

Change Management: How it can change the modern Armed Forces

THEODOROS ZIKOS¹, NIKOLAOS V. KARADIMAS², ALEXANDROS TSIGKAS³

¹Deputy Director of Ordnance Directorate of Hellenic Army General Staff, GREECE

²Assoc. Professor, Div. of Mathematics and Engineering Science, Dept. of Military Science, Hellenic Army Academy, GREECE

³Assoc. Professor, Div. of Production and Management Engineering, Democritus University of Thrace, GREECE

Abstract: - The ever-changing external environment, developments, and NATO's constantly reconfigured requirements, make it imperative to perform changes and reforms within the Greek Armed Forces. The necessary conditions for this process to come to fruition are the articulation of a specific plan, the formation of an appropriate leadership team, and continuous access to information about the techniques being followed and the desired objectives. Thus, to achieve these conditions, it is, therefore, advisable to adopt a model that mitigates the challenges of reorganization and maximizes its positive results. This model is called Change Management, which controls the reform environment and implements change efficiently.

Key-Words: Greek Armed Forces, Reorganizations, Change Management

Received: March 20, 2022. Revised: September 21, 2022. Accepted: October 27, 2022. Published: November 18, 2022.

1 Introduction

Already at the beginning of the second decade of the 21st century, the Greek Armed Forces are facing new and complex challenges. The globalization of the economy, the rapid technological changes, the ever-increasing demands for the protection of national security, the commitment of the mass media to the quality of services in the public interest, and the constant flow of information on a global level, set the framework in which the Armed Forces must operate. All this, of course, is under the constraint of producing more services concerning maintaining/improving national security, but at the same time relying on ever-decreasing resources, which is even more evident in the era of economic adjustment we are going through.

The Armed Forces, unlike in the past, are directly affected by changes in their environment and must continuously adapt their structures, the procedures they apply, and their strategic objectives to the ever-changing data, with an eye to the national integrity of the country. This has created new challenges, since the requirements for shielding national security have increased, especially because of the geopolitical and strategic developments in the region. On the other hand, the budget for supplementing or renewing defense equipment, as well as improving the training of human resources, is decreasing.

2 Organizational Changes

Going back to antiquity both Heraclitus and the exponents of Chinese thought (mainly, as this is enshrined in *Tao Te Ching*, *I Ching*, or *the Book of Changes*) had comprehended the mutable nature of the universe, they had identified *movement* and *change* as the main ways this is expressed and made suggestions on the human stance towards them.

One definition of change identifies it as a process in which an organization moves from the current state in which it finds itself to the desired state to enhance its effectiveness [1].

2.1 Theoretical Perspectives

For this paper, a brief presentation of the key and most widespread theories that are necessary for the subsequent presentation of Change Management will be made [2].

2.1.1 The K. Lewin step theory

The most important theory in the study of organizational change is Kurt Lewin's three-step model and its related force field analysis [3]. According to Lewin, the process of change involves three stages:

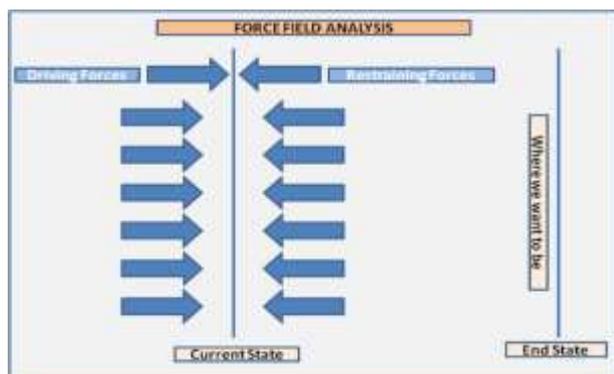
- The *unfreezing stage* is when the established order is disrupted. At this stage, the gap between the existing and desired state is identified, which causes the existing habits and behaviors.

- The *moving stage*. At this stage, the movement to the new situation takes place through the participation and involvement of the participants in the change process.
- The *refreeze stage*. At this phase, we have the consolidation of the new order of things, i.e., the consolidation of change. This is achieved through various ways, such as communication, performance appraisal, rewarding successes, leadership commitment, and appropriate training that will prevent a reversal to the original condition.

2.1.2 The Force Field Analysis (FFA)

In the context of the analysis of the Forces that drive organizations to adopt or resist change, Field Dynamics Analysis is another valuable contribution of Kurt Lewin. According to it, in any organization planning to change there are two forces, those in favor of change and those against it. The gist of this theory is that for change to be achieved, the forces in favor of it must outweigh those opposing it. Therefore, those who plan a change in an organization have two major tasks:

- To strengthen the forces for change
- To weaken the forces that resist change



2.1.3 The Change Formula (Change Formula)

Professors Richard Beckhard and Reuben Harris formulated the equation of change, attempting in a concise way to illustrate the process of change and identify the factors necessary for it to occur [4]:

$$C = [ABD] > X$$

C = Change
A = Level of dissatisfaction with the status quo
B = Desirability of the proposed change or end state
D = Practicality of the change (minimal risk and disruption)
X = 'Cost' of changing

Although it seems very simple, the equation does identify the essence of attempting to achieve change.

If we study each individual or group whose participation in the process of change is deemed necessary, overall, factors:

A (frustration/dissatisfaction with the status quo),
 B (shared vision and desire for the change being promoted), and

D (ability to implement the change) must outweigh the cost of change X (in economic as well as psychological terms) for the transition to be implemented. If this is not the case, the planned change does not have the necessary momentum to succeed.

The above equation is used by many organizations, both public and private, before planning a reform attempt, to use it in the form of a checklist to determine whether the conditions are conducive to change.

2.1.4 The 8 Stages of Kotter

After many years of experience as a consultant to private and public organizations in transition, John Kotter concluded that successful change requires eight steps [5]. The eight steps to achieve significant change are:

- Creating a sense of urgency. By examining the reality and analyzing the internal capabilities of the organization, a team can demonstrate the necessity and usefulness of the change for the survival and the first of the organization.
- Building a strong steering coalition. It is crucial to build a solid and influential team that has the vision, skills, authority, and will to pursue the implementation of the change and to support the change program in all its phases.
- Creating a solid vision. The development of a program will help to indicate the direction of the change effort and is critical to its success, as it helps to direct, align and inspire the actions of a large number of people. An absence of vision can lead to disconnected and fragmented programs.
- Transmitting the program for change. Employees must perceive the need for change, be convinced that the potential benefits are attractive, and believe in its feasibility. Reliable communication that is not restricted plays an important role at this stage.
- Empowerment to support the vision. In the course of implementing the change, resistance is expected that may harm its successful outcome. It is, therefore, necessary to break down barriers and change systems and structures that undermine the reform effort. At the same time, it is vital to encourage

participation through the creation of a positive organizational climate where new ideas, activism, and action are heard and supported.

- Creating short-term achievements. Achieving rapid positive results boosts the morale of those involved in or changing. Since real transformation takes time, it is necessary, in order not to lose the momentum of change, to determine short-term goals be achieved and to reward their achievement. This positive experience motivates employees to be more actively involved and creates positive attitudes toward change.
- Consolidating changes and starting new ones. Change is not only a framework for action but also a philosophy of continuous improvement and vigilance for the best. Hence, since one change leads to another, the change process should be further activated by rewarding the most successful employees and departments and promoting an agenda of new changes, new programs, and actions.
- Embedding change in the culture and values of the organization. Ultimately, changes are only embedded when they are established as “the way we do things here” and permeate the organization by all members of the working group. To avoid the organization’s inherent tendency to revert to the old-entrenched state, change must be embedded in the culture of the organization. The goal is to turn the effects of the change into a new habit, thus discouraging employees from returning to the previous way of doing things.

2.2 Turnoffs

Although especially in the last decade the phenomenon of organizational change has been extensively studied and this fact has resulted in numerous publications, tools, good practices, and change management models, however, the results in practice are not very encouraging.

The reasons that lead to unsuccessful attempts at change are varied. If we study the rich relevant literature, most scholars of the phenomenon converge on the following factors:

2.2.1 Resistance against change

Resistance to change can appear in various forms and during the change process, either as a lack of support for the change program or as an obstruction to its implementation. Watson defines it as “the forces that contribute to the stability and maintenance of the existing system” [6]. Conner describes it as a normal

reaction of people who do not wish to disturb the existing state of affairs [7].

Making the connection with what was mentioned earlier, the forces that resist change are identified with the corresponding forces in Lewin's model, which are necessary to be subdued by the forces that favor a change for it to take place.

2.2.2 Absence of a sense of urgency

It is necessary to create a sense that the need is right, necessary, and timely. Kotter's eight-point model described above, is the first of the steps necessary for a change to succeed. If this does not happen, inertia and insufficient mobilization of change actors are very likely, which greatly reduces the likelihood that the forces in favor of change will form a strong coalition that will overcome those who resist it.

2.2.3 Lack of commitment from the political leadership/higher military hierarchy

The commitment of the leadership (in the case of the Armed Forces, we mean the political leadership and the military hierarchy) to the promoted change is an indispensable condition for its successful implementation. It is not enough for them to believe in and transmit the new vision, but to support the change at every step and at every obstacle that arises. If these are not in place the most likely outcome is an “incomplete” reform, where informal or formal groups will fight to take advantage of the new situation, with no positive outcome and no positive effect on the organization itself.

Moreover, the commitment of the political leadership and the military hierarchy to change must be evident to all Armed Forces personnel (civilian and military).

2.2.4 Lack of vision to inspire the effort for change

Creating and fostering a clear vision to inspire change is one of the key elements of the reform effort. Kotter writes very graphically, “When you can't describe in 5 minutes or less the vision behind the change initiative and get a reaction from others that shows understanding and interest in it, you have a problem” [8].

Furthermore, as Ingsstrup and Crookall point out, the above need is much more suited to the public sector, where acceptance of a change will increase when it can be reflected to and reflect a noble purpose that serves the public interest and contributes to society [9].

2.2.5 Failure to maintain a commitment to change

It is commonplace in the global experience, especially in the public sector, that many reform efforts start with enthusiasm, both by statesmen and public officials, but then this “reform zeal” wanes, and the reform stalls. Kanter warns that it is usually in the “uncomfortable middle” of a change effort that everything looks like it has failed and workers are inclined to give up [10]. But it is at that time that efforts to empower, commit to change, and encourage employees must be intensified, or the chances of failure are greatly increased [11].

2.2.6 Absence of a group to lead the change

The absence of a strong guiding agency means that the change may not garner the necessary support and energy to be completed. It is necessary to form a team consisting of managers from different levels and sectors who are deeply committed to the objectives of the change being promoted and who are also qualified to inspire and guide other employees to overcome the difficulties and problems that will certainly arise during the implementation of the change.

2.2.7 Lack of change in organizational literacy (culture)

A simple definition of culture according to Hofstede is “the common way of thinking that differentiates the members of one organization from another” or more simply “the way things are done within the organization” [12]. But since organizational culture determines the way people act, lead, behave and work within an organization, if the change itself does not coincide with the necessary changes in the culture of the organization (which will of course be in line with the philosophy and vision of the planned change), its failure seems more likely.

According to Hoy and Miskel (2013), culture signifies the norms, shared values and goals, and fundamental assumptions of the members of a given organization which tie them together and give the organization a distinct identity [13].

2.2.8 Lack of resources (capacity for change)

The term “capacity” connotes the availability of the resources required to implement the change, i.e. time and money, material and human resources. The resources needed must first be identified and then the capacity to use them must be ensured. A change that has been designed based on estimates of the resources needed, which do not correspond to reality, will face serious challenges when it is in the implementation phase and will most likely fail to meet its objectives.

2.2.9 Poor communication

Since change has a significant impact on the way of working, the psychological state, and the daily life of employees, a communication strategy is necessary that will answer not only why the change is required, but also what the benefit will be for each group or individual. The absence or underestimation of the communication factor makes it much more difficult to create a climate that will favor the building of an alliance for change and weaken the forces that resist it.

3 Case Study

At this point, a case study analysis will take place examining how the vision, for the modernization of the army, of the Chief of the National Defense General Staff is going to be applied through change management.

3.1 The structure of the “Branches”

The Hellenic Armed Forces are organized into three Branches, i.e., the Army, the Navy, and the Air Force [14]. This case study will be focused on the Army.

The Army consists of the combat arm which is called “Arms” and support elements which are called “Corps”. The Arms conduct warfare and the Corps provide logistics support. The Armed Forces are organized into Units, Groups, and Formations. The basic formations are the Battalion, the Brigade, the Division, and the Army Corp. The structure also includes the Army General Staff and its Headquarters, the 1st Army, and several schools and training centers.

3.2 The reference framework for the new structure of the Armed Forces

The creation of an effective Armed Forces, capable of responding to the principles of the country's defense policy, requires:

- The deployment ashore of flexible, fast-moving, and effective forces with body armor protection, high firepower and effectiveness, and appropriate organization and disposition, capable of ensuring the territorial integrity of the mainland and the islands.
- The development of naval power at sea is capable of defending the nation's legitimate sovereign rights, defending the Greek coasts and islands from the sea, maintaining open sea lines of communication, projecting power on land, and boosting our naval presence throughout the Greek maritime space and the wider Eastern Mediterranean area.

- The use of air power in the air, capable of defending the nation's sovereign rights, guaranteeing air defense, supporting the other branches of the Armed Forces in their efforts to safeguard the integrity of the mainland and the islands, and ensuring the ability to operate in the wider area of the Eastern Mediterranean.
- The maximization of the capability of the coordinated action of all branches of the Armed Forces, with special emphasis on interdisciplinarity, so that they can conduct combined operations in the direction of implementing the mixed operational doctrine in the peculiar environment of each possible Theater of Operations, to achieve the objectives of the defense strategy.
- The reorganization of the forces of the three Branches, following the modern operational specifications and requirements of NATO, adapted to the national defense planning, aiming to increase the effectiveness and speed of reaction of the forces, while seeking to reduce their operational costs.

3.3 The philosophy of modernization in the Armed Forces

The modern security and defense environment, the rapid developments in military technology, and the new conditions of warfare require a radical change in the structure and philosophy of the Greek Armed Forces.

Currently, the international security environment is complex. The medium-term threat of waging global wars has been eliminated, but national, religious, economic, economic, social, and environmental tensions continue to cause instability in the international security system and generate asymmetric threats.

To meet the demands and conditions of the new era, the Greek Armed Forces are adapting to be strong, flexible, and effective to be able to deal with any threat in the new security environment of the country.

Based on these facts, the Ministry of National Defense is planning and will promote major reforms in the structure, organization, and operation of the Hellenic Armed Forces.

The changes that are being promoted and are already underway, concern the upgrading of the three principal elements of defense power:

- The **“command and force structure”**
- The **“weapon systems”**
- The **“human resources”**

3.4 Methodology

Over two weeks, five officers who are contributing to the modernization of the Armed Forces and who hold important positions in this attempted change were interviewed. The interview was conducted in the office through handwritten notes for 6 days. This data demonstrates the bridging from theory to the practice of what has been undertaken above, as well as how things are, or should be, evolving in practice.

As a limitation, concerning the publication of the results of these interviews, the small number of interviews - as a statistic, as well as the perceptive capacity required to make a system work - can be understood. All these are, however, minimized because this effort can continue to form the basis for the elaboration of a model for addressing such situations.

For the way the interviews were conducted, as well as the evaluation of the results, the personal interview method was applied, where the researcher asks the questions and at the same time completes the questionnaire, strictly following the rules of the methodological framework for interviews.

Below is the interpretation of the findings of the research, related to modernization in the modern Armed Forces, where the results of this research effort have been recorded from the interviews, following a rational approach, categorizing the questions into categories and assigning, in a descriptive analysis, the overall results.

The questions asked during the interviews are grouped into G1, G2, and G3 categories, giving a “title” to each group of questions, and the answers to the grouped questions are interpreted, to extract “variables” that will serve the analysis of the implementation of the reform, in the modernization of the modern Armed Forces.

- **G1 Category:** *“Command and Force Structure”*

-The management of each level of the hierarchy continues to be the central core of the change management function.

-Appropriate changes create the potential for opportunities.

-No one is immune to change. To this end, the necessary tools are strategy, planning, vision, and desire, which run through the organization, concerning dealing with resistance/challenges to change.

-Planning and anticipation of resistances/problems are required so that changes can be achieved appropriately.

-The changes, that the organization may face, are varied. What is certain, however, is that changes are needed in the area of force structure and, by extension, force management.

-The primary duty of all is to “prevent” and “treat” and then “cure.”

-The “experts” are an integral part of an organization's change management team; training and methodology are required to mitigate “uncertainty.”

-Everyone should strive for the survival of the “team” rather than the “individual.” This is how the desired result will be achieved.

-All operational lessons should be recorded and evaluated to avoid the sinister aspects of change management, in the future.

- **G2 Category: “Optical System”**

-The problems must be tackled sequentially and with priorities.

-The most serious “problems/risks” are caused by human-made factors, concerning the procurement of weapons systems.

-In this sense, “transparency” (as the main area of threat) should be prioritized because it is directly related to human-made factors.

-It is very challenging, in a context of change, to anticipate, foresee, and address all the problems that arise.

-When problems accumulate and begin to interdepend on each other, they lead to dangerous situations with uncontrollable effects, which directly affect the proper functioning of the organization, in terms of the necessary (quantitative and qualitative) level of existing weapon systems - as part of its 'resources'.

- **G3 Category: “Human Resources”**

-Due to the evolution of technology, there is a variety of needs in which the responsibilities and generally the desired results of human resources are involved, resulting in many areas of various interdependencies, with many and varied requirements regarding the performance and effectiveness of individuals.

-Today things are beginning to change, and we are moving from “centralized” control to control that focuses on those areas of interdependencies.

-Because the areas in which the branches and services of the ED are currently active are numerous, human resources support is required in all its facets to avoid the impression that,

everything is “going well” or that, on the contrary, everything is “problematic.”

-The result of all this is the creation of a “background of knowledge” and “culture.”

3.5 Results

The case study, as analyzed earlier through the conditions set by the Hellenic National Defense General Staff - but also the samples taken from the interviews - of the implementation of a major reform in the Greek Armed Forces is typical of a change that is ambitious and far-reaching. The study of the process of transition from the traditional way of operation of the Armed Forces to a “modern” way of action and existence allows us to derive some intriguing insights. On this basis, an interpretation of the difficulty of implementing this reform can be made.

A strong commitment from the political/military leadership is required to effect the change.

Additionally, it is also crucial to commit the necessary resources to achieve the objectives of the change attempted. When the factor “resources” is mentioned, we are not only referring to the financial resources, but to all the parameters that make up this concept, such as the human factor, the logistical infrastructure, the mechanical equipment, the overall systems, the parameters that make up the strategy/policy of actions, the stakeholders, the structures, the form of management and control, etc.

A sustained effort is required to form a strong “coalition” that believes in the change being promoted, both in the political field (by building broader consensus among political parties, scientific disciplines, etc.), and in the pure service field [cadres (military/political) who see change as an opportunity].

Many change stakeholders, as would be expected from the perspective of organizational theory, are skeptical about or oppose drastic changes in “command & force structure/weapon systems / human resource management,” as their way of command, organization and operation will be decisively affected. Moreover, it is necessary to introduce a new education (or, in other words, culture) and management philosophy, compatible with the new concept of command and control. One focus of reaction (or inertia) comes from the “to-be-changed” institutions, which are not particularly keen to take on the responsibility of altering their organizational framework, since, as indicated earlier, this requires significant changes in the process and philosophy of their day-to-day operations.

There must be a clear strategy to convince all stakeholders of the need for change and to actively participate in its design and implementation.

The key to the success of a change, as we have seen, is the creation of a team of competent and ambitious individuals who are fully dedicated to the desired change and who, as agents of change, will undertake not only the effective implementation of the program but above all will mobilize or co-opt other forces to join in and contribute actively.

Today, in the era of adjustment for economic and administrative reform in Greece, as well as in light of the realization of the absolute need for radical changes in the state, it is easier for more groups and individuals to be convinced of the necessity and urgency of changing the traditional way of operation of the Armed Forces, in the direction of a modern way of operation and action, compatible with global standards, to maintain and increase the operational character and strength of the armed forces.

It is necessary to combine this “major” change with parallel changes so that in synergy they bring about a positive effect and facilitate its success. This combination, however, as a corollary, is likely to bring about interdependencies of various forms, which will affect the outcome. It requires adherence to the methodological framework of action and perseverance in achieving the desired result. Examples are the transition from the existing system of evaluating human resources to another (management by objectives and measuring efficiency and effectiveness), which is a prerequisite and basis for evaluation, or even a new way of paying through a payroll system that does not entail major injustices and therefore the resulting reactions, etc.

4 Problem Solution

Organizational changes come with a set of challenges that may jeopardize or derail the implementation of any transformative plan. The army is, however, not helpless in the face of such adversities. Change Management possesses a toolset capable to assist the army’s decision-makers to successfully navigate the treacherous path of transition and reach their new desired state.

4.1 The concept of Change Management

The most accepted definition of Change Management defines it as “the process, tools, and techniques to manage the human element of the change process, to achieve the intended results and to perceive change effectively between the individual change agent; the internal team and the wider system” [15]. According to this definition, it is a series of activities that will

bring about an improvement in the army’s organizational system.

Managing change is a task that can be done either proactively, with changes performed in a planned and systematic way, or in response to external changes to which the organization has been exposed [16]. Most modern analysts consider it necessary that “change management” is closely related to clear strategic planning based on appropriate information, analysis, discussions, and agreements. The result that will emerge will be the creation of a Strategic Change Management (SCM) for the army which appears as the most modern and rational way to make a change successful and to achieve maximum benefits in the long term.

4.2 Analysis of a change management model

A model that can be used as a basis for the effective planning and implementation of change in large public organizations is that developed by the United Nations (UN) through the United Nations Development Program (U.N.D.P.) [17].

This model places particular emphasis on achieving results from the promoted change that will be endorsed by all stakeholders, as well as being sustainable and achievable. It is a strategy that focuses on the particular importance of stakeholders in the public sector (in this context army is part of it) and the absolute necessity to create benefits for them from the promoted change to create the right conditions for its achievement. According to this model, regardless of the cause that triggered the need for change, its objectives, and the combination of techniques employed to design and implement it, every change process aims at two main categories of actions: firstly: managing the environment for change and secondly: executing the change itself.

4.2.1 Creating a climate for change

Using the above-mentioned model is possible to go a step further looking for the factors affecting a change.

According to Armenakis the degree that employees are willing to accept a change is affected or determined by five elements: the degree that they are convinced that the change is a necessity, is applicable, is beneficial for the organization, the degree that the leader is devoted to this change and finally the change is beneficial for them [18].

4.2.1.1 Creating a sense of the need for change

At the initial stage of a change, it is necessary for all those involved to understand the need for change, the importance of the moment, and the consequences of inaction. It has already been mentioned in Kotter's 8-

step model that the creation of a climate of urgency in advance is viewed as a necessary step for successful change. Ultimately, the prerequisite of any change in the army is that the need for it is owned by all, but at the same time the most appropriate solution, leading to the realization of the need for reform.

4.2.1.2 Creating a vision (visioning)

As mentioned earlier, the absence of a vision that will guide and surround the change by linking it to a broader and deeper purpose makes it much more difficult to implement. It is therefore the responsibility of the leadership to create the appropriate vision that will help the members of the Armed Forces to better understand the objectives, inspire and motivate them, and provide a haven when the change process encounters problems and difficulties later in its implementation. At this stage, stakeholders should reflect on and discuss how they envision the Armed Forces in the future. Four key questions need to be answered:

- Where are we now?
- Where are we going?
- Where do we want to go?
- How do we get there?

4.2.2 SWOT Analysis

Another alternative is the well-known S.W.O.T. analysis. SWOT analysis is a tool of strategic planning which is used to analyze the internal and external environment of an organization (Strengths, Weaknesses, Opportunities, Threats) when it needs to make a decision related to the goals it has set and their implementation.

The importance of the analysis of the external environment is based on the need to “scan” the current and future situation to properly define the strategic planning of the organization and therefore the appropriate changes that should be implemented. The analysis is carried out at six levels of the external environment, using PESTLE analysis i.e. understanding the broader forces at the political, economic, social, technological, legal, and environmental levels.

4.2.2.1 Internal Environment

It is necessary to make a complete analysis of the internal environment of the organization to measure its effectiveness and efficiency. A useful tool for the most complete analysis is the McKinsey 7S model, which proposes the analysis of seven levels within the organization:

- 1st level: Personnel (Staff) - important categories of employees in the organization

and the potential for developing their capabilities.

- 2nd level: Competencies (Skills) - the specific skills, knowledge, and experience of staff.
- 3rd level: Systems (Systems) - the processes followed, information systems, human resource systems.
- 4th level: Leadership Style (Style) - the way the organization is managed and its organizational culture.
- 5th level: Structure - how the units of the organization are related to each other: the organization chart, the roles, and responsibilities of its members.
- 6th level: Strategy (Strategy) - the planning of the organization to achieve its objectives and the efficient use of its resources.
- 7th level: Shared values - It is the amalgam of the first six elements and in essence, describes the core principles and values that essentially characterize the organization and make it unique.

4.2.2.2 External Environment

Complementary and equally as important to the internal environment analysis is the “scanning” of the external one. There are various frameworks that one can use for this task. We choose to focus on PESTLE analysis, which works well alongside SWOT. PESTLE is a framework used by organizations to investigate macro-environmental factors that live out of it but stand to have an impact on its performance and thus must be taken into account when decisions are made.

PESTLE breaks down the external environment into six distinct domains.

- *Political*: tracks factors that include fiscal policy, political stability, regulatory framework, trade restrictions, etc.
- *Economic*: tracks the economic situation mainly through macroeconomic variables including Economic growth rate, interest rates, foreign exchange rates, inflation, wage rates, unemployment, etc.
- *Social*: cultural norms and trends, health consciousness, demographics (population growth rates, age distribution, career attitudes).
- *Technological*: keeps an eye on technological advancements and their effects. Some factors that can be tracked in this area are the R&D activity and the rate of technological change.
- *Legal*: Tracks the existing legal framework and the undergoing or potential changes in it.

- *Environmental*: Concerns itself about the effects of the weather and diseases on an organization's operations. Whether these are direct or indirect. As climate change, pandemics, and their impact intensify, this area becomes increasingly important.

4.2.2.3 Stakeholder analysis (stakeholder analysis)

In the previous stage, an analysis of the various forces, situations, perspectives, and structures was made. But the common point of all these is one, "people." There are many categories of people who have a stake in the decisions about the future of the organization. The analysis of the stakeholders, i.e., the persons, groups, or institutions that are interested in the change or will be directly or indirectly affected by it, is perhaps the most crucial step for a proper design of a change. It is helpful if this is done separately from the analysis of the environment described in the previous step, since, given their importance for the success of the change, especially as regards the Armed Forces, it is essential to have as complete a picture of them as possible.

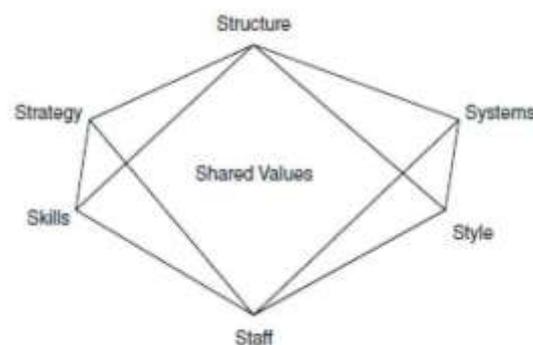
4.2.3 Facilitating change

Hellenic Army has had a stable structure over the years, and it is widely spread all over the Hellenic territory and not only there, but faces difficulties to adopt any changes to previous chapters.

Taking into consideration Armenakis' theory, the degree that employees are ready to accept a change is related to the degree that they are convinced that the change is a necessity, the importance for the Hellenic Army leaders to be devoted to the change is obvious as it turns to be beneficial for them and the Hellenic army as well.

4.2.3.1 Building coalitions and alliances for change

It is important to build consensus so that the right decisions can be made and change can move forward. Various actions to build this consensus need to be taken to lay a strong foundation to ensure that enthusiasm for change does not dissipate, amidst disputes among the various stakeholders over minor issues and details. So-called advocacy coalitions influence the process at various levels by giving appropriate financial or political support to a reform initiative at all phases of change (design, implementation, consolidation of changes).



4.2.3.2 Building a strong team to lead change

Building a solid force that agrees on a roadmap for change is key to achieving its goals. This team needs to include people from different departments and different levels of management, to involve as many employees as possible in the process. Particularly crucial is the contribution of middle managers, who play an important role in the performance of the organization, acting as intermediaries between the leadership and the employees (military and civilian staff).

4.2.3.3 Leadership

Effective, decisive, and flexible leadership is a key factor in the process of change. Leaders can create a passion for change and increase stakeholder performance through persuasion, negotiation, building alliances, and facilitating necessary changes in organizational culture and values. Particularly in the Armed Forces, it is essential that effective political and military leadership provide long-term and steady support for reform and can lead to change effectively and dynamically is essential.

4.2.3.4 Involving and mobilizing those affected by a change

Mobilizing those affected by change by encouraging their participation and commitment to it is a difficult and complex, yet necessary process. The change process is strengthened when those involved in the change believe that there are concrete benefits for them from participating in it [19].

4.2.4 Communication of change

The adoption of a communication strategy is crucial for the timely and effective countering of the forces of resistance to change and the development of negative attitudes towards change and is a key factor in the process of change.

4.2.4.1 Communication actions

All stakeholders have the right to access accurate information about the proposed change and the positions of those involved in it. Additionally, those involved in it have the right to know what is happening in the course of its implementation and to be sure that change is proceeding transparently. As Whetherly notes, “A key reason for communication is to show respect to all those involved in the change. The most likely outcome is that this will lead them to be more accountable afterward” [20].

4.2.4.2 Measuring progress and communicating successes

The process of change has various effects and ramifications, which are challenging to measure accurately. Enhancing the organization’s performance and focusing on those indicators that reflect the objectives of the change can lead to positive results that will occur relatively quickly.

Proper communication of these successes within and outside the organization boosts the morale of participants and creates support for change. It is important to recognize that short-term successes are just as necessary as long-term reform and their importance should not be underestimated. It is also vital that by continuously measuring appropriate indicators and making the results public, there is a clear indication of the progress of reform.

5 The Armed Forces’ Future: Blockchain

Having examined how Change Management can facilitate the changes needed on the path to the modernization of the Armed forces, a more specific direction for these changes has to be determined.

Fast-paced technological advancements command the need for changes in all walks of life, and the defense sector is no exception. Armies that succeed in adapting will stay on the competitive edge, while the rest are destined to fall behind in the digital “arms race” with potentially grave consequences. A state-of-the-art technology that increasingly finds its way into the military is Blockchain.

NATO, the U.S., Russia, and China have already been looking into ways to implement Blockchain solutions in a wide range of military operations, such as cybersecurity, communications, logistics, and procurement [21].

In essence, Blockchain is a digital, decentralized, encrypted database of records that, among other things, offers increased transparency and security. The military is well-positioned to harness the whole range of this technology’s potential benefits [22].

We will proceed by laying out a representative collection of suggestive uses Blockchain technology can find in the context of modern armies.

5.1 Cyber-warfare

In many ways, modern warfare has transitioned to the digital space, with adversaries trying to intercept digital streams of information, electronically sabotage and gain access to digital databases of each other. In this space of cyber-warfare, Blockchain can prove to be a particularly effective line of defense.

Blockchain’s decentralized and tamper-evident nature makes it increasingly difficult for malicious actors to gain access to their target’s network. It also reduces the chances of electronic intrusion going undetected and the intruder will be able to hide their electronic traces. An attacker would have to compromise the system of more than one participant of the network to successfully gain control and do harm.

5.2 Logistics and Supply Chains

Supply chains are critical for military operations and their disruption stands can have an enormous impact both in peace and war times. With the logistics environment becoming ever-more complex and frictional, Blockchain comes to provide facilitation in many potential points of failure. With trust being essential for the function of supply chains, the visibility, and transparency that blockchain offers can go a long way. While the participants can amount to any number, by design, blockchain architecture allows for only a single source of truth, which leaves little room for friction among those involved in any transaction.

Blockchain systems enable the assets to be tracked and traced from origination to destination and real-time inventory management. The process becomes streamlined which increases its speed significantly and drives the costs down. Finally, Blockchain can be used for safer, faster, more transparent ownership transfer and allocation and distribution of funds.

5.3 Communications

Resilient, secure communications are of critical importance both on the battlefield as well as to message transferring between national or international agencies. Blockchain’s decentralized, encrypted protocol has the potential to provide effective solutions to this front. For example, NATO is looking into ways to take advantage of

Blockchain's decentralization to establish a more secure way of communication among its members that are separated by the Atlantic Ocean.

5.4 Procurement

As far as procurement is concerned, Blockchain brings to the table its tamper-evident, tamper-resistant, source-of-single-truth characteristics that make it trustworthy and can promote transparency. Its technology can be used to combat deficiencies in the military's contract management while also reducing costs. Some areas in which major deficiencies are spotted are the assessment of contract award timelines, the tracking, and management of budgets in contracted services, and the utilization of inventory information in management decisions.

Blockchain enables, however, the monitoring of data of all kinds in real-time, at any time which addresses all the three aforementioned deficiencies and more generally makes auditing and procurement way more feasible and efficient, and less costly.

5.5 Implementation

Going through some potential military-focused use cases of Blockchain and the benefits those can bring to the table for the defense sector is a theoretical exercise. The implementation of some or all of those, in reality, is accompanied by non-trivial challenges. Undoubtedly, such innovative, cutting-edge technology will necessitate radical changes for the organization that takes the brave step to integrate it into its operations. For that reason, the solutions

Change Management provides can make a substantial difference.

The successful application of blockchain solutions must tick some boxes.

The workflow of the network's members will inevitably be disrupted by the transition and the changes this will bring. That makes their communication and understanding imperative. Every stakeholder must have agreed on the solutions' application and the objectives informing it beforehand. In the case that not all the participants are on board, there are higher chances the transformation will fail, or at least the improvements expected to emanate it will fall short. Central to all these is considering the implications the changes will have for the people affected. The necessity for a well-crafted plan and sufficient anticipation of various contingencies cannot be overstated.

While the technical part of this transition presents non-negligible challenges, it is safe to assume that the organizational restructure this will bring, and the alignment of all the stakeholders it will need will be harder obstacles to overcome.

6 Conclusion

"Change management" is a complex framework of processes that can "improve" or "damage" the functioning of the Armed Forces (medium or long) term and, depending on the outcome, situations that will affect its sustainability and effectiveness. It requires knowledge, methodology, persistence of purpose - which will bring about the achievement of objectives, and, finally, constant vigilance. What it ultimately demonstrates is that there are plenty of opportunities that enhance and promote effective and productive Armed Forces operations. It is, therefore, a challenge to ensure that these opportunities are an ally and not merely a spectator. One such opportunity is the technology of Blockchain which can find many uses in the Armed Forces. Its imaginative implementation can propel the first movers into the future and ahead of the competition. Change Management provides the tools required for the integration of Blockchain into army operations to be successful.

References:

- [1] Burnes, B. 1996. *Managing change: a strategic approach to organizational dynamics*, London, Pitman.
- [2] Cameron E. & Green, M. 2009. *Making sense of change management: a complete guide to the models, tools & techniques of organizational change*, London, Kogan Page.
- [3] Lewin, K. 1951. *Field theory in social science; selected theoretical papers*, New York, Harper.
- [4] Beckhard, R. & Harris, R. T. 1987. *Organizational transitions: managing complex change*, Reading, Mass., Addison-Wesley Pub. Co.
- [5] Kotter, J. P. 1995. "Leading change: why transformation efforts fail", *Harvard Business Review*, 73 (2), pp. 59–67.
- [6] Watson, G. 1969. *Resistance to Change*, in W. G Bennis, K. D Benne & R. Chin, *The Planning of Change*, South-Western, London.
- [7] Conner, D. 1998. *Managing at the speed of change: how resilient managers succeed and prosper where others fail*, Chichester, Wiley.
- [8] Kotter, J. P. 1998. "Winning at change", *Leader to Leader*, 1998, 27-33.
- [9] Ingstrup, O. & Crookall, P. 1998. *The three pillars of public management: secrets of sustained success*, Montreal; London, McGill-Queen's University Press.
- [10] Kanter, R. M. 1999. "The enduring skills of change leaders". *Leader to Leader*, 1999, 15-22.
- [11] Brunsson, N. 2006. "Administrative reform as routines", *Scandinavian Journal of Management*, Vol.22 (3), Elsevier Science Ltd., pp.243-252.

- [12] Hofstede, G. 1991. *Cultures and Organizations*. Harper Collins: London.
- [13] Hoy, W. K & Miskel, C. G. 2013. *Educational administration: Theory, research and practice*. 9th ed. New York, McGraw-Hill.
- [14] <http://www.mod.mil.gr/el/enoples-dynameis/eksixronismos-ed.html>
- [15] <http://www.change-management-toolbook.com>
- [16] Baker, D. 2007. *Strategic change management in public sector organizations*, Oxford, Chandos, p.16.
- [17] United Nations Development Programme, 2006. *Institutional Reform and Change Management: Managing Change in Public Sector Organisations*, UNDP.
- [18] Armenakis, A. Field, H & Mossholder, K. 2013. Transformational leadership, relationship quality and employee performance during continuous incremental organizational change: Leadership and performance. *J. Organ. Behav.*
- [19] Patton, C. & Mc CarnalL, A. 1999. *Managing change in organizations*. 3rd edition, Prentice Hall Europe.
- [20] Whetherly, J. 1998. *Achieving change through training and development*, London, Library Association.
- [21] Cornella, A., Zamengo, L., Delepierre, A., Clementz G., Blokken, M., 2020. *Blockchain in defence: a breakthrough*, European Army Interoperability Centre (FINABEL). <https://finabel.org/blockchain-in-defence-a-breakthrough/>
- [22] Value Technology Information Report, 2020. *Potential Uses of Blockchain by the U.S. Department of Defense*. <https://www.crowell.com/files/Potential-Uses-of-Blockchain-Technology-In-DoD.pdf>