

# DIGITALES ARCHIV

ZBW – Leibniz-Informationszentrum Wirtschaft  
ZBW – Leibniz Information Centre for Economics

Stratone, Mădălina Elena; Vătămănescu, Elena-Mădălina

## Article

### The human capital dimension within the organizational equation : gliding between virtual and traditional teams

#### Provided in Cooperation with:

National University of Political Studies and Public Administration, Bucharest

*Reference:* Stratone, Mădălina Elena/Vătămănescu, Elena-Mădălina (2019). The human capital dimension within the organizational equation : gliding between virtual and traditional teams. In: Management dynamics in the knowledge economy 7 (4/26), S. 447 - 467.  
doi:10.25019/MDKE/7.4.01.

This Version is available at:  
<http://hdl.handle.net/11159/4179>

#### Kontakt/Contact

ZBW – Leibniz-Informationszentrum Wirtschaft/Leibniz Information Centre for Economics  
Düsternbrooker Weg 120  
24105 Kiel (Germany)  
E-Mail: [rights\[at\]zbw.eu](mailto:rights[at]zbw.eu)  
<https://www.zbw.eu/econis-archiv/>

#### Standard-Nutzungsbedingungen:

Dieses Dokument darf zu eigenen wissenschaftlichen Zwecken und zum Privatgebrauch gespeichert und kopiert werden. Sie dürfen dieses Dokument nicht für öffentliche oder kommerzielle Zwecke vervielfältigen, öffentlich ausstellen, aufführen, vertreiben oder anderweitig nutzen. Sofern für das Dokument eine Open-Content-Lizenz verwendet wurde, so gelten abweichend von diesen Nutzungsbedingungen die in der Lizenz gewährten Nutzungsrechte.

<https://zbw.eu/econis-archiv/termsfuse>

#### Terms of use:

*This document may be saved and copied for your personal and scholarly purposes. You are not to copy it for public or commercial purposes, to exhibit the document in public, to perform, distribute or otherwise use the document in public. If the document is made available under a Creative Commons Licence you may exercise further usage rights as specified in the licence.*

## The Human Capital Dimension within the Organizational Equation. Gliding Between Virtual and Traditional Teams

**Mădălina Elena STRATONE**

National University of Political Studies and Public Administration  
30A Expoziției Blvd., 012104 Bucharest, RO  
madalina.stratonee@gmail.com

**Elena-Mădălina VĂTĂMĂNESCU**

National University of Political Studies and Public Administration  
30A Expoziției Blvd., 012104 Bucharest, RO  
madalina.vatamanescu@facultateademangement.ro

**Abstract.** *There is a body of literature on virtual teams that is growing faster and faster; however, the knowledge about the benefits and the challenges faced by the virtual teams are still not very well outlined or thoroughly discussed. The purpose of this paper is to fill a part of the gap by reviewing specialized literature about the effectiveness of the virtual teams versus the traditional teams. Moreover, the study underlines the challenges faced by the virtual teams from different standpoints (i.e., identity, culture and diversity, leadership, communication and motivation, decision-making and conflicts, technology, creativity) and highlights the best ways/tools to cope with them. By performing this theoretical overview, the study aims to advance an articulate perspective on the organizational landscape and processes in line with today's challenges in terms of human capital, in particular and of intellectual capital, in general. As the depicted research directions indicated, people are not ready yet to totally move to the virtual world and to give up face-to-face communication, feeling more comfortable to work within a traditional team. This situation is illustrative of the fact that there is still much to explore about the virtual teams and about how they can reach their best potential in order to be effective.*

**Keywords:** *virtual teams; traditional teams; leadership; communication; identity; diversity; culture; technology.*

### Introduction

Nowadays, everyone is talking about the potential of telecommunication or other different ways of working online, because working online became something that everybody experienced. A lot of people are reading or sending work-related e-mails from their homes, many are traveling with their laptops, cell phones or other kind of devices that allow them to stay in touch on their business trips and even holidays. Moreover, more and more meetings include people who are present there only by their speakerphone or sometimes are held entirely as conference calls. A day by day growing minority of people are working nowadays from a home office (sometimes being hundreds of miles away from the company office). We are nowadays almost totally

bounded by technology and by the Internet, by sharing everything that we are doing online, by communicating with people from all around the world, by working with people from our countries like being in the same room.

All of these, however, are the results of globalization, a process that was thoroughly described by Friedman (2000), in his book *The Lexus and the Olive Tree: Understanding Globalization*. He states that “Globalization emerges from below, from street level, from people’s very souls and from their very deepest aspirations. Yes, globalization is the product of the democratizations of finance, technology and information, but what is driving all three of these is the basic human desire for a better life - a life with more freedom to choose how to prosper, what to eat, what to wear, where to live, where to travel, how to work, what to read, what to write and what to learn.” (Friedman, 2000, p.333). The author underlines that the process of globalization started in 1989, when the fall of the Berlin Wall was, as this event shifted both the political boundaries and the human possibilities. The image of the Lexus luxury car (which from his point of view is representing the evolving global technology) is contrasted with the knotty roots of the ancient olive tree (which from his point of view is a symbol of the age-old needs for community and personal freedoms that are characteristics of human learners). In this vein, Friedman (2000) shows that globalization is evolving from the human needs and it is trying to make our everyday life and work easier and faster.

Globalization and technology not only influenced our personal lives, but also our work environment, as nowadays we can work from distance, work for people or businesses from other countries and do it like we are in the same place. Everything changed in the last decades, especially if we think of the nowadays organizations (no matter if we think of businesses, non-governmental organizations, foundations or project groups). This global trend of virtualization of the society through expanding the global electronic space and the access to information through technology and information led to the emerge of new types of organizations “based on work groups, which aim to promote innovation and increase” the capacity of work (Andres et al., 2015, p.2). Taking into consideration globalization and the digitalization of work processes, a highly important aspect of work in many companies or organizations and across a variety of occupations is represented by collaborating with others across a distance on virtual teams.

Switching to the new ways of communication and to this virtual society that was created, the way in which individuals are carrying their activities was impacted (people are able now to get in contact with experts easier, it is also easier to get help or to share their work). In the specialized literature, “virtuality” received a great variety of meanings from authors from different fields of study. From a dimensional and relational point of view, there is a permanent comparison between the global dimension of virtualization (that is made through geographical dispersion and electronic interconnections) when it comes to the particularities of virtual organizations and the particularities of the traditional teams that are located at the local or, maximum, regional level. Moreover, some scholars identified some key characteristics for virtuality, including: geographic dispersion, electronic dependence, cultural and functional diversity and dynamic structure (Gibson & Gibbs, 2006).

The trend of virtualization also brings up the new typologies of organizational structures and the new form of organizations, most of which are virtual, being a

response to the complexity and turbulence of the nowadays business environment. Shortly, globalization and technology eliminated the space and time boundaries by opening new dimensions and opportunities for both individuals and businesses and organizations from all around the globe (Binsbergen, 1998; Canary & McPhee, 2011).

Starting from these aspects, the objective of the paper is to underline what type of team (traditional or virtual) is more efficient, consistent with the existing literature in the field which tackles different facets of the team characteristics and dynamics. To this end, the undertaking is structured into two main sections. The first one introduces the main research directions regarding virtual and traditional teams, focusing on several milestones, such as identity, culture and diversity, leadership, communication and motivation, decision-making and conflicts, technology and creativity. All these issues bring to the fore the relevance and importance of the human capital dimension within the organizational equation, be it mainly formed of virtual or traditional teams. The second section briefly includes the conclusions and future research directions.

### **Main research directions**

In order to understand how today's global transformations are affecting businesses or organizations and the people that are working there as teams (including both the traditional teams and the virtual teams), we need to make the difference between what a group and what a team is. A group can be defined as a collection of more than three individuals that are interacting about a common problem or goal and that can exert mutual influence over each other (Pels et al., 2018). Teams can be defined as a specialized group with a strong sense of belonging and commitment which is shaping the overall collective identity.

Virtual teams represent just another way of getting the work done. Both traditional teams and virtual teams are characterized by the fact that each member of the group is dependent of each other in order to accomplish the overall goal (Brown et al., 2007). Dependency within the group is making the biggest difference between a team and a group of people. For example, when we organize an event, we can hire a group of photographers to take photos. However, even if they are all in the same place, in the same time, they will work totally independent of each other and the quality of the photographer's work will completely depend on the experience and skills that they have. On the other hand, at the event, a caterer might be also hired who will bring a team that will cook, set up and serve. Shortly, each member of this team is dependent upon the other in order to be successful, because if the cook does not show up, then there will be nothing to serve or if the set-up team will not show up, then the cook cannot perform his activity.

When it comes to teamwork, many definitions say that "a team" is a special type of group (Giske et al., 2017; Wesner et al., 2018). Some theorists, such as Parks and Sanna (1999) consider that the distinctions between teams and groups are somehow fuzzy, considering that teams are simply groups in work surroundings (Levi, 2014). There are other theorists that underline how team's behavior distinguishes it from a group, teams being defined as structured groups of people working on defined common goals that request coordinated interaction in order to touch their goals/objectives (Forsyth, 1999).

For as long as at least two human beings have worked together in order to accomplish a common goal/objective, teams have existed; moreover, for as long as companies and other types of organizations and institutions have had multiple offices (that are being located in different regions/countries/continents), virtual teams existed. According to Lipnack and Stamps (1997), what has changed over the years is the ease with which teams can communicate across time, space and organizations (Brown et al., 2007).

### ***Virtual teams - conceptual framework***

Nowadays, companies and organizations have extended and have branches in other regions of the country or sometimes outside the country. In this way, many situations of working with someone who is not physically in the same office, someone that we might have never seen in our life, someone with whom we cannot have last-minute meetings and with whom we should communicate using the virtual environment are exponentially growing. According to Canary and McPhee (2011), having the temporal and spatial limitations of the traditional networks eliminated, it is easier to provide a faster access to comprehensive resources of knowledge through the electronic networks.

A virtual team is defined as a group of people that are interdependently working together with a share purpose across space and time, time and organization boundaries with the help of technology (DeSanctis & Monge, 1999). It is well known that both traditional and virtual teams use technology in order to work on their projects and reach their objectives. However, virtual teams use information and communication technology in order to collaborate, communicate, share information and coordinate their efforts in order to reach their goals, while traditional teams are using technology as a tool to support face-to-face work (mostly it is used to deliver presentations, to work on the projects, to send documents from one another). According to different scholars, there are some key factors that differentiate virtual teams from the traditional them: geographic dispersion, electronic dependence, functional and cultural diversity and dynamic structure (Gibson & Gibbs, 2006).

Most of the time, electronic communication is used also in the traditional teams, allowing their members to share their work, to exchange information and to communicate from a desk to another; however, electronic communication is very important for the virtual teams, that are having members from different regions (both in the same country or globally), being the only way in which they can reach their goals and get the work done (DaRos, 2016).

Due to the fact that electronic dependence is one of the key characteristics in a virtual team, an increased attention should be paid to the technologies that are used. In order to determine which is the most appropriate tool that should be used for tasks solving, the team leader should find out which kind of interaction should be between the participants on each step of the agenda and if the members need to build ideas together (this means that should be generated a common document where everybody can write). Also, the team leader should think of the technology available for each member (how performant their computers/tablets are, if they have access to microphones or cameras) and should also make sure that everyone is having a great Internet connection in order to have a good communication and to be able to conduct the transfer of information

(Levi, 2014). If the members of the team are able to increase the exchange of the social information, then technology can be turned in an opportunity.

Diversity is one of the main characteristics when it comes to virtual teams, as most of the time the members of the team are from different regions and are having different languages, cultures, traditions, values and identities. In this way, when there is a high diversity in a team, then this can create a source for stereotyping, conflicts between the members, communication barriers (even if the team is communicating in the same language, if it is not the mother tongue of the members then there can be misunderstandings from time to time) (Krawczyk-Brylka, 2016). In order to face the differences between the members of a team, it is important to develop a culture for the team, to create trust and supportive relationships; more than that, if possible, it is an advantage to ensure at least a face-to-face meeting, this creating a stronger bond between the members of the team (Orhan et al., 2016). Most of the time, diversity is affecting the interaction within the group by creating power differentials between the team members and due to that, if the members of the team are having unequal power, then the level of communication is reduced and the communication process is controlled by the powerful members. According to some scholars (Levi, 2014), power differences can affect the cohesion of a group because the individuals that are having similar status are more predicted to interact with each other and create friendships. In the same time, if the team is having a high level of diversity, it can be a great advantage, as this is increasing the types of information and the diversification of perspectives when it comes to solving and analyzing problems, coming up with new ideas for the projects.

The dynamic structure is another key characteristic of a virtual team and it indicates the degree of change or turnover of the members and also the changes that might occur when it comes to the roles of the members and the relationships among them (Benetyte & Jatuliaviciene, 2014). These changes, comparing to the ones that we find in traditional teams, are happening more frequently and most of the time they are increasing the cost of various team processes (Gibson & Gibbs, 2006). Virtual teams involve dynamic forms of organizing including: alliances, outsourcing, offshoring and temporary project-based work, all of these having flexibility as one of the main characteristics. Due to the high level of changes that might appear in the virtual team, there might be a lot of risks that can happen, but the team leader should also pay attention on how the things are working within the team so he can identify the risk and prevent them if possible by building "relationships among team members and" by facilitating "team processes" (Hacker et al., 2019, p.4). It is very important to keep in mind that a high rate of turnover prevents the maintenance of the relationships between the members of a virtual team, the knowledge integration and the preservation of organizational memory; this is why, the members of a virtual team should always redefine their relationships and collaboration in order to negotiate a common ground and the task boundaries with the others, especially if there are new members (Morley et al., 2015). It is very important to have a team culture, otherwise, the lack of shared history can create difficulty in assigning responsibilities, on planning team development and on locating expertise. However, all these challenges can be overcome if within the team trust, reciprocal relationships and commitment between the members are created.

***A stepwise approach on virtual teams***

A number of team-building experts (here being included John Adair) identified three areas which should be taken into consideration when managing a project: the project, the team and the individuals (Portny et al., 2015). In their book - *Project Management for Dummies* -, Graham and Portny (2011) state that we cannot choose between the three areas, all of them having the same importance; this is why, in order to have the project done, attention should be paid to both the teams and the individuals.

Wageman, Gardner and Mortensen (2012) describe teams as being a “bounded and stable set of individuals interdependent for a common purpose” (Wageman et al., 2012, p.33). Being affiliated with a group of persons and learning to cooperate with the others, no matter if it is within a business, a school project or a non-profit organization, are increasing the changes of “personal success and collective survival” and also of organizational sustainability (Dunham, 2015).

We can say that groups and teams are essential management key tools, as they are used by all kind of organizations in order to implement different projects, to deal with critical decisions or changes and to succeed in this world that is constantly bringing challenges. Due to the fact that businesses and organizations aim to reach higher levels of performances, they have started to focus on creating high functioning groups, as well-organized teams have a better potential in accomplishing something than a single person. However, in order to have a compact team that is able to accomplish its goals and objectives, we should firstly know how to form it. In this way, Tuckman (1965) was the first one who proposed the stages model of group development in 1965 which included: forming, storming, norming, performing and adjourning.

The first stage, forming, is when a leader is selected and he starts pulling together a team, but when there is a high level of anxiety, due to the fact that the members of the team do not know each other very well, do not know their responsibilities and the goals/objectives of the team; in this way, the most important thing is to have the goals, objectives and expectations well established from the beginning and if these are done, then at the end of this stage the team members will be excited about the project, will know each other and the leaders will be able to ensure a clear path without bureaucratic obstacles and also will be able to direct the future activities (Brown, 2007).

The second stage, known as storming, is the moment when conflicts are starting to appear and the leaders/managers need to support the team members within this period by facilitating discussions, modeling the behaviors of the members and redirecting everyone to the same goal/objective (Linn& Shih, 2018). Norming is the stage when the team members start to become comfortable with one another, start to gain confidence and to build, to accept the rules within the organization and, most important, to develop the relationships between them and this stage is characterized by a “development of group cohesion”.

Performing refers to the moment when the team members start to see the results of the activities that they performed in order to reach a common goal and also represents the stage when the leader/manager can allow the team members to redirect by themselves the activities, as everyone is already aware of their responsibilities. The last stage,

named “adjourning”, is the moment when the team finishes its tasks, starts to evaluate the results of the projects, but it is also the moment when the conflicts occur because of the deadline stress; however, according to West (2004), not all the teams are reaching this last stage, as sometimes team members are leaving the group or there might also be the chance to have the project suspended.

Anyway, not all experts support the stage model of group development that was proposed by Tuckman. For example, according to Gersick (1988), the group is not developing through stages, but through phases, that include: phase 1 (stability), transition (instability) and phase 2 (stability). From her point of view, the first phase establishes at the end of the first meeting (which is very important as it decides the climate, culture and direction of the newly group that was formed). At the midpoint the group is characterized by a period of transition and instability; then, when the phase two starts, the group is stable again and has a defined structure that can guide the project in order to have its goals/objectives achieved (Dunham et al., 2015).

According to some studies (Chang et al., 2003; Dennis, 2019), these two models (Tuckman and Gersick’s models) are “complementary and co-exist by functioning at two different levels of analysis” and it was “argued that the punctuated equilibrium model focuses on how a group works on a specific task, whereas the stage model’s focus on the overall development of the group” (Dennis et al., 2019). Those two models have been taken into consideration also by Johnson et al. (2018) when they have studied the virtual teams and the development of the virtual learning groups; however, even if the researchers followed at the beginning Gersick’s model, Turckman’s model was the central frame of reference in their work (Salonen, 2012). In their research, the authors concluded that there is “no evidence of the existence of the storming phase” and that there are only “three phases: forming, norming and performing” (Salonen, 2012, p.6).

Collaboration was defined by Beyerlein and Harris (2004, p.40) as “the collective work of two or more individuals where the work is undertaken with a sense of shared purpose and direction that is attentive, responsive and adaptive to the environment”. It is a tool that can be used in order to get something done, to make a change in the society and to extend resources (especially the human capital) beyond the limits. Due to globalization and the technological advances and trends that appeared in the last years, the way in which individuals participate in teams changed; also, the power of the Internet changed the way in which individuals are connecting to each other. For instance, Facebook launched in 2004: we can define Facebook groups as being actual teams by taking into consideration that people who gathered together are most of the time trying to solve different global problems, are discussing political issues and working for campaigns /projects. In one of their books, Griffith and Dunham (2015, p.14) underlined the idea that even if those groups “may not fit the standard definition of a team, they certainly have many characteristics of a team, including shared commitment to a common goal”.

Going back to the more formal virtual teams, at the first glance, they are very similar with the traditional ones, but in reality, besides similarities, there are also a lot of differences and challenges that occur when working with or within a virtual team. Taking into consideration the similarities, according to Wheelan (2013), some of the characteristics of a high-performance team are: the members of the team should agree and understand the goals/objectives of the team; the tasks required are appropriate for

the team members; the members should embrace their roles and understand their duties; the communication methods and the structures are allowing everyone to participate; the team allocates time for defining, discussing and solving the problems as a group; the team is applying decision-making strategies that are effective; sub-groups are welcomed within the team as a whole; the team is containing the smallest number of people that are necessary in order to accomplish its objectives – because having a large team is not always an advantage due to the fact that as a team grow in size it tends to break into smaller “social-psychological groups who see themselves attached more to one another in smaller informal groups to which they have assigned” (Cobb, 2006, p.84); the team is cohesive and cooperative; the team is having diverse conflict management strategies; the team has spent sufficient time together in order to develop a mature working environment in order to reach the team’s goals and objectives (Wheelan, 2013). All these characteristics suggest that there are “10 key areas members should pay attention to in order to ensure the productivity of the group: goals; roles; interdependence; leadership; communication and feedback; discussion, decision-making and planning; implementation and evaluation; norms and individual differences; structure; and cooperation and conflict management.” (Wheelan, 2013, p.60).

More than that, there are also similarities when it comes to the problems faced by both types of teams, no matter if they are traditional or virtual. In this way, researches pointed “5 common problems that people experience when working in teams: lack of commitment, productivity losses, poor communication, interpersonal conflict and poor leadership” (Dunham et al., 2015). The lack of commitment refers to the moments when the majority of work is done only by a few members of the team. The productivity losses occurs especially when there is a poor structure, when there is a lack of planning, when are too many conflicts when it comes to the goals/objectives of the team, member’s responsibilities or within the process of decision-making; as a solution, teams should have defined roles and tasks, trust should be built within the team and communication should be encouraged (Acai et al., 2018). A poor communication appears especially when the team gets bigger and bigger, which automatically leads to the creation of subgroups (Langer, 2011). Interpersonal conflicts appear because of the lack of communication, misunderstanding of the responsibilities and sometimes because of the diversity, especially when the team does not have a well-formed identity. Leadership is also a key characteristic, because most of the times “the leader’s attitude, particularly at the beginning of the project, sets the tone for the entire team” (Brown, 2007, p.45); so, if there is poor leadership, no matter if the members of the team are amazing, the team as a whole might not succeed or be able to overcome the challenges that might occur during the lifecycle of the project.

Like all the traditional teams, the members of the virtual teams need to understand their roles, goals and tasks in order to be effective, which is most of the time more challenging due to the fact that sometimes it is not possible to have face-to-face meetings (at least at the beginning) given that the budget of the project does not cover them. More than that, “creating a team culture that is supportive and productive is especially helpful in teams with only minimal face contact” (Fisher & Fisher, 2001). However, even if the virtual teams are more difficult to manage and coordinate because they lack a lot of the communication advantages of a traditional team, if they are started effectively, they can overcome the disadvantages (Beyerlein, 2008).

We can say that virtual teams are more complex and, due to that, there are a lot of challenges that are encountered and among which: identity, culture and diversity; leadership; communication and motivation; decision-making and conflicts; technology; creativity.

### ***Identity, culture and diversity***

As an imagination exercise, we may consider that we gathered together people from different parts of the world, and we decided that they are a team and that they need to work together in order to achieve some specific goals and objectives. However, in order to do that, in order for those people to really be a “team”, an identity and a culture should be created. Identity is a crucial element for the effective functioning and formation of a virtual team, as it plays “a crucial role in communication because knowledge of those with whom one works and communicates is necessary for understanding and interpreting interaction styles” (Beyerlein, 2008, p.48). Hand in hand with identity goes trust also, something that is developing more slowly comparing with the traditional teams, due to the fact that within a virtual team there is less visual contact (Beyerlein, 2008, p.48).

Starting a virtual team can be sometimes difficult because the members of the team have different experiences, competences and skills when it comes to technology. However, if the team is having a good team leader that knows how to handle the differences, then he can turn them into opportunities, as he can create the identity of the team by himself. In order to create the identity and the culture of the team, “most of the literature on virtual teaming suggests getting the team together face-to-face, if at all possible, to start the team’s project” (Levi, 2014, p.55). However, not all the projects have a sufficient budget in order to cover for the members to have face-to-face meetings, the only option being to do the meeting in front of a device. In order to create the identity of the team online, the group leader needs to know how to facilitate the communication and to cultivate the feelings of closeness. The best way to create “a common team identity is to increase team members’ confidence in each other and the team as a whole” (Nemiro et al., 2008), to create the feeling of a “common membership” (Langer, 2011, p. 93) and for that should be kept in mind that “people like to associate with groups they think are (or will be) successful and to dissociate from groups they think will fail” (Nemiro et al., 2008). However, there are different solutions that a good team leader can use in order to establish the identity of the team, including: to be used videoconferencing and teleconferencing in order to create the team’s vision; to make time for providing feedback for everybody that is part of the team and to do it as a one-by-one meeting; to structure the tasks interdependently, as this might build the confidence within the team members; to make weekly meetings with everyone, where the members should all get actively involved by offering their opinions, establishing goals together and making suggestions for further activities (Nemiro et al., 2008).

Globalization changed also the perception of people regarding cultures as well and nowadays people have a better understanding and are more open to other cultures. Having a virtual team means having people from all around the world, each of them having a different culture, different traditions, ways of thinking and ways of working with the others. The team leader needs to pay attention to every detail, to try to make the team understand each other’s culture, to make people learn about each other, this

being the best way to avoid stereotyping and to avoid the start of a conflict (Levi, 2014). Moreover, the team leader should avoid the use of jargons/slang words and should try to communicate with the others using the most common words, in this way making sure that everybody understood the tasks, goals of the team (Wong et al., 2017).

The culture of a team is described as being a “reflection of the organization’s culture” (Thomson, 2004). However, there are also scholars that have their own culture, which differs from the one of the organization they pertain to (Levi, 2014). Developing a culture of the team, no matter if it is the same with the organizational one or if it differs, it is very important because it unites the team members, giving them a feeling of belonging and helping them to accept each other, no matter the differences of the team members, and to accept diversity as being an advantage within the team.

When it comes to culture and effective leadership, Hofstede (1984) categorized cultures based on five dimensions: power distance (underlining that the teams that are having opposite cultures are more hierarchical, while the ones with similar cultures are more egalitarian); individualism vs. collectivism (individualistic cultures tend to value more the personal achievements and individual work, while collectivist culture tend to believe that stability, harmony and cooperation within a group are very important); masculinity vs femininity (masculine cultures believe that the only way to resolve a conflict is by using aggression and strongly believe that power and wealth are the most important values, while the feminine cultures consider that conflicts can be negotiated, as they value more relationships and the quality of life); uncertainty avoidance (cultures that are having a low-uncertainty avoidance are the ones that take risks, while the cultures with a high-uncertainty avoidance prefer to know all the rules of the game and to carefully study their opponents); long-term vs. short-term orientation (long-term orientation means to anticipate the effects of all the decisions taken on the future generations, while short-term orientation cultures don’t worry about the consequences and value more the immediate gains) (cited in Brown, 2007). It is very important for a team leader to be aware of the differences that might exist within its virtual team, so it would be easier to modify its own behavior and work with the team.

Another challenge faced by virtual teams is diversity, which cannot be avoid due to the fact that the members of the team are from different regions/countries/continents, have different traditions and cultures, have a different way of thinking or behaving, have diverse beliefs and ways of understanding. Williams and O’Reilly (1998) supported the idea that “diversity of team members’ knowledge and skills creates a larger pool of resources and provides improved team performance including team creativity” (cited in Lee, 2018, p.2). However, in order to cope with diversity and to make the team members understand its benefits, the team leader is the first one that should try to understand how the diversity of its team can help to improve the performance of the team by exploring the human resources. Understanding the cultural diversity will “enable any leader to more effectively address communication and behavioral differences that arise in virtual teams” (Levi, 2014, p.277), this leading to the build of trust in the end. More than that, diversity, no matter if it refers to the disciplinary diversity or to culture, geography, age, gender or ethnicity, “serves to maximize the number of different viewpoints, approaches and frames of mind” (Jordan & Robin, 2016, p.2).

## **Leadership**

Virtual team leaders are working in different conditions, comparing with the leaders of the traditional teams, as they often play both the role of a team leader and of a member; however, in order to succeed in that, there are some new competencies that should be taken into consideration when it comes to working from distance, including: “technological proficiency and appropriate use of technology, cross-cultural management skills, ability to coach distant team members, ability to build trust among dispersed team members, networking with others outside the team such as customers or other stakeholders, and remote project management skills” (Beyerlein, 2008, p.50). Having different perspectives, Duarte and Snyders (2001) mentioned that there are only four competencies that are critical when it comes to leading effective virtual teams, including communication, the establishment of the expectations, the allocation of the resources and the modeling of the desired behaviours. Furthermore, Fisher and Fisher (2001) underpin that a virtual team leader should assume six different roles, including: living example (as they should be a role model for the other team members), coach (by helping the other members to develop their own skills, abilities and competences), business analyzer (by translating the challenges and the changes into opportunities), barrier buster (by running interference for the team), facilitator (by offering to the team members the necessary tools, resources and information that are needed in order to deliver the project they are working at), results catalyst (by helping the team members to achieve good results and to improve their performance) (Fisher & Fisher, 2001). A team leader has the following responsibilities: to organize the team; to identify and define clear goals and objectives; to assign the tasks and the responsibilities; to monitor and to modify the plan (and also to communicate if there are any changes); to review the performance of the team by providing feedback; to manage and to allocate the necessary resources; to facilitate the sharing of the information; to encourage the members of the team to support each other; to facilitate the resolution of the conflicts and to model an effective teamwork. A good team leader should be very empathic towards its team members, but in the same time, should be able to assert its authority without being perceived as bossy, inflexible or assumptive.

According to Kayworth and Leidner (2001), effective leadership can be associated with the perceptions of the team members’ regarding the communication effectiveness, the satisfaction of the communication, and the ability that the team leader has when establishing and sharing the roles and responsibilities among the members of the team. Hoch and Kozlowski (2004) state that shared leadership is a process by which the members of a team, no matter if the team is traditional or virtual, are sharing responsibilities, are having a mutual influence among each other and are conducting a collaborative decision making. According to Na Chen (2017) shared leadership can be the most favorable as it can maintain the feeling of equal status among the members of a team, especially if it’s a virtual one. However, even if within the team there is a shared leadership, there is a central leader to whom all the other members should report and that leader is “the person who is managing the boundary, feeding the team’s accomplishments to the organization and to the individuals’ function or line managers” (Serrat, 2017, p.5).

When it comes to traditional teams where its members can interact face-to-face, it was confirmed that leadership influences the attitude and behavior at individual level and at

the “team level impacts not only team processes and outcomes but also individual effectiveness” (Liao, 2016, p.3). On the other hand, at the team level, Bell and Kozlowski (2002) underline that leaders of virtual teams do more than developing and shaping team processes, as they also manage and monitor the performance of the team. However, in order to create an effective virtual team, “both leaders and members of virtual teams, even if experienced with face-to-face teams, need enhanced competencies to be effective” (Berry, 2011, p.17). More than that, the team leaders of virtual teams need to make efforts in order to “create, reinforce, and maintain trust between the members of their teams as well as between themselves and their team members” (Hacker, 2019, p.3), because without trust nothing can be built within a team.

Leadership within a virtual team can be challenging, especially because it takes longer to create a bonding between the team members, especially when they are from different countries, when they have different cultures and ways of working. Furthermore, the team leaders of a virtual team have a smaller interaction at team level, as they maintain more often interactions with the team members separately by communication through emails or phone calls that are made with each individual (Liao, 2016). When it comes to leadership, diversity can be soft, as it can “reduce team performance if there was insufficient time to build common ground” (Olson & Ray, 2017, p.5) and if the leader is not paying enough attention at the beginning of the process of forming the team.

Being a team leader means that you need to take time and learn the members of the team, what motivates them and which are the similarities and differences among them. Shortly, the topmost leader is the one “that determines the overall culture of the organization” (Jones et al., 2005, p.128) by having the biggest impact of all the virtual team when it comes to its success or failure in the organization.

### ***Communication and motivation***

Communication is very important, no matter the kind of relationship. Basically, communication means that a message is encoded, then it is sent through a certain channel to a certain recipient who is going to decode it. However, when it comes to virtual teams, it should be considered a central activity (Levi, 2014), as a good communication can stimulate ideas and the creativity of the team members. Shortly, communication is “a way of exchanging ideas, attitudes, values, opinions and facts, a process that requires the sender which initiates the process and the recipient, which completes the communication link” (Baltezarevic & Baltezarevic, 2013, p.433).

Nowadays, communication can be done face-to-face, by phone or with the help of the Internet (which gives us a lot of channels of communication with people from all around the world). Face-to-face meetings can be beneficial sometimes, as it might provide the opportunities for creating meetings in order to discuss different sub-topics and to find out more about each member; however, not having those face-to-face meetings can help the team members avoid the preconceptions based on the physical features, because those ones can be distracting as maybe one of the members of the team looks like someone that cannot be trusted for other members of the team (Jones et al., 2005). Going back to virtual teams, when it comes to communication, the most used channels are: e-mails, skype conferences, videoconferences, instant messaging systems, intranet

platforms and other tools specific from a project to another. Videoconferencing, which can be defined as a “set of telecommunication technologies that allow two or more locations to communicate by simultaneous two-way video and audio transmissions” (Meyer et al., 2016, p.3), is used frequently as it substitutes the face-to-face meetings, helping in this way the team members of the virtual team to know each other, to become more comfortable with the other members and to build trust.

One of the challenges that can influence communication within a virtual team on many levels is represented by the language barriers. According to Krawczyk-Bryłka (2016), the language differences correlate with the attributions that are used by the team members in order to access their peers and, on the emotional level, “language barriers intensify isolation and frustration” (Krawczyk-Bryłka, 2016, p.2). Klitmøller et al. (2015) is stating that the language proficiency of the team members is able to influence the choice of the communication media, as if the linguistic skills are poor, then the team will choose to have a textual communication, as this will give the members the chance to rethink and to correct the mistakes (Klitmøller et al., 2015). Having the necessary language skills is very important for the efficiency of the team communication and also due to the fact that it is influencing the trust within the team. According to Child (2001), trust can reduce the cultural distance within the team members, can influence the motivation and also can promote the sharing of information, all of these leading to a good performance and to conflict resolutions (Child, 2001).

The team leader is having an important role on the communication process, as he/she needs to find out what is the linguistic level within the team and what is the communication channel that can advantage the team members. Motivation goes hand in hand with communication. In a team, besides the resources that the members are having, they should also “have the desire and willingness to coordinate their efforts to work collaboratively” (Godar et al., 2006, p.183) Within a virtual team it might be sometimes more difficult to stimulate the team members and motivating the team can be a real challenge. However, Jones et al. (2005) recommend some practices that might help the leadership team motivating its members: to communicate frequently (by keeping the members up-to-date with all the organizational priorities, changes or challenges), to be frank but in the same time sensitive (by having a friendly tone of voice and by transmitting the messages clear and straightforward) and to be accessible (meaning that the leaders should try to be always available when needed) (Jones et al., 2005).

### ***Decision-making and conflicts***

The decision-making process is very important within a virtual team, being a subject that should be handled very carefully, as otherwise it can lead to conflicts. Some authors (Nemiro et al., 2008) are stating in their toolkit for collaborating across boundaries that there are some principles that can lead to a good virtual collaboration and to an effective decision-making (Nemiro et al., 2008). In this way, the authors support that there should be a continuous communication, that the decisions and solutions should be owned and made by the decision-making group, that the “decision-making group must take counsel together and consult in all matters” (Nemiro et al., 2008, p.429) and that the team members should be united and have a common vision, direction and purpose.

Due to the fact that the process of decision-making occurs at all levels within an organization and especially within a team, it impacts the value and the quality of the work outcomes (DuBrin, 2013). However, most often, decision fail due to “poor strategies that result in information and decision alternatives being overlooked” (Cordes, 2016, p.603). Another reason why the decision-making process fails is that, comparing with the traditional teams, within a virtual team there is less information communicated (Roch & Ayman, 2005). However, there are also communication advantages within the virtual teams when it comes to the decision-making process, such as the fact that members have time to think about their answers and that they might be more likely to do research before communicating their decisions.

As already mentioned, conflicts might arise if the decision-making process is not mindfully handled. Anyway, conflicts usually arise in the “storming” stage proposed by Tuckman (1965), as virtual teams can be more vulnerable in this stage, due to the fact that people can misinterpret the virtual communication that is coming by e-mails, voice or video, which is having a smaller amount of information, as in face-to-face communication (Kroth & Clemons, 2011). Due to that, even if someone is having good intentions, other members of the team might adapt slower because they are dealing with people from different cultures and environments and with other experiences. However, all the conflicts that arise in this period might disappear in time, as soon as trust among the members is developed (Acai et al., 2018). It is proved that trust is able to foster the situations where sincerity and comfort in discussions about difficult problems can be possible. Shortly, opposite to what “may be popular belief, some level of conflict is necessary for the successful functioning of teams” (Gibson, 2003, p.362).

Most of the time, members of a team prefer to cooperate with similar people, due to the fact that diverse environments might make them feel less integrated and more inclined to relationship conflicts (Wickramasinghe & Nanuda, 2015). Anyway, if builded, “trust reduces the cultural distance, increases team members’ motivation and stimulates open information sharing that leads to conflict resolutions and good performance” (Krawczyk-Brylka, 2016, p.70). On the other hand, if not resolved, conflict can reduce the effectiveness of the group and also to undermine the group’s cohesiveness (Ozturk & Hodgson, 2017).

However, both challenges (the decision-making process and conflicts), can be managed through trainings and interventions at the team level. The examples might include: “training teams to manage conflict more effectively; introducing greater structure into the virtual team environment by adopting frameworks to help guide the decision-making process; engaging in group exercises to develop trust and communication skills; and giving and receiving regular feedback about team performance” (O’Neill et al., 2018, p.3).

### ***Technology and creativity***

Virtual teams were created due to the “availability of communication and collaboration technology” (Levi, 2014, p.284). Communication technology can have a lot of meanings, including “a tool for work, a reason for uncertainty, a useful benefit, a challenge, an object of competence, an entity of technical properties, a subject of guidance, a way to express closeness, and a shared space” (Laitinen & Valo, 2018, p.12). Virtual teams have

nowadays many tools at their disposal (such as: databases, desktop sharing tools, data visualization tools) which enable them to get access to unlimited information.

However, even if there are a lot of technologies that can support the virtual teams, most of the members of the team do not use very often sophisticated communication technologies, as they prefer mostly the e-mail channel (Zigurs & Khazanchi, 2008). The members of a virtual team should accept the diversity when it comes to using technology, because having members that are not feeling comfortable with this lead to: a lower participation level within the team, a poorer satisfaction of the members and to contributions that have a lower-quality (Fuller et al., 2016).

Still, even if within the virtual teams are used the most efficient technologies of the most exquisite techniques in order to have an efficient result, "it is still essential that some things be done face-to-face" (Jones et al., 2005, p.37), because using "technology media for collaboration may elevate the ambiguity of some tasks in certain situations" (Workman, 2007, p.358). In order to cope with the technological changes and to fierce the global competition, the virtual teams should adapt to the new technologies and knowledge. This might be accomplished with the creativity of the team, which can be defined as the generation of new ideas or solutions that are based on mutual efforts and a collaborative shift of information (Carmeli & Paulus, 2015).

Anyway, even if creativity means developing new ideas, it also carries risks, because "new ideas may or may not produce the intended positive results" (Çemberci & Civelek, 2018, p.1146). One of the important elements that can help a team to be successful is to "create a powerful vision for the team, and this inherently entails generating new concepts and approaches, which demands creativity and innovation" (Jorgenson, 2018, p. 789). In order to cope with risks, team creativity can be promoted by training and structuring, which can help reducing the "ambiguity and/or uncertainty about the goals and tasks of the team members" (Pei, 2017, p.370).

Virtual teams might have members from all around the globe, which leads to diversity and a higher creativity, but due to that they might also encounter "challenges with the convergence of perspectives, thereby leading to potentially worse decisions than face-to-face teams" (Acai et al., 2018, p.2). In order for a virtual team to achieve high-performance results, creativity is essential, and the team leader is in charge to promote it and to find the best solutions in order to create the effectiveness of the group. Three of the best and well-known creativity techniques that can be used in a virtual team are: the brainstorming technique, Altshuller's theory of inventive problem solving and the Bono's lateral thinking (Nemiro, 2008). The effective sharing of the ideas and the potential of creativity is also influenced by the member's motivation and not only by the support that the team receives from the team leader or the organization (Koivunen et al., 2015).

## Conclusions

As technology advances, virtual teams are increasingly used in today's organizations and businesses and how to lead a team that is virtual become a critical question. This study compares the virtual teams with the traditional ones, by underlining the challenges

faced by both of them and lays emphasis on what should be changed in order to support the human capital dimension within the organizational equation. Creating the identity and the culture of a team, handling the diversity and increasing creativity all require extra efforts than in a traditional team. Moreover, leadership is a real challenge, and the study approaches the role of the team leader in both types of teams, the challenges faced by the virtual teams when it comes to the decision-making process and to handling the conflicts, to building trust within the team, to encouraging communication and to building motivation.

In order to elaborate this paper, the specialized literature was analyzed (especially recent publications and articles) as a prerequisite of a future empirical investigation. The objective of the paper was to underline what type of team (traditional or virtual) is more efficient consistent with the existing literature in the field. In order to engender a clear outlook on the empirical reality, future studies may resort to questionnaire-based sociological surveys as this method allows the identification of relevant characteristics for specific samples.

From a bird's eye view, as derived from the literature review, there is still a long way until people will feel comfortable to move to the virtual world. Even if some research directions illustrated in the study show that people consider that traditional teams are more effective, it does not mean that virtual teams cannot reach their best potential in order to be more preferred. As a future direction, research should attempt to conceptualize virtuality by studying the challenges faced by virtual teams and by coming up with solutions that can facilitate an organic transition from a traditional environment to a virtual one.

**Acknowledgements:** *This work was supported by a grant of the Ministry of Research and Innovation, CNCS - UEFISCDI, project number PN-III-P1-1.1-TE-2016-0232, within PNCDI III.*

## References

- Acai, A.S. (2018). Getting with the Times: a Narrative Review of the Literature on Group Decision Making in Virtual Environments and Implications for Promotions Committees. *Perspectives on Medical Education*, 7(3), 147-155. doi: 10.1007/s40037-018-0434-9.
- Akpınar, A.O. (2013). The Effect of Organizational Communication and Job Satisfaction on Organizational Commitment in Small Businesses. *Interdisciplinary Journal of Research in Business*, 3(4), 27-32.
- Andres, M.R., Gutierrez-Broncano, S., & Montoya, J.N. (2015). Could Innovative Teams Provide the Necessary Flexibility to Complete de Current Context? *Cuadernos de Gestion*, 15, 2-6. doi:10.5295/cdg.130446mr.
- Arndt, A.A. (2006). The Effects of Polychronic-Orientation Upon Retail Employee Satisfaction and Turnover. *Journal of Retailing*, 82(4), 319-330. doi:<https://doi.org/10.1016/j.jretai.2006.08.005>.

- Baltezarevic, V., & Baltezarevic, R. (2013). *The Role of Communication in Intellectual Capital Management, Education and Employment Opportunities for Entrepreneurs*. Belgrade: Faculty of Business Economics and Entrepreneurship.
- Benetyte, D., & Matuliaviciene, G. (2014). Building and Sustaining Trust in Virtual Teams within Organizational Context. *Regional Formation and Development Studies*, 2(1), 1-28.
- Berry, G.R. (2011). Enhancing Effectiveness on Virtual Teams. Understanding Why Traditional Team Skills Are Insufficient. *Journal of Business Communication*, 48(2), 4-20. doi: 10.1177/0021943610397270.
- Beyerlein, M., & Harris, C. (2004). *Guiding the Journey to Collaborative Work Systems: A Strategic Design Workbook*. San Francisco: Jossey-Bass.
- Binsbergen, W.v. (1998). Globalization and Virtuality: Analytical Problems Posed by the Contemporary Transformation of African Societies. *Development and Change*, 29(4), 873-903.
- Brown, M.H.-T. (2007). *Managing Virtual Teams: Getting the Most from Wikis, Blogs, and Other Collaborative Tools*. Plano, Texas: Wordware Publishing, Inc.
- Burman, S., & Shastri, S. (2016). Comparative Study of Job Satisfaction between. *International Journal of Science and Research*, 5(1), 1536-1540. Retrieved from <https://pdfs.semanticscholar.org/d17f/306ae1527a0144afe646ca223e724fc91cfb.pdf>.
- Canary, H., & MsPhee, R.D. (2011). *Communication and Organizational Knowledge – Contemporary Issues for Theory and Practice*. New York: Routledge. Retrieved from [http://www.dphu.org/uploads/attachements/books/books\\_4937\\_0.pdf](http://www.dphu.org/uploads/attachements/books/books_4937_0.pdf).
- Carmeli, A., & Paulus, P.B. (2015). CEO Ideational Facilitation Leadership and Team Creativity: The Mediating Role of Knowledge Sharing. *The Journal of Creative Behavior*, 49(1), 53-75.
- Çemberci, M., & Civelek, M.E. (2018, June). The Effects of Organizational Support in Team Working on Creativity and Personal Initiative of Employees. *IJOESS*, 9(32), 1144-1155.
- Chang, A., Bordia, P., & Duck, J.M. (2003). Punctuated Equilibrium and Linear Progression: Toward a New Understanding of Group. *Academy of Management Journal*, 46(1), 106-116. doi: 10.2307/30040680.
- Chen, N. (2017). Cooperation with Friends or New Encounters: Tie Strength and Shared Leadership Behaviors. *Social Behavior and Personality*, 45(4), 573-582. doi:<https://doi.org/10.2224/sbp.5868>.
- Child, J. (2001). Trust – The Fundamental Bond in Global Collaboration. *Organizational Dynamics*, 29(1), 274-284.
- Cobb, A.T. (2006). *Leading Project Teams – An Introduction to the Basics of Project Management and Project Team Leadership*. Thousand Oaks, California: SAGE Publications, Inc.
- Cordes, S. (2016). Virtual Team Learning: The Role of Collaboration Process and Technology Affordance in Team Decision Making. *Knowledge Management & E-Learning*, 8, 603-615.
- DaRos, J. (2016). Communication Efficacy Using Technology within. *USM Digital Commons*, 28(1), 1-23. Retrieved from

- <https://digitalcommons.usm.maine.edu/cgi/viewcontent.cgi?article=1279&context=etd>
- Dennis, A.G. (2019). A Script for Group Development: Punctuated Equilibrium and the Stages Model. Retrieved from <http://misc.umn.edu/workshops/2006/spring/alan.pdf>.
- DeSanctis, G., & Monge, P. (1999). Introduction to the Special Issue: Communication Processes for Virtual Organizations. *Journal of Computer-Mediated Communication*, 10(6), 693 - 703. doi:<https://doi.org/10.1287/orsc.10.6.693>.
- Duarte, D., & Snyder, N.T. (2001). *Mastering Virtual Teams: Strategies, Tools, and Techniques that Succeed*. San Francisco: Jossey-Bass.
- DuBrin, A.J. (2013). *Fundamentals of Organizational Behavior: An Applied Perspective*, 2<sup>nd</sup> edition. New York: Pergamon Press Inc.
- Dunham, B.A. (2015). *Working in Teams – Moving From High Potential to High Performance*. Thousand Oaks, CA: Sage Publications, Inc.
- Ebrahim, N.A., Ahmed, S., & Taha, Z. (2009). Virtual Teams: a Literature Review. *Australian Journal of Basic and Applied Sciences*, 3(3), 2653-2669. Retrieved from <http://cogprints.org/7814/1/2653-2669.pdf>.
- Fisher, K., & Fisher, M. (2001). *The Distance Manager: A Hands-on Guide to Managing Off-Site Employees and Virtual Teams*. New York: McGraw-Hill.
- Fletcher, T. (2014). Exploration of Implicit Bias on Multidisciplinary Team Members When Referring African American Students for Special Education Services. University of South Carolina - Scholar Commons. Retrieved from <https://pdfs.semanticscholar.org/2d62/a5779792beeaf5e4bf7070b8622af0dc66.pdf>
- Forsyth, D. (1999). *Group Dynamics*, 3<sup>rd</sup> edition. Belmont, CA: Thompson.
- Friedman, T.L. (2000). *The Lexus and the Olive Tree: Understanding Globalization*. New York: Farrar, Straus and Giroux.
- Fuller, R.V. (2016). Longitudinal Effects of Computer-Mediated Communication Anxiety on Interaction in Virtual Teams. *IEEE Transactions on Professional Communication*, 59(3), 166-185. doi:10.1109/TPC.2016.2583318
- Gibson, C., & Gibbs, J.L. (2006). Unpacking the Concept of Virtuality: The Effects of Geographic Dispersion, Electronic Dependence, Dynamic Structure, and National Diversity on Team Innovation. *Administrative Science Quarterly*, 51(3), 451-495.
- Gibson, C.C. (2003). *Virtual Teams that Work – Creating Conditions for Virtual Team Effectiveness*. New York: John Wiley & Sons, Inc.
- Giske, R., Rodahl, S., Haugen, T., & Hoigaard, R. (2017). Shared Mental Models, Role Ambiguity, Team Identification and Social Loafing in Elite Sports Groups: A Mediation Analysis. *Sport & Exercise Psychology Review*, 13(2), 2-12.
- Godar, S.F. (2006). *Teaching and Learning with Virtual Teams*. Hershey: Information Science Publishing.
- Hacker, J.V. (2019). Trust in Virtual Teams: A Multidisciplinary Review and Integration. *Australasian Journal of Information Systems*, 2-30. doi:10.3127/ajis.v23i0.1757.
- Hacker, M.J. (2019). Trust in Virtual Teams: A Multidisciplinary Review and Integration. *Australasian Journal of Information Systems*, 23(1), 2-6. doi:10.3127/ajis.v23i0.1757.

- Hewstone, M.R. (2002). Intergroup Bias. *Annual Reviews Psychology*, 53, 575–604.  
Retrieved from <http://www3.psych.purdue.edu/~willia55/392F-'06/HewstoneRubinWillis.pdf>.
- Hoch, J.E., & Kozlowski, S.W.J. (2004). Leading Virtual Teams: Hierarchical Leadership, Structural Supports, and Shared Team Leadership. *Journal of Applied Psychology*, 99, 517-535. doi: 10.1037/a0030264.
- Jones, R.O. (2005). *Working Virtually - Challenges of Virtual Teams*. Hershey: CyberTech Publishing.
- Jordan, S., & Adams, R. (2016). Perceptions of Success in Virtual Cross-Disciplinary Design Teams in Large Multinational Corporations. *CODESIGN*, 12, 2-14.  
doi:10.1080/15710882.2016.1146303
- Jorgenson, J. (2018). Tools of the Trade: Creativity, Innovation, Influence, and Advocacy. *American Society of Health-System Pharmacists*, 75(11), 785-794.  
doi:10.2146/ajhp180037.
- Kayworth, T.R. (2001). Leadership effectiveness in global virtual teams. *Journal of Management Information Systems*, 18(3), 7-35.
- Klitmøller, A.S. (2015). Speaking of Global Virtual Teams: Language Differences. *Social Categorization and Media Choice*, 44(2), 270-280.
- Koivunen, M.A. (2015). Team Climate and Attitudes Toward Information and Communication Technology Among Nurses on Acute Psychiatric Wards. *Informatics for Health and Social Care*, 40(1), 79-90.  
doi:10.3109/17538157.2013.872112.
- Kozlowski, B., & Bell, B.S. (2002). A Typology of Virtual Teams Implications for Effective Leadership. *Group & Organization Management*, 27(1), 14-30. doi: <http://doi.org/10.1177/1059601102027001003>.
- Kozlowski, S.W., & Bell, B.S. (2003). *Work Groups and Teams and Organizations* (Vol. 12: Industrial and Organizational Psychology). New York. Retrieved from <https://digitalcommons.ilr.cornell.edu/cgi/viewcontent.cgi?article=1396&context=articles>.
- Krawczyk-Brylka, B. (2016). Intercultural Challenges in Virtual Teams. *Journal of Intercultural Management*, 8(3), 69-85. doi:10.1515/joim-2016-0017.
- Krawczyk-Brylka, B. (2016). Intercultural Challenges in Virtual Teams. *Journal of Intercultural Management*, 8(3), 1-10. doi:10.1515/joim-2016-0017.
- Kroth, M., & Clemons, D. (2011). *Managing the Mobile Workforce: Leading, Building, and Sustaining Virtual Teams*. New York, NY: McGraw-Hill Companies, Inc.
- Laitinen, K., & Valo, M. (2018). Meanings of Communication Technology in Virtual Team Meetings: Framing Technology-Related Interaction. *International Journal of Human-Computer Studies*, 111(1), 12-22.  
doi:<https://doi.org/10.1016/j.ijhcs.2017.10.012>.
- Langer, A.M. (2011). *Information Technology and Organizational Learning- Managing Behavioral Change through Technology and Education*, 2<sup>nd</sup> edition. Boca Raton, Florida: CRC Press.
- Levi, D. (2014). *Group Dynamics for Teams*. Thousand Oaks, CA: SAGE Publications, Inc.
- Liao, C. (2016). Leadership in Virtual Teams: A Multilevel Perspective. *Human Resource Management Review*, 27(4), 648-659. doi: 10.1016/j.hrmr.2016.12.010.

- Lin, C.-H., & Shih, J.-L. (2018). Analysing Group Dynamics of a Digital Game-based Adventure Education. *Educational Technology & Society*, 21(4), 51-63.
- Marlow, S.L. (2017). Communication in Virtual Teams: a Conceptual Framework and Research Agenda. *Human Resource Management Review*, 27(4), 575-589. doi:DOI: 10.1016/j.hrmmr.2016.12.005
- McPhee, H.E. (2011). *Communication and Organizational Knowledge - Contemporary Issues for Theory and Practice*. New York: Routledge.
- Meyer, I., Bond-Barnard, T.J., Steyn, H., & Jordaan, J. (2016). Exploring the Use of Computer-Mediated Video Communication in Engineering Projects in South Africa. *South African Journal of Industrial Engineering*, 27(2), 1-16. doi:https://doi.org/10.7166/27-2-1298.
- Miroński, J. (2010). *Management of Intercultural Knowledge*. Retrieved from e-mentor: <http://www.e-mentor.edu.pl/artukul/index/numer/35/id/757>.
- Morley, S.C. (2015). An Analysis of Virtual Team Characteristics: A Model for. *Journal of Technology Management & Innovation*, 10(1), 189-203. Retrieved from <https://scielo.conicyt.cl/pdf/jotmi/v10n1/art14.pdf>.
- Musah, A.G. (2018, June). Relationship between Organizational Communication and Job Satisfaction in. *Global Business and Management Research: An International Journal*, 9(1), 73-84. Retrieved from <https://www.researchgate.net/publication/325924523>.
- Nemiro, J.B. (2008). *The Handbook of High-Performance Virtual Teams - A Toolkit for Collaborating Across Boundaries*. San Francisco: Jossey-Bass.
- Olson, J., & Kalinski, R. (2017). Making Student Online Teams Work. *The Quarterly Review of Distance Education*, 18(1), 2-8.
- O'Neill, T. A. (2018). Getting with the Times: a Narrative Review of the Literature on Group Decision Making in Virtual Environments and Implications for Promotions Committees. *CrossNation*, 2-7. doi:https://doi.org/10.1007/s40037-018-0434-9.
- Orhan, M.R. (2016). Invisible, therefore Isolated: Comparative Effects of Team Virtuality with Task Virtuality on Workplace Isolation and Work Outcomes. *Journal of Work and Organizational Psychology*, 32(1), 109-122. doi:http://dx.doi.org/10.1016/j.rpto.2016.02.002.
- Ozturk, T.H. (2017). Developing a Model of Conflict in Virtual Learning Communities in the Context of a Democratic Pedagogy. *British Journal of Educational Technology*, 48(1), 4-11. doi:10.1111/bjet.12328.
- Pei, G. (2017). Climate, Structuring Leadership and Team Creativity: The Mediating Role of Team Innovation. *Social Behavior and Personality: an International Journal*, 45(3), 369-376. doi:http://doi.org/10.2224/sbp.5677.
- Pels, F.K. (2018). Group Flow: A Scoping Review of Definitions, Theoretical Approaches, Measures and Findings. *PLOS ONE*, 13(12), e0210117. doi:10.1371/journal.pone.0210117.
- Portny, N.G. (2015). *Project Management for Dummies*, 2<sup>nd</sup> edition. West Sussex: John Wiley & Sons Ltd.
- Roch, S.G., & Ayman, R. (2005). Group Decision Making and Perceived Decision Success: The Role of Communication Medium. *Group Dynamics: Theory, Research, and Practice*, 9(1), 15-31.

- Salonen, L. (2012). Boost Your Team Individuality - A New Perspective on Group Development Over Time. Retrieved [http://www.consultinginorganisations.org/signup/Developmental\\_phases\\_of\\_groups\\_Paper.pdf](http://www.consultinginorganisations.org/signup/Developmental_phases_of_groups_Paper.pdf).
- Serrat, O. (2017). Managing Virtual Teams. *Knowledge Solutions*, 2-10. doi: 10.1007/978-981-10-0983-9\_68.
- Thomson, I. (2004). *Making the Team: A Guide for Managers*, 2<sup>nd</sup> edition. New Jersey: Upper Saddle River.
- Ulrich, B., & Crider, N. (2017). Using Teams to Improve Outcomes and Performance. *Nephrology Nursing Journal*, 44(1), 3-10.
- Wageman, R., Gardner, H.K., & Mortensen, M. (2012). The Changing Ecology of Teams: New Directions for Teams Research. *Journal of Organizational Behaviour*, 33(3), 316-341.
- Webster, J., & Wong, W.K.P. (2008). Comparing Traditional and Virtual Group Forms: Identity, Communication and Trust in Naturally Occuring Project Teams. *The International Journal of Human Resource Management*, 19(1), 41-62. doi: 10.1080/09585190701763883.
- Wesner, B., Smith, A., & Austin, T. (2018). Ready for Action: Developing Classroom Teams to Prepare Students for the Business World. *Administrative Issues Journal: Connecting Education, Practice, and Research*, 8(2), 119-137. doi:10.5929/2019.1.14.9.
- West, M.A. (2004). *Lucrul în echipă - Lecții practice [Teamwork – Practical Lessons]*. Iași: Polirom.
- Wheelan, S.A. (2013). *Creating Effective Teams – a Guide for Members and Leaders*, 4<sup>th</sup> edition. Thousand Oaks, CA: SAGE Publications, Inc.
- Wickramasinghe, V., & Nandula, S. (2015). Diversity Team Composition, Relationship Conflict and Team Leader Support on Globally Distributed Virtual Software Development Team Performance. *Strategic Outsourcing: An International Journal*, 8(2/3), 140-152. doi: <http://doi.org/10.1108/SO-02-2015-0007>.
- Wnuk, M. (2017). Organizational Conditioning of Job. *Vizja Press&IT*, 11(1), 31-44. doi:10.5709/ce.1897-9254.227.
- Wong, S.S. (2017). Demographic Diversity and Salience of Nationalty on Team Effectiveness in Information and Communication Technology (ICT) Small and Medium Enterprises (SMES). *Journal of Social Sciences and Humanities*, 12(2), 229-245.
- Workman, M. (2007). The Effects from Technology-Mediated Interaction and Openness in Virtual Team Performance Measures. *Behaviour & Information Technology*, 26(5), 355-365. doi:10.1080/01449290500402809.
- Zigurs, I., & Khazanchi, D. (2008, February). From Profiles to Patterns: A New View for Task-Technology Fit. *Information Systems Management*, 25(1), 8-13. doi:10.1080/10580530701777107.