014 by the author (R.K.) - proposed by P. Adriaans and J. van Benthem, three basic types of information: A; B; C, can be reduced to one type - "information Σ " (Sigma - symbolic designation of "duality" of information "A" + / "B" ^ "C" /). While the three main research approaches (paradigms) to just two: logical-cognitive and an approach based on quantitative measures.

General analysis of the paradigms of security and information, carried out, allowed, as already expected, to try to generate a paradigm of information security of organization. Common features, spaces and processes that can be isolated in the security system of the organization and the information processes, which are its inherent feature, bring us closer to the object of our search. At the same time, it should be realized that the proposed solution is adequate to the current state of knowledge and in the course of assimilation of qualitatively new knowledge it will be subject to ongoing review and changes that may accompany this verification. At the moment only specific, abstracted features of security information of organization can be generated, rather than the paradigm as such, describing the security information in a holistic manner. Although the paradigm of information security to some extent remains only unfinished set of definitions, forming

theory constituting an area of knowledge, it should be assessed that it will seriously contribute to the construction of information security of the organization.

The organization and the space that surrounds it, its aspirations and ideas, enriched with information processes, both "internal" (ideas), external (communication) and feedback (showing desires and feelings) - are essential features of the paradigm of information security of organization.

Organization, regardless of its degree of complexity and security space in which it operates or intends to operate, is heavily dependent on information processes. This "addiction" is a direct result of the "duality" of information, which is a component of both information processes and power processes, which has already been presented.

In the communication, ideas or desires - logical and cognitive paradigm of information reflects the form of "information". The paradigm of quantitative measures is a reflection of the "driving force" and the ability to influence the mental processes (for example change of views and ideas), or ability to act in destructive cyber systems. "Duality" (Σ) of information is an essential paradigm of information security of organization. It is the cause of any changes in the security of the organization, it constitutes an inherent feature of information, including the ability to transform power processes (another phase

transformation of a particular matter and energy being or likely to be available to the organization, the desired effects of the policy and strategy) and information processes (mapping any changes that occur in the area of security) of the organization.

The paradigm of information security - containing INFORMATION " Σ " - refers to three domains, which are mutually connected and they create a context of cognition and the concept of the knowing its essence.

The first domain is the external information process - manifested in the control function of the decision-making system of the organization, or as a function of the impact of the environment on the object of influence.

The second domain is the internal information process - reflecting the state of knowledge of the decision-making system about objects of influence or external conditions (the environment).

The third domain is the feedback information process - as a reaction of influencing objects or decision-making system on the external informations. Feedback is essentially a reflection of the information processes carried out by specialized tools of organization (for example special services), which means the relationship of decision-making systems and objects of influence (including perceptual systems) in the information processes taking place in the area of security (it is feedback from the decision-

making system and all the tools of the organization).

6. INFORMATION WAR - FUTURE WAR

Laying the foundations of modern information warfare of the organization, one should seek specific factors that affect its present and future dimensions. The search for these determinants is one of the most important and also the most difficult tasks. Simple, intuitive definition of information warfare as the struggle "with" and "for information", results in the search for the determinants of changes in the process of acquiring (obtaining) information and processes to protect own information resources of entities.

In terms of organized activities we pursue the search for determinants in terms of positive or negative mutual cooperation, with all the consequences of these categories. We also conduct exploration in the area of offensive and defensive aspects of information warfare. However, in the offensive (defensive) activities, from the point of view of praxeology, we have to deal with both the positive and negative cooperation (warfare) if we pursue cooperation (positive cooperation) between entities belonging to the same or another area of security. We can state this kind of aspects of the impact within the country where the activities, for example defensive, processes of positive cooperation happen

among its tools of influence, while the characteristics of negative cooperation (warfare) may also be found in the inner space of the state in the processes concentrated of exploration and combat of hostile agents (intelligence). A similar scenario can be seen in information activities and acquiring knowledge by competing companies (industrial and other), hence bringing all the structures and organizations to identify one - in this case - organization appears to be the benefit of this research.

Specific tools of entities or entities themselves deal with organizing all the information processes hence further determinants in shaping the information security activities are specific actors (players) implementing the strategy (policy) of the organization. Categorizing the notion of actors in the processes of information, we can make initial division into negative and positive actors (players), or actors representing the two currents of mutual cooperation, taking praxeology as a basis for categorizing. Starting from basics of categorization related to the acquisition and protection of information, we can make a distinction between offensive and defensive actors (players) or representing the two streams of information. The actors (players) coordinating and executing the tasks associated with the acquisition or protection of information for certain decision-making processes do not work in a "vacuum", the

purpose of their interactions are defined information resources which are "owned" by entities. These resources can also be categorized using different basis of this categorization. The most important fact and at the same time the basis for categorization of information resources is the area of human's information resources (his mental information), which is often forgotten when considering the issue of information war (warfare) and the difficulties are seen only in the area of artificially generated cyberspace. The adjective "artificial" was used here deliberately, because it must be assumed that a person in itself creates a kind of cybernetic space, possessing millions of network connections and relationships, their own information resources and the ability to create activities based on these resources.

For the actors (players) in the processes of information, each piece of information has a specific measurable value. We can estimate its value in terms of, for example, monetary exchange or in terms of organized action manifested in bringing (actor) player closer to the ongoing organized activities. Each time the value of information will be unique and estimated, resulting solely from the fact, how much certain actor (player) will be willing or able to pay for the information resource of organization, with payment not only referring to financial issues, since it can be as well in the form of another information resource or even specific package of

information, if the actor (the player) will obtain crucial information for its actions in this way (this type of situation occurs frequently when exchanging of intelligence is carried out by the special services - tools of entities).

Primary determinants of changes in the information war, forming the subject area of information security, are:

- actors (players), creating information processes of organization;
- its information assets;
- offensive and defensive information processes.

Secondary determinants are factors dependent on changes happening in primary determinants.

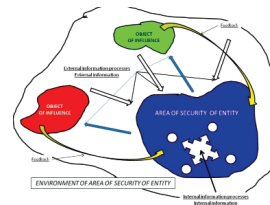


Fig. no. 4. Determinants of changes in the information war

Source: R. Kwečka

Information processes in the area of security, their nature and the interdependence of processes, confirm that information processes are a qualitatively new, not fully noticed by decision makers, environment of the future war. From the point of view of praxeology, information processes are organized action, focused on the positive or negative mutual cooperation, which is a manifestation of the information war (warfare).

Modern websites are beginning to increasingly resemble a battlefield, which is fought in a completely different dimension than the one known to us from the classic war or armed struggle (although there is information is its immanent manifestation). Its essence can be seen in the struggle for information superiority and dominance. However, in this case the word dominance, it is manifested in efficiency and dynamics in reaching certain political formations, social groups and the ability to manipulate their moods and creating behaviors consistent with the needs of political actors (players). Graphically, we can illustrate this party snooker, being played in virtual and real space by the actors (players) who, through information processes, precisely target a specific environment, are able to polarize the public organization and manage it according to specific needs.

The process of informing and communicating with the public is determined by social engineering pillars and tools of influence. Social engineering, allows to control human behavior by manipulating or influencing. Derivative of tools of influence, associated with social engineering, is the ability to create facts, use of tendencies in societies to sensationalism in search of alleged hidden motivation (see the tabloids), help of conspiracy theory and modern techniques of virtual reality. Therefore, not only these activities can lead to the collapse of morale, but also can erode the

value system and influence the behavior of societies [22].

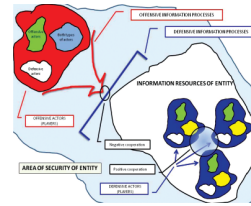


Fig. no. 5. The struggle of political actors (players) for the information advantage and dominance implemented in relation to the specific political formation of social groups

Source: R. Kwečka

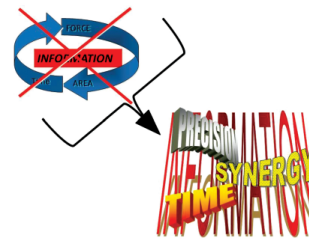


Fig. no. 6. Information warfare of political actors (players) "yesterday" and "today"

Source: R. Kwečka

In conclusion, we can assume that the thesis defining information processes as qualitatively new, ABSOLUTELY virtually "invisible" to THE "WEAK (25)" DECISION MAKERS AND USED (NOW) BY HEGEMONS, environment of the future war - is completely legitimate.

Activities and processes, which constitute information warfare, are carried out under conditions of actual or potential risks arising from the information processes that do not have a source in the classic war. This aspect is still not recognized in the work on information security of entities. The country, which particularly draws attention to this aspect of

information security, is Russia, where extensive research is carried out in this area. As defined by Joanna Darczewska [23], Russian theory of information wars was built as a kind of counterweight to the Western concept of a new generation of wars. Their theoretical assumptions clearly allude to psychological wars run during the Soviet times and the techniques to influence and control society, tried then.

According to theses of J. Darczewska, "in the doctrine of geopolitics information constitutes a dangerous weapon: it is also a low-cost weapon, versatile weapon, with unlimited range, easily accessible, without barriers in the form of state borders. Information and network warfare as well as its extreme forms - war information Psychological and network are the measure to achieve the objectives of the state in international politics, regional and internal, as well as ensuring its geopolitical advantage. The merit of the leading representatives of geopolitical thought is, on the one hand, the popularization of these issues, on the other - personal participation in the wars of information as opinion leaders. This applies especially to the main representatives of the two schools of Russian geopolitics: Igor Panarin and Alexander Dugin, teachers and educators of the young generations of geopolitician. [24]

Gene Sharp (26) also aspires to join the group of adherents of information war. He is the founder

of the idea of "velvet revolution" ("refolution (27)") concentrated in the area of strategy for the use of social engineering and information elements in the warfare by revolutionary movements, acting according to his principles. In an environment of specialists, system developed by prof. Sharp is called nonviolent action. Attention should also be paid to the American approach to the problem of information warfare. In the dictionary published by the Department of Defense in February 2001, information war is defined as information activities carried out in times of crisis or conflict to achieve specific goals or to promote them in relation to a specific opponent or opponents [25]. It is worth noting that in the revised edition of the dictionary published in October 2010 (as amended by the release of 2014), the concept of information warfare has been removed, but information warfare was mentioned in other definitions.

A convergence of views can be seen with representatives of leading US information warfare theory, for example - M. Libicki [26] believes that the information warfare as an independent form of warfare does not exist. There are however several separate forms, each of which can be considered as a general concept of information warfare. Libicki describes seven forms of information warfare. These forms include the struggle for dominance in command, based on knowledge and electronic warfare, psychological, economic,

cyber war and hacking. While another representative of this trend, R. Szafranski, assumes that the information warfare is a form of conflict, where direct attacks on information systems are a means to attack the knowledge and beliefs of the opponent. According to R. Szafranski information warfare may be conducted as a component of comprehensive hostile activities in the form of network war (NetWare), cyber war, or as a standalone form of fighting. [27] J. D. Arquilla and Ronfeldt state, however, that the information warfare is nothing but using the information to achieve the objectives of the organization. They assume that the information is a key element of the power of the organization, its main resource that supports diplomacy, military violence and the fight for dominance in economy. Information warfare can therefore be seen as a conflict between the entities run in a global information infrastructure. [28]

How can we define the information warfare, having in mind its qualitatively new level? In the fight for information between entities and with information in today's reality, does propaganda begins to dominate with its social engineering aspects? Keeping in mind the nature and duality of information, whereas information processes in the area of security of organization and the associated features, it can be assumed that:

The information warfare (war) is a mutual cooperation (positive or negative) of political actors

(players) conducted in the area of security of entities. In the information warfare the object of the impact is a human being and any organized human activity, and its essence is to fight "with" and "for information".

In the information processes accompanying this warfare, in the conditions of deliberately disrupted mapping signals carrying information, it becomes a leading factor of dysfunction, destruction and chaos, leading to critical changes in the area of security of organizations.

Tool for information warfare include, qualitatively new propaganda, using hypermedia. This tool is used by political elite (including, the heads of all faiths and religions) to acquire, exercise and maintain power (or in world of religions - the domination of "their" values) according to their own subjective aspirations and needs, in the name of objective interests of the organization they represent, or intend to represent (28).

7. CONCLUSION

The article proposes a qualitatively new approach to concepts such as: information, area of information security, information security and the information war (warfare). Considerations in this regard have been enriched with a qualitatively new approach to the paradigms of both the information and the information security. Presented interpretation does not imply denial of the achievements

of Polish and foreign thoughts related to the theory of information security (IS), at its core lies the thesis of the need to specify the contemporary and projected essence of information security of organization with the growing necessity of generating skills and tools necessary for its (IS) occurrence. Diagnosis of processes and information systems of the organization in the struggle "with" and "for information" has been focused on praxeological terms of the warfare itself, especially in its unarmed form, as the climax of a negative cooperation in the area of security, of which information is immanent component. Not shown here are problems with organizing information warfare, but only those aspects that affect the shape and condition of the organization in the area of information security.

NOTES AND REFERENCES

(1) Area of security of subject - heterogeneous open set consisting of subspace to achieve the goals of actions, for which this space was created, own definition. More: R. Kwečka, *Zarys teorii bezpieczeństwa informacyjnego państwa*, Warszawa AON, 2013, First chapter.

(2) Process - here understood as "process of certain changes, successive and causally related, which are stages, phases, stages of development of something; course, development, transformation of something, *Słownik języka polskiego*, PWN, Warszawa, 1979.

(3) Organization in author's interpretation are countries and international companies, as well as national and foreign political players. Agreeing with L. Krzyżanowski - *O podstawach kierowania organizacją* inaczej, PWN, Warszawa 1999 - the assumption was adopted that the state

is a special organization, governed by the law, it is a subject to other man-made organized action.

(4) The challenges consist of current or future threats and opportunities - it is obvious that every opportunity can become a threat, and each threat may be an opportunity in the security of the state. The estimated value of the challenges to the security of the state is defined in terms of risk. Author's own footnote

(5) or "good" - if one prefers it - because it is a subjective feeling;

(6) Hipermedia - used in one information channel different types of signal, which transmit facts or virtual reality, used for multipurpose interactive influence on the organization - author's own definition, R. Kwečka, *Wykorzystanie techniki komputerowej w kształceniu oficerów*, AON, Warszawa 2000, p.19.

(7) G. Orwell in his book *Nineteen Eighty-Four* (1984) published in 1948 (!), "created a" vision of events in our contemporaries and future generations. Events based and carried out on the capacities posed by information processes. His world is constantly unadulterated and "built" from scratch, based on generated on the "demand" of the Ministry of Truth, information about the past - is slowly becoming ours.

(8) Matrix - Australian-American science fiction film, the first of the trilogy of the same name, written and directed by L. and A. Wachowski. The content of the film contains hidden messages and allusions, in which the protagonist, a computer hacker learns from mysterious rebels about the fact that the world in which he lives, is only an image transmitted to the brain by robots. Film image contains many philosophical and religious references, among others, famous Plato's parable of the cave, which is included in the dialogue named "State".

(9) In accepted definition L. Ciborowski focused only on conditional stimulus, which means he treats the stimulus as a factor acting as stimulant by association, rejects the kind of unconditioned stimulus, which acts directly on the senses.

(10) Matter - understood here as "general set of real things existing

objectively, meaning independent of cognition, as well as sensually perceptible; components and systems of this general-called reality, characterized by the extent of the space-time, movement and volatility, in various forms", *Słownik języka polskiego*, PWN, Warszawa 1979.

(11) Energy – understood here as „expressed in measures of work scalar physical quantity that specifies the ability of the body or the bodies to work on the transition from one state to another”, *Słownik języka polskiego*, PWN, Warszawa 1979.

(12) The term "control (decision)" system should be understood as the political elite of the organization determining the shape of the area of security.

(13) „Object of influence” – tools of organization useful for shaping the area of security.

(14) Information warfare (IW) – It can be briefly defined as "negative mutual cooperation, at least on two levels, implemented in the areas of: obtaining information, disrupting the information and defending information, where every action of one side is assigned an antagonistic action on the other side", L. Ciborowski, *Walka informacyjna*, ECE, Toruń 1999, p. 187. Author's qualitatively new approach to IW further below.

(15) Type – understood as – „model, pattern, which corresponds to a series of objects, people, events, forms”, *Słownik języka polskiego*, PWN, Warszawa 1979.

(16) The archetype of these features is contained in: *Informacja w walce zbrojnej*, R. Kwečka, AON 2001.

(17) Including internal and external subspace of the organization, own footnote

(18) Information Technology – here understood as: hardware and software used for gathering, processing and distributing information (in open or coded channels) together with network systems of communication (internal and external), own footnote

(19) It is commonly believed that the term comes from a science fiction novel *Neuromancer* by W. Gibson, published in 1984 r.

(20) Mental – concerning the properties of the mind, way of thinking, *Słownik wyrazów obcych*, PWN, Warszawa 1997); here applicable to society and its mental sphere.

(21) Virtual space should be understood here as a subspace separated from cyberspace. Own footnote.

(22) Mental information is directly connected with reaction on stimulus.

(23) In 1939, Robert Oppenheimer and Hartland Snyder showed that a massive star may be a part of process of gravitational collapse (collapse under its own weight). As a result of this process, if the star is sufficiently solid, it may shrink to the point of mathematical equations which results from Einstein's work. This idea has not sparked much interest, until the discovery of pulsars in 1967. The name "black hole" was proposed by John Wheeler. Own footnote.

(24) Transformation – change, metamorphosis; math. subordinating element of one set to elements of a given set. *Słownik wyrazów obcych*, PWN, Warszawa 1997.

(25) “invisible in PURPOSEFUL manner or because of the LACK OF KNOWLEDGE, “WEAK” means parts of political elites of countries being SATELITES of certain HEGEMONS, protecting their own SUBJECTIVE interests in the name of OBJECTIVE interests of the nation. Own footnote.

(26) G. Sharp, essay *From dictatorship to democracy* was first released in Bangkok in 1993 by the Committee for the Restoration of Democracy in Burma, in cooperation with Khit Pyaing (*The New Era Journal*). Since then it has been translated into at least thirty-one languages, issued in Serbia, Indonesia, Thailand and many other countries. His previous studies have played a significant role in promoting the revolution without violence.

(27) Term „refolution” describes velvet revolutions. It is assumed that Timothy G. Ash was first to use this term in *Polska rewolucja. Solidarność 1980-81*, Warszawa 1990.

(28) Author's own definition.

[1] R. Kwečka, *Informacja w walce zbrojnej*, AON, Warszawa 2001.

[2] R. Kwečka, *Podstawy bezpieczeństwa*.

- [3] Stanisław Kamiński, *Nauka i metoda – pojęcie nauki i klasyfikacja nauk*, Towarzystwo Naukowe KUL, Lublin 1992, p. 24.
- [4] R. Kwećka and other authors, *Strategie podmiotów. Determinanty zmian*, A. Marszałek Publishing House, Toruń 2011, p. 62.
- [5] *ibidem*, p. 27.
- [6] L. Ciborowski, *Walka informacyjna*, p. 185.
- [7] J. Seidler - *Nauka o informacji*, Vol I. Wydawnictwo Naukowo-Techniczne 1983.
- [8] R. Kwećka, *Informacja w walce zbrojnej*, Warszawa 2001, p. 31.
- [9] R. Kwećka, *System ochrony informacji niejawnych* [in:] W. Kitler, *System bezpieczeństwa narodowego RP*
- [10] R. Kwećka, *Strategia bezpieczeństwa informacyjnego polistrategią bezpieczeństwa podmiotu*, [in:] *Metodologia badań bezpieczeństwa narodowego. Bezpieczeństwo 2010*, P. Sienkiewicz and other authors, AON 2010.
- [11] J. Kukulka, *Problemy teorii stosunków międzynarodowych*, PWN, Warszawa 1978, p. 125.
- [12] G.J. Rattray, *Wojna strategiczna w cyberprzestrzeni*, NT Publishing House, Warszawa 2004, p. 30.
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- [14] K. Darwin, *O pochodzeniu człowieka*, Jirafa Roja 2009, [via:] J. Gryz, *Zarys podstaw teorii bezpieczeństwa. Skrypt wykładów*, Warszawa 2010.
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PLANNING INTELLIGENCE ACTIVITIES IN A DYNAMIC SECURITY ENVIRONMENT

Anca PAVEL

PhD student “Mihai Viteazul” National Intelligence Academy,
Bucharest, Romania

The hypothesis introduced by this article is that, in order to perform intelligence missions and to obtain valuable intelligence for the consumers it is necessary to implement processes and tools to support planning activities. Today's challenges consist rather in the ability of intelligence organizations to identify and initiate new connections, processes and communication flows with other partners operating in the security environment than to plan in their own name secret operations. From this point of view, planning activities should focus on new procedures, at a much more extensive level in order to align institutional efforts beyond the boundaries of their own organization and the national community of information. Also, in order to coordinate intelligence activities, strategic planning must be anchored into a complex analysis of the potential impact of existing and possible future global phenomena that shape the security environment and thus identify better ways of improving results.

Key words: *intelligence capabilities, organizational planning, strategic analysis, security environment, organizational resources.*

1. INTRODUCTION

Security cannot be achieved in the absence of information and intelligence so, regardless of which type of security is approached, all requires intelligence, namely the specific product of intelligence organizations. Real opportunities and possibilities for prevention and countering potential threats exist only to the extent that quality, multisource intelligence, often regarding a specific target.

2. ATTRIBUTES OF INTELLIGENCE ACTIVITY PLANNING

Planning in intelligence organizations is initiated in order to achieve its assumed missions and strategic objectives and, to reach

this goal, it uses dedicated tools and processes. In order to ensure a uniform operational approach and to achieve coherent planning, specific concepts designed to establish and provide relevant, valuable arguments about the direction to follow, the steps to take, their pace, support means are used and developed to contribute decisively to the goal or mission for which the organization exists. The goal must be achieved at quality standards in order to operate beside other similar organizations in the same environment, to obtain advantages and to be recognized as one of the best organizations in the field.

Empirical opinions related to planning view it as frustrating and discouraging because it seemingly does not provide any real help, is irrelevant in comparison with other

activities that define the organizational mission, abstract and often controversial, contradictory, etc., purely formal, and it takes time. However all organizational actors act more or less consciously according to a plan.

Planning facilitates the decision-making process and as a function of management supports management processes and managers. There is a real need on behalf of decision makers to identify and visualize the steps that must be performed in order to achieve certain goals or priorities - so it is appropriate to determine in advance its related activities and milestones. But how should planners ensure this without adding other stressful activities to the work or tasks which are essential for carrying out the mission of each department and to bring added value to all of those?

The answer is to develop a results focused planning.

From this point of view, there are five essential elements in planning focused toward results:

(1) a clear purpose of planning;

Most often, setting goals and objectives to certain processes and projects or even regarding the whole organization' activity, as well as their corresponding activities offers a clear purpose of planning.

(2) setting the structural elements or factors involved in the implementation of processes and tasks;

From this point of view, planning must take into account the flows related to the tasks and also to the competencies of each department or function involved.

(3) evaluate activities performed (and point out the existing achievements and shortcomings or deficiencies found) to guide the whole planning;

Plans and planning rely on the findings and conclusions drawn from the evaluation phase, in terms of the degree of achieving the objectives. Evaluation uses a series of performance indicators or evaluative criteria whose analysis offers the image of what has been achieved and what exactly constitutes immediate priorities.

(4) making a realistic planning involving all the needed elements and resources in its materialization;

In elaborating the plan it is extremely important to involve part people who will perform those planned activities. At the same time, it is essential to follow the guidelines from the strategic level – because all the Plans are part of another big plan which must ensure that organizational efforts are heading in the right direction and also in the same direction.

(5) planning processes and activities focus towards achievable activities and relevant results.

For planning to focus on relevant and achievable results, it must put in practice and develop clear and flexible tools to support and orientate complex activities. Such tools may consist in operational procedures or in developing and applying the needed concepts such as risk management.

Planning focused on results is real, authentic, and useful for employees. It is well-augmented (on the basis of strategic guidelines and the assessment of ongoing or completed activities) but it does not get lost in details and does not become overly obsessed with certain methods, tools or indicators. Planning directed toward results is based on well-grounded data or evaluative conclusions. It is accomplished by looking at the most relevant aspects in terms of quality, value and

importance for the area of activity to which it refers and provides focused and concrete measures for action.

Planning focused toward results:

(a) is clearly relevant to the key actions of the departmental or organizational mission (depending on the level at which it is performed) and also for the strategic decisions;

(b) directly addresses what clearly requires particular attention and does not get lost in the details;

(c) favors general tasks and activities rather than the accuracy of detailed activities in order to achieve important goals or strategic orientation;

(d) resists the temptation to focus on those results for the attainment of which planning the needed activities is most easily to;

(e) delivers the processes and activities in a simple but not simplistic way;

(f) is useful -both at strategic, operational and tactical level;

(g) guides and clarifies the phases and steps to take, as well as the thinking and decision making processes;

(h) provides the clarity needed by employees to know specifically what they have to do and within what time frame.

When planning it is incredibly easy to get lost in methods and tools that bring non-essential details to attention. Therefore, applying a model of planning focused towards results obviously brings added value and makes it more than just control methods and reports. Planning means processes, measures, activities and well-reasoned tasks, aimed at achieving the most important specific actions for meeting departmental/organizational mission. From this point of view, planning must be succinct and straight to the point, but at the same time it covers the

whole range of departmental or organizational responsibilities.

Planning that does not lead to action and consequently is not directed toward results may seem technically correct at a first glance but it totally misses the overall essence for which it was developed. Such plans are not useful for taking the right actions or for developing the rationales needed for breaking down appropriate activities (1). It can be said that planning which does not lead to action:

- tends to address directly the activities/tasks without clarifying what exactly are planned for (not clearly setting the ultimate goal);

- often fails to involve the people most able to identify the necessary steps or involve them wrongly in the inappropriate phases;

- identifies tasks and processes that are far too detailed (are broken down into many other activities) and they offer a relatively narrow picture of the facts;

- fails to mention the usefulness of the final tasks or the processes planned;

- gets lost in details and the beneficiaries must go through a series of data that fails to present those important elements that they actually need to know (i.e. what actually matters, what needs to be done, what can be done in order to progress);

- the delivered conclusions and findings do not clear out the area of interest and when it is the appropriate time to take action.

Planning as a process itself implies finalizing stages in a water fall sequence. Studies in the field [1] indicate that the number of activities and tasks included in the planning stages depends on the size of the organization so that different organizations apply different planning processes.

For intelligence activity planning to be valuable it should permanently analyze the changes produced in the security environment and anticipate possible future phenomena as well as further solutions that allow the effective fulfillment of intelligence tasks. In other words planning is looking at the past and determining what needs to be done in the future, taking into account events that are likely to occur and relevant to the planning area. As presented in **Figure 1**, it analyzes the past and the future and identifies what is adequate to be done to accomplish organizational mission.

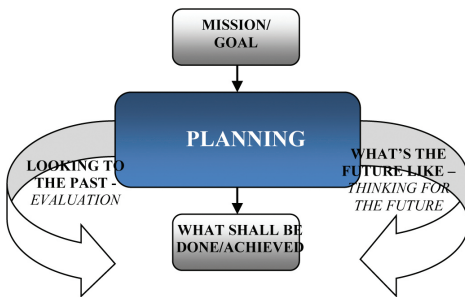


Fig. no. 1. The concept of planning in intelligence organizations

Specialists [2] indicate that planning does not take into account and is not concerned only about the future. Planning does not mean predicting and does not involve solely the future. Problems, issues and challenges are already present in that area or segment of activity which is planned for (for instance, there are situations where the starting point is a managerial risk or a possible security threat).

Thus, planning concentrates on the identification of problematic aspects and positive ones, it rises for debate and analysis important processes and ultimately delivers proposals and possible solutions to optimize operations and projects.

As far as solutions are concerned, they are related to what is already being carried out or what is initiated, and sometimes new phases/tasks are seen as opportunities to the current requirements. Most of the times there are employees who are already working on some specific tasks/activities and managers must develop plans to implement and correlate these.

At organizational level, intelligence planning must focus on both current security challenges and those likely to occur in order to analyze the implications these may generate in relation with intelligence operations and to propose viable strategies accordingly.

But what are those aspects that planning should take into account in order to keep pace and to manage the new challenges posed by the current and future security environment?

Globalization and the rapid development of technology have led to major changes of security environment. It is common sense that in the last years the rate of change has accelerated. Those who act in synergy with the current major challenges and thus prepare themselves and also prepare the organization for change will be the leaders and will dominate the future. Those who wait until these challenges will become important and current issues are the ones most likely to be left behind and perhaps never to recover. An organization that is prepared to cope with the change is the one that holds proactive managers in driving the change in the sense that Peter Drucker calls *"that future which has already occurred"* [3].

3. FEATURES OF NOWADAYS' SECURITY ENVIRONMENT

Events and phenomena that have marked the security environment at

the beginning of the XXI century show that the concept of *national security* has evolved to such an extent that its previous premises are no longer valid nowadays. Today's global realities differ significantly from those of the time when intelligence organizations and communities were established [4].

Global Trends 2030: Alternative Worlds, an unclassified document released by the National Intelligence Council of USA, provides a framework for thinking about the future, and stimulates dialogue on the challenges that will confront the global community in the next years. Therefore, it is important for planning to take into account the issues posed by new global phenomena (existing or likely to occur) and with a major impact on intelligence missions, and to identify concrete ways of adapting the organization to future implications.

"The world of 2030 will be radically transformed from our world today. By 2030, no country-whether the US, China, or any other large country-will be a hegemonic power. The empowerment of individuals and diffusion of power among states and from states to informal networks will have a dramatic impact, largely reversing the historic rise of the West since 1750, restoring Asia's weight in the global economy, and ushering in a new era of "democratization" at the international and domestic level. In addition to individual empowerment and the diffusion of state power, we believe that two other megatrends will shape our world out to 2030: demographic patterns, especially rapid aging; and growing resource demands which, in the cases of food and water, might lead to scarcities. These trends, which are virtually certain, exist today, but during the next 15-20 years they will gain much

greater momentum. Underpinning the megatrends are tectonic shifts-critical changes to key features of our global environment that will affect how the world "works".

We believe that six key game-changers-questions regarding the global economy, governance, conflict, regional instability, technology, and the role of the United States-will largely determine what kind of transformed world we will inhabit in 2030. Several potential Black Swans-discrete events-would cause large-scale disruption. All but two of these-the possibility of a democratic China or a reformed Iran-would have negative repercussions." [5]

Intelligence requirements are growing and changing along with a continuous dynamics that is shaping countries' profile nowadays. As a result, in achieving the intelligence organizations' missions few of the old assumptions referring to the need for an intelligence establishment, its missions or capabilities that give a dominant advantage over adversaries [6] apply.

The belief among intelligence practitioners and researchers is that this status quo is the consequence of the current geopolitical, social and technological context which has generated developments and changes that have forced security organizations to rethink the operational means and methods, taking into account tasks such as: sharing information with partners across country borders, developing joint operations, exchanging expertise and using common models and concepts – things that in the past, were hard to imagine.

The need to build new security architectures is identified as a result of the fundamental changes produced in the security environment, with

a major impact on intelligence missions and its specific structures, and last but not least on the concepts and definitions used in intelligence. An overview of the fundamental changes that have occurred over the past two decades underlines the significant differences between the types of national security threats from the past and those that currently constitute or appear to constitute threats for the future [4].

The old paradigm of wartime intelligence which requires special undercover efforts against a single state enemy that is often capable of launching nuclear and conventional attacks against Europe and America is completely different from the new intelligence paradigm which recognizes that the most likely and dangerous threats to occur come from non-state actors that use nonconventional weapons including hijacking aircraft and releasing virulent pandemics diseases. The new intelligence paradigm acknowledges that 90% of today's conflict situations are of a civil nature. Moreover, it also embraces the challenges and opportunities posed by open sources information - assuming that there are vast amounts of information in many languages, which do not necessarily wait to be secretly collected but mostly to be properly understood [7].

Deborah G. Barger, in her work *Toward a Revolution in Intelligence Affairs*, shows that the future of intelligence must be viewed and assessed in a broader context - the approach should be performed from a systemic level rather than by pieces, and that is why much more nontraditional participants must be welcomed for debates. To be able to manage future challenges marginal organizational changes

are not sufficient. Instead, as the author suggests [6], a revolution in intelligence affairs is needed.

Some of the issues that the aforementioned writer talked about in 2005 as solutions for the security management field have found applicability in current intelligence organizational practices and have been adopted within the various forms of international cooperation.

The goal of planning is to support organizational efforts for reaching valuable results in accordance with intelligence organization's mission. These results translate (in the case of intelligence) into preventing and combating security threats through specific means of intelligence collection and processing/exploitation. Because the security environment in which specific intelligence activities are performed is highly dynamic and intelligence missions are permanently affected by new phenomena - which occur at national, regional or global scale. For the reaction to these challenges to be in accordance with the requirements and mission undertaken - namely, immediate and useful in supporting decision makers - it requires continuous organizational adaptation and flexibility. The role of planning is to guide intelligence activities and to put the right solutions for the organization into practice to keep up and to be ahead of the current and future trends/megatrends that shape the global security environment.

4. CONCLUSIONS

Current and future challenges [8] of the security environment relevant for intelligence planning are:

a) wide variety of complex threats;

The changing nature of threats and the changing nature of peace and war have led to the multiplication of threats and in the same time of the target intelligence required. Today is needed information relating to economic and political situation in areas that formerly were minor preoccupations. In addition to the request for more information and coverage of new targets, there are intelligence requests from organizations which in the past had no need of such support.

b) impact of the new politics in intelligence;

The new politics in intelligence from today are much more open and promote transparency of the specific activity, context which has generated change in attitude regarding secrecy. U.S. intelligence policy is often shaped in the public debate and this trend is unlikely to change given the great political and economic pressures for openness. The expectations of the American public from the intelligence organizations are: prevention of any terrorist attack; anticipating any surprises; continuing to defense their right to privacy.

c) new models for intelligence;

A feature of the new intelligence environment lies in the difficulty of the intelligence collection and complexity to analyze data – to transform raw/unprocessed data into useful information. Rising costs of technical collection systems have made them to be considered values that can produce an enormous quantity of data which instead requires a very large investment before any information is collected. Some environments can be penetrated through the use of advanced technology which however can be extremely expensive and

therefore access to such systems is limited.

Today, the political and economic analysis currently used by the U.S. intelligence community has developed a series of extremely complex specialized statistical and econometric models.

d) expectations of consumers;

At national level, the structures that receive intelligence products according to the law have become more complex and with more employees. The demand for quality intelligence transmitted with a higher rapidity will increase substantially due to both free access at refined analysis from open sources and the advances produced by the current information technology that enables real-time dissemination of information-in response to the consumers' questions.

e) development of new technologies;

Characteristics of using IT (multiple and simultaneous action, along with instant answers, technological dependence and mass organization along geographical boundaries) will increase the potential for producing frequent discontinuous changes in international system. Information technology is entering the big data era and social media and cyber security will be large new markets. Citizens' fear for developing a surveillance state may lead to pressure the Governments to restrict or dismantle the big data systems.

As possible long-term planning response reactions to all these challenges I included:

- transforming intelligence capabilities (mainly of those who deal with intelligence collection from specific different sources of information) in order to permit the collection and processing of large

amounts of data and building new ones to keep up with the nature of future threats;

- identifying the processes and stages through which intelligence organization will adapt and learn how to operate effectively in an environment where the audience asks for many answers in connection with the intelligence activities. There is a need to ensure balance between organizational values which state for the perpetuation of secrecy (according to the principle of need-to-know) and new ways to share information to the public opinion;

- anticipating the requirements of information which should be collected by technical systems and also planning for long term functionality of these systems. Planning investments in complex systems must consider which targets should be covered and what are the priorities in building such systems. There is a need for long-term planning, whereas complex collecting systems requires long periods of time to develop and to be profitable must remain in production for many years;

- developing effective communication with consumers as a priority, in order to determine by mutual agreement the optimal ways for the dissemination of the various types of messages (raw information, complex analysis, transmitting questions and providing answers, etc.) and building communication systems adapted to their needs/requirements;

- intelligence organizations must identify ways to take advantage of the benefits of new technologies along with providing solutions to the new arising threats

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THE INFLUENCE OF THE EXTERNAL ENVIRONMENT ON ORGANIZATIONS

Emanoil MUSCALU*
Dumitru IANCU**
Elisabeta-Emilia HALMAGHI**

*"Lucian Blaga" University, Sibiu,

** "Nicolae Bălcescu" Land Forces Academy, Sibiu

The dynamics and complexity of external environment causes changes in organizations' overall activity. These can lead to disruptions in their work, with multiple implications, both internally and within the areas in which they act. Since the elements that are related to organizations' external environment do not evolve simultaneously in the same direction and with the same intensity, the effects triggered on these entities are different. The influences between organizations and their external environment are reciprocal: the former influence the environment through their products, services, whereas their outer environment influence organizations. Consequently, to increase the efficiency and competitiveness of organizations, the decisions of managers must take into account the aforementioned interdependence.

Key words: organization, external environment, products, services, efficiency.

1. INTRODUCTION

Organizations, as part of the social system, are comprised of members of society that have basically the same goals or interests and represent the context in which each of these members manifest and integrate themselves. The emergence, existence and proliferation of organizations are determined by the fact people, because of their limited intellectual and physical capabilities, are constrained in their activity and cannot achieve the proposed objectives. That's why organizations develop then and there when the achievement of the proposed targets exceeds people's capacity of accomplishment and requires their specialisation, as well as their integration into the community as a whole.

One of the most important features of the organization is its ability to

adapt to changes that occur outside the organization.

2. EXPLANATORY APPROACHES FOR THE OPERATION OF THE ORGANIZATION AS A SUBSYSTEM

Our society can be seen as a system composed of separate organizational structures, within which human activities take place. People, eminently social beings do not live alone, but interact. This interaction is due primarily to activities that people carry. Modern man lives and acts within organizations and the influence of the organizations on man is so strong that he becomes "the organizational man".

The organization is preset with common goals and contributes, inter

alia, at improving people's living conditions. Organizations differ in purpose and composition, methods and technologies they use to achieve their goals, they differ in the size and location of their activities and markets. In addition, they are in different economic, political and social environments and have different cultures.

Because it is a complex social organization, the organization is difficult to define. The difficulty of defining the concept of organization is determined both by the many perspectives from which the organization is analyzed, and the evolution of organizational analysis which, based on theoretical and practical contributions made over time, enshrined new ways of defining. We present below some of the definitions of the organization, in order to highlight different perspectives of approach:

"a group of people who are involved in common activities in order to achieve one or more objectives" [1];

"system in which effective cooperation is achieved by human activities" [2];

"a group of people among which structural interpersonal or multi-personal relations are established, where individuals are differentiated according to the authority, status, role and which is constituted in order to achieve some objectives or goals previously proposed, aiming to achieve a high efficiency" [3];

"tools for achieving a goal or have a specific and clear set of objectives and their internal structure is designed so that it can contribute to achieving the goals" [4];

"targeted communities focused on specific purposes and which have social structures relatively high formalized" [5] (R.W. Scott, apud M. Vlăsceanu, 2003, 2005);

"collectivities whose participants pursuit multiple interests, both different and common, but who recognize the importance of perpetuating the organization as representing an important resource. The informal structure of relationships that develop between participants provides an informative guide for understanding the organizational behavior more precisely than it is offered by the formal structure" [5];

"systems of interdependent activities linking changing coalitions of participants; systems are embedded in - dependent of continuous exchanges with- and formed by environments in which they operate" [5];

"an institution that has as its specific features: a) involves free (voluntary) adhesion of its members; b) requires a relatively specialized activity; c) its content refers to its members, although it can also work with other individuals representing their field of specialised activity; d) presents a relatively autonomous character on its birth and operation" [6];

"human formalized and hierarchical assemblies in order to ensure cooperation and coordination of their members to achieve given purposes" [7];

"a system composed usually of several people working together on the basis of certain predetermined rules in order to achieve a purpose" [1];

"two or more people working together to accomplish a task that could not be carried by one man" [8].

From the above definitions, several features of the organization can be highlighted:

a) organizations are always specialized in the sense that they have a mission that is associated with specific targets;

b) organizations are groups of people that run work processes to achieve common and specific objectives;

c) organizations cannot exist without a proper management to establish goals to ensure both procedural and structural and organizational necessary conditions to achieve the objectives and the coordination of the effort of people in the organization as well as their training and motivation

d) organizations have a formal organizational structure, focusing on principles, rules and well defined relationships, which are universally learned and respected by the group members.

The organization as an open system is directly influenced by other organizations to which it interacts and indirectly with economic, social, political, technical, legal, demographic, scientific, organizational, cultural, psycho-sociological, educational and ecological factors of the environment in which it operates. Proper functioning of the organization depends on awareness by its management of factors through which the external environment interrelates with the organization.

3. COMPONENTS OF EXTERNAL ENVIRONMENT AND THEIR INFLUENCE ON THE ORGANIZATION

Being a dynamic system, the organization takes the resources

needed from the external environment and place them in specific processes. As a result these processes there are products, services or works to be transferred to the same external environment.

The influences between the organization and its external environment are reciprocal: the organization influences the environment through its products and services and the external environment influence acting within its organization.

The external environment is represented by a set of institutions and external forces that influence survival and/or progression of the organization. It directly or indirectly influence the objectives, plans, procedures, activities and results, playing an important role in the organization. Detailed knowledge of the external environment of an organization is difficult, if not impossible. That's because the components of external environment are numerous, complex, dynamic, unpredictable and in some cases, disruptive to the organization's work. From a certain point of view, the external environment is an objective reality: a concrete set of conditions that theoretically can be measured accurately. Basically, the management of the organization is made under environmental conditions. Therefore we can unmistakably say that the external environment is a subjective reality.

External environment characteristics are:

a) uniqueness-each organization has its external environment, individual, unrepeatable;

b) dynamism - an organization's external environment is very dynamic due to the changes the components undergo;

c) sensitivity to influence - the external environment determines by many ways, the work of the organization, but at the same time supports its influences which are directly proportional to its size, position held among other organizations, the volume of activities. This feature generates, for each organization, the possibility to identify the most sensitive areas of the external environment and the opportunities it offers, as well as the adequate capitalization of those opportunities.

The components of an organization's external environment can be classified into two categories: microenvironment or specific environment and macro environment or general environment. In our work we will refer only to the global environment.

General environment holds the main place to guiding the organization's activity in accordance with society's needs and includes all general factors, with indirect and long-term action on an organization. It reflects the general conditions and trends in the society in which the organization operates. The dynamics and complexity of the environment generally causes extensive changes in the organization. These changes can lead to discontinuity in the organization, with multiple implications, depending on the size and activity profile, but also the area where the organization operates. Because the elements of the general environment do not evolve simultaneously in the same direction and with the same intensity,

triggered effects on the organization are outstanding.

Although the literature addressing general environment components is generally quite nuanced, there is a consensus to consider that the most important external factors that influence the activity of the organization are those designating demographic, economic, technical and technological, sociocultural, political, legislative, natural and internationally environment.

a) Demographic environment is defined by specific indicators and includes all demographic elements acting on the organization (the level, dynamics, population structure, number and socio-professional structure of the population, the average size of a family, the share of employed working population, etc.). It has multiple effects on the development and activity of the organization in both the short and long term. Ratio analysis determines the size and potential market demand, its evolution, and distribution in space and segmenting consumer preferences for the products and services of the organization and also for the competition.

b) The economic environment includes all elements of the economic environment with direct action on the organization and aims allocating resources in society. For this fact, the organization needs to take better decisions related to, inter alia: consumer incomes, the consequences produced by the dynamic economy at general and sectorial level, the system of taxes, changes in interest rates and inflation etc. They influence decisively the establishment, operation and

development of organization in the medium to long term horizon.

c) Technical and technological environment includes technical level of equipment available for purchase, quality technologies that can be purchased, technical and scientific quality of research, creative ability, the licenses and patents etc. Putting its mark mainly on the availability of equipment and the pace of modernization of products and technologies, it influences both the activity of the organization and management practiced in this, their consequences can be recorded in the production capacity of the organization, the rate of change offer their products and services and, not least, in production costs, as a determinant of the degree of functionality of the organization.

d) Sociocultural environment consists of elements regarding the system of value, traditions, and norms of coexistence, behaviors and demographic trends specific to a geographic area. It affects the organization's work through specific ways of linking individual and social interests, through the conscious activity of individuals and groups working in society. It directly or indirectly influences the organization, which must be tailored to geographic areas to which cooperates, because as strong as its organizational culture is, its management process changes under the pressure of cultural individuals and collective elements outside the organization when we refer to employees and new inputs to this process appear, when we refer to consumers' perceptions on products and services of the organization, from a cultural point of view.

e) Domestic and international political environment influences the organization's work: the structure of society, political forces and the relations between them, the degree of stability of the domestic political climate, regional and/or international. It can become an energizing or restrictive factor for the organization's work, as the market and economic activities are sensitive to current and future intentions of political forces involved in the management processes of a company.

f) The legislative environment influences the organization's work through all the laws, decrees and governmental decisions. The institutional and legislative system establishes the framework the organization may carry ensuring resource utilization, completing lucrative market, preventing orientation in adverse directions. We should also consider the limits provided by this environment as it affects managerial and projections views regarding the evolution of the organization and reflects the level of acceptability of the conditions set out in legal documents.

g) Natural Environment includes natural resources: water, air, soil, vegetation, and fauna. It has a major influence in the organization both by dependence on natural resources, as well as restrictions imposed by the laws and actions to protect the environment. Currently any organization is bound to use only clean technologies and to organize all activity in order to protect the environment and to combat its deteriorating, leading to the reformulation of approach of future actions, in particular, affecting

the volume costs to be incurred for compliance with this field.

h) The international environment is represented by factors outside the origin country of the organization, which may influence or affect the organization. The importance of the international environment is still growing and can have a significant influence on the organization's ability to conduct business effectively because, regardless of its size or specificity, the phenomena of globalization of business and the internationalization of organizations make their presence and consequences felt on any geographical area and at any economic level.

To increase the efficiency and competitiveness of the organization, the decisions taken by managers must take into account the interrelationships between the organization and the external environment. These dependencies can be highlighted through the most important external factors that influence the activity of the organization.

4. CONCLUSIONS

The organization is a complex, dynamic and open system, which incorporates human, material, financial, informational resources. As an open system, the organization transforms inputs into the system in goods or services which are rendered to the external environment for consumption, and represent the outputs from the system.

Being a key component of the environment in which it operates, the organization influences the external environment through the work it performs. So, adaptation of the organization to environment is active

through the influences it exerts on it.

The organization is not opposed to the external environment, but as a component of it, exerting influence and having an active role on it.

The most important external factors that affect the organization's work environment are those that designate the environment: demographic, economic, technical and technological, sociocultural, political, legal, natural and internationally.

An organization could operate efficiently if it knows the factors of the external environment as well as the changes taking place, adapting continuously to the demands of the external environment.

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FACTORS INFLUENCING CONTINUOUS ORGANISATIONAL CHANGE

Alexandru RIZESCU*
Cosmin TILEAGA**

* “Nicolae Bălcescu” Land Forces Academy, Sibiu, Romania,

**“Lucian Blaga” University, Sibiu, Romania

Change involves the continuous adjustment to the external conditions of organizations in the operating environment, in parallel with the growth of domestic stability. This process constitutes the dilemma of change-stability, which can be tackled only through a vision of the future, meaning the idorganization of organization-environment interaction along with a flexible organizational structure, the use of advanced technology and the existence of a system of rewarding employees that reflects the values and priorities of both, organizational norms and individual needs.

Key words: *organizational change, management change, organizational environment.*

1. FACTORS INFLUENCING ORGANIZATIONAL CHANGE

Organizations are faced with two sources of pressure in favor of change: external and internal. In terms of external factors, organizations are trying hard to stabilize inflows and outflows. For example, an organization may use a system just in time for the management of material resources and trying to obtain quality products in order to secure orders. On the other hand, however, the extent to which the organization is able to control the environment is greatly reduced, environmental changes must be compensated with organizational changes, if the organization is to remain effective. Change can be determined by the forces of the internal environment of the organization. Low productivity, absenteeism, turnover, sabotage, strikes are factors indicating that change management has become necessary. In many cases, internal forces that arise in response to

organizational changes are designed to deal with external factors.

Thus among the factors that trigger change, the following can be identified:

- External factors that can be controlled to a lesser extent by managers.
- The managers of the companies must respond to the changes taking place in the marketplace: new products introduced by competitors, the amplification of new products, advertising discounts to various categories of products or the improvement of services offered to customers who want to buy products or services more cheaply and better quality.
- Changes in technology by introducing computers and industrial robots that allow rapid resolution of complex problems in production and management, helping to reduce costs and improve quality.
- The increasing complexity of life generates complex communication systems, as well as social mutations.
- Internal factors acting through

changes within the organization: the decision making processes, communication, interpersonal relationships, leadership, management style, etc.

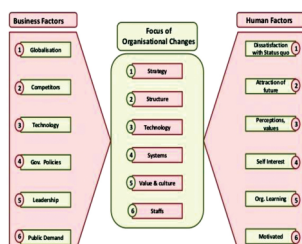


Fig. no. 1. Business and Human factors affecting organizational changes

Organizational development represents a response to changing technical, economic, political, social, cultural, that occur in the internal and external environment of the organization. The organizations work in an environment increasingly uncertain, where the changes succeed quickly. The organization's ability to adapt quickly to these changes depend to a large extent to its competitiveness and finally performance in the use of resources at its disposal. Of all the changes taking place in the external environment of the organization, the most prominent of which leads to effective organizational development actions are: globalization, computerization and management innovations.

- Globalization entails changes in the framework of the general markets of the external environment in which the organization operates. New markets, changes within the former socialist countries, developing countries in the area of Asia, etc. lead to the creation of a new world economies, with a view towards globalization trends. In these circumstances the generally and particularly productive enterprises

must adapt to the new conditions created, implying the operation of changes leading to organizational development, with a favourable effect on efficiency.

- Computerization determines changes in used knowledge from different fields. Improved procedures for the collection, storage, transmission and use of data are cost reduction and quality improvement of the products or services. Changes in information, leading to increased possibilities of information sharing between organizations determine the changes within the organization.

- Innovations in the field of managerial response to globalization and the trend of informatization creates a new structural forms of organization (for example, network type organization), the new strategic alliance what changes the way of thinking on manufacturing products or providing services. In terms of an increasingly complex and ever-changing environment, no company, no matter how powerful it may be, can no longer control the single these changes, which in turn requires recourse to various strategic alliances.

Organizational development is necessary to change the managers and subordinates mentalities within the respective organization, relating to the increase in flexibility and get its adaptation to the changes that occur in the environment, with the aim of increasing the use of resources in an efficient way. Any changes in exogenous or endogenous variables, which influence the work of the organization, shall entail changes in the organizational domain, which, under-performing organizations, should materialise in improvements of all the components of the management system. Obviously that

in the case of a solid organization, organizational development may include all or some of the issues related to the changes imposed by the variables taken into account.

Also, the employees of the organization should be helped to understand that the current organizational structure should be adapted to the new requirements involved in transition to market economy and that the current information system should be changed and transformed into an effective instrument available to managers. Obviously, their decisions need a justification, using participatory methods and modern management techniques.

This step is essential because one presumes, in effect creating the belief of human resources within the organization that the present management system and the current staff policy are not consistent with market demands. Understanding the need for change assumes knowledge of the fact that the continuation of the process of management and execution with old structures in new conditions, inevitably lead sooner or later to situations that are critical to the organization.

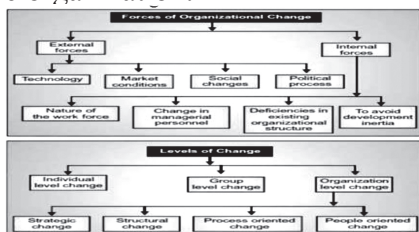


Fig. no. 2. Forces of organizational change and levels of change

2. CHARACTERISTICS OF ORGANIZATIONAL CHANGE

Relative advantage is a dimension that refers to the unique benefit brought by change, benefit

that other ideas, practices do not offer an equivalent measure. This dimension is important in the assessment stage of the decision-making process. The relative advantage of a change in the form of a higher savings influences social conflicts, psychological or security, forming a high productivity.

Impact on social relations: many of the changes are likely to have a decisive impact on the social relationships inside the "target" system and the relationship between the "target" individuals or groups from external environment. Change can create new leaders, as it can create other roles.

Divisibility: refers to the extent in which change can be implemented on a limited scale.

Reversibility: the size of the reversibility is closely related to divisibility. It refers to the ease with which it can be restored the status quo ante, in the situation where a change introduced is subsequently rejected. It is also an important dimension of the stage of adoption (change).

Complexity: the probability that a change should be done willingly is even smaller, the difficulty of use and understanding of change is greater. This characteristic is important in the assessment stage and use (change). Different individuals may respond in a manner different from other individuals. Change agents must be prepared to consecrate a considerable time explaining the technical aspects of the change and training, for the purpose of its use.

Compatibility: appropriateness of the change in which it is to be used is very important. A situation includes psychological factors, sociological and cultural. Change agents must have a considerable care to ensure

that the change harmonizes well with a number of elements, such as the values and beliefs of the group, level of education, the history of change in the organization, etc.

Communicability: the ease with which information can be disseminated to change is another fundamental feature. Some social structures are more open to direct communication between people than others. This is true both for major social groups, as well as in the case of small groups. In addition, some topics are more appropriate as interpersonal direct communication than other people. Communication is important in the phase of awareness and it is of interest to the decision-making process.

Time: the speed at which a change is introduced is an important factor. There is a need to think in terms of an optimal time. The most appropriate pace of change may not correspond to the maximum possible rate. The change can then be introduced too quickly or too slowly. This size is considered as a criterion in the selection of strategies for change.

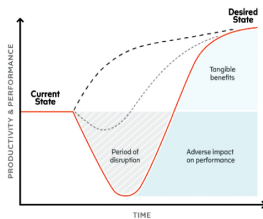


Fig. no. 3. Change curve (productivity and performance versus time)

3. STRATEGIES FOR ORGANIZATIONAL CHANGE AND DEVELOPMENT

Organizational development is a continuous and planned effort to change organizations to become more effective and more human. The

fact that organizational development is planned a different from routine or accidental efforts taking place in all organizations. Continuous efforts of organizational development in at least two senses: they stretch over a long period of time and become elements of organizational culture.

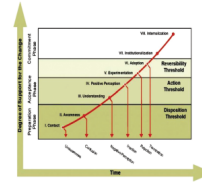


Fig. no. 4. The commitment curve of the organization

Forming team spirit is a strategy aimed at increasing the effectiveness of work teams by improving interpersonal processes, clarify objectives and roles. The term spirit may refer to permanent work teams, operative groups, departments, or people from different sectors of the organization that must work together to achieve a common goal. The formation of the spirit of usually starts with a diagnostic session held often far from work, in which the team evaluates its current level of functionality. The objective of this phase is to build a picture of the strengths and weaknesses of the team, and the ideal result is a list of changes required to improve the functioning of the team.

Total quality management is a systematic attempt to achieve continuous improvement of the quality of the products and/or services of the organization. Among the typical characteristics of TQM (Total Quality Management) include the focus on customer satisfaction, the concern for good relations with suppliers, continuous improvement

of work processes, prevent errors, quality metrics and evaluation, extensive training and the involvement of employees.

Reengineering is a radical redesign of organizational processes to achieve major improvements in terms of time, cost, quality or service. Do not adjust the existing posts, structures or technologies, but rather a question of “what we are dealing with?” or “If you were to create the organization today, how would it look like?”. The strategy can be applied to the entire organization or just a department. Essentially, a large portion of reengineering is geared towards one or more goals like reduction of intermediate steps to streamline the process; strengthening cooperation between those involved in the process. This strategy is extended in areas where bureaucracy is at high limits, large gains are possible through advanced technology and deregulation of competition. Such fields are insurance, banks, brokerage, or telecommunications.

Downsizing consists of a set of activities centred on the management of the organization in order to improve efficiency, productivity and/or competitiveness. The adoption of this strategy affects both the number of people working in the organization, and the processes of work. Four characteristics of this strategy are considered essential to distinguish phenomena such as organizational decline or even dismissal:

- it involves a set of actions undertaken intentionally.
- although the strategy involves downsizing, there are a number of strategies associated with this, such as transfers, assistance to people in

order to find a new job, etc.

- it is centered on increasing the efficiency of the organization.
- it affects work processes, whether intentionally or unintentionally.

If the size of the reduction strategy has been appreciated and adopted as a solution for increasing performance and competitiveness, it is important to know what line exists between the initial expectations and achievements. It seems that the effects are not far from the expected ones. When the strategy was used, with no previous training, it has produced serious organizational dysfunctions, especially prominent in the impossibility of introducing any form of improvement of activity and even in increasing organizational inefficiencies.



Fig. no. 5. The organizational development process

4. CONCLUSION

Organizational development is the road to take when approaching organizational change because it plays an important role in organization self-assessment, as well as in assessing the external environment, the development of new strategies and the design of new organisational structures, generally in increasing economic efficiency. All the steps required by organizational development are aimed at the ultimate change of the management system and the overall behaviour of members within the organization,

for the purpose of its adaptation to the new conditions imposed by exogenous and endogenous factors.

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AN OVERVIEW OF DEFENSE TRANSFORMATION FROM A MANPOWER AND PERSONNEL PERSPECTIVE

Sorin SAVUT

Human Resource Management Directorate, Bucharest, Romania

The aim of this paper is to place armed forces transformation into the context of defense transformation. As such, it will focus on describing, sometimes using the exact words, the approaches taken by the United States, United Kingdom and Romania towards adapting to the current and future security environment. Thus, it claims no originality its sole focus being that of allowing the reader to make an implicit comparison between various perspectives on transformation.

Key words: defense transformation, manpower, personnel.

1. US ARMY QUADRENNIAL DEFENSE REVIEW 2020

The United States faces a rapidly changing security environment. They will be able to focus on the strategic challenges and opportunities that will define the future: new technologies, new centers of power, and a world that is growing more volatile, more unpredictable, and in some instances more threatening to the United States. Challenges to many allies and partners around the globe remain dynamic and unpredictable, particularly from regimes in North Korea and Iran. Meanwhile, modern warfare is evolving rapidly, leading to increasingly contested battlespace in the air, sea, and space domains – as well as cyberspace – in which US forces enjoyed dominance in the most recent conflicts. Doing so will require exceptional agility in how they shape, prepare, and posture the Joint Force.

To protect the security interests of the United States most effectively

while recognizing the fiscal imperative of deficit reduction, the President's FY2015 Budget reduces projected defense budgets by about \$113 billion over five years compared to levels requested in the FY2014 Budget [11].

Given this dynamic environment, the 2014 Quadrennial Defense Review (QDR) was principally focused on preparing for the future by rebalancing defense efforts in a period of increasing fiscal constraint. The 2014 QDR advances three important initiatives:

a. First, it builds on the Defense Strategic Guidance, published in 2012, by outlining an updated defense strategy that protects and advances U.S. interests and sustains U.S. leadership;

b. Second, the QDR describes how the Department is responsibly and realistically taking steps to rebalance major elements of the Joint Force given the changing environment.

c. Third, the QDR demonstrates the intent to rebalance the Department itself as part of the effort to control internal cost growth that is threatening to erode our combat power in this period of fiscal austerity.

From a Human Resources area point of view the force will become smaller in the next five years but will gradually become more modern as well, with readiness improving over time.

Key end strength and force structure decisions in this QDR include:

a. Maintaining an Air Force with global power projection capabilities crucial for this updated defense strategy. We will modernize next-generation Air Force combat equipment – including fighters and bombers – particularly against advancing modern air defense systems.

b. To sustain this force, the Department will rebalance within the Army, across the Active, Guard, and Reserves. The active Army will reduce from its war-time high force of 570,000 to 440,000-450,000 Soldiers. The Army National Guard will continue its downsizing from a war-time high of 358,000 to 335,000 Soldiers, and the U.S. Army Reserve will reduce from 205,000 to 195,000 Soldiers. If sequestration-level cuts are imposed in FY2016 and beyond, all components of the Army would be further reduced, with active duty end strength decreasing to 420,000, the Army National Guard drawing down to 315,000, and the Army Reserves reducing to 185,000.

c. Preserving Naval capacity to build security globally and respond to crises. Through an aggressive effort to reduce acquisition costs and temporary ship lay-ups, the Navy will modernize its fleets of surface ships, aircraft,

and submarines to meet 21st century threats. If sequestration-level cuts are imposed in FY2016 and beyond, the USS George Washington aircraft carrier would need to be retired before scheduled refueling and overhaul.

d. Maintaining the role of the Marine Corps as a vital crisis response force, protecting its most important modernization priorities and ensuring readiness, but planning for an end strength of 182,000 active Marines. This end strength includes almost 900 more Marines for the Embassy Security Guard program, which will protect U.S. interests and installations abroad. If sequestration-level cuts are imposed in FY2016 and beyond, the Marines would continue their drawdown to an end strength of 175,000.

As the Joint Force rebalances so that it remains modern, capable, and ready, the Department will take the following additional steps that are consistent with the President's FY2015 Budget submission to protect key capability areas in support of strategy:

1. Cyber. They will invest in new and expanded cyber capabilities and forces to conduct cyberspace operations and support military operations worldwide, to support Combatant Commanders as they plan and execute military missions, and to counter cyberattacks against the United States.

2. Missile Defense. They are increasing the number of Ground-Based Interceptors and deploying a second radar in Japan to provide early warning and tracking. They will make targeted investments in defensive interceptors, discrimination capabilities, and sensors; and they are studying the best location for an additional missile defense interceptor

site in the United States if additional interceptors are needed.

3. Nuclear Deterrence. They will continue to invest in modernizing essential nuclear delivery systems; warning, command and control; and, in collaboration with the Department of Energy, nuclear weapons and supporting infrastructure.

4. Space. They will move toward less complex, more affordable, more resilient systems and system architectures and pursue a multi-layered approach to deter attacks on space systems while retaining the capabilities to respond should deterrence fail.

5. Air/Sea. They will continue to invest in combat aircraft, including fighters and long-range strike, survivable persistent surveillance, resilient architectures, and undersea warfare to increase the Joint Force's ability to counter A2/AD challenges.

6. Precision Strike. They will procure advanced air-to-surface missiles that will allow fighters and bombers to engage a wide range of targets and a long-range anti-ship cruise missile that will improve the joint ability of U.S. air forces to engage surface combatants in defended airspace.

7. Intelligence, Surveillance, and Reconnaissance (ISR). They will rebalance investments toward systems that are operationally responsive and effective in highly contested environments, while sustaining capabilities appropriate for more permissive environments in order to support global situational awareness, counterterrorism, and other operations.

8. Counter Terror and Special Operations. They will grow overall

Special Operations Forces end strength to 69,700 personnel, protecting our ability to sustain persistent, networked, distributed operations to defeat al Qaida, counter other emerging transnational threats, counter WMD, build the capacity of partners, and support conventional operations.

I believe that in 2020, US Army will still be the most powerful military in the world. Why? They analyze what quantitative forces need but also very important what quality of forces need and make the right decision. Decision point was to reduce almost 153.000 military in the best case scenario and 213.000 military in the worst case scenario from 2014 to 2019

More than 1 million men and women under arms - present in more than 130 countries and at sea - will still possess capabilities in every domain that overmatches potential adversaries. From my personal point of view the essentials of the 2014 QDR are correct.

Actually, US Forces start to change and transform the manpower and personnel system from quantity to quality aspects. Last year, in 2015 they launched a debate about up or out system for officer promotion and try to create more flexible personnel management and compensation system. At the present, the Services' ability to vary the duration of assignments and careers, as well as of compensation, of different personnel in different occupational specialties is extremely limited. Conversely, some military careers are too long, or personnel may be overpaid in comparison with their skills. The main objective is to recruit and retain the right people with the

new skills and competencies for the new equipment and to invest in the education and training system.

They need to cut the budget with \$113 billion until 2019. The changes required for institutional reform are unpleasant and unpopular, but they need to reduce excess infrastructure, slow the growth in military pay and compensation, and retire equipment that they do not need. Savings from these and other reforms will help them modernize, will add to research and development investments, and will provide needed funds to recover readiness. In this respect, they cut from regular forces and invest in education, training and new equipment.

I believe that dramatic changes will be needed in all of these by 2025. Some of these changes are well-known and outlined in the QDR. Some of these changes are only dimly perceived today and need encouragement and direction. Innovation is the military imperative and the leadership opportunity of this generation[2]. From this prospective, they are the best-trained, best-equipped, and best-led fighting force on the planet. That takes time, it takes money.

2. UK ARMY, MOD REVIEW 2013-2020

"We go from a Regular Army of 101.000 and a Reserve of 19.000 to one Army of 112.000, an integrated Army, that's the difference..."

Lt. Gen. Adrian Bradshaw,
Commander Land Forces.

On 5 July 2012, the Secretary of State for Defence announced that the future Army will consist of around 82.000 regular personnel and around

30.000 trained reservist, that means 112.000 personnel integrated in Army.

Before this statement, the UK House of Common adopted the Strategic Defense and Security Review as effect of Summit from 2010. They improve and set out of paper "Transforming the British Army 2020" and was updated in 2013.

The new concept, Army 2020 designed a new integrated structure of Regular and Reserves that could meet three broad requirements through a clear delineation of roles through a Reaction Force and Adaptable Force supported by Force Troops¹². These three pillars was designed from the mission what they need to fulfill. The Reaction Force will provide a high readiness force that will undertake short notice to move in a specific area of operations accordingly with NATO guidance and provide the Army conventional deterrence for Defense. Second pillar from manpower view is Adaptable Force and will comprise a pool of Regular and Reserve forces that will consist of 7 infantry brigades and a logistic brigade. The last pillar will be Force Troops which was designed and develop for support the Reaction Force and Adaptable Force. This structure will provide specialist troops for sustainment with a range of capabilities such as artillery, logistics, intelligence and signal.

The key point for all these forces will be training together as a single Army 2020. Transitions will take place a period of huge change and constraints, economically and environment. For a good integration of this plan, two organization will be supporting Army 2020 – the Defence Infrastructure Organisation and Defense Equipment and Support.

In a manpower area the impact of delivering Army 2020 was a huge change. Some big issue with a lot of staff procedures was needed to improve as follows:

- withdraws from Germany of British contingent;
- moves to its new locations in the new Army 2020 structures;
- adopt a new force preparations cycles.

From manning personnel system was a big challenge because the final reduction of the Regular Army from 101.000 to 80.000 will be achieved in 2018. Accordingly with the paper around 3800 personnel were made redundant in Redundancy Tranches 1 and 2 and some 4500 personnel are being made in Tranche 3. These reductions it is vital to emphasize that in order to maintain manning balance and institutional vigor.

The team from UK MoD design a new structure and redistributed personnel across the Army. For example, 1600 combat personnel from Royal Armored Corps and Infantry units need to be redistributed. Transfers will be prioritized to units nominated to deploy on operation and to high readiness elements including Special Forces and Parachute Regiment.

Other challenge will be to improve the recruitment system and selection process for a good balance between career opportunities and what Army 2020 need. For this perspective area they will implement the New Employment Model, which consist individual components in order to recruit and retain personnel of the right quality as well as enabling the services to respond more quickly to changing manpower requirements. In this respect UK MoD is being

specific areas to develop in policies and rules as follows:

- a. Value and Reward system – including payments, consolidation of allowances, expenses and a broader, strategic examination of Service Children's Education and its linkage to the Continuity of Education Allowance;
- b. Future Accommodation – including a purchase incentive to assist Service personnel who want to buy their own home;
- c. Terms of service – reduce commitment working;
- d. Training and Education – including a Personal Development Pathway.

This new concept, Army 2020 is underway to develop and introduce a new career development framework (career structures, career management, individual training and education, conditions of service for Regular Forces and Reserve, supported by a single Human Resources management) and the final step the Armed Forces Pension Scheme 2015.

On the other hand but in the same way they develop Operation Fortify which means to deliver a sustainable Army Reserve of 30.000 by 2018 to meet Army's Defence outputs as part of the integrated Army of 112.000. It focus on the immediate work to grow the Volunteer Reserve from 19.000 to 30.000.

This new operation will initiate and supercharges recruitment and training to:

- expand training capacity;
- increase inflow (recruitment);
- reduce losses throughout training;
- bolster retention.

In my opinion this plan could work very well because the UK MoD have a good plan, with some decisive point and objectives, with a good vision what they need and for what reason they made these changes. It takes time to switch and develop new rules but with some resources they will perform very well. Change takes time and money and a good vision for new Army 2020.

3. ROU ARMY, MOD REVIEW 2027

According to the Activity Report for 2015 from MoD [13], Romanian armed forces remains the fundamental institution of the state that enjoys one of the highest levels of trust among citizens, and for good reason. Strategic Partnership with USA, membership of NATO and that of European Union have been and remain fundamental pillars of Romania's foreign policy.

Within NATO, Romania is appreciated as predictable and reliable ally. The geopolitical context is complicated, and Romania remains an anchor of stability in this region. Our country will continue to be a security provider at the eastern border of NATO and the European Union. In this capacity, we have the responsibility to ensure and strengthen at the same time, the national defense, but also to help ensure collective defense within NATO. Increase of the budget for defense at a level of at least 2% of GDP, which hope to achieve in 2017, and maintaining at least that level for at least the next 10 years is crucial in this direction.

Romania participates actively in strengthening NATO, and Allies contribute, in turn, to strengthening the eastern flank, thus to strengthening the security of Romania at the Black Sea. I want to mention in particular the US decision to significantly increase the budget allocated to European Reinsurance Initiative. At the same time, the establishment in Romania of NATO Forces Integration Unit and Headquarters Multinational Division South – East are designed to strengthen the deterrence and defense posture of NATO.

The operational status of the anti-missile shield from Deveselu, and especially, the authority transfer of this defensive system to NATO add to the participation in operations and missions under Security and Common Defence Policy of the European Union, in regional initiatives, collaborations at bilateral level on the line of ministries of defence, especially in the context of the Strategic Partnerships with the US, France, Poland, Turkey, as well as constructive engagement of cooperation partners, and other relevant partners.

Moreover, there is further need to increase the operational capacity of the Romanian Army in conjunction with the allocation of funds for endowment, including major equipment. To materialize this priority of the Ministry of Defence, there may be considered a Strategic Review of Defense – mentioned, in the report too, given the developments in the security environment, review circumscribed to the legal framework in force or about to be drafted. I have in mind mainly some strategies and policies as follows:

a. National Strategy of Defence for the period 2015 – 2019 – whereby there was defined the framework in which Romania operates in matters of national security;

b. White Defence Paper – which was approved two months ago in 2016 in Parliament's houses;

c. New defence planning law which was approved in last decade of april 2016;

d. The program of transformation, development and procurement of the Romanian Army until 2027 and in perspective;

e. Law on the status of military, sergeants and privates, and the new Military Career Guide – expected to be promoted this year.

When it comes to the issue of equipping the army, I am thinking about cooperation with national defence industry too. Beyond the beneficial effect of creating new jobs, we will essentially follow the best interrelation between revamping the defence industry and equipping the army. Finally, in this moment of evaluation, I think once again of those of you who are now, in the theatres of operations, in various missions, serving under the flag.

Improving the training level of the Romanian troops is one of the main priorities taken into account in the process of planning financial defence resources. Starts from 2014, the number of bilateral or multinational training exercises conducted in Romania increased with over 25 percent. In 2015 over 400 major exercises were conducted, of which 112 were bilateral and multinational.

As a measure of the Readiness Action Plan of the Alliance, Romania included a significant number of

multinational exercises in NATO program of exercises.

The financial allotments forecast for 2016 will allow keeping the increase rhythm in the field concerning the complexity and number of participants in the exercise.

The composition of the Romanian Forces - 2027 will be precisely established in the future. This imposes the identification and definition of each and every assignment according to rank, specialty and necessary equipment. After the new law will be approved by Parliament the personnel, will be managed in accordance with laws and the personnel policies.

In my opinion it takes time to have real transformation but with multiyear plans and resources 2% GDP for new equipment acquisition, improving new education and training system based on motto “we train as we fight” the ways of changes is going faster.

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ATTRACTING AND MOTIVATING EMPLOYEES DURING CHANGES IN ORGANIZATION. THE ROLE OF THE HUMAN RESOURCES DEPARTMENT

Emanoil MUSCALU*
Florian CIOCAN**

* Professor Dr., “Lucian Blaga” University, Sibiu, Romania

**“General Eremia Grigorescu” Application School for Combat Support
Units Sibiu, Romania

The success or failure of an organization is intrinsically linked to how managers treat their employees. The role of motivation is not just to make people work, but to make them work well, causing managers to use in full physical and intellectual resources. Where there is motivation, there is productivity and performance, and people are happy. In other words, everyone wins. Motivation and retention are crucial in the success of not only at the organization level, but also at the level of any department, project or plan and, arguably, are one of the most important areas of responsibility of a manager.

Key words: *human resources, employee motivation, organizational change.*

1. INTRODUCTION

Motivation is the most important force that pushes and focuses the actions of each of us towards success. In a dynamic market economy, the level of motivation of employees of a company determine its progress. So, in the twenty-first century, business leaders must take on an important mission: to motivate employees towards performance and to retain or attract talented people.

Managers must adapt their internal policy of motivating the employees depending on the age of the employees, departments and personal aspirations of each employee, so as to determine the productive behavior. They have the greatest influence in increasing employee motivation and steps at a high level. Motivation can be of any kind. The highest degree of satisfaction among employees is given

the financial rewards, employees must be compensated through other forms. Leaders' challenge is to define a series of motivational factors, going beyond salary and it may refer to values, personal development, improvement of the working environment, autonomy, learning opportunities, etc.

The problem of motivation refers to the determination of the means by which members of the organization, each with their own needs and with its own personality, can be stimulated to contribute positively and effectively to achieve the objectives set. In general, the term motivation is an internal state of emergency and it means conducting environmentally conscious behavior and direction to satisfy needs. Motivation is one of the most important problems of any organization, this whereas the relationship between the organization

and its employees is governed by the reasons that employees feel involved in their work. The consequence of this is that the management of the organization has to be able to translate the objectives of the organization at the level of the employees correlated with their personal objectives, because only in this way the organization becomes effective and may achieve its objectives. For any manager it is important to know that every employee represents a distinct personality and that they must be treated individually and not in a group. Within an organization every employee plays several roles, which puts its mark on its behavior or the needs. Motivation in the workplace involves a behavior characterized employee interests, orientation and persistence in carrying out its tasks. This behavior does not depend only on the individual or the context in which they work, but is an interaction between the personality of the individual and the work environment.

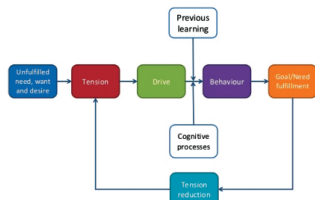


Fig. no. 1. Model of the motivation process in an organization

Concerning motivation, it is important to analyze Herzberg dual factor motivational process. Developing and modifying the hierarchy Maslow theory of needs, Frederick Herzberg reached the conclusion that there are two groups of factors that influence the employee's feelings towards his work:

- Motivators factors: factors that lead to extreme satisfaction: self-update, recognition, self-work, responsibility.

- Hygiene factors: the factors that lead to an extreme dissatisfaction: interpersonal relations, company policy, control, wages and working conditions.

The focus of this theory lies in the assertion of the discontinuation between the factors that produce the satisfaction and those that cause dissatisfaction in professional activity. The new lies in the fact that, unlike a traditional conception which considers all factors that can determine both rewarding and dissatisfactions, Herzberg says that work satisfaction is determined only by a certain kind of factors, namely those motivators, and dissatisfaction is caused by another type of body, called hygiene factors.

Motivators factors are closely linked to the specific nature of work and acts towards mobilizing people to work better. Hygiene factors or maintenance not related to both the content of labour itself as the conditions in which is done. The main criticism levelled at this theory refers to the fact that, in this sense empirically, Herzberg was concerned about more than just the work satisfaction in work behavior. However, the model or interpretation proved and is still suitable for employees from category specialists and personnel occupying leadership positions, being especially important for managers.

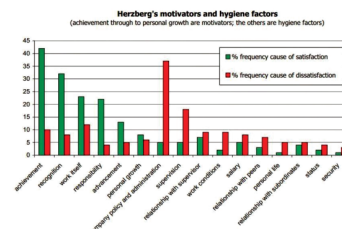


Fig. no. 2. Herzberg motivators and hygiene factors

2. THE ROLE OF HUMAN RESOURCES DEPARTMENT IN THE CONTEXT OF CHANGE

As it is well known, the survival of an organization depends on the change, which may be divided into four levels: changes in knowledge, attitude changes, and changes in individual behavior and behavior change at the level of the group or organization. Most easy are those at the level of knowledge, followed by changes in attitudes. Structures differ from the attitude knowledge structures in that they are emotionally charged, positive or negative. As regards the changes of behavior, they are more demanding and consumes much more time than the other two above. In turn, changes in group and organizational performance are probably the ones most difficult and time consuming. An organization's survival may depend on the degree to which the behavioral sciences are able to solve the clashing with the understanding of the change and its implementation.

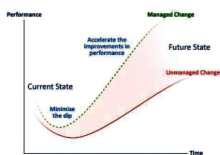


Fig no. 3. Performance – time relationship in the context of organizational change

The fundamental role of the management team, in the case of a change of approach, is to ensure that the structure and culture of the organization is be able to assimilate the processes in order to improve the activities, tasks and operations. Structural change management refers to the way in which functional units are organized to carry out responsibilities related to change.

Under this management, policies and procedures are covered, rules and instructions, human resources management, and equipment. Management of structural change takes place at the level of the organization's infrastructure. Cultural change management refers to how employees interact with each other, with their managers and the existing relations top/subordinate. Change management takes place at the cultural level of the people, which involves greater difficulties.

The human resources are the most important strategic resource of an organization. Human resources are unique in terms of their potential for growth and development, in their ability to overcome-and know their limits. An organization's success, the degree of competitiveness of its start from the premise that people are the most valuable asset of the organization. Human resources constitute the human potential that must be understood, particularly motivated and involved as fully in achieving the objectives of the organization. To do this, the decisions in the field of human resources management should be tailored to personality traits.

Nowadays, in terms of human resources management, people are not only employed to fill certain vacancies but also their important role you can have in the organization, each separately and as a whole. Human resource management is a relatively recent term for what was traditionally called "activity". Unlike other areas of general management within an organization, human resource management serves both the interests of the organization (of employer) as well as those of employees and the community where the organization works.



Fig.no. 4. The importance of human resources department

The continuous change has always been an element of everyday business world. In order to remain vital and competitive, organizations must constantly adapt and to undertake major changes affecting all elements of a company. Change management is increasingly seen as a permanent task for improving the efficiency and adaptability of the market competitive companies. Many companies use change in a strategic way to improve organizational effectiveness. Most times when it takes a change in focus is on changing the systems, processes and organization, while the appearance of the people is often forgotten. Human resources managers are often considered (or consider) the most indicated to support the processes and dynamics of change. HR often takes on the role of supporting managers in the implementation of initiatives of change. But in order to specify this clearly from the beginning, the change will not happen successfully if the responsibility of leading the change is simply "taught" department of human resources. Change management is the responsibility of leadership, change, leadership requires changing the start even with the management level.

- Managers are responsible for vision and instructions-change managers will line up these visions

- Employees shall take as example the direct managers,

managers will be changing patterns of attitude and behavior

- Managers develop company-changing managers and employees develop their manager responsibilities, asking their employees (managers in change) to assume full responsibility over changes.

Communication to a great extent determine how the change initiatives are perceived and supported. In this sense, the human resources function can keep pace and to improve their communication skills. Communication which fails to involve employees and to inform about the reasons, expected benefits and processes behind the changes could lead to a lack of acceptance on the part of employees and thus the failure of initiatives of change. To prevent this, employees must be involved in change initiatives for them to increase levels of acceptance. The department of human resources can play an important role if it is involved from the beginning in the initiatives of change. To ensure the alignment of stakeholders involved at all levels of the organization, HR department can stimulate and facilitate the change process by offering support and guidance to managers and communication elements, including description of the role of managers in supporting change management.

The necessary conditions for a successful organizational change can be achieved by proposing 3 terms and conditions required for a successful organizational change, taking into consideration the nature of the human resource of the organization, including its irrational and unpredictable dimensions:

- proposed development of a process for appealing motivations;

- developing a rationale proposal for the change initiative;
- strengthening the mechanisms for implementation and support of change.

The conditions for organizational change are explained below.

Building organizational capacity for change, both at the individual and organizational level

From an organizational change perspective, people have various professional motivations. Hence the motivation or justification of the change process required to generate the change must have multiple versions, which speak to each person involved. People get involved with up to 5 times more in an action if you have a word to say. The development of motivation to change is more effective if it is done with the involvement of employees and listening to their proposals. The balance between a poor approach and a constructive approach to the change process generates enough energy for change. Poor change approach highlights a lack to be compensated or a problem to be solved, can generate resistance to change. Constructive approach to highlight a change of purpose or an opportunity to be exploited. Balancing the two types of approach allows overcoming obstacles and mobilizing the whole organization in an optimal way.

Providing a behavioral model leaders in the organization, regardless of the level of management

In practice, employees can be leaders in organizational change or can be a resistance to change. Opinion leaders are not so influential. Is not necessary for the organization to invest too much in opinion leaders as tie elements of change because, in

reality, its success depends on early adopters, and more than the degree of acceptance of the environment (society).

Strengthening mechanisms of implementation and financial support of employee

Motivation change is the most expensive method of motivation. Although the correlation between the achievement of the objectives of the programme for change and reward the employees it is recommended, however it was found that there are other efficient and less costly programmes. Implementing (ethics) of the process of change is just as important as a correct result (ethics). It was found that when the change to be implemented is in violation of its own system of values related to equity and fairness, employees will operate most often against their own interest. Therefore, it is recommended that the process of changing to be designed taking into account the accuracy of the (ethics) both in the period of implementation, but also in terms of targets.

Building organizational capacity for change

Performance and behaviour which generates employee behavior is their mentality: the totality of the thoughts, feelings, beliefs, etc. Good intentions are not enough. Even if employees are well intentioned they will integrate the new mentality and new abilities in the absence of a suitable climate. It is recommended to create an environment in which communication with employees is encouraged, as well as the establishment of intermediate targets to support and guide the change process.

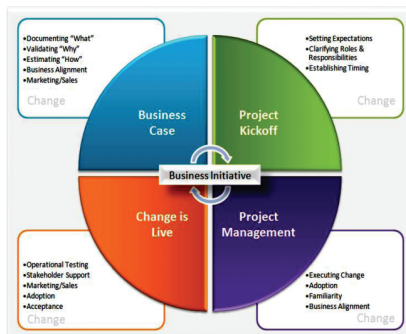


Fig.no.5. Transformational HR change process

3. CONCLUSION

The human resources policy regarding the leadership of the organization, has to manage each employee's activity. For this it is necessary that the elements of that policy should be detailed and materialized at each hierarchical level. The establishment of a correct policy in human resources must take account the importance of personnel from the company, liability with the leadership and the objectives of the enterprise, while motivating employees and retaining talents.

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MANAGEMENT STYLE AS A TRIGGERING FACTOR FOR ORGANIZATION EFFECTIVENESS AND EFFICIENCY

George BUCATA*
Alexandru Marius RIZESCU**

*“Lucian Blaga” University, Sibiu, Romania,

**“Nicolae Bălcescu” Land Forces Academy, Sibiu, Romania

By adopting a proper management style, the primary mission of a manager is to facilitate individual and collective performance, to create the conditions required to obtain a good yield. This is because the performance of individual and collective yield lead, ultimately, to profit and at the opening of new opportunities for development, both at the individual level and at the level of the organization.

Key words: management style, performance management, leadership styles, leadership performance.

1. MANAGEMENT STYLES. THE ULTIMATE TOOL FOR PERFORMANCE

The management styles that leaders adopt will have a major influence over all activities in the organization, organizational climate and labour productivity. It is therefore very important for the manager to be aware of the advantages and disadvantages of leadership style, but also on how it is perceived by subordinates. The leadership is an essential element of life, a key factor in the efficiency of organizations. Throughout life, humans are part of an organisation, therefore the need for a proper management style in the organization is one of the most important factors in gaining advantage on the market. The success of the organizations of the 21st century will largely depend on the search for, discovery and efficient use of talented leaders, respectively of those imaginative people, full of curiosity, perseverance, hard-working, focused on ideas, qualified, capable of encouraging diversity, attention

to environmental challenges, with permanent availability to turn vision into reality.

Leadership styles reflects the way the managers are exercising their functions, the role they have in work management and organization, training and stimulating subordinates to meet objectives. The knowledge and assessment of leadership styles in particular are becoming more important to leadership effectiveness. The influential factors that generate or influence leadership styles are: Physical and constitutional factors (age, height, weight, psycho-physical characteristics); Psychological factors (general intelligence and integrity of character); Psychosocial factors (sociability, prestige); Sociological factors.

Currently, modern organizations are not built with large numbers of hierarchical levels in which the supervisor knew almost each moment. Increasingly more, the organization opts for structures flat, while vertical command structures are reduced. In these circumstances, the head no longer closely follow each other.

Also, the amount of information that circulates within the company and beyond is so large that it is absolutely a necessity to involve an increasing number of employees to face "the avalanche of information" and to take full advantage of content. The manager role is more complex now and it will not only act as a person who holds "absolute truth", adopting decisions to impose on others, but will act more as a facilitator, as a mediator that will enable the manifestation of personality, knowledge of workers and on this basis, he will take the best course of action. Leaders must therefore ensure an appropriate organizational framework for the company's employees to show their skills and initiative to capitalize knowledge levels as high as possible without the need for any supervision or build rigid or sophisticated control systems. Increasingly, there is a significant need for decentralization and delegation from central to lower levels. It does not mean that there is a dilution of authority, but that the organization is accountable at all levels of decision.



Fig.no. 1. The roles of a manager/leader in the organization

Generally, leadership is the process by which a person, a leader, through the use of interpersonal relations, one or more people acts in order to achieve the objectives set out, on the basis of a strong and attractive scheme. One of the major challenges faced by managers/leaders, people with key positions

in an organization is to create and maintain an organizational culture that would be consistent with the objectives and nature of the activities carried out under it. It is a problem of integration of individual capacities and expectations with organizational ones, to meet successfully the business environment in which it operates, and each of the parties to be satisfied with the result obtained.



Fig. no. 2. The changing roles of managers and management operations

The leadership style is largely an unconscious process and depends on the manager's personality. The manager understanding the processes and alternating between management styles depends on the situation of different styles, can significantly increase the efficiency and team cohesion, especially in critical situations. The management styles can be analysed from different points of view. Starting from an emotional point of view, we can classify management styles as: visionary style, advisory style, team style, democratic style, promoting style and dominating style.

- **Visionary style** positively affects the emotional climate and transforms the spirit of the organization at many levels in the sense that the leader is the one who articulates a goal that must reach the organization but does not impose a way of carrying it, allowing employees to innovate, to experiment, to take risks. Visionary leaders are the ones who know how to retain good employees, are the ones

that help them to understand how to integrate their work at the level of the organization. Emotional intelligence skills that a visionary leader needs are: inspiration, openness and empathy. The inspiration is important in driving the visionary style because through its visionary character, leaders promote the vision in which they think and that is consistent with the organization's values. The existence of the visionary style transparency is explained by the fact that to be credible leaders must believe in what they boost. Therefore, transparency involves honesty and sharing information and knowledge in order for employees to feel that they are part of the company.

- **Advisory style** adopted by the leader who is in close relations and establishes trust with employees, which is really interested in the fate of the people around him. Advising requires continuous communication with employees and at the same time giving their feedback. Leader counsellor helps people to identify strengths and weaknesses, encouraging them to build targets for long-term development. The fact that leaders are helping people both professionally and on a personal level motivates a lot more. This leadership style can improve employees capabilities and strengthen self-confidence, but if the employees are not motivated or need a lot of guidance and feedback, they fail. Emotional intelligence skills that characterise this style of leadership are emotional self-knowledge and empathy. Emotional self-knowledge is important because it creates genuine leaders, able to give tips that are useful. Empathy is important because the leaders listen, and then give advice.

- Leaders who move towards people and their feelings and less

on their emotional needs represent the **team management style**. Team leader wants harmony and wishes that his employees to be happy and not least wants a team more resonating. Subordinates of a team leadership are extremely loyal to the manager. Fundamental emotional intelligence ability within this management style is empathy which allows the leader to maintain the employees' satisfaction through its interest towards professional and personal life. Conflict management uses the team style when the problem involves the linking of different individuals who even are in conflict, to create a harmonious group.

- **Democratic style** has an impact as positive climate, characterized by brainstorming. Emotional intelligence skills which can be found in this style of leadership are: team spirit and cooperation, conflict management and influence. The democratic leader's advantage is listening. Empathy is important because if the leader does not know how to create a homogeneous group, is liable to mistakes.

- **The promoting management style** can be used within certain limits. The leader of the promoting style requires high standards of performance, wants to do things as quickly and as possible, is focused on his goals, does not provide a lot of guidance. This leading subordinates may feel pressured to too much of its requirements. All these things affect the climate in the workplace because the pressures of leadership can cause anxiety among employees and destroy innovative spirit. Emotional intelligence ability that underlies the promoting style is the ambition because the promoter is trying all the time leader to overcome himself, to find new approaches to improve performance both for himself and

for those he leads. The initiative is present in the promoting style in that the leader is trying to create opportunities for better results.



Fig. no. 3. The leading concept (strategic, operational and interpersonal domain)

- **Dominating style** is based on the realization of the precisely orders, with few explanations regarding how to achieve them. Dominator is the leader that controls and monitors any situation, feedback provided is based on what people have done, rather than good results. Climate that is created by the leader of the dominating style is characterized by a low degree of employee satisfaction and low self esteem. Dominating style is good if applied correctly. In this case the style is characterized by dominating the following components of emotional intelligence: influence, initiative, ambition, self-knowledge, emotional self-control and empathy. Dominating leader wants to get good results by acting tough, and his initiative in exploiting opportunities. Emotional self-control is vital as it helps leading to master the fury and impatience. Otherwise, uncontrolled outbursts will have a devastating emotional impact upon employees.

Just as the attributes required of a manager vary from one situation to another, so the style of leadership needs to be according to the situation. When the focus is on quickness in decision-making, and information and expertise are owned by one person, appropriate and authoritative may be acceptable. In other circumstances,

a democratic style might prove more effective. What matters is whether or not the style adopted is effective:

- **Autocratic style** has the following features: single-manager takes the overwhelming majority decisions, determines in detail the work of subordinates, they lay down the duties of work and working methods, in other words, we are dealing with the centralization of authority. Emphasis is placed on formal authority. The entire business is centered on management, staff organization is seen only as a performer, and it only has control manager, subordinates are not explained the general objectives, but are required to execute the "just and timely" to decisions taken; correcting deviations from decisions taken is through sanctions. Subordinates are regarded as being devoid of the spirit creator, being the need to be guided, controlled and constrained. Subordinates are criticized harshly and critical assessments are not accepted at the address of their leader. Human relationships are seen as least important or are ignored. The style is effective in certain circumstances, but it does create tension, frustration, dissatisfaction, discontent, low yield strength, aggression and even valuable employees leaving the organization. This management style is shown in the crises when time, quality of products and/or services and monetary funds committed are determining factors.

- **Democratic style** has the following features: the manager has full confidence in subordinates, involve either individually or in groups in setting goals to achieve in setting strategies followed and in assessing performance; the manager encourages the formulation of suggestions and proposals, and stimulates the creative ability of subordinates; the manager motivates, convinces and rewards; encourages the vertical and horizontal

communication between employees, the focus is on relationships and on ensuring a pleasant work climate; the manager is based not only on formal authority, status, but also on personal gained authority; subordinates are informed about the objectives of the organization and are consulted in perspective issues. This management style uses the delegation of authority and frequently liability, it aims at harnessing the skills of subordinates and favouring the development of their personality. The exercise of democratic leadership style provides a great satisfaction in work and contributes to increasing the interest of subordinates for tasks. The democratic style is effective if subordinates have collective leadership skills and a high level of competence and responsibility. As a rule, the democratic style is effective, ensure good relations between the leader and subordinates and a pleasant climate, socio-affective, as well as the independence of the members of the group.

- **Laissez faire style** has the following features: the manager leaves his subordinates the entire freedom of decision and action, it provides some additional information and does not have regard to the conduct of their activity. Style results in a gradual decline in effectiveness because it works randomly without deep engagement in the work of subordinates. However, from the outset, laissez faire style favours installing a relaxed work related attitude.

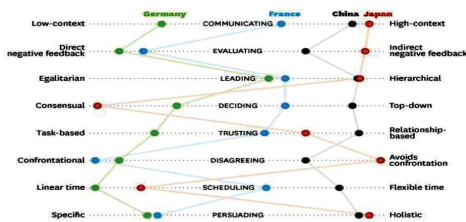


Fig. no.4. Management styles across different working culture (Harvard Business Review, 2014)

2. TRANSFORMATIONAL LEADERSHIP. A TOOL FOR PERFORMANCE

The concept of transformational leadership is used to emphasize more strongly the result in practice of an efficient management style within an organization. Studies and experience in the field underlined the fact that transformational leadership determine those driven to exceed expected performance and achieve higher levels of satisfaction and devotion to the group and organization. The leader understands that productivity in the workplace is closely related to satisfaction and a healthy environment, an open and participatory environment. Thus, management style is closely related to the stability of employees in the workplace and workplace satisfaction, efficiency and degree of involvement are dependent on customer relationship management of employees, willingness to engage employees in other roles or tasks along with their satisfaction towards management and leaders.

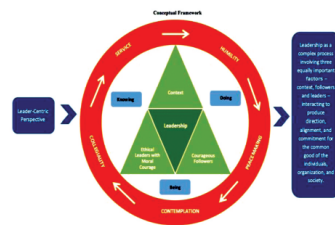


Fig. no. 5. Leadership conceptual framework

Transformational leadership is a leadership approach that creates valuable and positive changes of value. A transformational leader focuses on "transforming" others in order to help each other, to support each other, to create a group in which relational harmony dominate and support the organization as a whole. Through transformational leadership, the guided ones are treated with respect

and trust, are counselled and incited to act in accordance with the higher human needs (self-esteem, aesthetic, commitment, and self-realization) to act for the common interest and not the permanent staff, are challenged to overcome challenges while stimulated the desire for success.

At one extent, it can get so far as transformational leader approach can be considered as a complement to education, done in a direct and active manner in professional or social life. At the other pole we may simply fail to convince the people that their vision of doing things is the correct and at least for the short time they are follow unconditionally. From this point of view of transformational leaders are interested in both the objective and the spirit of the people who act in order to achieve that objective. At the organizational level, managers identify the need for change, create a vision to guide the change through inspiration and make the change through the devotion of group members.

3. CONCLUSION

By using an open management style, the manager puts his intellectual qualities worth when identifying problems, finding innovative solutions, identifying potential partners and customers, Quality managers respect themselves, their knowledge, their own personality is balanced, flexible, have self-confidence and spirit of cooperation; the manager is also opened to others, shows interest and sincere respect for partners, knows how to communicate with humans. The choice of management style remains an open problem. Variables are in continuous movement, primarily because the market environment is often unpredictable and dynamic. The manager can meet incredible situations - due to the complexity of

the organizational framework and the influences exerted upon him (outside or inside). Therefore, the first requirement of professional training in order for the manager to respond positively, is flexibility. A flexible leader is one who knows how to quickly adapt to any situation. Leadership means a mutual influence (management-employees) in order to achieve the objectives, in an organizational context.

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“PUSH” AND “PULL” SYSTEMS IN SUPPLY CHAIN MANAGEMENT. CORRELATIVE APPROACHES IN THE MILITARY FIELD

Gheorghe MINCULETE*
Polixenia OLAR**

* Colonel, PhD in Military Sciences, professor at the Logistics, Finance and Accounting, Department, “Carol I” National Defence University, Bucharest, Romania

** Teaching Assistant, PhD, English teacher at the Joint Operations, Strategic and Security Studies Department, “Carol I” National Defence University, Bucharest, Romania

The increase in economic, social and security risks is currently determined by the resource crisis on the one hand, as well as by the economic competition and global military challenges on the other hand, which amplifies instability and jeopardizes the viability of inter-state relations at global level. In these circumstances, the complexity of the economic and military environments determines company managers and military leaders to act by way of “push” and “pull” systems in order to make their own logistic activities more effective, in view of attaining their projected strategic objectives. In the current article we try to briefly address the “push” and “pull” systems within the Supply Chain Management, setting off from the concrete demands of consumers/users in the economic and military fields.

Key words: *supply chain management; “push” strategy; “pull” strategy; “feel and respond” logistic model; supply; resupply; logistic transports.*

1. GENERAL ELEMENTS REGARDING THE “PUSH” AND “PULL” SYSTEMS WITHIN THE SUPPLY CHAIN MANAGEMENT

The business terms “push” and “pull” have their origin in the logistic management and in the (logistic) supply chain management, but they are also used in marketing on a large scale [1].

In view of developing the “push” and “pull” terms, the first research used as reference is the one conducted in 1982 by Richard J. Schonberger in one of his first published books which approaches the “Japanese Manufacturing Techniques”, having as an amazing subtitle: “Nine Hidden Lessons about Simplicity”. Hence, he

was one of the first American researchers who focused on the “Japanese method” to produce consumption goods, which was assumed to be very competitive [2].

The expert Schonberger made a distinction between two contrary modes of production which constitute the origin of the application of the “pull” and “push” concepts, as follows: the Western “Push production system” which is in fact based on the planning of material resources mechanism and on the manufacturing resources planning philosophy; the Japanese “Pull production system” which includes the KANBAN logic control technique in conjunction with the principles of the “Just-in-time” concept (JIT) [2].

In business practice, a “push-pull” system describes the movement of a

product or related piece of information between two subjects. Thus, on the market the consumers usually "pull" the goods and pieces of information adequate to their demand in order to satisfy their needs, while offerers and suppliers "push" the required products/services toward consumers/customers. In the logistic and supply chains, both push and pull modes usually functions, in order to supply toward customers the demanded products and services [2].

In the field of marketing, a "push" strategy is used when the development and improvement of a new product, unknown to consumers/users, existed. In the situation where no consumption demand for the product to be launched was noticed, the product and the related information are "pushed" toward the consumer through distribution and promotion. Due to the asymmetry of information, producers permanently act in support of consumers/customers in order to reduce the pack of information with regard to the products and services being offered [3].

The Supply Chain Management based on the "push" mode is characterized by the fact that products are "pushed" through distribution channels from production to retailers. The producer establishes the level of production in accordance with the quantities recorded in the historical orders issued by retailers. It thus results that a longer period of time is required for a supply chain based on the "push" system to meet the changes in demand, which may lead to increased stocks or blockages and delays (due to unacceptable services and obsolescence of products) [4].

In the practice of relational marketing, the consumer demands the product suitable to the "pull" systems and he "pulls" it through the distribution channel. For example, a large vehicle manufacturing company produces the make or makes launched

on the market when they were ordered by customers. Thus, in these conditions the application of the "pull" system within the supply chain is explained by: increased uncertainty of demand on the market; production and distribution are led by demand; lack of stocks due to the adequate response to specific orders; decrease of the time to run the business etc [4].

In a Supply Chain Management based on the "pull" mode, purchasing, production and distribution are led by demand, so that they are coordinated by the actual orders of the customers (compared to the anticipated demand mentioned earlier).

On the basis of the aspects emphasized in the case of the "pull" system, if we have in mind the suppliers necessary to a company whose products are demanded by customers on various markets, we must keep in mind the specific relations within the supply chain pertaining to the procurement of the materials required by the production process. Thus, within this functional mechanism, the suppliers in the supply chain get involved in managing the stocks of the producing company, with which they have normal legal and business relations, by using the stock managed by the supplier system [5]. To this end, the producing company transmits to its suppliers information with regard to the actual demand, the situation of its stocks, other logistic elements etc. The obtained information allows suppliers to intervene at the opportune moment to complete the stocks (by sending advices of delivery). Following this procedure, the expected positive economic effects emerge within the producing company, making reference to the reduction of: the duration of the projected production cycle, the number of employed personnel, the level of total costs. At the same time, the precision within the logistic chains increase through

the concretization of the economic fluxes: inputs - conversion - outputs - distribution - complete satisfaction of consumer/user requirements [5].

In **Figure 1** a simple mechanism acting within a Supply Chain Management for the functioning of the “push” and “pull” systems can be observed.

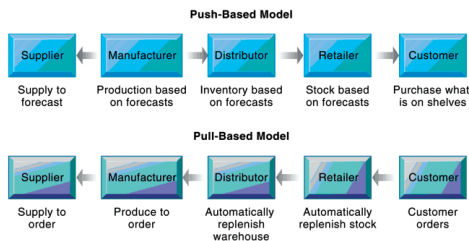


Fig. no. 1. Emphasis of the “push” and “pull” systems in Supply Chain Management [6]

A Supply Chain Management is almost always a combination of the two “push” and “pull” procedures, case in which the interface between the two is known under the border name of “push-pull”. In this framework, the levels of inventory of the individual components are determined by the forecasted general demand, but the final assembling represents the response to the specific demand by customers. Thus, the “push-pull” border would then be at the beginning of the assembling line [3].

The mechanism of distribution of goods is nowadays in a continuous change of paradigm between the “production for supply” (it implies logistics based on stocks and “push” logistics) toward “production upon demand” (it determines the logistics based on resupply and “pull” logistics). Thus, the elements of the paradigm range between maintaining the stocks necessary for the approximate satisfaction of the demand through a complete system of assurance, especially through production and transport on demand, in order to precisely respond to customer requirements [6].

2. “PUSH” AND “PULL” SUPPLY/RESUPPLY SYSTEMS IN THE MILITARY DISTRIBUTION MECHANISM

During the last two decades a significant transformation in logistics has been observed in the United States Armed Forces, following the improvement of the mobility in the land-air-sea triad, transport infrastructure and In-Transit-Visibility (ITV). According to American specialists, a further increase in capability is still necessary, having in mind the principles of Joint Vision 2020 which emphasizes the importance of the dominant manoeuvre through the speed and agility of the forces designated to the complex military operations of the future. In this sense, Operation Iraqi Freedom (OIF) demonstrated some of the capacities of the network base warfare of the XXI century, as well as a number of current and future logistic challenges [7].

The Sense and Respond (S & R) logistics represents a solution in accordance with the concepts of the war of the future, because it uses firm commercial practices and eco-service military supply concepts, as well as information, operations and logistics related technology adequate to a network work mode [8]. Thus, the network facilitates the connection between transport and supply. This will determine the general reduction of the logistic foothold in the theatre of operations, taking into account the lessons learned regarding the vulnerability of long resupply lines experimented during OIF [7].

It is worth mentioning that in nowadays industry both the “push” and the “pull” systems exist. Apparently, smaller stocks tend to favour a “pull” system. Military specialists argue that the accumulation of large stocks in distribution points in the theatre of

operations reduces the effectiveness and manoeuvrability of the combatant forces. Such stocks also have a negative impact on ITV/TAV (Total Asset Visibility) because of the large work volume of the support units. In contrast, a "Just-in-Time" supply approach in industry, which inclines more toward a "pull system", presents a greater risk to the fighters [9]. This risk is determined by potential loss of lives during combat and commanders' ability to counter enemy actions. A commander cannot afford even the smallest chances of materials and supplies being delivered late. In the theatre of operations large stocks are not to be desired, and neither minimum stocks in support of military operations. A more balanced approach is rather more favourable, somewhere between huge and minimum stocks (the industrial model), which allows for a small safety margin for military operations which permanently require a flexible and lean logistic support. As in the situation of the commercial supply chain, where its specific operations are permanently monitored, military leaders and logisticians must know at any given time the movement in the distribution system of the materials (on classes) destined to resupply [7; 10].

According to the belief of American experts, the efforts of the Department of Defence to transform logistics must continue in the direction of a progress toward a "push" system for all types of supply. To this end, the development of the "push" system represents the systemic approach to a major change in logistics, due to the use of the best commercial practices in the field of Supply Chain Management. At the same time, the "push" system correlates with the "Sense and Respond" (S & R) logistic model, which is also a "push" system developed by IBM. Hence, the integrated approach of the "push" system represents the type of

logistic transformation occurring in the American Armed Forces in support of the network centric warfare [7; 10].

This way, a "push" system will be more effective also through the growing operational capacity of the force by way of quicker and more credible support provided to combating forces. This effectiveness is possible because information, operations and logistics are correlated in a complex manner in an ITV/TAV network, which allows logisticians to "pull" the scheduled materials and supplies to the units, initially on the basis of planning factors, and then in real time, due to knowledge regarding the progress of the actions specific to the battle field [7; 10].

Some support materials (for example rations, ammunition, fuels, lubricants) are better dealt with in a "push" system in case they are processed and delivered on the basis of a weekly or monthly schedule, having in mind the logistic planning factors determined by the size of the force, its mission and the estimated consumption. The advantage of the "push" system is that it is not based on demand, which determines the rapid unfolding of the process (in the supply chain) from the initial input point, continuing with distribution (sail, delivery), up to the end consumer (combatant) [7; 10].

At the same time, American logisticians assert that the "push" system will eventually be capable of giving an impulse to many other capabilities, including by fully putting into practice of the RFID. It thus results that, once a "push" system is developed to meet the requirements of a modern army, the combatant will have more confidence that necessary transport will reach him in time and thus numerous requirements for the same resupply item will cease. Operational commanders will also benefit from an optimization of the transported goods, which will shorten the time allotted for delivery [7].

At the same time, nowadays the logistic support with individual services is oriented toward a “pull” system largely dependent on automated and end-to-end rapid distribution systems. Nevertheless, the “pull” system is generally used for the materials destined to resupply which have various rates of use/consumption.

Many critical materials destined to resupply (for example spare parts), which have different rates of use/consumption, are ordered through a “pull” system, which uses demands hierarchically launched toward the sources. The process specific to demand is dependent on direct communication between the logistic personnel and the large / operational units [10]. Under these conditions, the delivery deadline set by the requiring unit is often delayed due to a more prolonged processing time between order and supply. Due to the lack of synchronicity between the transport and supply functions and the lack of visibility of demands and transfers in the system, especially in the theatre, various items destined to resupply are repeatedly ordered, thus determining the emergence of dysfunctions in the logistic chain (deliveries of exceeding materials, delays in the transport of materials to their destination and so on). These irregularities (frequent delays) were obvious during OIF and, in order to solve the critical situations, the in-depth support units proceeded to “pushing” materials for the tactical level in response to the lack of critical spare parts [7; 9].

3. “PUSH” AND “PULL” SYSTEMS IN SUPPLY CHAIN OF THE FORCES ENGAGED IN JOINT OPERATIONS

As in the economic field, each Joint type military operation, regardless of scale, implies a complex logistic support which is designed and tuned

by using an adequate supply chain. Under these conditions, the fluxes of materials and services within the Supply Chain Management require the efficient use of the push and pull systems.

In NATO, for the adequate functioning of supplying/resupplying of forces, the “push” and “pull” systems exist and they are considered fundamental.

The “push” system is applied where supply/resupply is based on the anticipation of requirements and the standard consumption levels. In such a system, in general, deliveries are carried out toward the beneficiary as early as possible. To avoid the building-up of large stocks it is necessary to coordinate between operational and logistic planners, as well as to efficiently use technology, such as command, control, intelligence systems (CCIS) and goods tracking systems [11].

The “push” system is applied where supply/resupply is based on demands by large units and supported units. Under certain precise conditions this system can offer economic advantages, but when the contact with the enemy is imminent a less risky approach could be necessary, especially due to the short available time [11].

During the preparation and execution of joint operations, supplying in view of completing (planned, support) stocks necessary to the forces engaged in military operations represents a complex process carried out by logisticians, in which logistic command structures on the one hand and logistic support execution subunits, units and large units on the other hand are involved, as well as economic operators and territorial facilities (product suppliers and/or service providers, territorial military and civilian warehouses etc.).

Both supplying and resupplying have a dynamic character depending on the size and diversity of the engaged

structures, particularities and pace of the military actions and so on, being planned and carried out in order to meet the overlapping requirements of the logistic support with the operational effort (tactical and/or operative).

In our view, the planning and execution of supply/resupply are directly connected through the projection and execution of logistic transports and, this way, the two fields of the logistic support are integrated according to the options of action in three (resupply) systems: push, pull and combined.

Supplying and resupplying operational forces require specific determinations on classes of materials according to consumption rates, standard days of supply (SDOS) and fuel, lubricant and ammunition multiplication quotas. On this basis, both the quantities of materials necessary to maintaining the planned stock at the initial level and those for achieving a support stock, adequate to operational requirements, are assured.

We continue by addressing the „push” and „pull” supply/resupply systems having in mind the particularities of preparing and executing military operations, the means, resources and abilities of logisticians.

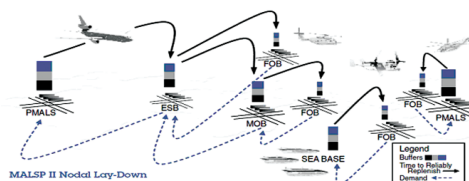
In the situation where the operational (tactical or operative) echelon orders subordinate structures material consumptions (classes I, III and V) expressed in SDOS both during deployment, preparations for the operation, and also during disengagement and redeployment, then the proactive supply/resupply “push” system is applied. Therefore, also through the application of this system, the superior echelon uses its own means for the transportation of materials (according to the provisions of Annex R-Logistics, as they were transmitted to the subordinated structures) to the areas of the units, subunits and their logistic support components.

During military operations, the military operational structures make

their resupply needs/requests known for all classes of materials through logistic reports filled to the superior echelon on the evening of each day, which determines the superior (tactical or operative) echelon to proceed as a consequence to response actions within the logistic chain by using the reactive supply/resupply “pull” system. Thus, the superior (tactical or operative) echelon, through its own logistic module, processes the requests received from the subordinated units and large units and executes the transport of materials by its own means (from the directly subordinated logistic support execution structure) to the areas of the units, subunits and their logistic support components, at the time and place specified in their requests.

One model of usage of the two mentioned systems is depicted in **Figure 2**.

But there can also be situations when a combined “push-pull”



Legend:
MALSP II = Marine Aviation Logistics Support Program II
PMALS = Parent Marine Aviation Logistics Squadron
MOB = Main Operating Base
ESB = En-route Support Base
FOB = Forward Operating Base

Fig. no. 2. Elements specific to the Pull and Push systems in joint operations [12]

procedure is applied, because on the one hand the superior echelon ordered adequate consumptions to the subordinated structures, while on the other hand the latter reported deficits and losses which, if cumulated, imply

supplementary quantities that need to be resupplied to them.

Through the use of the depicted models, materials can be distributed through supply or distributions points, through a logistic support execution structure (at unit or large unit level) or both, as well as combined. In case of the use of distribution through supply points, materials are moved toward central distribution locations (components), where the receiving units or large units can arrange, if ordered, their own transportation system of the materials allocated to them. Distribution by a logistic support execution structure (at unit or large unit level) requires the functioning of a delivery system through which materials are transported in a centralized manner to the receiving unit or large unit, thus eliminating the need for personal supplying.

In the process of execution of the actions specific to the three resupply systems mentioned above, the logistic command bodies of the superior echelon can legally allocate certain quantities of materials (classes I, III and V) directly to large units and subordinated units (by using their own means) from the sources (economic operators, warehouses, offloading stations) situated at certain distances from the logistic support execution structure (p.10 km. to B.; p.20 km. to Bg.; p.80 km. to D.I.). In certain situations the superior echelon can order, upon request, as transportation means loaded with materials reach as far as the artillery firing positions of certain subordinated structures or the workshops of their subunits (units) of engineers.

The supply flux toward the area of joint operations begins before the flux specific to the arrival of large units or units or at the same time with it, which requires adequate and continuous synchronization. After the planned and support stocks have been transported to the area of joined operations, it is next required to maintain a continuous

resupply flux in order to avoid overloaded transports and to minimize the risk of losses. At the same time, in order to diminish the stockpiling area, it is required to avoid an excessive level of the stocks. For reaching this objective, the existing multinational solutions must be used, such as the NATO Logistic Stock Exchange (NLSE) [11].

The commander of the joint force that benefits from the logistic support establishes the policy, procedures, priorities and line of communication for the support activities. The commander will normally proceed to conduct the support mechanism based on the „push” and „pull” systems applied in support of the subordinated categories of services, in order to resupply its structure in the area/theatre of operations. In the absence of commander's precise details and requirements, each service will support its forces using their own procedures, which include the logistic support assurance of the subordinated forces. The support transports do not always follow the same routes used by the deployed forces, because some of them (such as the ammunition ones) often require a special infrastructure in order to be manoeuvred and they can lead to the significant disturbance of the activities in which the transport (land, air and sea) means and the locations used (railway stations, air bases, sea ports) are involved [13].

In order to achieve an adequate resources management, the commander of the Joint Task Force (JTF) will coordinate and prioritize the deliveries of materials destined to the forces, except the National Support Elements (NSE). At the same time, the prioritization of deliveries to the national support elements represents a problem for each nation [11].

During joint operations, the usage of the mentioned resupply systems implies adequate collaboration and

coordination activities between the operational and logistic structures in order to avoid the building up of exceeding stocks or the emergence, at a given moment, of raptures of stocks at the level of the combat structures subordinated to the joint force commander.

4. CONCLUSIONS

The market competition within a dynamic and turbulent environment determined economic organizations to engage more and more actively in a competition for the development of their own businesses, being integrated to this end in a Supply Chain Management (SCM). Hence, in the functional mechanism of a SCM the partner firms are functionally integrated also through the use of the Push and Pull business systems.

Due to a growingly accentuated global economic and military instability, NATO and EU as organisms are determined to act for the development of operational preparedness in an allied context, in order to intervene in the situations imposed by the action realities in order to guarantee the sovereignty of their member states, as well as of the states that are in the process of becoming members.

We appreciate that more than ever, in the face of the military challenges of the future, national and multinational joint operations be prepared and logistically supported as well as possible. Hence, to this end, it is necessary to apply in optimum conditions within the supply-resupply chains the "push" and "pull" systems by specialists in logistics, in order to provide structures in the operational force with everything that they need for the successful planning, preparation and conduct of joint military actions.

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CORE COMPETENCES OF PIRACY AND MARITIME TERRORISM

Piotr GAWLICZEK*
Aneta NOWAKOWSKA-KRYSTMAN **

*Capt. (N) ret., Associate Professor, National Defence University, Poland

**PhD, National Defence University, Poland

If we think wrongly, that the measurement is meant to comply with almost unattainable standards of certainty, hardly anything proves to be measurable.

Douglas Hubbard

The problem well-defined is problem mid solved.

Charles Kettering

The intensity of the attacks, the level of violence, the scale of destruction in the maritime areas forces creation of certain security conditions. Recognizing the enemy - piracy and maritime terrorism - by identifying their resources, skills and competences is necessary action in building the safety of vessels and maritime infrastructure. Building competence of terrorist organization and maritime piracy requires the involvement of many interrelated resources and their proper coordination. It seems that, as in a business model, in these criminal organizations there are similar resources, skills and competences that determine the advantage and strategic value of the organization. However, the weight of each factor is different. The same assumption can be related to piracy and the activities of the terrorist organization at sea. The results of the study suggest that the main sources of success of analyzed criminal organizations generate harm for national security. In the case of piracy, they result from the following spheres: human capital, attributable to the skills capital; structural capital, belonging to innovation capital; relational capital, depending on customers' capital. As for terrorist activities, they stem from the spheres of: human capital, belonging to social capital; structural capital, attributable to the process capital; relational capital and determined by capital of standing out.

In summary, this article is intended to show a terrorist organization and maritime piracy through the prism of resources theory, skills and competences of strategic management. As one of the first, it places many questions, formulate some theses in the area of competences of organizations. Answering the questions, verification of posed theses, requires also in-depth research that will be published in subsequent works.

Key words: *maritime terrorism, resource theory, strategic management competences.*

1. INTRODUCTION

The growing threat of piracy and maritime terrorism is a derivative of finishing the Cold War and the collapse of the bipolar balance of power in the world. The legal status of marine areas, expansion of areas of instability on land, limiting the presence of naval forces, relatively low price and availability of ships, as well as poverty, also influence the situation [1]. This suggests that marine areas may become another arena for global war.

The purpose of this article is to show terrorist organizations and maritime piracy in the light of the theory of resources, skills and competences of strategic management. It is this way of thinking that has dominated the approach to the strategy of the organization in the early nineties. In economics and sciences on organizations, analyzes of the importance of intangible assets, among others, *inter alia* the knowledge and the ensuing innovation, began to appear more and more often, as well as changes in the approach from competition to cooperation [2], which significantly lead to the success of the organization. It is therefore necessary to ask if there are universal success holders for all organizations, or whether they depend on the type of business. Holders of success - key competences - of terrorist organizations and maritime piracy, in this case, are harm generators to national security.

Research for this article was performed by "desk research", supported with diagnostic survey using technique of unfinished sentences, which was conducted in 2015-2016. Its aim was to illustrate the main features of piracy and maritime terrorism. The question asked related to the comparison

of piracy and maritime terrorism to animals that are endowed with specific characteristics. The respondents were students of military universities, focused on security, defense, international relations and political science [3].

2. CHARACTERISTICS OF PIRACY AND MARITIME TERRORISM

Maritime piracy accompanies humanity since ancient times, because transported goods were prey for robbers of the sea. Revival of this practice took place in the early 90s of 21st century. This is a period that marks the creation of powerful gangs, living nicely from the sea loot, meaning very well-organized structures in the shape of a small armies, which travel by very fast boats, often armed with machine guns, RPGs and mortars, attacking certain ships. They have the GPS receivers, devices for eavesdropping and interfering with radio communications, coded means of communication, diving equipment and watercrafts. They have corruption ties with local police, coastguard, shipping companies, port workers, often with crews of ships - all to ensure their freedom of action and information on valuable cargo. However, modern pirates are also small groups derived from the poor port thieves and impoverished fishermen in primitive boats. They sail on primitive boats, usually get on ships which stand at moorings near the shore at night, terrorizing the crew and passengers with knives, machetes, sometimes firearms, and then rob what they are able to take [4].

It should be defined what piracy means. The Geneva Convention defined piracy as any illegal act of violence, detention or any act of depredation, committed for private

ends by the crew or the passengers of a private ship or a private aircraft, and directed on the high seas, against another ship or aircraft, or against persons or property on board such ship or aircraft [5].

The number of pirate attacks, robberies on global water reservoirs is not high, the Report of the International Maritime Bureau (IMB) devoted to marine piracy states that their number fluctuated over the past 20 years in the range of 200 - 470 a year. It may be concerning that there is an increase of the degree of brutality, kidnappings for ransom, the higher amount of ransom, prolongation of the time of detention of individuals and crews [6]. It should be noted that some attacks are not reported. The damage is estimated to be the around 7 - 12 billion USD. 95% of the costs due to the activities of Somali pirates. Also increases the activity of Nigerian pirates. Attacks most often occur in the waters of Southeast Asia, Africa (Gulf of Guinea, coast of Somalia, Tanzania, Senegal), Black Sea, South America (near the ports of the Caribbean, Brazil, Ecuador and Peru). Two incidents, which took place in 2008, should be mentioned. They motivated the international opinion to take a closer look at the groups operating off the coast of East Africa. It was kidnapping an Ukrainian vessel "Faina" transporting Russian tanks, rocket-propelled grenades and ammunition and supertanker Sirius Star, worth \$ 150 million while 300 thousand tons of oil carried in its tanks represented a value of more than \$ 100 million [7].

Over time, in the 60s of the twentieth century, the source of potential threats at sea increased by acts of terrorism. Maritime terrorism means planned and organized violent attack resulting from political, religious and ideological motives,

directed against persons, ships, port facilities, installations at sea. It aims to force the state authorities, societies or individuals to perform specific behaviors, give concessions or financial benefits [8].

Maritime terrorism has been launched in January 1961 by acquiring the passenger liner Santa Maria. The most spectacular attacks were made: in September 2000 on the destroyer USS Cole, in October 2002 on the oil tanker MV Limburg, since most desirable targets of terrorist attacks are marine tankers, passenger and cruise vessels, as well as ships with dangerous cargo and warships. The attacks are carried out using fast boats, bombs set in vehicles and containers. To put pressure on governments, terrorists use hijacked ships as a weapon (ships traps), threatening to cause an environmental disaster.

Attacks on objects of the sea represent only about 2% of the total number of events on the ground of terrorism that took place in the last 30 years. However, it is unsettling thought that the main objective of the terrorist attack at sea basins is not vessels but critical infrastructure facilities of international importance. Concerning is their level of resistance to this threat [9].

It is noted that the links between piracy and terrorism strengthen, however, it does not entitle us to regard this as same practices [10]. Frederick Chew presents them in three categories: ends, means / resources and effects [11]. The aforementioned ends of the attack and used resources are therefore not the only difference between terrorism and maritime piracy. In contrast to piracy, due to fuzziness of terrorist organizations, they are extremely difficult to locate with the certain territory. Furthermore, this territorial coverage generated by these threats

is different. Therefore, to acts of terror restrictions as to the purpose, place, object, time or method do not apply. This is an advantage over the security services. The significant difference is also apparent from the motivation of both acts. Pirates are motivated by personal gain, whether it is from the sale of stolen goods, the ransom for the vessel or the crew. They make effort to cover their tracks and not arouse media attention. Another motivation can be attributed to terrorist activities, which are supposed to be spectacular to attract media attention, which enhance the feeling of fear. Apart from the physical annihilation of the enemy, this is one of the main goals of a terrorist attack. These actions stem from religious or political motives. Thus, in a category of its effects, maritime piracy is concentrated at the operational level, while maritime terrorism at the strategic level. When it comes to resources, piracy has less developed means and skills than terrorists [12].

The effects of piracy and maritime terrorism, meaning distortion of international shipping, trade, threat to life and property of many people, cause the international organizations (UN, NATO, EU, ASEAN [13]) to debate on how to counter threats in the aquatic environment, with what kind of fight, and thus, to detect and transmit data on the possible occurrence of these risks. For this purpose, it becomes necessary to recognize the enemy, including using the concepts of school of resources, skills and competences of strategic management.

Do these differences affect the specificity of key competences? Do these competences are the same as business model? We try to provide preliminary answers.

3. ASSUMPTIONS OF THE THEORY OF RESOURCES, SKILLS AND COMPETENCES

The article *The Core Competence of the Corporation* [14] initiated thinking about the organization as a set of resources [15] and capabilities. However, we already find reasons for such thinking in books of W. Ouchi Theory Z [16] and T. Peters and R.H. Waterman In Search of Excellence [17].

Therefore, what do we mean by the basic concepts: resources, skills, competences of the organization. Resources are what the organization is and / or controls. The organization has the greatest control over material resources. Over the intangible assets it has only partly control. Intangible resources are both internal and external factors, for which the organization has access and which it can use. Therefore, not all resources can be bought and sold on the market, imitated or substituted [18]. This is called strategic assets (strategic assets), which are: know-how of the organization's members, accumulated knowledge, organization's reputation and loyalty of beneficiaries. Since these are intangible resources, they are not recorded by organization [19].

Capabilities are processes and are what the organization can do best, using strategic resources as the basis. This involves building a competitive advantage by such use specific skills that lets it stay ahead of the competition, which in this case are the state institutions responsible for the security of states. Briefly determining, resources are what the organization owns and the skills and competences refer to what it does [20].

For the purposes of this article it is worth noting that for consulting companies, key skills are: systematic acquisition of very good employees, developing effective teams. However,

ownership of strategic resources and key skills is not the end of the search for success of the organization.

The organization is building its advantage based on the configuration of resources and skills in core competences. Base resources are the basis for the organization to build them. Skills of permanent coordination and use of resources for achieving the objective prove the acquisition of specific competence by organizations. This is basis for a complex resources [21]. They are the more valuable for the organization, the more of the possessed resources are rare, valuable, difficult to be imitated and efficiently organized - **Figure 1**.

The organization, therefore, should focus on creating their own resources and competences in areas where it can make the greatest strategic value, reject the activity of marginal importance. The most important factor in business organizations in creating advantages are intangible resources, the culture of organization and leadership included [22].

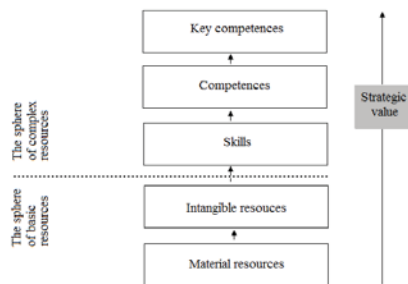


Fig. no. 1. Prerequisite for creating organization strategic value

Source: own work, based on: M. Javidan, Core Competence: What Does it Mean in Practice?, "Long Range Planning", February 1998, p. 31.

According to MERITUM project Measuring Intangibles To Understand And Improve Innovation Management [23], the classification of intangible assets is: human capital, organizational/structural

capital, relational capital. Human capital is defined as knowledge, skills, experience and abilities that employees take with them when they leave the organization, it is therefore a set of features that allows to perform tasks, solve problems in the organization, creating innovation collectively, to build relationships, reasoning, and decision-making. This capital consists of the capital of knowledge, social and developmental skills. Structural capital is defined as a body of knowledge that arises at the end of the working day, and these are all resources that support the work of members of the organization: the organizational structure, databases, procedures, processes, organizational culture, organization knowledge, learning, flexibility, willingness to change. This capital consists of organizational, process and innovative capitals. Relational capital determines resources related to interpersonal and inter-organizational relations, ability to establish and maintain a close and lasting relationships, build a social network, meaning factors related to external relations. This capital is the market, standing out and customers' capital.

The last element of presented theory, is the assumption that there must be a dynamic fit, stretch between resources and intentions of the organization. It is meant to remain in equilibrium with the environment, efficient resource allocation, the use of resources to push up [24].

4. RESOURCES, SKILLS AND COMPETENCES OF PIRACY AND MARITIME TERRORISM

Terrorist organizations and piracy can be compared to Japanese companies, whose strength lies in human capital. Human capital is

defined as the sum of the capacity, the knowledge, skills and experience of the members of the organization and management that are useful to perform complex tasks, and the ability to expand these resources by way of learning [25]. It creates added value for the organization in two ways: direct application of knowledge and skills of members of the organization in the process of taking action, for example, implementation of attack, the negotiation process and the accumulation of knowledge in intangible assets. The aim of the organization is therefore not to gain "labor" but knowledge workers, which can be characterized by a certain state of mind and attitude [26]. Management of such people requires adequate organizational culture and leadership. These are two factors that contribute to the formation of structural capital of organization [27].

Organizational culture is a social environment that creates organizational, formal and informal behavior, defines the nature of the members who will be best at achieving the objectives of the organization, shapes the scope of individual freedom to take action without prior approval and influences the way in which people interact with themselves inside and outside the organization [28]. It consists of history of the organization, in the case of terrorism characterized by religion and politics and in the case of piracy by poverty, the traditions of the sea, with its successes and failures. Organizational culture is like the body's immune system, rooted in the organizational subconscious and it decides on the organizational development of core competences [29].

Confirmation to these claims can be found in the texts of Ouchi, who wrote that the strength of Japanese firms comes from the proximity of mutual relations, loyalty and

trust between members of the organization and is characteristic of clans and tribes, just like in the case of terrorism and piracy. Similarly, Peters and Waterman, who sought the perfection of US companies in the eight principles of action, where community norms and values has been recognized by them as one of the most important. Are criminal organizations—as in theory of excellent organizations a group characterized by: an obsession for action, close contact with the customer, autonomy and entrepreneurship, focus on values, treating people as the most effective resource of organization, restricted activity profile, limiting the number of management, discipline and ease [30]?

It seems that the source of success: advantages and creating organizational values are intangible resources. In particular, knowledge contributes to the creation of values, more precisely the ability of criminals to use the latest technology, weapons, GPS, satellite communications [31]. Its optimum utilization depends on the culture of the organization, whose mission is to create such an environment that a member of organization wanted to share their secret knowledge. Culture is the result of formal and informal relationships, processes, systems, as well as the strategies and goals of the organization. It depends, in large part both for piracy and terrorism, on the cultural factor, which is the product of the local tradition [32]. Creativity is a factor associated with knowledge, which also – it appears – fundamentally creates activities of terrorist organizations, maritime piracy. Creativity is defined by creative attitude, which contributes to the creation of new, original ideas, solutions. It may be stimulated internally (for example

by suitable selection of members of the organization, motivation system) or external pressure (the activities of other criminal organizations, political or religious considerations). Knowledge however, is not long-lasting factor in value creation. Reproduction of knowledge, its imitation by others, results in loss of advantage. That is why creativity is so important, for example continuously changing the way of conducting terrorist services and maritime piracy. Non-standard and audacity is in fact difficult to predict by the security services. Thus, a particular resource of organization is secret knowledge, laying in the members of the organization [33]. There is some concern here, however, limiting value creation to this resource, because part of this knowledge is lost in the event of suicide bombings. Nevertheless, this translates into strengthening the organization's brand.

Martin N. Murphy points seven factors, four of which claim the potential of pirates, namely: the mobility of the pirates, the ability to use the latest technology, maritime traditions and the availability of suitable hiding places [34]. The first two classify human capital, next two the relational capital.

An extremely important internal factor of a terrorist organization, maritime piracy, as well as business organization, seems to be leadership, because it influences creating strategic architecture of an organization which will be the roadmap of the future. Leadership in hierarchical structures like piracy and maritime terrorism pose the kind of relationship between management and subordinates. It is the ability to mobilize others resulting not only from the possession of specific knowledge but rather from charisma and authority [35]. The map leaders will create is supposed

to determine the key competences and their components, which make advantage in the market of security risks now and in the future [36].

In case of a terrorist organizations, and to a lesser extent in case of maritime piracy, Internet is a particular resource that flows from the outside. It is an effective way to communicate for the organization's members in case of distributed organizations. It also allows quick contact with the public.

In conclusion, analyzing the literature on the subject, it seems that human capital, organizational culture and leadership (**Figure 2**) are those specific factors in these organizations that create value of piracy and maritime terrorism and the advantage over the institutions responsible for national security. Features of the resources of piracy and maritime terrorism (durability, transparency, transferability and susceptibility to copy [37]) forming the advantage, seem to be immune to erosion, because constantly there is a similar number of attacks in the areas of water.

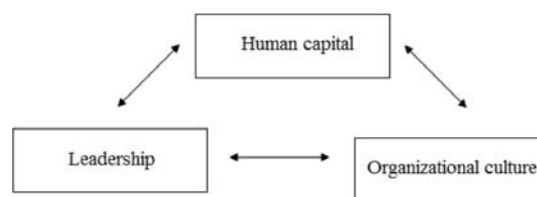


Fig. no. 2. The relationship between human capital, leadership and organizational culture

Source: G. Urbanek, Competences and the value of the company, Wolters Kluwer Polska, Warszawa 2011, p. 42.

One cannot forget that intangible resources are not sufficient for effective action. Financial resources, technical equipment are essential to carry out the attack.

A study conducted between students of military academies:

Naval Academy and National Defence University of Poland are supplementary to analyses resulting from the review of the literature. Used method, a diagnostic survey technique of unfinished sentences, corresponds with the type of respondents and objective measurement, meaning reducing uncertainty by nominal measuring through small sampling [38]. The results will form the basis for stating and subsequently verification of hypotheses in terms of the perception of piracy and maritime terrorism [39]. Results of the survey were as follows:

1) Among the NDU students, responses to question determining the animal which corresponds with the activities of pirates were narrower in relation to the terms for terrorism at sea. Pirates frequently been likened to sharks, hyenas and foxes. In the case of terrorism they were: sharks, lions, wolves, and sheepdogs;

2) In the opinion of NDU students, typical *modus operandi* of pirates is characterized by: cunningness, aggressiveness, ruthlessness, speed, mobility, deceit, acting in a group, using the occasion, attacking the weak, feeding on foreigners, getting richer at the expense of others, concealed activities. Terrorists can be characterized as a symbol of fear, strength and size, tranquility and efficiency, planning and coordination of activities, ferocity, action in herds, loyalty to the leader, defending its values, the environment, loyalty, concealed activities, gaining at the expense of others;

3) Among the NA students, responses to question determining the animal which corresponds with the activities of pirates and terrorists were comparable. Pirates frequently been likened to hyenas, foxes and magpies [40]. In the case of terrorism, they were lions, tigers, sharks and

foxes [41];

4) In the opinion of NA students, typical *modus operandi* of pirates is characterized by: cunningness, greed, deceit, ruthlessness, taking care of their own interests, feeding on foreigners, attacking by surprise, achievement of the objectives regardless of the circumstances, dangerousness. Terrorists can be characterized as dangerous organization, cunning, clever, strong, unpredictable, brave, tenacious, efficient, active in the group.

Summing up surveys it may be noted that:

- in both groups of respondents there is great indecision, the difference between comparisons of pirates and terrorists to animals (NDU students indicated 6 different animals in reference to pirates, 16 in reference to terrorists; in the case of NA students the difference is insignificant 10 and 11). This may be a result of operating history, the more complex nature of the organization;

- indications suggest that actions of piracy and terrorism are perceived as similar practices, as indicated by the four repetitions in case of NDU students (sharks, hyenas, lions, wolves) and three in the case of NA (sharks, hyenas, foxes). The similarities stem from defining characteristics: activities in secret, surprise attack, obtaining benefits at the expense of others. And it stresses that these organizations are threatening and dangerous;

- students assess the characteristics of terrorist organizations with more positive tone than maritime piracy because they are better organized, work in a group, they are strong and effective, their mode of action is based on a different organizational culture.

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Cooperation is also reflected in the security studies. The concept of cooperative security has been developed by NATO and implies the development of a system of co-dependent, co-operating with each other and complementary subjects of international relations and security, as well as comprehensive recognition of security, as a reaction to the existing and anticipated threats. This system requires the establishment and efficient functioning of the division of labor between various actors shaping security. K. Malak, Typologia bezpieczeństwa. Nowe wyzwania, <http://stosunki-miedzynarodowe.pl/bezpieczenstwo/954-typologia-bezpieczenstwa-nowe-wyzwania?start=2>, (Access 7.12.2015)

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THE IMAGE OF PIRACY AND MARITIME TERRORISM. THE MEDIA AS A TOOL FOR ITS DEVELOPMENT

PIOTR GAWLICZEK*
ANETA NOWAKOWSKA-KRYSTMAN **

*Capt. (N) ret., Associate Professor, National Defence University, Poland
**PhD, National Defence University, Poland

The subject of the article was the issue of shaping the image of piracy and maritime terrorism. Emphasis was put on the media, including those using information and communication technologies. The answers to problem questions were sought: (1) Who and why forms that image (2) what tools are used for its construction. The article presents the trends and development tendencies of the analyzed phenomena, based on the report of the United Nations Conference on Trade and Development (UNCTAD). Furthermore, the results of surveys, conducted among students of military academies, on perception of piracy and maritime terrorism, are cited.

Key words: image, social media, feature films, piracy, maritime terrorism.

1. INTRODUCTION

'To be effective, you must try to have bigger part of the audience and more people on the stage follow your script, not an adversary' [1].

This article is the second in a series devoted to piracy and maritime terrorism [2]. In the first, on the issue of core competences of piracy and maritime terrorism, the intention of the authors was to present a terrorist organization linked to the environment of marine waters and maritime piracy through the prism of theory of resources, skills and competencies of strategic management. Such approach is unusual for the analyzed phenomena and attitudes of the actors involved in maritime security environment. On the other hand, it is justified in the light of contemporary trends in interests of organization and management

science, emphasizing the importance of intangible assets, which could determine the success of the organization. Against the background of the problem situation formulated in this way, the essence of the research actions was to find answers to the question of success carriers, as key competences of terrorist organizations and maritime piracy, aimed at generating risks and causing tangible and intangible damages in the security environment. This applies in particular to its stakeholders, for example the individual states and their interests. In the first paper, the authors have characterized the phenomena mentioned in the title, confronting them with new thinking on the organization as a set of resources and skills, and consequently competences. A comparison of terrorist organizations and maritime piracy with Japanese

companies, whose strength lies in human capital, indicating the role of leadership as well as information and communication technologies for the efficient communication of members of the organization and even enabling immediate contact with the public to provide specific information, aimed at gaining the desired response, for example fear, horror, compassion, sympathy and solidarity. This article focuses precisely on one of the above-mentioned factors, namely the media, including information and communication technologies, which influences the perception of piracy and maritime terrorism. It is recognized as one of the most important factors in achieving marine environment security effectively.

The problem is so important, because in the period of 2003-2012 the number of attacks by pirates offshore increased, and at the same time the areas, where they occur, also changed. Decreasing trend of piracy, which is the content of the two-part report prepared under the aegis of the United Nations Conference on Trade and Development, should be also noted [3]. Analyzing the attacks on the marine facilities on the ground of terrorism, it must be stated that they represent only about 2% of the total number of events that have taken place in the last 30 years. Nevertheless, we should expect increase in their activities in these areas, as well as the combination of terrorists and pirates. This is reflected in the postulates of experts to define both phenomena as activities of a terrorist nature.

It should be emphasized that in the area of strategic communications of the organization social networking sites play an important role. In

addition to the website, information and data on piracy and maritime terrorism is published on Twitter [4], Facebook, LinkedIn, Instagram and YouTube. These issues will be addressed later in the article.

Attitudes concerning these issues come also from a broader perspective, namely the image depicted on the big screen. To the authors of the article that context seemed extremely important in shaping the image of the activities discussed in the article.

The definition image of the organization, which was adopted for the purpose of the article - is an idea of organization existing among stakeholders, which includes a set of associations evoked by the name or distinctive graphic sign. This idea does not necessarily coincide with reality, it can also be a subjective image of the organization, created by its offerings. The areas related to the process of building the image include [5]:

1. identifying factors influencing the image,
2. targeted actions related to the creation of identity,
3. analysis of the image,
4. identification of gaps between image and identity,
5. activities to reduce discrepancies between identity and image.

The authors focused on the analysis of the first three aspects, meaning the perception of piracy and maritime terrorism by the environment (external image).

In order to determine the image of piracy and maritime terrorism in the eyes of public opinion [6] created with feature films, documentaries, media and social networking sites like Facebook, Twitter, Instagram, YouTube, authors used a diagnostic

survey technique of unfinished sentences, carried out at the turn of the year 2015-2016. The questions, which were asked, related to the comparison of piracy and maritime terrorism to animals that possess specific characteristics. The respondents were students of military universities profiled for defense, security, international relations and humanistic university profiled on pedagogical education and art [7].

Thus, questions arise about why these students perceive taken issue in certain way, therefore, how the image of piracy and maritime terrorism is presented in the media, including electronic media? Who formed it and for what purpose? What tools are used to build the image? Answers to these questions are the essence of authors' deliberations in this article. Thus, the authors aim to present a possibly unprejudiced image of piracy and maritime terrorism on a background of the trends and development tendencies of presented phenomena.

2. IMAGES OF PIRACY AND TERRORISM IN MOVIES

Based on the analysis of source material the authors have decided that, in relation to public opinion, pirates and terrorists are perceived identically. Pirates are looked at through the prism of legends, novels and movie heroes, marine adventurers, as played, among others, by Johnny Depp in a series of movies about lovable pirates of the Caribbean [8]. Another adventure, comedy and costume movies are *Pirates* [9], *Treasure Island* [10], *Cutthroat Island* [11], *Peter Pan* [12] and *Hook* [13]. It should be noted that in movies

worldwide, subconsciously formed since childhood, image of pirates is them being somewhat limited, unorganized but all in all lovable. However, we also find movies based on facts, such as *Blackbeard* [14], which represent the pirates as well-organized, effective organization.

Not surprisingly, such interest in the subject among the producers and film directors comes from the roots of piracy being always combined with the history of navigation. Forms and methods of operation have changed over the centuries, but the essence remained the same - the struggle for power, money and fame, or as a way of life.

Modern pirates are both small groups coming from poor thieves living in ports and impoverished fishermen moving into primitive boats, and powerful gangs living from the sea loot, which are well organized, owning satellite navigation systems (GPS), machine guns and rocket antitank guided missiles as well as super-fast boats. Therefore, pirates increasingly often look and behave like terrorists [15]. Example can be a movie based on facts, *Captain Phillips*, which describes the fate of captain abducted by Somali pirates [16]. In addition, information about the kidnapping of crews and ships is becoming increasingly frequent in media reports, as well as the Internet, more and more often including social networks.

In contrast to piracy, maritime terrorism is a phenomenon with beginnings that can be traced in the 60s of the twentieth century. It is difficult to find a positive undertone, as it appears to be taking away the lives of innocent victims, causing incalculable damage to property. Terrorists also possess modern

navigation equipment, weapons, and they are even trained during specialist courses in various fields [17]. The press, radio, television inform about spectacular attacks (usually on land [18]). The movies presenting this phenomenon are: *Unthinkable* [19], *World in Flames* [20], *Transfer* [21] and *My Name Is Khan* [22]. However, the image they present shows that terrorism is multi-threaded phenomenon, because in addition to the tragic terrorist actions, it reveals a callousness of services, hatred of strangers. The problem of terrorism was even presented in comedy called *Four Lions* [23], which can be seen as part of psychological game - to ridicule potential enemy posing a threat to security.

It should be noted then, that the attentive viewer will not have a clear view at terrorist activity, as pictures show its various causes, controversial methods of fighting with it. That is the role of the movie - to present global problems of the world in a philosophical way, which are reflected in the results of the research.

It is impossible not to mention the series of documentaries showing different aspects related to terrorist activity and piracy that affect their image (however they relate to piracy to much lesser extent than to terrorism). This applies, however, to viewers interested in these problems, for which we acknowledge the students of military academies.

3. THE IMPACT OF SOCIAL MEDIA ON THE CREATION OF THE IMAGE

With the development of ICT, social media increasingly influences

creation of the image. Małgorzata Górska interestingly describes the issue of its development and dissemination, stating that by promoting new media, humanity gained an adequate spatial-temporal perspective, which sets out a framework for social communication. The possibility of reaching ideas and opinions to the farthest places inhabited by humans without direct contact with the author, knowledge about past derived from stories of people living in it, written in the documents - all these factors influence the formation of a particular social and cultural reality. The content of these stories, however, is only one of the elements of the process of creating a specific connection between past and present, as well as places often distant from one another (geographically) [24].

Against this background, it should be emphasized that the essence of social media is to provide means of communication (such as chats, instant messaging, forums, mailing lists, blogs and personal messages), and to enable sharing of information, interests. These types of services are co-created by people that know each other (in the real world or only via the Internet), with similar interests or who want to know the interests of others. Currently the most popular social networking site is Facebook, where you can add content with links, photos. Another example of the service is Pinterest, which won the greatest popularity in the United States. Twitter begins to play increasing role, with more than 300 million users monthly.

Social media inform about what interesting content appeared

on information portals, so it is not surprising that on UNCTAD's Twitter profile there is information about the availability of the aforementioned document [25] presenting statistics on pirate attacks. In the years 2003-2012 there was 3436 events like that recorded. The number of attacks on ships (flowing, anchored or standing in the harbor) has increased from 49 in 2008 to 249 in 2010. It decreased to 202 in 2012. In the same period, the number of successful hijackings of ships increased from 49 (2008) to 53 (2010) and significantly decreased to 28 in 2012. Change in the number of attempted attacks - from 445 in 2010 to 297 in 2012. According to data from the first three quarters of 2013, reported were 188 incidents of piracy and armed robbery (attempts and successful acts) against ships, which is considered the lowest level since 2006. Better prevention contributed to this decrease, in the form of various preventive measures ship-owners take, including an increase in armed guards on board ships. Nevertheless, in the period January-September 2013, attacked or kidnapped were 140 ships, with 266 crew members taken as hostages, 34 kidnapped, 20 injured and one person killed.

The report highlights that the geography of piracy changed in the analyzed period. While previously most attacks were recorded in the seas of Southeast Asia, now there are two main areas of violence: the Indian Ocean, particularly off the coast of East Africa (area of the Gulf of Oman, the coast of Somalia to the Mozambique Channel, also a region of the Maldives) and Atlantic coast of West Africa (Gulf of Guinea). Some observers stress the increasing

levels of violence and determination in pirates, especially in the area of Somalia and in the Gulf of Guinea. In contrast to the modus operandi adopted by Somali pirates who hijack ships and crew for ransom, pirates in the Gulf of Guinea region focus on theft of cargo from ships, especially oil and petroleum products in order to resell them on the black market.

The report estimates that it is difficult to calculate the losses inflicted by piracy. It interferes significantly with the transport of goods by sea, and thus the trade. Moreover, it has an impact on other economic activities such as fishing and energy production, thus potentially threatens the development of the economy. The report estimated that in 2005-2012, only in the region of Somali, the value of pirates' ransom increased from 339 million USD to 413 million USD. A global economic cost of piracy off the coast of Somalia was estimated at 18 billion USD, with a margin of error of about 6 billion USD.

Searching for similarities and differences between the analyzed phenomena, it should be said that the maritime terrorist acts are more scattered than data quoted above which indicates the geographic arena for acts of piracy. Different are also objects of attacks. The most desirable targets of terrorist attacks are marine tankers, passenger vessels and cruise ships with dangerous cargo and warships.

Maritime terrorism does not have as long history as piracy. Despite the mentioned differences, it seems that soon there will be a move away from the term 'piracy' to define acts of violence at sea, in favor of 'terrorism'. This is because the actions of organized pirate groups

resemble terrorism.

This specific matter is closely related to the case of kidnapping of five Polish sailors from the crew of the vessel "Sapphire", who were abducted by the end of 2015 [26]. It can be evaluated as a typical case study, taking into account all relevant elements for both parties - the kidnappers (the pirates) and their victims, as well as institutions and authorities standing behind them. On November 27 off the coast of Nigeria, there was an attack on general cargo vessel "Sapphire", flying the Cypriot flag. The ship-owner is Euroafrica. The boats of the attackers swam to the ship during the night. Part of the crew managed to hide but five crew members were kidnapped: captain, three officers and a seaman. As is clear from the reports, the activities of the Polish side after the kidnapping were routine. Crisis team was created immediately, consisting of representatives of many institutions that could help in this case. Polish facility in Abuja received a strengthening for diplomatic and consular posts, and immediately undertook contacts with the Nigerian authorities at central and local levels. On the coast, where they could lead the rescue, went consular and diplomatic personnel; representatives of the company also appeared. Talks started between the local authorities and hijackers.

In information published by Polish Press Agency [27] it was emphasized that seafarers and their families in country received the state support, including psychological support. It was noted that the issue of kidnapped Polish sailors and leading it to a happy finale was a priority for the Polish authorities and the

owner - the company Euroafrica, which led tedious and difficult negotiations with the kidnappers. From November 27 crisis team set by government was operating, which coordinated the work of Polish state services and was in constant contact with the ship-owner and the relevant Nigerian services. Actions for the release of kidnapped were taken immediately, as well as ensuring the safety of the crew and assisting them in a safe return home. All the time on the site in Nigeria Polish consul was present, and the team gave support to the ship-owner in collaboration with the Nigerian authorities. Regional offices were also in constant contact with their families. As a result of action taken, after almost two weeks there has been a happy ending.

The case of kidnapping and release of Polish sailors was commented on social networks, especially Twitter. After entering words #szafir many users' reactions to the situation could be traced. 8 December 2015 #szafir was defined as the trend of the portal @TrendsPolska [28]. Also, there have been reports in foreign languages about the alleged events. There was no shortage of comments stressing that the Polish media were silent when kidnappers got free. However, general message about the release of the crew of the ship "Sapphire", will positively impact the evaluation of the performance of the Polish government in crisis situations.

It should be noted that realizing the role of the media, including social media, which they played in carrying out terrorist actions, the Chinese authorities have banned publicizing this type of activity. However, this is not possible in the case of countries

such as France, Germany and Poland, where there is freedom of the media and access to them is unlimited.

4. THE PERCEPTION OF PIRACY AND MARITIME TERRORISM IN THE LIGHT OF THE RESULTS OF SURVEYS

The multitude of mass media means access to information and multiplication of information resources. Media seek sensation, create their own drama in events, determine an increase in viewership or effort, getting audience accustomed to a certain creation of events, which result in neutralizing response to some even drastic acts of terror (even served by the terrorist organizations themselves) and piracy. In connection with the assumption that students have very good access to information and that students of military academies profiled on the security are conscious customers, they were considered to be the respondents where the gap between the real and the subjective image is lower than in the case of college students not related to security. The results were compared with answers of students of the humanities. Undoubtedly, films, exemplified earlier in the paper, influence the reception of analyzed acts of violence. This is evidenced by statements of humanities students who indicated parrot (3 for 28 surveys) as a symbol of the pirates, while panda reminds them of the pirate with a patch over his eye.

Analysis of the external image made on the basis of a diagnostic

survey technique of unfinished sentences among students of military academies lead to the following evaluation (**Figure 1**) [29]:

- they compared the piracy to the following 16 different animals, which sets the repetition factor at 1.4 (assuming that the coefficient of 0.0 is the lack of repeatability): 1. hyena 26% of respondents; 2. fox 18%; 3. shark 16%; 4. magpie and 5. vulture 5%; 6. lion, 7. wolf 8. tapeworm, 9. falcon, 10. wild ducks, 11. tiger 12. viper, 13. parrot, 14. alligator, 15. leech, 16. ticks - 2.5% ;

- terrorists appear to them as: 1. lions for 16% of respondents, 2. shark - 11%; 3. wolf and 4. tiger - 8%; 5. dog, 6. fox 7. hyena, 8. bear - 5%, 9. vulture, 10. snake, 11. lizard, 12. spider, 13. orca, 14. whale 15. piranha, 16. squid, 17. people, 18. gorilla, 19. hippo 20. cetacea, 21. scorpion, 22. cheetah - 2.5%. Indicating 22 kinds of animals in the 38 given opinions, sets the repetition factor at 0.7.

Humanities students compared:

- pirates to 21 animals in the 28 opinions, which is the repetition factor of 0.3: 1. shark - 18% 2. parrot - 11%, 3. magpie - 7%, 4. hyena, 5. snake, 6. anteater, 7. whale 8. eel, 9. octopus, 10. piranha, 11. jellyfish 12. porcupine, 13. anteater 14. panda, 15 mosquito, 16. opossum, 17. fox, 18. salamander, 19. hawk 20. cat, 21. ant - 3.5%;

- terrorists to 16 different animals, which is the repetition factor of 0.7: 1. shark - 25%, 2. lion 11%, 3. piranha 11%, 4. orca - 7%, 5. jellyfish 7%, 6 dolphin, 7. jellyfish, 8. narwhal, 9. wolf, 10. vulture, 11. skunk, 12. turtle, 13. hawk, 14. hippopotamus, 15. hyenas, 16. fly - 3.5%. (Figure 2)

Answers in the case of military academies show that we have received a significant difference in the quantity of these animals, as well as the frequency of indications (the repetition factor). This may be due to more complex issues. Referencing piracy to hyenas, foxes and sharks amount to 60% of responses. In the case of terrorism, the highest indicator (four instead of three as in the case of piracy) are: lions, sharks, wolves and tigers, which were pointed by 43% of respondents. It is worth noting that the comparison to a shark occurs in both surveys, which indicates a similarity in the reception of piracy and maritime terrorism. This is reflected in literature, in this case social media as well as feature films. Increased polarization of opinion on the image exists with regard to terrorism than to piracy. Confirmation of this is found in the assigned characteristics.

The repeatability factor for students studying humanities looks different than in the military academies. Pirates are referred to as sharks, parrots and magpies by 36% of the responses. In the case of terrorism highest indications belongs to sharks, lions, piranhas and totaled 47%. When compared to sharks in both surveys repeatability is the highest. However, as was established, discrepancy between reality and subjectivity for humanities students is higher than for students of military academies.

The divergence of results may suggest: 1. the need for repetition of the research, 2. the lack of a deeper interest in the problem by respondents, 3. incoherence in creating the image of these processes.

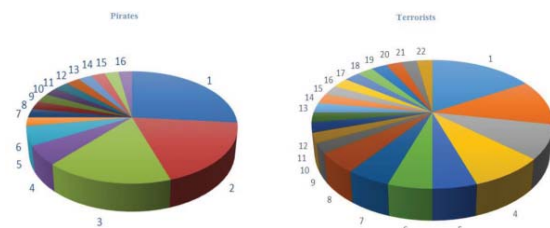


Fig. no. 1. Distribution of survey responses of students of military academies

Source: own survey

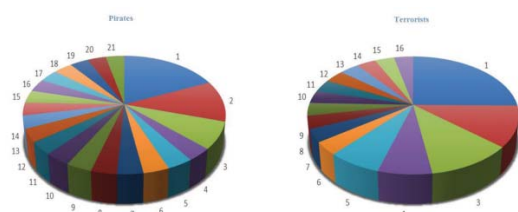


Fig. no. 2. Distribution of survey responses of humanities students

Source: own survey

The terms that were attributed to most frequently mentioned animals in the case of pirates, indicate the following characteristics: dangerous, cunning, clever, attacking a group, using situation, gaining at the expense of others. Characteristics in the case of four animals equated with terrorists are as follows: dangerous, predatory, persistent, powerful, ruthless, loyal, gregarious, using occasions.

It can be seen that characteristics attached to piracy correspond to negative characteristics of the thief. In the case of the terrorism, next to the negative traits there are also words with positive overtones as: tenacious, efficient. This means that, in addition to fear, caused in respondents by terrorist activities, they appreciate the efficient way the organization operates. It is therefore difficult to talk about the negative external image of terrorism. In the case of piracy it

is more unambiguously negative. It should be noted that these studies will soon be repeated and expanded in order to verify the results.

5. CONCLUSIONS

"When we fight to win the support of the population, it is not only facts that count." [30]

As it is apparent from authors' intentions, specified in the introduction of the article, the aim was to present a possibly fair image of piracy and maritime terrorism against the trends and developments of these phenomena. Searched for was the answer to question about the image of piracy and maritime terrorism in the media, including electronic media and the tools used to build the image.

The authors believe that the information revolution carrying the new technical possibilities for the exchange of information makes the community and individuals react almost immediately to events occurring in the environment, their reactions resulting from the dominance of emotion over rationality also being reduced. However, one should be aware of the social inequalities caused not so much by lack of access to modern technology, but rather the lack of broadly defined powers to communicate at this level. Respondents should be the group that is prepared and constantly participates in the exchange of ideas on virtual information exchange markets. It can therefore be assumed that the realism of subjectivity gap is much reduced for students of Naval Academy, and it applies to a lesser extent to students of the National

Defense University. However, the role of the media in shaping public opinion in creating social attitudes and the presentation of opinions, is undoubtedly enormous and increases with technical capabilities. This also applies to the possibility of creating an image by the same organizations that have access to modern technology and the skills of conscious impact on stakeholders. In the case of terrorist organizations, the wish to influence public opinion seems to be much larger than in relation to piracy. A thesis can even be formulated, that the increase in the social importance of terrorism is derived from the development of the information society while the possibility of broad reach with information helps in the achievement of the main goals of the terrorists - getting publicity.

Available date resources resemble dustbin where finding useful information requires certain skills and knowledge enabling to distinguish it. In addition, an important aspect is the willingness to reach such a source of information and not be content with the information that can be accessed most easily. Research show that worse information is replaced with more valuable. This is a consequence of a primitive instinct of lazy recipient, because people are attracted to the line of least resistance. Hence, the mass media present the lowest common denominator. Entertainment is ranked above the ideology: no matter what and from what point of view is presented, the overriding assumption is that it is aiming to play, to shock and upset [31]. Among other things, these factors affect the perception of the phenomena by analyzed students. Given that the problem

of piracy and maritime terrorism is of particular importance to the security environment, characterized by being multi-threaded and a kind of unpredictable, the authors intend to continue deliberations on the subject.

NOTES AND REFERENCES

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[2] A. Nowakowska-Krystman, P. Gawliczek, Core competencies of piracy and maritime terrorism, article sent for the reviewing process, to be published in the Journal of Defense Resources Management.

[3] United Nations Conference on Trade and Development is a subsidiary body of United Nations. Founded in 1964 in Geneva. Its task is to support economic growth (especially in developing countries), international trade and worldwide investments. In between sessions the role of an executive body is played by Trade and Development Board, TDB. Currently UNCTAD consists of 194 countries, including Poland. Basic functions are: promoting international trade to accelerate economic growth; skating rules and policies concerning international trade and economic growth, as well as presenting propositions to implement them; revising and helping in coordination of action concerning trade and economic growth between organs and institutions of United Nations; initiation of implementation of multilateral treaties concerning international trade; Centre for harmonization of trade and development – source: <http://unctad.org/en/Pages/Home.aspx>, (access: 6-01-2016).

[4] Twitter account @UNCTAD, was founded in November 2009. The number of followed users is 468, while number of followers is 84 500. Until 6 January 2016 the account posted 3915 tweets and 1115 pictures and films.

[5] M. Daszkiewicz, S. Wrona, Kreowanie marki korporacyjnej, Difin, Warsaw 2014, p. 63.

[6] According to W. Lippman, public opinion is set of stereotypes, in which emotions dominate national judgement. This increases the susceptibility to manipulation. J. Lewandowski, Neoliberalowie wobec współczesności, Atext, Gdynia 1991, p. 159; See: J. Zaller, Definicje opinii publicznej, [in:] Władza i społeczeństwo, edited J. Szczupaczyński, Scholar, Warsaw 1998.

[7] The study involved a random sample of students, one a population of 20 students of the National Defence University in Warsaw, the other 18 students from the Naval Academy in Gdynia. A total of 38 students from military academies, 18 women, 20 men, 32 people aged 15-24, 2 aged 25-34, 4 in the range of 35-44; all had secondary education: 26 profile related to security, 5 people with technical profile, and 5 of the humanities, one economic and 28 students of the Academy of Special Education, 26 women and 2 men; 26 in age group, two in the range of 25-34; 26 had secondary education: 13 with pedagogical profile, 15 art; 2 higher education.

[8] Pirates of the Caribbean series include 4 movies (5th in development). The first one, The Curse of the Black Pearl was published in 2003. The movies are accompanied with albums, soundtracks. There i also six computer games. Therefore, it affects the subconscious perception of piracy In the vast scope. Source: https://pl.wikipedia.org/wiki/Piraci_z_Karaib%C3%B3w, (access: 7-01-2016).

[9] Pirates premiered in 1986. Director and screenwriter Roman Polański tells a story of Captain Red and Frog. Source: <http://www.filmweb.pl/film/Piraci-1986-1106>, (access: 7-01-2016).

[10] Film based on a novel. The action takes place around searching for a hidden treasure. This once incredibly popular book influence many imaginations and myths about pirates, for example key protagonist with wooden leg. Source: https://pl.wikipedia.org/wiki/Wyspa_skarb%C3%B3w, (access: 7-01-2016).

[11] For a change, in the film the main character is a woman - pirate, of course beautiful, easy-going daughter of a pirate

who takes over command of the father's ship and embarks on a journey in search of treasure. The premiere of the film - 1995. Source: <http://www.filmweb.pl/film/Wyspa+pirat%C3%B3w-1995-11824>, (access: 8-01-2016).

[12] Peter Pan is a character from the novel, which was the basis for recording four animated films in 1953, 1989, 1990, 2002; a feature film in 2003, silent film in 1924, the comic book series and musical. The story is based on the Peter's fight with the evil Captain Hook and his pirates (negative heroes). It is worth noting that Hook is of dishonorable nature, nasty and cruel but he is also charming and aristocratic. Source: https://pl.wikipedia.org/wiki/Piotru%C5%9B_Pan, [https://pl.wikipedia.org/wiki/Piotru%C5%9B_Pan_\(film_2003\)](https://pl.wikipedia.org/wiki/Piotru%C5%9B_Pan_(film_2003)), (access: 7-01-2016); Piotruś Pan i piraci, https://pl.wikipedia.org/wiki/Piotru%C5%9B_Pan_i_piraci#Opis_fabu.C5.82y, (access: 8-01-2016).

[13] Hook in a contemporary story about everlasting boy Peter Pan, directed by Steven Spielberg in 1991. The title comes from the name of the main character pirate Captain Hook, played by Dustin Hoffman. Source: <http://filmowo.net/recenzje/hook.html>, (access: 8-01-2016).

[14] Blackbeard is a historical figure, one of the most feared pirates of his time. At his peak, he had 4 ships, 60 guns and approx. 400 people. In the film, this character is presented as a genius of crime, which forces fear and terror along the eastern coast of the United States. Film premiered in 2006. Genre: drama. Source: <https://pl.wikipedia.org/wiki/Czarnobrody>, <http://www.filmweb.pl/film/Czarnobrody-2006-422642/descs>, (access: 8-01-2016).

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sebastianem-kalitowskim/ (access: 30-11-2015).

[16] Captain Phillips is a drama from 2013, which shows a captain (Tom Hanks) responsible for lives of his crew and vast cargo ship under attack of pirates. In the movie there is no easy answer, because there is no easy division into good sailors and bad pirates. Director (P. Greengrass) presents everyone as victims of a cruel system, in which everybody wants to work, they have their superiors, want to earn money. Source: M. Pietrzak, Na oceanie inteligentnej rozrywki, <http://www.filmweb.pl/reviews/Na+oceanie+inteligentnej+rozrywki-14966>, (access: 8-01-2016).

[17] K. Kubiak, Przemoc na oceanach. Współczesne piractwo i terroryzm morski, TRIO Publishing House and Centrum Europejskie NATOLIN, Warsaw 2009, p. 18.

[18] Terroryzm i zaufanie, source: <http://projectsyndicate.natemat.pl/162305,terroryzm-i-zaufanie>, (access: 29-11-2015); Terroryzm!com, source: <http://www.terroryzm.com/>, (access: 30-11-2015).

[19] Psychological thriller from 2010, touching the issue of planting nuclear bombs by terrorists in different locations, in this case the United States. Source: <http://www.filmweb.pl/film/Bez+regu%C5%82-2010-460941>, (access: 8-01-2016).

[20] Thriller from 2013, shows White House which was attacked by a group of terrorists, not a benevolent Americans. It is primarily action cinema with long sequences of shooting and explosions. Source: M. Pietrzak, Rozmiar ma znaczenie, <http://www.filmweb.pl/reviews/Rozmiar+ma+znaczenie-14457>, (access: 8-01-2016).

[21] Drama, thriller from 2007 is an example of American cinema of moral anxiety that captures the public mood resulting from the interrogation methods carried out under the so-called war on terrorism. There is another side: young boys who have fallen victim to religious fanaticism and violence of the state apparatus. It is noted here that the Western world is by no means blameless, and terrorism

is very often the result of desperation, poverty and enslavement. Source: K. Michałowski, Słuszny niepokój, <http://www.filmweb.pl/reviews/S%C5%82usznyniepok%C3%B3j-4996>, (access: 8-01-2016).

[22] Film from 2010 presents a man, a Muslim who, because of prayer in Arabic at the airport, is considered a terrorist. It is therefore a story of hatred and mistrust. Source: M. Pietrzak, Niejestemterrorystą, <http://www.filmweb.pl/reviews/Nie+jestem+terroryst%C4%85-10593>, (access: 8-01-2016).

[23] The film shows not particularly witted terrorists, therefore terrorism presented here does not have demonic face. The director shows that terrorists may also be a subject of jokes. Source: B. Staszczyszyn, Terrorysta z ludzką twarzą, <http://www.filmweb.pl/reviews/Terrorysta+z+ludzk%C4%85+twarz%C4%85-12487>, (access: 8-01-2016).

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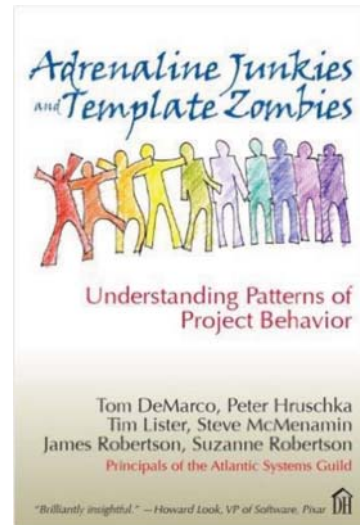
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BOOK REVIEW

ADRENALINE JUNKIES AND TEMPLATE ZOMBIES

Understanding Patterns of Project Behavior



Authors

TOM DEMARCO
PETER HRUSCHKA
TIM LISTER
STEVE MCMENAMIN
JAMES ROBERTSON
SUZANNE ROBERTSON

REVIEWER:

DR. KADIR ALPASLAN DEMIR

Assistant Program Manager
Turkish Naval Research Center Command, Istanbul, Turkey

Publisher

Dorset House Publishing, 353 West 12th Street, New York, NY 10014, USA

Number of Pages: 248

Year of Publication: 2008

Acknowledgement:

The policy of the **Journal of Defense Resources Management** is to disseminate relevant knowledge to communities of interest. As such, it publishes book reviews that bring value to the research and educational fields.

Today, armed forces are in continuous transformation. As new technologies are developed and new principles of war are introduced, the ministries of defenses and armed forces have to adapt to this changing environment. Almost every day, military officials start new projects to handle the technological and cultural transformations in the military. Project management became an integral part of defense development and management. Today, all high or middle level military officials are either a project sponsor overseeing a project, or a project manager executing a project, or a member of project team helping the project to become a reality. As a result, project management skills became an essential part of skillset that a military official need to successfully execute his/her duties.

There are many books on project management. Most of them follow the mainstream set by the infamous project management guidebook, Project Management Body of Knowledge (PMBOK) [1] by Project Management Institute. Every couple years, the PMBOK is updated to reflect the current body of knowledge in project management. The current PMBOK outlines the basic project management knowledge areas: Project Integration Management, Project Scope Management, Project Time Management, Project Cost Management, Project Quality Management, Project Human Resource Management, Project Communications Management, Project Risk Management, Project Procurement Management, and Project Stakeholders Management. Many of the project management books discuss these knowledge areas in full or in part. After reading a couple books, anybody will be familiar with the next book in the mainstream. However, there are also a few books outside this mainstream providing an insight or a different view. For example, “The Deadline: A novel about project management” [2] by Tom DeMarco is such a book. It is written as a novel about a project manager’s experience in a fictitious country. Another book called “The Mythical Man-Month” [3] by Frederick P. Brooks is a condensed text of the experiences of a large-scale project manager. The book, “Adrenaline Junkies and Template Zombies”, is among the few books that have a different taste than the mainstream project management books. It basically explains various good and bad patterns of information technology (IT) project behavior in a tasty manner.

The first striking aspect of the book [4], “Adrenaline Junkies and Template Zombies: Understanding Patterns of Project Behavior”, is its authors. The authors of this book have many of years of IT system design and project management practice, teaching, and consultancy experience. I became aware of this book during a webinar by one of the authors, Tom DeMarco. As soon as the webinar is concluded, I went to a book store and bought a copy of the book. I finished the book in a heartbeat the same day. I was fascinated by the taste of the book.

The book consists of 88 project behavior patterns. Each pattern is described in a couple pages with associated project stories. Additionally, each pattern has a unique and striking name. Authors intend to leave a mark on the reader using these striking pattern names. In fact the title of the book actually includes two of the project behavior patterns: Template zombies, adrenaline junkies. Authors state that they originally composed more than 250 patterns. Due to various reasons, they could only fit 88 of them in the book. Some of these patterns are good, intended project behavior and some are bad, undesired project behavior. In literature the bad patterns are also called

“antipatterns”. It is possible to say that most of the patterns included in the book are antipatterns. I believe that this is intentional since many of the current books on project management include the good patterns described in a technical way. Therefore, the authors mainly focused on antipatterns and they described them in a nontechnical way supported with familiar project stories.

Some of the pattern titles described in this book are:

- Dead Fish
- Happy Clappy Meetings
- Referred Pain
- No Bench
- The White Line
- Lessons Unlearned
- Counterfeit Urgency
- Short Pencil
- The Empty Chair
- Orphaned Deliverables
- Food++

In the pattern “Template Zombies”, the authors describe the blind mentality of enforcing templates without question or without customization in projects. They warn the readers that in project organizations, there may be certain people that attempt to apply process or production templates just as they are laid out in a book or standard. The authors emphasize that these project members, template zombies, are in fact missing the point, which is these templates should be tailored based on the needs of the project. These templates are actually the physical manifestations of certain project development philosophy. As long as you follow the development philosophy, you can modify these templates suitable to your project needs. If the templates are not customized as necessary, then the project team members will resist to follow the templates as they see that some of the template portions are unnecessary or irrelevant work.

In the pattern “Adrenaline Junkies”, the authors draw attention to an unhealthy behavior in some project organizations. In these project organizations, there is a culture of doing everything in a frenzy manner. Everything is urgent. Priorities are always changing. All personnel should immediately postpone what they are doing if an urgent work should be done. These types of urgencies never end. This behavior should be familiar to some readers. The word “junky” is a careful selection on author part. Junky is actually an informal word for drug addicts. The constant pressure to do things in an urgent manner is seen as an addiction to adrenaline by the authors. In these organizations, the higher level managers of managers believe that keeping the organization in a constant state of frenzy is good for productivity. The authors emphasize that these types of organizations will be unable to build big projects. Because large-scale projects require careful planning, long-term strategic thinking, patience, and concentration.

“Referred pain” is one of the patterns the reviewer is fond of. The authors did put an effort to find good pattern titles and this is a good example. A person feels a headache and goes to a doctor. The doctor gives him a medicine for the headache. The person takes the medicine and the pain goes away for a while. Then the pain comes back. Again, the person takes the medicine and the headache goes away. The process continues but the pain does not go

away completely. Soon, the medicine becomes ineffective. After a while, it becomes clear that the cause of the pain is an infected tooth. Because it is misdiagnosed, the problem gets bigger and the dentist has to remove the tooth. In some cases, the problem with a tooth manifest itself with a headache rather than a toothache. The pain manifest itself in another part of the body rather than the part that actually causes the problem. Therefore, this type of pain is called a referred pain. The authors describes a certain behavior in project organizations using this metaphor. In some organizations, certain problems are tried to be solved without the search for the root causes. The solutions applied without the understanding the root causes will be temporary and most likely the problem will get much worse. In these cases, it is advised that if a problem keeps coming back after applying the same solution a couple times, then the managers should seek the root cause of the problem rather than insisting on ineffective solutions.

“Food++” is a one of the good project behavior patterns. In some organizations, a group of team members voluntarily get together for lunch, dinner, picnic, barbeque, or other similar events. They emphasize that while having food together will not get the project done, it certainly builds stronger relations among team members that will eventually create a synergic project environment.

The “Lessons Unlearned” pattern describes the organizations that keep repeating the same mistakes over and over. In these organizations, the members hold lessons learned meetings. They lay out certain action items. But the action items are not carried out. As a result, these lessons are in fact unlearned.

The “No Bench” pattern describes the project organizations in which certain critical tasks are only carried by a few distinguished people. These roles are not backed up. Therefore, these projects are risky because they depend on certain critical personnel to do their jobs. If they leave the job, no one has the necessary knowledge to complete the job. In these cases, it is advised that all critical roles and tasks should have backup a team member with the necessary skill and knowledge to continue the work.

After reading the book, the reader will have a smile or a grin in his/her face because the reader will quickly remember the bad and good experiences faced during his/her career. Most of the patterns are easily recognizable when it is read. After reading the book, it is likely that the reader will be able to quickly recognize most of the problems in their respective project organizations.

The only critic of the reviewer is that the book could have included more patterns. It is such an entertaining and eye-opening book.

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