

## Стилі лідерства в контексті ефективного управління віртуальними командами

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**Анотація.** В даному дослідженні визначено які основні переваги та недоліки переходу на роботу в віддаленому режимі, виявлено, що одним із потенційних вузьких місць роботи віртуальних команд є необхідність трансформації системи управління та стилів лідерства відповідно до потреб персоналу в новій реальності. Крім того, згруповано ключові фактори, які впливають на вибір стилю лідерства в віртуальних командах.

Відповідно до найбільш популярних в науковій та бізнес-літературі стилів лідерства, визначено переваги та можливості використання кожного стилю в контексті управління віртуальними командами. Відтак, авторитарний стиль лідерства у більшості випадків, окрім ситуацій, де фактор ризику та необхідності прийняття швидких рішень є вкрай важливим, є малоефективним при керуванні віртуальними проектами та командами. Крім того, трансформаційний стиль лідерства, який визнається багатьма дослідниками як найбільш прийнятний на фоні діджиталізації робочих процесів, з нашої точки зору не відповідає всім викликам, що можуть виникнути. Тому, ситуаційний стиль лідерства у випадках керування віртуальними командами забезпечує достатній рівень гнучкості та відповідає сучасним потребам управлінців та персоналу.

**Ключові слова:** стилі лідерства; віртуальні команди; трансформаційне лідерство; ситуаційне лідерство; віддалена робота.

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## Leadership styles in the context of effective management of virtual teams

**Annotation.** In connection with the development of digital technologies, as well as the outbreak of the COVID-19 virus, many organizations faced the problem of transitioning to a virtual work format. A large number of teams suddenly had to work not physically, but in a digital environment. However, the transition to virtual teamwork is a challenge not only for the team, but also for the management of virtual teams. Despite the importance of the issue of virtual leadership in the modern aspect, there is still a lack of research on leadership specifically among virtual teams. In this study, the main advantages and disadvantages of the transition to remote work were determined, and it was found that one of the potential bottlenecks of the work of virtual teams is the need to transform the management system and leadership styles in accordance with the needs of personnel in the new reality.

Based on existing research, the key factors that influence the choice of leadership style in virtual teams are grouped, with the factors divided into four subsystems (leader personality, team member personalities, tasks/projects, external environment) and further detailed as triggers to be identified individually in each organization.

According to the most popular leadership styles in scientific and business literature, the advantages and possibilities of using each style in the context of managing virtual teams are determined. Therefore, the authoritarian style of leadership in most cases, except for situations where the risk factor and the need to make quick decisions are extremely important, is ineffective in managing virtual projects and teams. In addition, the transformational style of leadership, which is recognized by many researchers as the most acceptable against the background of digitalization of work processes, from our point of view does not meet all the challenges that may arise. Therefore, the situational style of leadership in cases of managing virtual teams provides a sufficient level of flexibility and meets the modern needs of managers and staff. Thus, our work is a starting point for a structured study of the mechanisms of implementing a situational type of leadership in virtual teams.

**Keywords:** leadership styles; virtual teams; transformational leadership; situational leadership; remote work.

### Introduction

Globalization, the development of information technology, and the widespread use of the Internet have created new opportunities for the use of human resources in today's business environment. Virtual teams are becoming increasingly common, especially in high-tech enterprises. The creation of international virtual teams allows companies to gain access to employees with high qualifications and the necessary experience to solve a wide range of tasks, thus gaining access to a larger base of global knowledge.

Nevertheless, a common problem today is the issue of effective management of virtual teams because standard approaches to management, including leadership concepts, do not always meet the needs of the remote format of work. By developing a systematic understanding of effective leadership concepts and how they can be used in relation to virtual teams, managers can improve the effectiveness of personnel management within the organization.

On the issue of implementing the mechanisms of management of virtual teams and remote workers many researchers have contributed to the development of this direction, among them the works of B. J. Avolio [1], S. Johnson [2], T. Clare [3], L. Lee-Kelly [4], A. Powell [5], etc. deserve special attention, At the same time, the history of leadership theory development starts from the third decade of the 20th century, namely, from the works of K. Levin [6], among modern researchers of leadership there are interesting works by R. Dilts [7], S. Cohen [8], R. Stogdill [9], R. Sybernaya [10]. However, the problem of selection and use of

these or those leadership styles in virtual team management is currently paid insufficient attention to, among the few works we can single out the works of M. Van Wart [11], S. Newman [12], R. Hines [13], I. Cogut [14]. Analyzing the above-mentioned sources, we came to the conclusion that not all the leading theories of leadership are considered in the context of virtual team management, there is ambiguity concerning the selection of the most applicable leadership styles in the remote format of work. Thus, in this article, we will pay attention to the possibilities of using the main leadership concepts in organizations practicing virtual teamwork, identify the factors influencing the choice of one or another leadership style.

Thus, the main objectives of this article are to analyze the key leadership styles for virtual teams and determine the most appropriate approaches to their management.

Given the existing gaps in the issue of leadership when managing virtual teams, the purpose of the article is to consider the main leadership concepts that are highlighted in the scientific literature and their relation to the possibilities of using them specifically when managing in a remote format, as well as to determine the factors that influence the selection of one or another leadership style.

### Results

Digitalization, that is, the digitization of all types of information, is penetrating absolutely all areas of business. It is changing the approach to enterprise management so that organizations are transformed from the traditional organizational form into virtual organizations, virtual teams, and/or transform their business processes with the help of modern information technology.

Deloitte's Human Capital Trends 2021 study [15] found that the trend toward reorganizing the firm's operations into a remote mode, observed since the beginning of the COVID19 pandemic, persists, with companies needing new approaches to improve organizational agility, so companies are in constant search of working business models and virtual team management concepts, including effective approaches on the issue of leadership.

First of all, in order to investigate acceptable leadership styles, we should focus on the advantages and disadvantages of transforming the business processes of an enterprise to work remotely [12, 16]. Consequently, it is believed that the advantages of virtual project teams include:

- the flexibility and adaptability of the team, which makes it easy to rearrange all processes in accordance with changing conditions. You can transform team composition, workday models, roles and functions of employees in project work, and much more;

- a high level of creativity that allows for the development and implementation of innovations and innovations. It is in creative processes that team members of different cultures, not limited by specific stereotypes, can positively influence each other, creating innovative solutions;

- high level of competence of specialists, because it is possible to invite the most experienced and talented professionals to participate in the project, regardless of where they live or work;

- acceleration and better coordination of work processes through the use of information and communication technologies that allow for faster information handling;

- workplace safety for employees under pandemic and quarantine conditions.

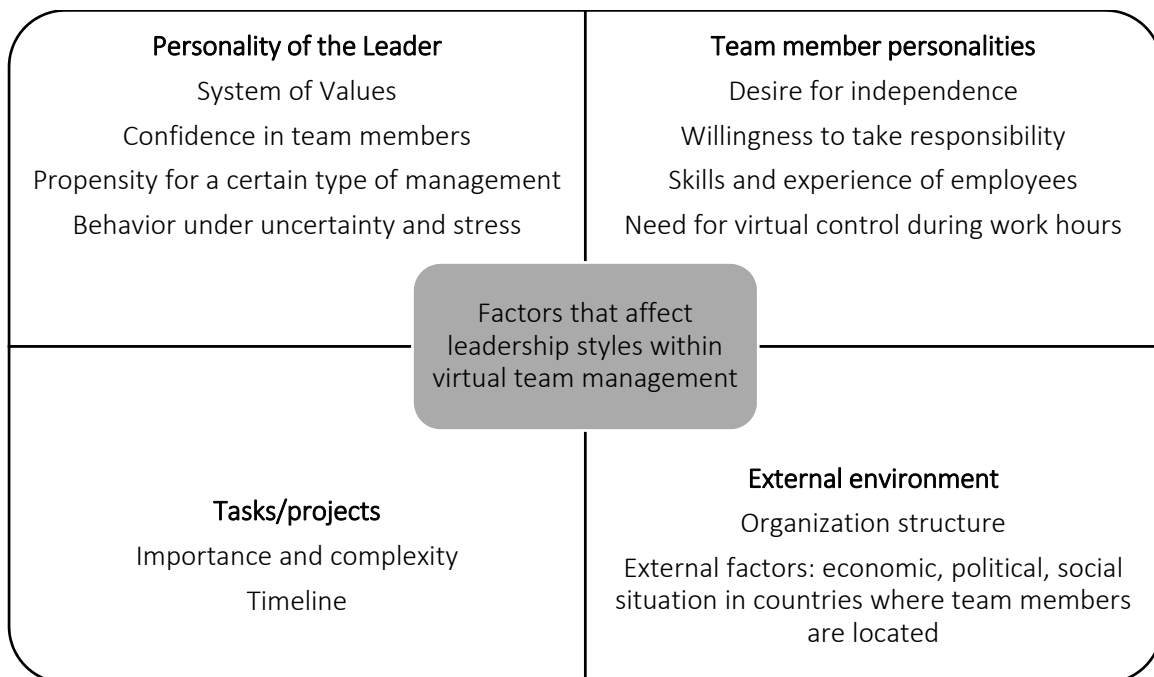
On the other hand, the disadvantages of virtual teams include:

- problems associated with the use of information technology: the need to choose a convenient software, install it on the computers of each team member, counseling, organizing additional training sessions;

- lack of live communications, which increases the risks of misunderstanding associated with the development and implementation of the project;
- problems of team spirit and trust building A sense of unity provides a team with stability and resilience in the face of different cultural traditions and individual needs. Lack of personal communication makes it much more difficult to build unity among employees;
- the problem of control. A virtual team implies increased self-control and self-organization. If individual team members fail to meet deadlines or fail to meet technical deadlines, the implementation of the project as a whole is jeopardized;
- the need to transform the management system and leadership approaches [16].

Traditional leadership (authoritarian, one-man, vertical) in most cases is not suitable for managing virtual project teams. This is due to the fact that it is difficult and sometimes impossible to control the result of the controlling influence because in conditions of spatial and temporal remoteness of the managed from managers it is more difficult to get feedback. Specifics of actions, which personnel face while working in virtual teams, determine specifics of their management. At the same time, basic management functions, such as project planning, defining its goals and objectives, searching for and attracting project participants, distributing tasks and resources, managing interaction and control [10], are preserved, including for remote workers.

From the point of view of leading researchers in the direction of leadership and its transformation [2, 5, 17], the leader's role in virtual teams is modified and expanded. Methods and techniques of one-man leadership and authoritarian management style are seen to be less effective, so it is necessary to connect leadership styles with the advantages of their application specifically for remote formats of work. However, the first step is to consider the main factors that influence the formation of leadership style in team management.



**Fig. 1 Factors influencing leadership styles within virtual team management**  
Source: adapted from [12, 18].

Therefore, the system of factors depicted in Fig. 1 is not final and can be supplemented with elements specific to specific companies, their managers, and employees. This influence factor matrix can help identify the leadership styles that are appropriate for a team.

Regarding leadership issues, there is a growing body of research on leadership styles and different researchers focus on different leadership styles, but it is important to understand that one leadership style cannot fit all possible situations and companies. As necessary, based on the situation and the needs of the employee and the organization, a leader can combine one or more leadership styles when influencing people in pursuit of the organization's strategic goals. Thus, choosing the right style, in the right situation, at the right time is the key to a leader's success.

In the scientific literature, there are many concepts of leadership theory and classification, the classical, fundamental concept is considered the approach proposed by C. Lewin [6]. According to this theory, there are three styles of leadership: authoritarian, democratic, and non-interference style. In addition to the classical approach, scientific sources cover a lot of proposals on visualizing the role and character of a leader in management practice, but the issue of managing remote workers and teams as a progressive type of modern cooperation is insufficiently disclosed. In Table 1 let's consider the peculiarities of using one or another leadership concepts as the basis of management of virtual teams.

Table 1

**Correlation of leading concepts of leadership styles with possibilities of their use in virtual team management**

Leadership style	Features and benefits of using virtual team management
Authoritarian leadership	Suitable for crisis management, when a decision must be made quickly, in the case of abrupt changes in environmental factors.
Democratic Leadership	Used when each team member has clear duties and areas of responsibility. The leader must trust team members to make certain decisions within their area of responsibility.
Non-interventionist style.	Very limited range of use for managing virtual teams, more in relation to routine tasks and with maximum confidence in the performer.
Servant as Leader, R. Greenleaf	The concept is especially appropriate in remote team leadership settings, where workers may feel uncomfortable due to a lack of personal contact with the supervisor or team members.
Transformational leadership, J. McGregor Burns	It is highly effective in the management of innovative projects, radical changes in strategy. Requires the organization of mechanisms for the constant involvement of remote workers in the goals, values, and internal life of the company.
Transactional leadership, B. M. Bass	Helps to improve team performance, but the system of "rewards" and "punishments" must be clear and understandable, as well as communicated to all members of the virtual team.
Task-oriented leadership	An effective approach to project work with freelancers does not take into account the development of team relationships for long-term collaboration.
Relationship-oriented leadership	More often found in the management of young, creative remote teams and such teams where the functions of employees are significantly interrelated, which requires a healthy interpersonal relationship in the group for effective interaction.
Situational leadership, K. Blanchert, P. Hersey	A leading, flexible leadership style in today's changing environment for managing remote teams and projects. Combines different management styles, depending on the situation.

*Source: author's own development.*

Authoritarian leadership, one of the typical leadership styles that has been used for many years, but lately authoritarian leadership has been increasingly losing its position and not without reason [14]. It is practically proven that business management in a dictatorial

mode, especially during remote work, when employees are not immersed in the daily office routine, do not understand how to react to manifestations of authoritarianism in work, lead to rapid burnout of the team. Nevertheless, there are situations where authoritarian leadership works better than other leadership styles, as shown in Table 1.

Unlike the authoritarian leadership style, where the responsibility for the result is more on the manager, the democratic leadership style is characterized by the distribution of decision-making responsibility among team members. This approach creates a kind of social equality in the organization. Research by I.V. Kohut [14] shows that this leadership style can be very effective, as it creates high morale, as team members feel empowered and valued. The disadvantage of this approach is that it can be slow because involving more people in the strategic process almost inevitably takes longer [17]. This leadership style will probably not be effective enough when managing projects with a high level of uncertainty and short-term projects, because a significant amount of variables in the process of implementing new ideas for the company requires quick adjustment of new business processes and redistribution of responsibilities between team members, in a remote work environment of employees is quite a challenge in a democratic management style.

Non-interference leadership is the direct opposite of the authoritarian leadership style, in which decision-making is delegated to the team (the term comes from the French for “let them do it”). This type of leadership can work well if the team is qualified, dependable, and experienced. However, non-interference leadership does not mean that the role of the leader-personality should be eliminated. If the leader does not provide feedback to the team, they can quickly lose goals, motivation, and the right course of action. It is believed that the non-interference leadership approach is more effective in the office environment but is inappropriate for remote workers because they need constant feedback on their performance [3]. In our opinion, this leadership style can be used in the management of virtual teams in the case of certain routine, constant duties, but the requirement of maximum trust of the executives on the part of the manager remains.

Another powerful leadership style that has the characteristics of authoritarian and democratic leadership is transactional leadership, which works on the basis of give-and-take relationships.

That is, remote workers, work in a system with potential rewards and punishments within the organization. Rewards can be as simple as praise, a team party, bonuses, including material ones, and more. Transactional leaders can eliminate general confusion and doubt in the system because they can say clearly and precisely what they want. This type of environment also facilitates employee feedback, usually allowing remote workers to give a way to improve the leader's idea [10].

Despite this, transactional leadership styles do not have the same creative and motivational freedom as democratic leadership. This approach provides much more flexibility and speed in decision-making, but engagement toward a single goal may be limited due to a more rigid style if punishments are necessary.

Transformational leadership according to B.M. Burns [7] is a process in which the leader encourages his followers to share his goals, values, and vision of reality. Transformational leaders look to the future and form a powerful strategy for change that engages all employees in the organization.

A transformational approach to leadership can be a huge plus when a team is challenged to move beyond the traditional, with the power of leaders using this method relying on charisma and the ability to build a cult of personality. Transformational leadership is a catalyst for innovation, and when a company has a remote format of work, it is crucial to maximize the involvement of such workers in the common vision and understanding of the

leader's strategy. Thus, this approach requires the organization of webinars, strategy sessions, chats, through which the virtual team will be involved in a unified process of transformation.

According to R. Greenleaf's concept [19], as a servant leader, a manager focuses on the needs of others, especially team members, before thinking about himself. He acknowledges the views of others, gives them the support they need to achieve their work and personal goals and engages them in decision-making to create a sense of community in the team. This leads to higher engagement, more trust, and stronger relationships with team members and other stakeholders.

Task-oriented leadership focuses on achieving goals. Task-oriented leaders delegate assignments, set clear processes and deadlines so that all team members stay focused and complete their project roles on time. Perhaps the shortest definition of task-oriented leadership is "doing whatever it takes to get the job done" [19]. The approach tends to be autocratic and emphasizes doing the tasks necessary to achieve organizational goals. Leaders emphasize purposefulness and working effectively to achieve predetermined goals. This style of leadership is less concerned with individuals and teams doing the work, as long as the work is done on time and as required.

Purposeful leaders will define team roles, assign responsibilities to the team, create processes and procedures, and monitor progress. The strength of this leadership style is that it ensures that deadlines are met, and tasks are completed. This can be highly effective for industries that must simultaneously meet strict deadlines to maintain a high standard of quality. The media and newspapers are a good example, as they use this type of leadership in most cases.

Relationship-oriented leaders primarily focus on supporting, motivating, and developing employees and teams. They seek to establish meaningful relationships with their staff and use this emotional connection to maximize staff performance [19]. Effective relationship-oriented leadership requires a high level of emotional intelligence, allowing them to easily empathize with their employees and understand their perspectives when working on projects and making decisions. This leadership style encourages effective teamwork and collaboration by improving the level of relationships between team members, understanding everyone's needs.

The individual person is vital to effective relationship-oriented leadership. By focusing on the emotional needs of staff, relationship-oriented leaders ensure that they have a positive and motivated team. Staff will be enthusiastic and inspired to work and will also feel valued, thus manifestations of personal conflict, frustration, and boredom will diminish.

The situational leadership approach assumes that no one leadership style is perfect for every situation. It focuses on adaptability: every situation asks for a different leadership style. The ability to adjust to different personalities is the foundation of this leadership style. Common traits include flexibility, self-awareness, and communication skills [20].

Situational leaders adapt to the changing needs of people and processes. For example, as more companies move to a remote workplace, situational leaders are called upon to help individuals and teams overcome the challenges of a new work environment and new ways of communicating. Situational leaders accomplish this by being flexible.

To that end, they can choose a style that involves telling employees what to do, how to do it, and what they expect as a result. They may also choose a more general approach. Depending on the situation, they may actively engage in tasks or take a non-interventionist approach.

Effective leadership makes a significant contribution to successful companies and projects [6]. Real case studies prove that charismatic and employee-oriented leaders bring success when working with remote teams, because such leaders solve not only working but also some personal issues of people, give an incentive to develop professionally and culturally.

Thus, it is very important that the leaders of virtual teams create an atmosphere of trust and mutual support [13], form clear goals and expected results through all available means of communication in the digital dimension.

Some scholars note the mandatory use of critical success factors that managers take as a basis for determining the necessary leadership behavior, however, most of them agree that career development of internal virtual teams members [11] and implementation of a flexible, technologically correct organizational culture and structure without a rigid hierarchy, taking into account the possibilities of delegating certain powers to the decision-making team, ensure successful management practices in modern both online and offline

Opinions on the best leadership strategy in the scientific literature are divided, with some researchers emphasizing that modern leaders, especially in the context of virtual team management, should use a transformational leadership style [3, 13]. After all, certain studies demonstrate that it is the transformational type of leadership that gives the best result because staff motivational behavior is stimulated, due to individual support and stimulation of intellectual development, work on agreed goals and team spirit, people work much better and more effectively [17]. At the same time, to use transformational leadership, managers must have a thorough knowledge of the subject the team is working on, to be able to form strategic goals and inspire employees, have facilitation skills, be adaptable and flexible, and understand that they must become an example for their team.

However, some works point out that the above-mentioned studies cannot be considered unanimous in substantiating successful leadership behavior and leadership skills [20], according to the results of these studies, flexibility and the ability to adapt their management to the needs of a particular situation are more important. In addition, knowledge, and experience in digital technology, tools for organizing and controlling work processes in a remote format are crucial for an effective leader, because considerable skill is required to level the problems associated with the difference in time zones, the presence of borders, cultural differences of the members of the virtual team.

From our point of view, the underestimated from the side of virtual team management in the scientific environment was the situational approach. It is with this approach that the team management style can be adjusted to the needs of the product and the team itself, as well as taking into account the input parameters of the tasks, since the leadership style when managing creative, innovative teams is of course somewhat different from the leadership style when managing employees involved in routine, constant processes.

### **Conclusions**

The 2020 pandemic has significantly accelerated the digitalization processes in various areas of the economy. Most organizations have been forced to quickly restructure their work by moving it to an online environment. The rapid and massive penetration of remote forms of work as one of the clearest examples of changes in the digital economy has transformed approaches to work organization. Digital technologies are designed to ensure that remote teams work together effectively, but leaders need to adapt their behaviors. Selecting the right leadership style in a digital context, where work is mediated by information technology, high complexity, and an ever-changing work environment, requires leaders to change their practices, attitudes, and behaviors to ensure the long-term sustainability of organizations.

Consequently, to meet the challenges of today, both leaders and members of virtual teams need to develop leadership, managerial, and digital competencies. Leadership competencies include a developed leadership mindset, virtual team-building skills, and the ability to create a digital and humanistic organizational culture that is highly motivating and engages team members in change projects.

However, it should be remembered that working remotely can also lead to negative consequences, such as isolation, which is caused by the lack of a daily social aspect of work because employees are physically away from their colleagues and therefore do not actively participate in information exchange. A sense of isolation negatively affects work because employees do not have the support of their supervisor and co-workers to solve problems if they are physically present at work. This situation requires a combination of different leadership styles so that the negative aspects of remote work will be mitigated, and employees will receive enough motivation to achieve their desired goals. Therefore, a situational leadership style is considered the most appropriate in the context of virtual team management.

Thus, our work is a starting point for further research on mechanisms of implementation of the situational type of leadership in virtual teams, defining effective approaches to the selection of these or those leadership styles depending on specific business cases.

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