

## TEAM SIZE AND ITS INFLUENCE ON THE TEAMWORK AND COMMUNICATION

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**Abstract:** *The paper examines communication dynamics within organizations, focusing on the influence of team size on communication patterns and work characteristics. In Romanian organizations, vertical communication prevails due to high power distance and collectivist mentality. Team size significantly impacts communication clarity, frequency, and formality. Smaller teams tend to have clearer, more direct communication, fostering deeper relationships among members. Larger teams feature structured communication but may suffer from reduced individual participation and satisfaction. Studies suggest optimal team sizes vary based on task complexity, with smaller teams excelling in complex tasks and larger teams in structured environments. Effective teams exhibit balanced communication patterns, with active participation from all members and direct interactions beyond formal roles. Communication patterns strongly predict team success, alongside individual skills and task context. Understanding these dynamics helps organizations tailor team structures and communication strategies for optimal performance, considering both the advantages and challenges posed by team size.*

**Keywords:** team size, teamwork, communication

### 1. Introduction

Within well-structured organizations, communication with colleagues and superiors is mainly intended to contribute to the accomplishment of tasks and less to form or maintain friendships. Contrary to appearances, studies show that the dimension of vertical communication is more consistent in organizations than the horizontal one [1].

In Romanian organizations, the prevalence of vertical communication is the consequence of a very high level of power distance [2], manifested by a reflex of subordination and conformity. Traditionally, every Romanian learns these behaviors from the family and then from school. According to another dimension of the national culture identified by Hofstede,

Romanians have a collectivist mentality, so they conceive their work team as an extension of their family. As a result of their education and culture, it can be seen that Romanians feel more comfortable working in homogeneous teams, without being monitored and evaluated individually, and sharing responsibility at the group level.

Studying the characteristics of communication within different types of teams contributes to a better understanding of group dynamics and to identifying ways to develop new strategies and practices to improve collaboration and overall team

### 2. The Aim and Methodological Approach

The purpose of this paper is to identify

current and relevant scientific benchmarks regarding the influence of the team size on emerging communication models, and on the characteristics and quality of communication and work. We will also aim to identify effects of some cultural aspects on communication, as well as practices of communication within different type of teams.

The methodology used is the analysis of literature and the synthesis of relevant information.

### **3. Team Size and Communication**

Communication between team members is subject to the influences and rules determined by the size of the team, the properties of communication networks, the structure of the team, the nature and characteristics of the tasks to be performed, and the organizational and institutional constraints.

The team size can significantly impact the characteristics of communication. In smaller teams, communication tends to be more direct and clearer, due to the fact that fewer layers of hierarchy reduce the potential of distortion, miscommunication or misunderstandings. Other important aspect is the increased frequency and the lack of formality of communication in small teams. Marlowa and collaborators [3] demonstrated that “the operationalization of communication moderates the relationship between communication and team performance, such that the quality of communication is more strongly related to team performance than the frequency of communication”. More recent studies [4] showed that larger teams have more structured communication channels, such as scheduled meetings or formalized reporting procedures, which can lead to less frequent but more organized communication. In terms of depth of relationship, in teams with small number of people individuals have more opportunities to closely interact and get to know each other on a deeper level, this leading to more open and trusting communication between them.

Studies regarding the size of the team show that the larger the number of members, the more the formal dimensions are accentuated and the informal dimensions decrease. By enlargement, the primary group becomes secondary, acquiring more and more the characteristics of an organization. The increase in the number of group members leads to the exponential multiplication of personal contacts, exchanges of information and opinions, but, on the other hand, the durability of interpersonal interactions is inversely proportional to this number information.

According to Amado and Guittet [5], a good level of communication can be achieved if the group has between 3 and 12 (maximum 15) people, the optimal number proposed by them being 5 members. Thus, the group of 3 is the most effective if a rational problem is approached, the group of 6 is more suitable for tasks when it is necessary to identify as many ideas and solutions as possible, and the group of 12 is preferable in situations where it is necessary to confront and analyze different points of view. These numbers do not represent a recipe for operation due to the fact that, apart from the size of the group, other factors can determine an optimal level in communication and work. Marlowa et al. state that “a high frequency of communication may contain distracting, irrelevant information that may interfere with the ability of individuals to set priorities appropriately” [3].

On the other hand, in large groups not all information can be received correctly and completely, because the accuracy of the exchanged messages is altered, the speaking time allocated to each participant is reduced, the possibility of expressing ideas in front of everyone is also reduced, thus generating frustration, the tendency of non-involvement and the decrease of satisfaction.

### **4. Team Size and Work Characteristics**

The importance of group size for work efficiency can be seen in the diversity of

the members' skills and the wealth of ideas that are circulated by them, but also in the intensity of the social facilitation processes, which validate and strengthen individual values. For this reason, the power of the team cannot be considered the simple sum of the values and competences of the group members. Golu states that the relationship between individuals' skills and group performance “is mediated by the process of interaction between members, particularly by the way they communicate and react to the solution proposed by one of them: the extent to which group members are sensitive to the proposals of their partners,

to the usefulness of these proposals, understanding, criticizing, accepting them or formulating themselves” [6].

Increasing the number of individuals naturally increases the amount of information available within the group and allows for a wide range of ideas and opinions to be developed. However, there is a maximum threshold of generated ideas: from a given moment, if an individual is added to the group, he/she cannot bring any additional ideas, because a group can only generate a certain number of solutions and original ideas [7].

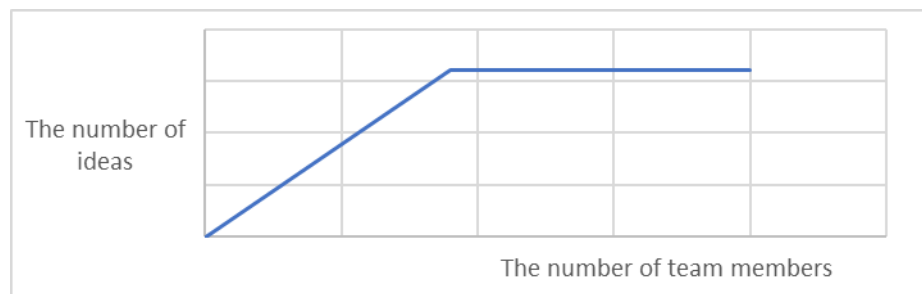


Figure 1: The relationship between the team size and the number of generated ideas [8]

The researchers also established a surprising fact: the talent and level of individual intelligence of the team members contribute much less to the success of a team than we would expect. In fact, the success of a team is based on the team's collective intelligence, which “has been predicted by a high proportion of women in the group, high level of average member social perceptiveness, moderate level of cognitive diversity, large amounts of communication and equal distribution of

communication” [9]. A good way to build successful teams is not to select members solely on the basis of their intelligence or past achievements, but to shape and guide the team to follow the patterns of success mentioned above.

Another important parameter that varies according to the size of the group is the time in which the group can find the solution to a problem or make decisions. A large group takes longer to adopt a solution to a problem than a smaller group.

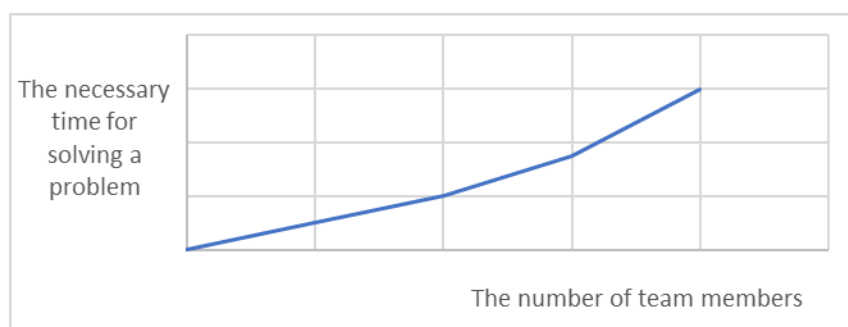


Figure 2: The relationship between the team size and the time required to solve a problem [8]

Regarding the organizational processes, the larger the size of a work group, the lower the degree of cohesion. In the case of a team consisting of 12 or more members, organizing communication is difficult, the convergence of ideas being almost impossible to achieve. Proactive, tenacious, ambitious people, who have the vocation of leadership or a good art of command, usually stand out from large groups.

As a result, if the goals and tasks of the team are complex and require superior skills, small teams (between 6 and 12 individuals) are the most effective [10]. If the tasks are relatively simple and redundant, teams can be of any size to complete them. If the team is responsible for a task that requires high-level technological know-how, the number of members should be large enough to include all the necessary categories of specialists. The decision regarding the team size must be based on the ability of individuals to be teammates and the extent to which they can and want to work together, integrated. To work effectively, members of a large team (15 – 25 individuals) must have a high level of mutual trust, being wise enough not to debate every issue, and being open to delegating competences.

As it follows from the literature, there is no single recipe to determine the optimal size of a team. If the number of members is small (3-5 people), the combined resources of the members are limited, but guidance and control from the leader can be prompt and effective, and communication between participants can be easy and fruitful. That's why teams are considered more effective than workgroups in organizations. In the case of large groups (from 10 people upwards), the advantages found in small teams disappear, but the chances of finding the optimal solution to problems increase. In this case, good results can be obtained only if the task is well structured, the roles of the members are well defined and if there is a high degree of complementarity of the participants. In the case of small and strong teams, the evasion of some members

from the activity, as it happens in large groups, is practically impossible.

The size of a team is contingent upon the nature of the task and the requisite number of members for its completion. It is generally advised to have between 3 to 12 members [11], [12], [13], with a preference for no more than 8 to 10 members [14].

## **5. Communication Patterns within High-Performing Teams**

Regarding the communication patterns that are established within different type of teams, the specialists note the outline of several categories of communication networks. The differences between the performances obtained in the different types of communication networks result from the different communication opportunities. Decisive for efficiency is the model the group chooses to solve a problem, considering the constraints of each type of network. For example, in the centralized communication structure, the first task of the groups is to identify the central person, hence the large number of organizational messages. If the communication network is not centralized and any member of the group can act as a catalyst, the messages transmitted between the members are numerous and redundant, until the moment when one person takes over the task of centralizing the information.

In groups with a homogeneous structure, where there are no hierarchical layers and centralization, the requests for mutual information are relatively numerous, due to the fact that communication through intermediaries creates difficulties. This pattern implies no organization of the flow of messages, individuals being aware that they should exchange information to each of the members. Following the existed research, the specialists note a greater efficiency of communication in the cases using centralized networks [15].

The researchers observed that there is an intense and vibrant communication between the members of the high-

performing teams, analyzing not so much the content of the communication, but especially the manner in which the members of the high-performing teams communicate with each other: tone of voice, body language, how much they gesture, how much they talk, how much they listened and how many times they interrupted the interlocutors. Studies have shown that the communication pattern is an important predictor of a team's success [16]. Moreover, it turned out that in the formation of effective teams the communication pattern is as significant as individual intelligence, personality, skills and the content of the discussion. Both the characteristics of the situation (critical or non-critical), the team structure (hierarchical or non-hierarchical) as well as the number of team members leave their mark on the communication patterns: "teams adapt communication patterns in highly critical situations but will adhere to institutional roles and will use closed-loop communication as long as possible" [17]. Summarizing, the fifth defining characteristics of communication within successful teams are [18]: (1) Team members speak equally and each is an active participant; (2) Team members interact directly and their conversations and gestures are energetic; (3) Members connect with each other, not just the team leader; (4) Members have concerns and

conversations that go beyond the scope of the team's work at the workplace; (5) Members periodically explore the environment outside the team and bring in information from external sources.

## 6. Final Considerations

The dynamic of psychosocial phenomena within a team can shift based on its size. Smaller teams often promote a more democratic and participative atmosphere, where each member has a greater opportunity to contribute and be heard. In larger teams, power dynamic may be more pronounced, with certain individuals or subgroups exerting more influence over communication flow and decision-making processes.

Overall, while both small and large teams have their advantages and disadvantages, understanding the impact of team size on communication and teamwork characteristics can help organizations optimize their team structures to maximize effectiveness and productivity. In the same time, understanding how the specific challenges and teams' dynamics vary depending on the number of the team members, and how the principles of effective communication apply across teams of all sizes can help leaders and organizations tailor their communication strategies to maximize effectiveness and collaboration.

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