

MANAGING VIRTUAL TEAMS

Abstract: A wealth of research is associated with virtual teams and collaboration technologies; however, no integrated model is available to guide decision-makers at large organizations in the strategic implementation and management of “virtuality.” Changing organizational structures, from traditional hierarchical towards lower and more flexible ones, have made leaders organize work in new ways. Many organizations are taking advantage of the opportunities to utilize new technologies to become more effective and efficient. One of the newer types of approaches to be used is the “virtual team.” These are teams that are comprised of members who do not work at the same place or even at the same time. They may be spread across many time zones and may be located all over the world. For the success of virtual teams, it is important to overcome cultural differences, communication barriers, power struggles and conflicts in order to build trust, cooperation and commitment between individuals. Although it sounds difficult, it can be achieved through effective leadership. This paper tries to explain the role of vital elements such as trust, information sharing and communication, in building virtual teams as well as establishing an effective relationship between members.

Keywords: *virtual teams, collaboration, effectiveness and efficiency.*

JEL Classification: M15, M21

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Introduction

Virtual teams are groups of people who are engaged in leading and realizing business practices in various sectors of the company and even industries. Globalization creates new opportunities for competitive advantage, and technological progress supports global communication and teamwork. Virtual teams whose members cover the world are called Global Virtual Teams (GVT). Global virtual teams realize so-called “unprecedented” opportunities and links for collaboration, innovation and organizational effectiveness.¹

Virtual groups exist when several physically distant employees are combined and each member reports to the same manager. In contrast, a virtual team exists when members of a virtual group communicate with each other in order to achieve common goals. This difference between a virtual team and a virtual group is parallel to the difference between conventional groups and teams in the organizational literature. Finally, virtual communities are larger entities of distributed work in which members participate online, guided by common goals, roles and norms. Unlike virtual teams, virtual communities are not implemented within the organizational structure, but are usually initiated by some of their members.²

Managing virtual teams is a very complex task. Deficiencies in communication often indicate general misunderstandings and lack of shared knowledge of team members for various reasons. But of course there is an appropriate solution to every problem. There are many studies and researches that show that face-to-face communication is especially important, but it is especially important at the beginning of the team’s “life”, especially when the team consists of people who do not know each other at all.

Researches in the industry further reveal that the three main reasons why organizations accept virtual teams are:³

- ∇ Increased productivity
- ∇ Greater efficiency
- ∇ Cost savings

¹ Rogbeer, S., Almahendra, R., & Ambos, B., “Open-innovation effectiveness: When does the macro design of alliance portfolios matter?”, *Journal of International Management*, 2014, p.446

² Hertel G. & Geister S., “Managing Virtual Teams”, Evsevier Inc, 2016, p. 71

³ Purvanova K., “The SAGE Encyclopedia of the Internet”, SAGE Publications, Inc, 2018, p. 2

Similar to traditional teams, virtual teams participate in a variety of collaborative activities, such as formal and informal meetings using technology such as video conferencing (Zoom, Skype, Microsoft Teams, Google Meet, etc.), file transfer, and sharing applications. As a result, virtual teams face collaboration difficulties that make it difficult for them to be as successful as teams that are physically together.⁴

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Due to the fact that the team does not work in an office and is not physically located together, employees do not have the opportunity to contact the manager at any time, for a question, challenge or get a specific direction. Managers need to define several hours of availability per week in their calendar, a period in which employees or colleagues can contact them for any important questions or simple advice. Providing availability for all the important challenges and problems that arise during the week, increases the closeness with employees and colleagues and gives a sense of connection and expected support.

It is a good practice when managing a virtual team, for a certain period, the manager to contact the employees via message, video or phone call just to check how they feel and check the situation.⁵ Sometimes these checks can last up to 45 minutes, but these checks are characterized by the fact that there is no specific agenda.

Weekly inspections and one-on-one meetings provide a good rhythm for assessing and maintaining control and monitoring the completion of tasks and projects. This practice, however, is not a sufficient basis for long-term evaluation and development. To evaluate the results and quality of work, it is recommended to review the tasks fulfillment and projects retrospectively at a frequency of 2 to 4 times a year where the subject of evaluation will not only be the tasks fulfillment and projects but will give more focus to future development of employees in the future.⁶

⁴ Smith S. & Ruiz J., "Challenges and barriers in virtual teams: a literature review", 2020

⁵ Available at: <http://vivendumsolutions.com.mk/efektivnost-na-menadzer-pri-upravuvanje-virtuelni-timovi-2/>, accessed 10.01.2021

⁶ Available at: <https://www.frontiersin.org/articles/10.3389/fpsyg.2021.624637/full>, ac-

1. LITERATURE REVIEW

According to the author of the paper, the purpose of this paper is to understand the work in virtual teams for proper management of processes and the work of companies better. The Covid-19 pandemic is expected to fundamentally change the way organizations operate over the next few years. As governments and companies globally urge people with symptoms to isolate themselves and everyone else to practice physical distance, working from home is becoming our new reality. Although it is desirable to establish clear policies and rules for mobile work and / or work from home as well as staff training, in times of crisis or other rapidly changing conditions, this level of preparation is impossible. There are specific research-based guidelines and steps that managers can take that can easily improve the engagement and productivity of mobile or employees working from home, even when there is not much time to prepare.

According to Lee Heng Wei, Ramayah Thurasamy and Simona Popa, organizations are increasingly accepting virtual teamwork as the primary way of structuring work responsibilities, and the growth in the use of virtual teamwork has surpassed the researches of the virtual teams. As more and more companies become global nowadays, research into the effective management of virtual teams is crucial to the successful implementation of open innovative practices, while online companies could be the most appropriate environment for examining the basic principles of virtual teams. The explosive growth in the use of virtual teams by organizations and the inherent challenges faced by virtual teams emphasize the need for theory and research to inform organizations in designing, structuring and managing virtual teams.⁷

According to Christina Breuer, Joachim Huffmeier, Frederike Hibben and Guido Hertel, in today's companies, trust is often seen as a key success factor in ensuring effective teamwork. In addition, the meta-analyses made by the authors showed that team trust is more important in virtual teams compared to teams that work face-to-face or physically, which reflects additional uncertainties and risks in terms of electronic communication. In a virtual team situation, people can observe and experience behaviors that are socially more complex and multifaceted than behaviors in one-on-one discussions that are not possible in dyadic situations such as sharing information with more col-

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⁷ Heng L., Thurasamy R. & Popa S., "Managing virtual teams for open innovation in Global Business Services industry", Emerald Insight, 2018, page 6

leagues, dealing with team conflicts, or even formation of subgroups or social exclusion. Thus, an individual's assessment of team trust probably takes on more socially complex information than a trust assessment in a dyadic relationship. Therefore, the appearance of taxonomy of trust in teams can help to understand team situations and team behavior. Applying such an approach can contribute to a better understanding of the appearance of trust in teams.

Second, the authors consider team virtuality as a moderate condition in the relationship between trust among team members and its consequences of behavior contribute to achieving positive results. By systematically comparing perceived confidence factors and risk-taking behaviors in virtual and face-to-face teams, it contributes to whether virtual and face-to-face teams need different interventions to build trust. Therefore, team trust is a common willingness of team members to be sensitive to the actions of other team members based on the shared expectation that other team members will perform certain activities that are important to the team, regardless of their ability to monitor or control the situation of other team members. Thus, it is expected that the emergence of trust in the context of teams is more complex than the emergence of trust in dyads because individual team members experience the behaviors and interactions of multiple fellow members. For example, they observe their fellow team members sharing information or gossiping with each other, discussing team conflicts or undergoing subgroups, which may lead to coalition building or even social exclusion - all of these processes cannot appear in dyads. Thus, for assessing the confidentiality of teams, an individual member may use more complex information than for assessing the confidentiality of a trustee in a dyadic relationship.

According to the authors, the research on virtual teamwork was conducted in the Republic of Germany on 55 German professionals (educated and trained employees) in virtual teamwork. 64% of the survey were women, and 36% were men, and the age ranged from 20 to 67 years, the average term of the team was 4 to 5 years, and the existence of the company was from 9 to 11 years. It turned out that all participants completed their school education and had higher education or completed appropriate vocational training and at work used all communication skills for online collaboration. Regarding the pandemic that the whole world is facing as well as the geographical distance, 90% of the respondents apply the principle of virtual teamwork.⁸

⁸ Breurer C., Huffmeier J., Hibben F. & Hertel G., "Trust in virtual teams", Sage Journal, 2019, page 8-9

According to Janine Hacker, Michael Johnson, Carol Saunders & Amanda Thayer, the virtual team is a group of individuals who communicate adaptively, interdependently and dynamically towards a common and valued goal. In the past, virtual teams were characterized only by the use of information and communication technology, and the geographical distance was characteristic. But today, according to the authors, virtual teams are gaining a multidimensional character and a wider range of features, virtual teams whose members use technology to varying degrees when working through location, time and relational boundaries to achieve interdependent tasks use different technology. Virtuality is a concept that determines whether a team is more or less virtual. Virtuality as a multi-layered higher-order construction that encompasses the independent identification dimensions of a team indicates a degree of dispersion or discontinuity. Different researchers have particular views on which dispersions and discontinuities make up the identification dimensions. For example, discontinuities can be barriers for virtual teams such as geographical segregation, cultural differences, time zone differences, and organizational membership that contribute to many problems in the functioning of virtual teams. Therefore, most virtual team researchers agree that dimensions are combined in some way to create a composite construction that indicates the degree of virtuality in the team and reflects how technology helps or interfere its operation. Many technologies support virtual team communication and knowledge sharing (eg email, video conferencing, meetings, seminars, training, etc.). These technologies differ in the degree of synchronicity and the ability to transmit signals.⁹

According to Sarah Morisson-Smith & Jaime Ruiz, virtual teams are influenced by physical factors such as geographical distance, time and perceived distance etc. These factors are closely related to social and emotional factors, including trust, motivation, and conflict. Each category correlates with a set of challenges that greatly affect virtual teams. Distance can be categorized primarily as geographical, temporal, or perceived. Each category correlates with a set of challenges that greatly affect virtual teams. Geographical distance is a measure of the amount of travel and time required for an employee to visit his or her co-worker. According to the authors, there are appropriate constraints that hinder virtual teamwork such as awareness among members, motivation, and building trust, level of technical competence of team members,

⁹ Hacker J., Johnson M., Saunders C. & Thauer A., "Trust in virtual teams: A multidisciplinary review and integration", *Australasian Journal of Information Systems*, 2019, page 4-7

nature of work, competitive / cooperative culture, and alignment of common goals. Something that is especially important and should be emphasized is the motivation. The motivational feeling present in team members has well-established effects of “social relief”, especially on the observation that people tend to work harder when they are not alone. However, these effects are increasingly difficult to find and nurture in remote management, which poses an additional challenge for collaboration. Time distance is clearly different from geographical distance and should be treated as a separate dimension. While geographical distance measures the amount of work required for one associate to visit another, time distance is considered to be a targeted measurement of the time shift experienced by two associates who want to communicate with each other. Time distance can be caused by both time shifts in work patterns and differences in time zones. However, communication can be disrupted due to time distance and in other ways such as postponing meetings, agreements between certain team members; members not heard and dispersed collaborations and so on. Delays in associates’ responses can be particularly frustrating and problematic and can extend the time it takes to resolve issues, sometimes dragging problems through for days. The work can be categorized as free or strongly connected. Closely related work relies heavily on the skills of member groups with highly interdependent components; this type of work requires frequent meetings, rich communication that is not routine. In contrast, the free type of work is a typical or routine activity or less dependent on closely related work. The interdependence between the components lies at the “heart” of the cooperation between the members. Leadership empowerment combines power sharing with individual team members, while providing a facilitating and supportive environment.¹⁰

According to Akanksha Santosh Rane, with the expansion of Covid-19 and established social distance regulations, most organizations have shifted their workplaces to a virtual environment. Virtual teams are teams in which most members are located in different geographical locations and locations and are highly dependent on the use of communication technology between members. However, this pandemic and the need for organizations to create work environments that are physically safe for their workforce has increased the demand for virtual workspaces that have forced employees to work from home.

¹⁰ Smith-Morisson S. & Ruiz J., “Challenges and barriers in virtual teams”, Springer Nature Switzerland AG 2020, 2020, page 4-8

The classification of coordination mechanisms described by Sabherwal is a synthesis of existing coordination research in the development of virtual teamwork. Four constructions are set by Sabherwal as key mechanisms for coordinating teamwork in development teams, and they are:¹¹

- ⊗ Coordination by standards: Coordination by standards refers to those mechanisms used to guide team members into practice such as methodologies, rules, codes of practice, etc.
- ⊗ Coordination by plans: Plan coordination refers to any documentation that can be used to coordinate and guide team members (schedules, project plans, etc.).
- ⊗ Coordination with formal mutual adjustment: Coordination with formal mutual adjustment are those mechanisms that require team members to communicate in a predefined way, such as project meetings.
- ⊗ Coordination with Informal mutual adjustment: Coordination with Informal mutual adjustment involves team members communicating informally through ad-hoc meetings, improvised communications or a shared location.

According to Guido Hertel & Susanne Geister, the heuristic life cycle model is considered, the most appropriate for organizing various topics, issues or problems, relevant to the management of virtual teams as well as work teams. Developmental aspects need to be considered, recognizing that different management tasks are crucial at different stages of team implementation. This model proves that the higher the level of virtuality, the more important the key activities summarized in the life cycle model. The model life cycle distinguishes five general stages with specific management tasks to be solved during virtual teamwork. The first phase contains tasks and decisions that are relevant when the organization plans to implement virtual teams in the work. The second phase describes activities that are relevant to the actual start of teamwork, such as conducting an initial workshop. The third phase involves questions about leadership and maintaining motivation and communication in virtual teams. The fourth phase includes activities for evaluation of team processes together with team training and assimilation of new members. The fifth stage

¹¹ Kiely G., Butler T. & Finnegan P., “Global virtual teams coordination mechanisms: building theory from research in software development”, Behaviour & Information Technology (BIT), 2021.

involves tasks such as properly recognizing team achievements and reintegrating team members that are often overlooked in team management models.¹²

According to Maria Manuela Cruz-Cunha, Fernando Moreira and João Varajão, a recent study concluded that personality traits as well as psychological profile are particularly important for the selection of team members. The skills that team members should possess are: self-discipline, individual responsibility, team participation skills, i.e. to be capable of quick assimilation in the team, communication skills, confidence, appropriate characteristics that include: patience, persistence, tolerance, flexibility and understanding.¹³

2. A NEW MODEL FOR EFFECTIVE MENAGEMENT OF VIRTUAL TEAMS

Nowadays, according to the author of the paper Petreska, the work of virtual teams is growing. At first, virtual teams existed only in large companies, but now they are also used by organizations operating globally. Virtual teams need collaboration and commitment to work. For example, if a Sydney service user calls, they will usually not have to worry about whether the person resolving the issue is sitting in London, Rome, Singapore or any other city in the world until the issue is resolved. A popular reason to use virtual teams is to provide a continuously available service throughout the day, every working day, and sometimes even including the weekend.

In order to avoid night shifts within the work, the business is divided into usually 3 regions around the world. Often, the three teams are physically located in America, Europe, the Middle East and Africa (EMEA), and Asia Pacific (APAC). Each team has an eight-hour shift within local time and then hands it over to the next team when their day starts.¹⁴

Sometimes projects need to involve a subject matter expert who is not physically located close to the project team. Normally, a specialist can travel to get the job done face to face, but this can be an expensive option if all the necessary costs that come as a result of the actual project work are taken into account. For the specialist, it also brings more value to work as a virtual team member, as he / she is also able to work on other projects in the meantime. In

¹² Hertel G. & Geister S., "Menaging Virtual Teams", Evsevier Inc, 2016, page 73

¹³ Cunha M.M., Moreira F., Varajão J., "Managing 'virtuality': An integrated model for the implementation and management of virtual teams", Business Science Reference (an imprint of IGI Global), 2019, page 37

¹⁴ Available at: <https://techacute.com/working-with-virtual-teams/>, accessed 12.11.2022

order to work together, a shared work platform is very important. In fact, it is about sharing work with documents, updating each other for news, and even enabling predefined workflows.

According to research by various authors, the most commonly used communication tool is e-mail, and other tools used are: Viber, WhatsApp, Skype, Zoom, LinkedIn, FaceTime, MS Teams and Google Meet. Also, a very important feature of virtual teamwork is that the decisions that are made are based on all team members, not individuals. The largest percentage of respondents believe that teamwork is always better than individual and that such way of working brings greater positive results because members are complemented by knowledge and experience.

In my opinion the application of the reward system is of special importance for the employees in the companies. Job satisfaction is the general attitude of employees or managers towards work, and the reward system has a great impact on job satisfaction. In order the rewarding to be effective, the management of a company must know what the employees consider is appropriate for rewarding. In a broader perspective, salary is an important reward, but it is only one of a set of rewards that encompasses everything that employees value and appreciate, such as office location, appropriate equipment, prioritization, or informal recognition. Many organizations, profit or non-profit, operate on the premise of reward, and based on business success that is desirable to individuals, although many of the formal rewards may not be related to business results, such as paid vacations and holidays. insurance plans and others related to employment within the organization. On the other hand, advancement should be related to the results of the work, but the opportunities for higher advancement are rare and can occur according to the system of longer presence in the organization or to be filled from the outside.

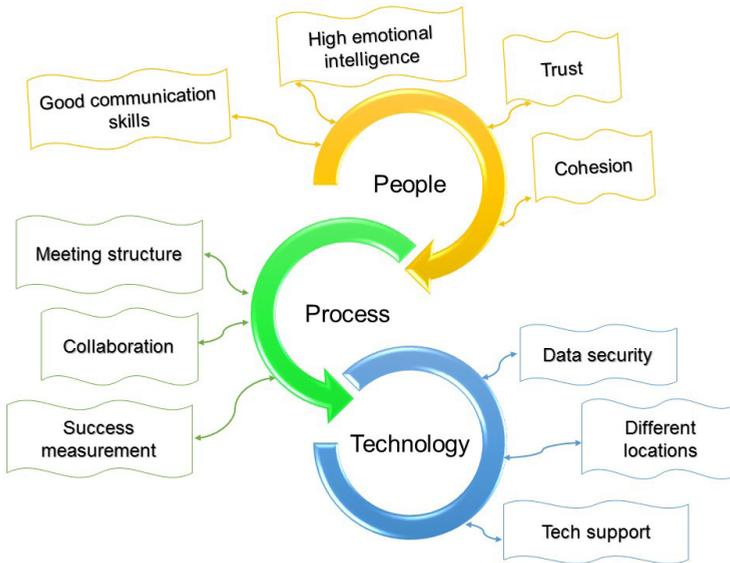
It is clear that many organizations in the United States, the United Kingdom, and the European Union are increasingly turning to paying programs according to the working results, although many studies show that even where these programs exist, they do not have 100% trust from both managers and employees.¹⁵

Taking into account the different models and approaches that exist in the literature, for the management of virtual teams, the model called “Management of virtual teams”, where is developed a new model in which the key

¹⁵ Available at: <https://biznisinfo.mk/kreiranje-na-sistem-za-nagraduvanje-na-menadheri-i-vraboteni/>, accessed 13.01.2022

elements relate to: people, processes and technology. The model is generic, interactive and easy to use in companies and is shown in Figure 1.

Figure 1. The interactive and simple model for managing virtual teams in companies



Source: Author

From Figure 1, it can be concluded that when people work with each other it is necessary to have a high degree of trust because the data and information at their disposal are strictly confidential. Furthermore, good communication skills reduce the disadvantages that may arise at work such as: it is essential that the virtual team leader has the ability to manage many initiatives while enabling and providing a clear vision of the team, the different physical location of employees and a weak team member can negatively affect the concept of a virtual team. Recruiting the right team members plays a key role in the success of the virtual team. High level of emotional intelligence is especially important for employees in the company, because building real relationships and establishing a positive work culture in the company are vital elements for employee development. Process management in the work of virtual teams provides structure, cooperation and success as well as performance improvement that combine information technologies and methodologies of process and management. Thanks to modern and advanced technology, virtual teams can easily

communicate around the world, without restrictions, including many visitors, which guarantees maximum data security that ensures security in operation.

Conclusion

Due to increasing market competition, decentralization and globalization of work processes and advances in information and communication technologies, organizations require flexibility and agility in their delivery of products and services.

Virtual teams play a key role in meeting these requirements. As organizations continue to compete for talents that rapidly become a scarce resource, the virtual team structure allows organizations to use available talent across borders.

More and more organizations are accepting a virtual team approach to reduce their operating costs, encourage knowledge sharing among their employees to promote organizational learning, and extend their working hours to 24/7 by using the different time zones of the virtual team members.

According to social psychologists, human relationships draw their strength from the physical closeness of individuals. Due to the fact that the members of the virtual team have limited or no face-to-face interactions, this involves a huge number of challenges.

For the success of virtual teams, it is important to overcome cultural differences, communication barriers, power struggles and conflicts in order to build trust, cooperation and commitment between individuals. Although it sounds difficult, it can be achieved through effective leadership. With the right strategies, processes and tools, companies can have a great benefit from this new age trend of virtual teams.

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