

# THE PERCEPTION ON THE TRADITIONAL METHODS OF STIMULATING GROUP COHESION AND WORK EFFICIENCY WITHIN MILITARY INSTITUTIONS IN OLTENIA

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## *Abstract*

*The present paper contributes in a significant way to enriching the information accumulated so far on the managerial models adopted within the military institutions situated in the South-Western part of the country as well as the opportunities of improving their efficiency. Specifically, the main objective of the scientific research in question is to highlight how traditional managerial means and methods of increasing the group cohesion and the institutional efficiency are perceived within military units in the Oltenia region. The research methodology is represented by the questionnaire method, the answers given by the members of the studied sample providing a solid basis for the conclusions adopted on the optimal way to create a homogeneous and efficient collective. The results of the study carried out between October 2021 and February 2022 reveal that in military-type organisations, brainstorming and scenario-based analyses are considered the most appropriate methods of increasing group cohesion and organisational efficiency.*

*Keywords: managerial model, group cohesion, organizational effectiveness, brainstorming, military management.*

## **1. Introduction**

From a scientific point of view, the study aims to achieve two fundamental objectives: on the one hand, it reviews the main means and methods traditionally used to increase the cohesion of the organisational collective and, on the other hand, it establishes and analyses how they are perceived within military institutions in the Oltenia region. In regards to the research methodology, the questionnaire method ensures the mass of a representative database in relation to the reference population, represented by the active and retired military personnel from the counties of Dolj, Gorj, Mehedinți, Olt and Valcea.

The first part of the paper points out the results obtained in the context of scientific research on the fundamental field of classical management and then outlines the peculiarities of military management as well as those of the

administrative model based on knowledge. The comparative analysis of the two management paradigms is intended to show potential competitive and strategic advantages obtained as a result of a more efficient managerial approach regarding the available resources within an organisation.

The main focus of the study is to assess the perceptions developed regarding the traditional means and methods used with the aim of increasing group cohesion and, implicitly, the efficiency of the activity carried out within the military institutions from the Oltenia region. The information source required for attaining the above mentioned purpose is provided by completing the dedicated items of the questionnaire popularized within the military institutions in the area. Brainstorming activities, SWOT analysis, confrontation of pros and cons, scenario method or execution of the direct orders transmitted from the single command level of the institution are the main methods evaluated. Each of the proposed variants is analysed using a Likert-type scale, in order to determine the degree to which the sample members assess that it is able to influence the cohesion of the studied group (from very low to very high).

The final section of the article presents the results obtained from the analysis of the answers given by the interviewed subjects, highlighting which are the main methods perceived by them as the most effective both in terms of enhancing the unity of the collective and the qualitative results of the work carried out. According to the statistics, the most effective technique is considered to be the organisation of brainstorming activities, the next two places in this ranking being occupied by the carrying out of analyses based on the scenario method and on the counter-argument of the pros and cons of a particular idea (analytical method also called "devil's advocate").

## 2. Literature Review

The concept of management is traditionally understood as the superior process of organising resources and it has been practised since ancient times. The notion is has been perceived and interpreted by many intellectuals of the centuries as an unquestionable mechanism of achieving a certain level of individual, collective or organisational perfection (Burlea-Șchiopoiu, 2007; Burlea-Șchiopoiu et al., 2017). Multiple administrative models proposed by the specialists within the field have been widely used and have been tried out in the context of both economic and non-economic activities. Henry R. Towne (1866, p.44) is the originator of the idea of perceiving the management process as an art based on science, arguing that a manager has to understand and manage both the mechanical side of a chain of activities and the human resource side of the production phases.

The scientific foundation of classical management in the early stages of its development as a modern science is, however, underpinned by the definition of the four fundamental principles (Taylor, 1911, p. 36-37). Thus, the cycle of managing the available resources with the aim of maximising the outputs while using minimal inputs is organised with the following considerations in mind: 1) analyze each work task that is to be performed in order to determine the optimal method that is going to be used for this purpose; 2) establish the persons who are responsible for performing certain tasks according to their capabilities and experience within the field; 3) ensure an effective cooperation between the representatives of the managerial level and the operational staff during the training and learning process

in order to guarantee the correct and complete assimilation of the knowledge required for performing the assigned tasks and 4) establish who are the persons directly responsible for each process of the production cycle, so that the managers are in charge of deciding, planning and organising the selected work methods and the most suitable performers for their actual achievement.

The twentieth century marked an accelerated evolution of the concept and, at the same time, an exponential expansion of the types of management applied within organisations. After the development of the human resource management, which was essentially based on the human capital (Burlea-Șchiopoiu, 2003, p. 121), managers have broken down the concept of scientific management according to the need to improve certain departments of the organisational system. The aforementioned approach has led to the emergence of project management, production, innovation, investment, adaptive or crisis management and so on. Among the new types of management developed, knowledge management occupies a special place and is considered one of the most innovative administrative approaches towards the available organisational resources. Thomas Davenport (2005, p. 10) is one of the strongest proponents of the idea that knowledge can be understood as an accumulation of experiences, values, data and information obtained contextually, as well as analyses carried out prospectively in order to create, incorporate and evaluate new experiences and information capabilities. Knowledge management is defined by the experts within the field (Ichijo and Nonaka, 2007, p. 56; Nakamori, 2020, p. 64) as the process of harnessing accumulated data, information and experience divided into three distinct categories of knowledge, namely: 1) implicit or social knowledge; 2) explicit or rational knowledge and 3) tacit or intuitive knowledge.

Specifically, researchers believe that the performance of managerial functions related to the knowledge-based management model requires the simultaneous performance of a variety of complex activities, such as: comprising, comprehending and evaluating the volume of data and information available within the external environment of the organisation, the effective management of human resources having tacit knowledge (based on the individual intuition of each member of the organisational team), and explicit knowledge obtained through the use of information technology.

On the other hand, according to one of the specialists working within this field (Duțu, 2012, p. 56-57), the managerial model that is specific for the military institutions is characterized by a series of rigid principles, among which we mention: 1) the principle of centralization of the leadership (concentration of decision-making responsibility at the command level); 2) the principle of hierarchical organization (the staff of the military units is structured on hierarchical levels which find themselves under the direct responsibility of middle-managers, who in turn permanently report to their superiors) and 3) the principle of unity of command (the command function is exercised explicitly and exhaustively by the commander of the unit). At the same time, according to some representatives of the Management and Human Resources Directorate of the Romanian Ministry of National Defence (Năstăsă-Ene, 2018, p. 79), considering the hierarchical level at which the managerial function is exercised within military-type organisations, there can be distinguished three different types of management, namely: strategic, operational and tactical management. Strategic management is generally

performed by representatives of central structures, in particular the General Staff and the staffs of other categories of armed forces, while the responsibility for the operational management function lies within the main operational units. Lastly, tactical management is performed by members of the tactical echelons.

Therefore, the military management's specific means and methods represent an amalgam of distinct characteristics compared to the economic organizational systems, the functions of this managerial model being significantly particular in terms of organization, planning, evaluation and control (Pişleag, Gorjan and Căpăţână, 2011, p. 47). Concretely, the specificity of the military institution is mainly supported by: a bureaucratic type of organization, with well-defined structures and responsibilities/roles explicitly assigned to each member of the organizational team; formal intra-institutional relations; invariable and mandatory nature of the need to comply with the rules and internal regulations, which have an unanimous applicability, respectively ensuring the strategic dimension of the organizational objectives, that are desirable to ensure the functionality of the organizational system in the short, medium or long term, in peacetime or wartime.

According to the most recent studies conducted on the results achieved within collectives and the factors that can influence them (Tulin, Pollet and Lehmann-Willenbrock, 2018, p. 168; Yoon and Leem, 2021, p. 4), the effectiveness of the activity organised/carried out within a team is closely related to the degree of cohesion recorded within the group in question. Cohesion, as defined by Uliana Stati (2014, p. 69) is "a fundamental property of social groups, expressing the relations of solidarity and unity among their members, relations by virtue of which groups function as coherent, self-contained units". Moreover, in the military field, Dorin Afanas (2014, p. 31) defines the integration into a group as the accumulation of all psychosocial phenomena established between the individual and the members of the group in which he intends to be included, the relations between the two parties having a bidirectional character. The newcomer can be positioned in relation to the target group as follows: integrated, isolated or rejected.

To improve group cohesion, the modern literature (Wojcienhowska-Dziecielak, 2020) refers to a wide range of means and methods used over time with notable results. Under these circumstances, the present study will go through the meaning and outcomes generated as a consequence of: brainstorming activities, the scenario method, comparing pros and cons ("devil's advocate" method) and running SWOT (Strength - Weakness - Opportunities - Treats) analyses. Last but not least, taking into account the specific nature of the work carried out within the military institutions, we will also evaluate the decision-making process in the single command system.

The main research methodology used to conduct this scientific research is the questionnaire method. Between October 2021 and February 2022, the survey of 30 dedicated items was popularized within the military units under the coordination of the National Ministry of Defence, respectively those that are part of the national security system within the Oltenia region. Specifically, for the present study, the answers given by about 250 subjects were analysed and statistically integrated and evaluated using SPSS version 26.

### **3. Research objectives**

The research hypotheses proposed by the author consider the extent to which each of the five methods evaluated is likely to influence the efficiency of institutional activity, as follows:

- H1: brainstorming activities could stimulate the group cohesion and work efficiency;
- H2: SWOT analysis could stimulate the group cohesion and work efficiency;
- H3: conducting "devil's advocate" type analyses based on pros and cons could stimulate the group cohesion and work efficiency;
- H4: conducting analyses based on the scenario method could stimulate the group cohesion and work efficiency and
- H5: adopting a decision exclusively at the managerial level and then passing it as an order to the operational teams could stimulate the group cohesion and work efficiency.

#### **3.1 Methodology of research**

To test the defined research hypotheses, we run statistical analyses in order to measure the frequency with which each of the 5 response variants (arranged in the form of a Likert-type scale) was selected. The results obtained are shown in figures 1- 5 below. The study was carried out with the participation of 257 respondents, both active and retired military personnel who are/were operating within the counties of Dolj, Gorj, Olt, Mehedinți and Vâlcea. Their answers provided the data base for the statistical analysis of frequency measurement.

#### **3.2 Research question**

Is there any correlation established between brainstorming activities, SWOT analysis, "devil's advocate" or scenario method or adopting a decision exclusively at the managerial level and then passing it as an order to the operational teams and group cohesion or work efficiency within the Romanian military institutions?

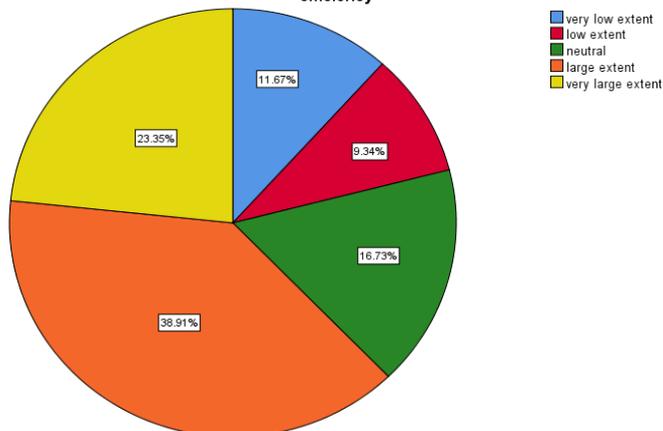
### **4. Results and Discussions**

According to the opinions expressed by the members of the evaluated sample, organizing brainstorming activities could stimulate the cohesion within the organisational team and world efficiency. Specifically, 38.91% of the participants in the survey felt that the use of such methods would influence the group's unity and the efficiency of the creative processes to a great extent, and 23.35% of them felt that the influence of using brainstorming activities would be constructive within the institution to a very great extent.

As it can be seen in Figure 1, about 17% of the subjects positioned themselves in the neutral zone, while a cumulative percentage of about 21% felt that the proposed method would improve the group unity and work efficiency to a small (9.34%) or very small (11.67%) extent.

Running the t-student test represents the second step in the process of testing the hypothesis developed regarding the organization of brainstorming activities, its usefulness being revealed by comparing the mean obtained from the responses of the evaluated sample's members with a predetermined value. In order to confirm the research hypothesis defined above, the sample mean needs to be greater than 3, as the response variants were coded as follows: 1 - very low measure; 2 - low measure; 3 - neutral; 4 - high measure and 5 - very high measure.

The extent to which it is appreciated that brainstorming activities could stimulate group cohesion and work efficiency



**Figure 1. The extent to which brainstorming activities are perceived as stimulating the group cohesion and work efficiency**

Source: Created by the author.

According to the results returned from the application of the t-student test, the mean of the answers given by the subjects surveyed has a value of 3.53, as can be seen in Table 1 below. Obtaining a mean above the threshold set for testing the research hypothesis is practically validation of hypothesis H1. Consequently, we can say that the organization of brainstorming activities in military institutions in the Oltenia region could lead to an increase in group cohesion and the efficiency of the activity carried out at this level.

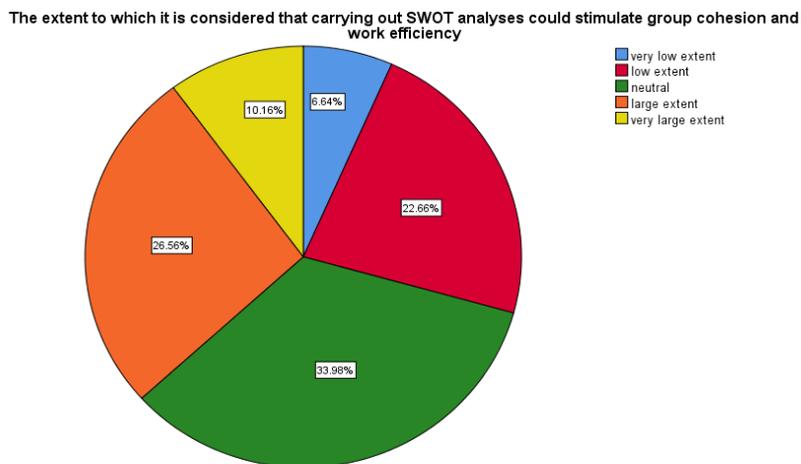
**Table 1. Results of the student t-test to assess the extent to which brainstorming activities could contribute to increased group cohesion and efficiency**

One sample statistics						
	N	Mean	Standard deviation	Standard error mean		
The extent to which it is appreciated that brainstorming activities could stimulate group cohesion and work efficiency	257	3.53	1.269	.079		
Test value = 3						
	t	df	Sig. (2-tailed test)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
The extent to which it is appreciated that brainstorming activities could stimulate group cohesion and work efficiency	6.687	256	.000	.529	.37	.69

Source: Created by the author.

Table 1 also shows that the significance level is .000, lower than the threshold of 0.005 established by the literature's experts, which leads to the conclusion that the result obtained is highly significant, namely the characteristics of the analysed sample can be extended to the entire population from which its members were selected.

In accordance with the answers given by the subjects who took part in the present research study, carrying out SWOT-type analyses within the military institutions in the Oltenia region could stimulate group cohesion and work efficiency to a very high (10.16%) and high (26.56%) extent. About 34% of the respondents said they were neutral about the usefulness of the proposed method in terms of improving the unity of the organisational group and work efficiency, while 22.6% considered that these could be influenced to a small extent and 6.64% to a very small extent. The results are summarised in Figure 2.



**Figure 2. The extent to which it is considered that carrying out SWOT analyses could stimulate group cohesion and work efficiency.**

*Source: Created by the author.*

Although, as can be seen in Table 2, the mean value obtained within the sample is 3.11, thus being higher than the threshold predefined by the author (3), the value of the significance level is 0.105. In this context, the conclusions adopted for the group studied within this research study cannot be generalised to the whole population, in which case hypothesis H2 can only be partially confirmed. A potential reason why the mean value of the responses selected by the sample members is higher than the pre-determined threshold of 3 could be the significant share of subjects who were in the neutral zone with regard to the usefulness of conducting SWOT analyses.

**Table 2. Results of the student t-test to assess the extent to which conducting SWOT analyses could stimulate group cohesion and work efficiency.**

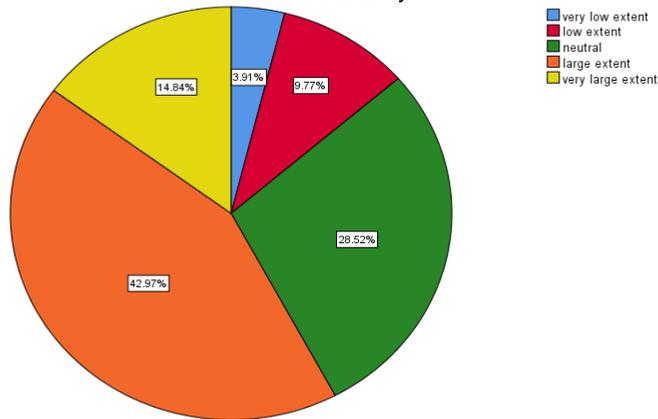
One sample statistics						
	N	Mean	Standard deviation	Standard error mean		
The extent to which it is considered that carrying out SWOT analyses could stimulate group cohesion and work efficiency	256	3.11	1.075	.067		
Test value = 3						
	t	df	Sig. (2-tailed test)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
The extent to which it is considered that carrying out SWOT analyses could stimulate group cohesion and work efficiency	1.627	255	.105	.109	-.02	.24

Source: Created by the author.

In regard to the second scientific hypothesis developed, we note that its testing process was carried out on the basis of 256 responses, as one of the respondents either did not complete the item in question or completed it incorrectly. In this context, the given element was automatically removed from the database.

The third research hypothesis of the present study refers to the potential connection developed between the conduct of pros and cons type of analyses and the increase of group cohesion and work efficiency within the institution. In this context, the 256 responses selected by the sample members from the 5 variants available in the item reveal the appreciation of the proposed method as having a high utility in achieving the purpose stated above. Specifically, approximately 43% of respondents believe that a collective analysis of the „devil's advocate” type could lead to the improvement of the organisational results and group unity to a great extent, while 14.84% consider that the materialisation of the connection referred to could be achieved to a very great extent. Similarly, about 28% of those surveyed placed themselves in the neutral zone, while those who were less confident in the possibility of establishing a link between the evaluated elements come up to 13.68% (9.77% - low and 3.91% - very low), as shown in Figure 3.

The extent to which it is considered that conducting pros and cons analyses could stimulate group cohesion and work efficiency



**Figure 3. The extent to which it is considered that conducting pros and cons analysis could stimulate group cohesion and work efficiency.**

Source: Created by the author.

Running the t-student test reveals a sample mean of 3.55, which is therefore higher than the value proposed for the comparison to test the above research hypothesis. In this case, the first stage of the statistical evaluation confirms the possibility of establishing a connection between conducting a „devil's advocate” type of analysis and a potential improvement in group cohesion and also in the degree of the work efficiency. As can be seen in Table 3, the significance level value is .000, which indicates that the totality of the conclusions summarised with reference to the sample are also significant for the entire population from which the sample was drawn.

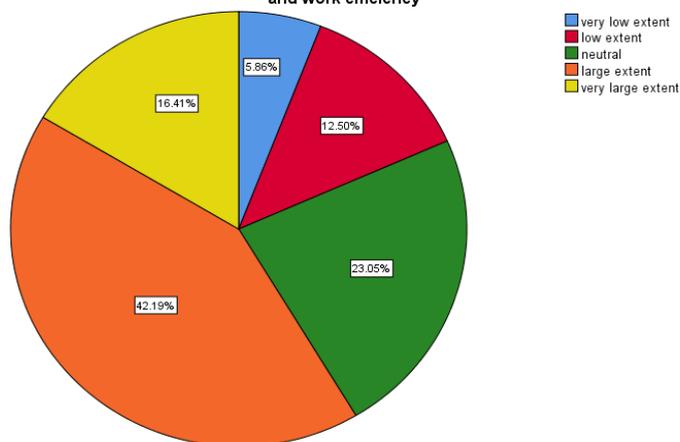
**Table 3. Student t-test results to assess the extent to which conducting pros and cons analyses could stimulate group cohesion and work efficiency.**

One sample statistics						
	N	Mean	Standard deviation	Standard error mean		
The extent to which it is considered that conducting pros and cons analyses could stimulate group cohesion and work efficiency	256	3.55	.989	.062		
Test value = 3						
	t	df	Sig. (2-tailed test)	Mean difference	95% Confidence interval of the difference Lower	Upper
The extent to which it is considered that conducting pros and cons analyses could stimulate group cohesion and work efficiency	8.912	255	.000	.551	.43	.67

Source: Created by the author.

The interpretation of the data collected following the popularization of the questionnaire within the military institutions of the Oltenia region revealed that about 59% of the respondents considered that conducting analyses based on the scenario method could contribute to increasing group cohesion and work efficiency to a great (42.19%) or very great (16.41%) extent. Similar to the previously proposed methods, about a quarter of the subjects who participated in the research study, namely 23.05%, declared themselves neutral regarding the subject in question, while a relatively low cumulative percentage, 18.36% (12.5% to a low extent and 5.86% to a very low extent), was observed among those who did not consider that the application of this method could have results in terms of organisational group unity and work efficiency.

The extent to which it is considered that carrying out scenario-based analyses could stimulate group cohesion and work efficiency



**Figure 4. The extent to which is considered that carrying out analyses based on scenario methods could stimulate group cohesion and work efficiency**

Source: Created by the author.

Similarly, the t-student test revealed that the mean of the sample is 3.51, in which case the research hypothesis stated with reference to this managerial method is confirmed (the mean of the sample is higher than the value set for comparison, i.e. 3). As can be seen in Table 4, the level of significance is .000, a condition which, from a statistical point of view, translates into the possibility of extending the validity of the conclusions drawn with regard to the sample to the entire population of interest in the context of the present research. Therefore, we can assume that conducting analyses based on the scenario method could stimulate group cohesion and work efficiency within the military institutions from the South-Western part of the country, that is to say the fourth scientific hypothesis developed is confirmed.

**Table 4. Results of the t-student test to assess the extent to which conducting scenario-based analyses could stimulate group cohesion and work efficiency.**  
**One sample statistics**

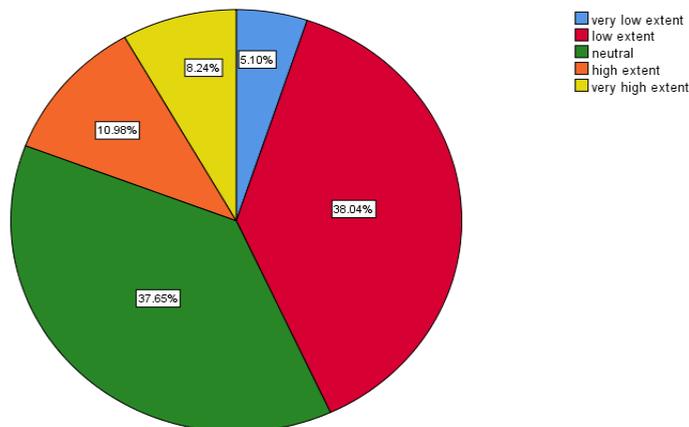
	N	Mean	Standard deviation	Standard error mean		
The extent to which it is considered that carrying out scenario-based analyses could stimulate group cohesion and work efficiency	256	3.51	1.088	.068		
Test value = 3						
	t	df	Sig. (2-tailed test)	Mean differences	95% Confidence interval of the differences	
					Lower	Upper
The extent to which it is considered that carrying out scenario-based analyses could stimulate group cohesion and work efficiency	7.466	255	.000	.508	.37	.64

Source: Created by the author.

According to the results shown in Figure 5, only a cumulative percentage of 19.22% of the military personnel included in the sample consider to a high (10.96%) or very high (8.24%) extent that the adoption of a decision exclusively by the manager and transmitted as an order to the operational teams could stimulate group cohesion and work efficiency. Conflicting the four methods proposed above, this working method is perceived as being unfavourable to strengthening the unity of the team and work efficiency. More than 38% of respondents consider that the method proposed contributes to a low extent to achieving the desired objective, while the "very low extent" option was chosen by around 5% of respondents. On the other hand, a considerable percentage (37.65%) of the sample included themselves in the "neutral" category, which was ranked second in terms of the frequency with which this response option was selected.

Both the results obtained by applying the frequency descriptive function for each alternative of response and running the t-student test returned values supporting the refutation of the last research hypothesis. Specifically, as can be seen in Table 5, the mean corresponding to the sample is only 2.79, its inferiority compared to the value of test (3) being a first step in testing the given hypothesis. In terms of significance level, the value obtained was .001, outcome that respects the rigours imposed by the field's literature. Therefore, we can conclude that the conclusions drawn about the sample can be widened to the entire population in question without altering the results of the research carried out.

The extent to which it is considered that a decision that is adopted solely by the manager and passed on as an order to the operational teams could stimulate group cohesion and work efficiency



**Figure 5.** The extent to which it is considered that a decision that is adopted solely by the manager and passed as an order to the operational teams could stimulate group cohesion and work efficiency.

Source: Created by the author

**Table 5. Results of the t-test to assess the extent to which the decision adopted exclusively by the manager and transmitted as an order to the operational teams could stimulate group cohesion and work efficiency. One sample statistics**

	N	Mean	Standard deviation	Standard error mean
The extent to which it is considered that the decision adopted solely by the manager and passed on as an order to the operational teams could stimulate group cohesion and work efficiency	255	2.79	.992	.062

Test value = 3						
	t	df	Sig. (2-tailed test)	Mean difference	95% Confidence interval of the difference	
					Lower	Upper
The extent to which it is considered that the decision adopted solely by the manager and passed on as an order to the operational teams could stimulate group cohesion and work efficiency	-3.346	254	.001	-.208	-.33	-.09

Source: Created by the author.

As it can be easily concluded from the table shown above, for the item depicting the method of adopting a decision solely by the top management

representative and passing it down the chain of command as an order, the statistical analysis of the available data was carried out on the basis of only 255 responses, since in the case of two of the questionnaires evaluated, the responses were not complete or correctly selected (there were either selected several options at the same time or none of those available, situation that led to their automatic exclusion).

Thus we can conclude that the research hypotheses formulated in the initial section of this study is the following:

- H1 → confirmed;
- H2 → partially confirmed;
- H3 → confirmed;
- H4 → confirmed;
- H5 → rejected.

## 5. Conclusions

The present paper represents an in-depth study of the way in which managerial means and methods that are traditionally used in order to stimulate group cohesion and work efficiency are perceived within the Romanian military institutions. The results that were reached due to this reasearch work are representative for the members of the sample that were selected from the employees of the military structures operating in the Oltenia region. In other words, through evaluating the five hypotheses developed in the initial section of the paper, we can extend the conclusions reached to the entire population considered in the context of this research.

The main statistical analyses used with the aim of testing the research hypotheses (descriptive frequency analysis and t-student test) revealed that the methods most likely to lead to an improvement in the degree of unity of the organizational team and its work efficiency are: the analyses based on the scenario method, the pros and cons analyses methos („devil's advocate” method) and the brainstorming activities. Running SWOT analyses within the organisation is considered to have an uncertain effect upon the two dimensions in question (group cohesion and work efficiency), while adopting a firm decision solely by the top management's representatives and imposing it on the lower hierarchical levels as an order is perceived as unfavourable/inefficient method of stimulating group cohesion.

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