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Virtual leadership of people and teams in the 21.century- modern technologies and cooperation methods

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Prohlášení

Prohlašuji, že jsem bakalářskou práci vypracovala samostatně na základě literatury a pramenů uvedených v seznamu použité literatury.

V Plzni dne …………… 2020   ……….………………….

Simona Staňková

Poděkování

Mé poděkování patří paní Bc. Janě Havlíčkové M.B.A. především za cenné rady, odborné vedení práce a ochotu, kterou mi během zpracování mé práce věnovala.

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1 LIST OF ABBREVIATIONS

IT- Information Technology

ICT- Information and Communication Technology

AIT- Advanced Information Technology

CMCS- Computer-mediated Communication System

GDTs- Geographically Dispersed Teams

CLTs- Co-located Teams

VTs- Virtual Teams

VOs- Virtual Organisations

FtF- Face-to-face

<u>THEORETICAL FRAMEWORK</u>

2 INTRODUCTION

The virtual management of teams and people in modern business environments is becoming an increasing challenge. Globalization creates pressure on competing organizations, which is bringing about a change from traditional leadership methods to more virtual based ones, in order to achieve better performance and to cut time and travel costs. This has caused geographically dispersed workforces to become an everyday reality. As business continues to be conducted globally, working virtually enables managers to perform work tasks in multinational environments efficiently, by eradicating the time and space barriers and cutting office-space costs. The use of information and communication technology (ICT) creates new opportunities to cooperate. Time management coupled with travel expenses lead to relying more heavily on virtual environments to reach higher efficiency, increase in productivity, and reducing overhead costs. Nevertheless, it can also be difficult to build trust and strong relationships and hold employees accountable when working from a distance.

Modern technologies such as laptops, Wi-fi, mobile phones, or other electronic devices enable employees to interact with their colleagues from anywhere, moreover, they are able to manage their personal and work lives at the same time, and flexibility is guaranteed. Both employees and employers can benefit from working in a virtual environment instead of a traditional one, as it can be more efficient.

Unlike traditional, co-located teams (CLTs), a virtual team works across space, time, and organizational and geographic boundaries.

Ultimately virtual leadership consists in building a high-quality relationship, where people hardly ever see each other in person, enhancing the performance of a virtual team and ensuring accountability at a distance.

With regard to the above mentioned, my thesis focuses on the structure of virtual leadership, key factors for functioning virtual environments, communication means, and modern methods of cooperation in the 21st century.

3 TRADITIONAL LEADERSHIP

Traditional leadership was defined by Max Weber in 1947 for the first time. He defined traditional leadership as ''*a style where power is given to the leader based on traditions of the past.*''[1] However, in modern organizations ''*powers are held by an executive or executive board and all decisions are made by those who command.*''[2] Leadership was originally introduced with the intention to improve group outcomes. Traditional leadership features include influencing people's behaviour, ability to lead and motivate in a manner that recipients are willing to achieve objectives.

3.1 Traditional Team

Generally, teamwork is based on interdependent actions of individuals in a group, where there is a common target. That is to say, it is a set of actions and processes of individual members of a team, that points to predetermined and common goal[3] (Salas, Shuffler, Thayer, Bedwell & Lazzara, 2015). Teamwork effectiveness reflects from the ability of all members performing not only task work but also teamwork. Task work is denoted by performance, that employees need to complete with the intention to accomplish team goals. Equally important is the

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[1] CAREER CLIFF. Traditional Leadership - Examples of Traditional Authority. Career Cliff - Career Blog [online]. Copyright © 2020. All Rights Reserved. [Retrieved 2020-07-31]. Available at: https://www.careercliff.com/traditional-leadership/

[2] 1

[3] SALAS, Eduardo, Marissa L. SHUFFLER, Amanda L. THAYER, Wendy L. BEDWELL a Elizabeth H. LAZZARA. Understanding and Improving Teamwork in Organizations: A Scientifically Based Practical Guide. Human Resource Management [online]. 2015, 54(4), 599-622 [Retrieved 2020-07-20]. DOI: 10.1002/hrm.21628. ISSN 00904848

teamwork, which is characterized especially by formalization, shared behaviours, attitudes, and cognitions in a team[4] (Burke, Wilson & Salas, 2003).

As reported by Berry Gregory (2011)[5], ''*Generically, a team is a group of individuals who interact interdependently and who are brought together or come together voluntarily to achieve certain outcomes or accomplish particular tasks. Some research claims that the use of teams increases capability, responsiveness, and flexibility within organizations.*''

A co-located team is another expression for the traditional team. Although many organizations are changing from traditional teams to virtual ones, they both have a lot in common in nature, even though the level of virtuality varies. The majority of attributes indicating teamwork come originally from the CLTs and can be applied to virtual management.

In comparison with a virtual team, where information is transferred by any kind of informational means of communication, the main feature of a traditional team is the physical contact and face-to-face interaction between individuals at a workplace.

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[4] BURKE, C. S., WILSON, K. A., & SALAS, S. (2003). Teamwork at 35,000 feet: Enhancing safety through team training. Human Factors and Aerospace Safety, 3(4), 287–312

[5] BERRY, Gregory R. Enhancing Effectiveness on Virtual Teams. Journal of Business Communication. [online] (2011), 48(2), 186-206 [Retrieved 2020-07-17]. DOI: 10.1177/0021943610397270. ISSN 00219436

4   VIRTUAL LEADERSHIP

This section presents a suggested definition of virtual leadership, which can also be defined as E- leadership. *''E-Leadership was first coined in response to a new working environment where human interactions are mediated by information and communication technology. In this environment leaders lead organizations and projects from a distance''*[6] (McCann & Kohntopp, 2019). Advances in communication technology caused ongoing changes in organizations, particularly in the form of virtual management. Virtual leadership is associated with various challenges that are unique to a virtual setting.

4.1   Virtual Team

Teamwork has become a rapidly growing phenomenon in the business world, that with the introduction of new information technologies becomes even easier and faster than ever before. Virtual teams may be employed not only on national but also on multinational levels. A virtual team also known as a dispersed team or remote team, can be described as a team of people with members, who are geographically dispersed using ICT to interact mutually[7] (Morley, Cormican & Folan, 2015).

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[6] MCCANN, Jack a Thomas KOHNTOPP. Virtual Leadership in Organizations: Potential Competitive Advantage? SAM Advanced Management Journal (07497075) [online]. 2019, 84(3), 26-35 [Retrieved 2020-07-16]. ISSN 07497075. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=142081263&scope=site

[7] MORLEY, Sandra, Kathryn CORMICAN a Paul FOLAN. An Analysis of Virtual Team Characteristics: A Model for Virtual Project Managers. Journal of Technology Management [online]. 2015, 10(1), 188-203. [Retrieved 2020-07-20]. DOI: 10.4067/S0718-27242015000100014. ISSN 07182724

Another definition, that refers to a virtual team can be described as '' *virtual teams as "groups of geographically and/or organizationally dispersed coworkers that are assembled using a combination of telecommunications and information technologies to accomplish an organizational task"* [8] (Townsend, DeMarie, and Hendrickson, 1998).
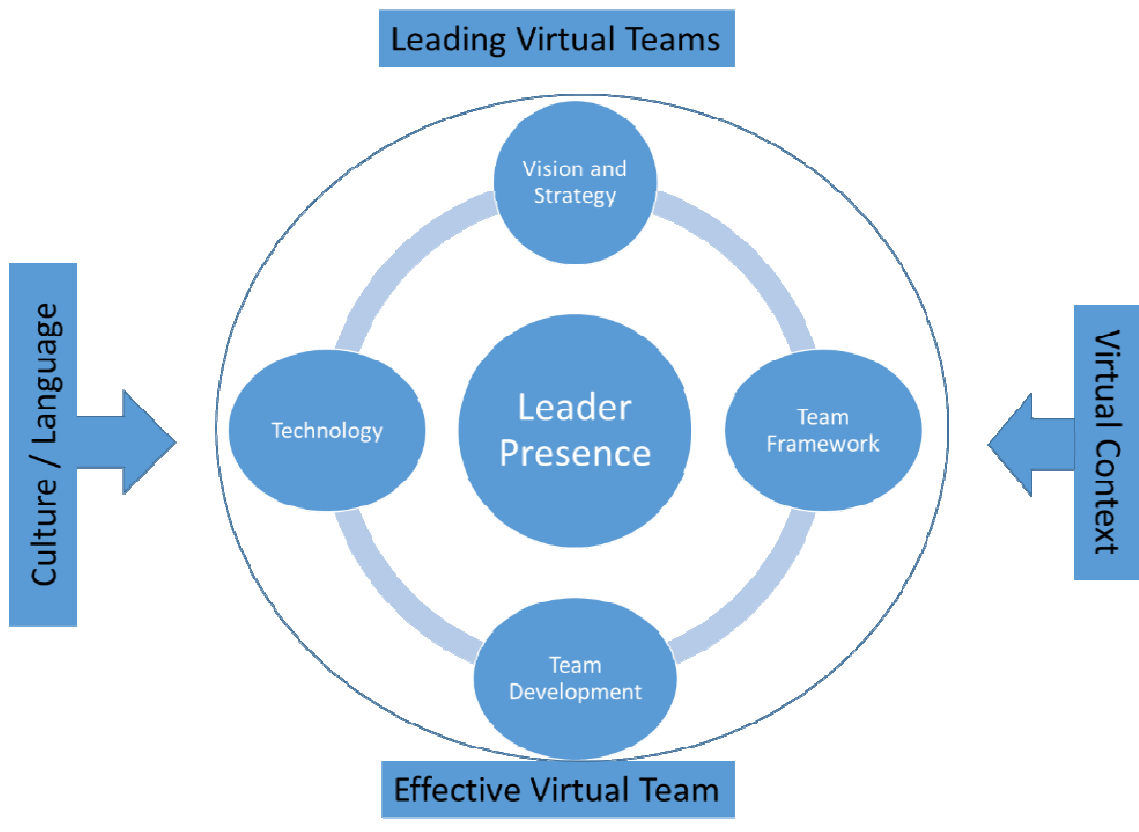
Figure 1: Sean's MBA Learning Journal. Leadership Characteristics for Successful Global Virtual Teams.[9]

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[8] TOWNSEND, A. M., DEMARIE, S. M., & HENDRICKSON, A. R. (1998). Virtual teams: Technology and the workplace of the future. Academy of Management Executive, 12(3), 17-29

[9] LEADERSHIP CHARACTERISTICS FOR SUCCESSFUL GLOBAL VIRTUAL TEAMS. Sean's MBA Learning Journal. Sean's MBA Learning Journal. My MBA journey 2014 onwards [online]. [Retrieved 2020-07-20]. Available at: https://mbasean.wordpress.com/2015/01/23/leadership-characteristics-for-successful-global-virtual-teams/

The principle of virtual teams (VTs) always lies in sharing the common purpose, goal, and the same team achievement, that can be reached remotely, basically employees must work toward the same goal from different locations. Successful virtual teamwork relies upon sharing knowledge and skills and creating a virtual environment, where all individuals contribute. In contrast with traditional teams, where team members often share a workplace, virtual teams extend across geographical, temporal, and organizational boundaries, while cooperating in the virtual environment. A virtual team relies mainly on computer and telecommunication technologies to interact.

4.2 Types of Virtual Teams

There are numerous types of virtual teams to be classified in accordance with temporal distribution, lifespan, objective, and role of members. Effective coordination in the key success in a virtual team.[10]

4.2.1 Networked Teams

Networked teams are based on fluid membership, where individuals are moving from team to team, in order to share knowledge and expertise of different fields of activities.[11]

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[10] MANAGEMENT STUDY GUIDE- Courses for Students, Professionals & Faculty Members. Different Types of Virtual Teams [online]. [Retrieved 2020-07-16] Available at: https://www.managementstudyguide.com/types-of-virtual-teams.htm

[11] 10

4.2.2 Parallel Teams

Members of Parallel teams work for the same organization, with the main purpose to develop recommendations in a process or system. Their membership stays intact until the outcome is accomplished.[12]

4.2.3 Project or Product Development Teams

These teams are formed by experts focused on the specific development of a project or product. Members are brought together from different parts of the world, and they are supposed to perform specifically outlined tasks in an organization.[13]

4.2.4 Work, Production or Functional Teams

Work, production, or functional teams consist of members of different roles, who work independently on a regular basis. Eventually, this combination of tasks and performance of each member enables them to achieve results.[14]

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[12] UNI ASSIGNMENT CENTRE. Types Of Virtual Teams Management Essay. [online] Copyright © 2020 UniAssignment.com, 2013. [Retrieved 2020-07-31]. Available at: https://www.uniassignment.com/essay-samples/management/types-of-virtual-teams-management-essay.php

[13] 10

[14] 10

4.2.5   Service Teams

Members of service teams are spread over different geographical locations and different time zones. Each member performs work tasks independently, however all together they work in a continuation of one another.[15]

4.2.6   Action Teams

Action teams are usually created only for a short period of time. Individuals are brought together in order to make immediate decisions and find suitable solutions. As soon as a problem is resolved, the team is dissolved.[16]

4.2.7   Management Teams

Management teams are formed by managers from different locations to discuss strategies and managerial processes on a corporate level.[17]

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[15] FINANCIAL MODELING COURSES & TRAINING - Financial Analyst Certification. Virtual Team - Learn About the Different Types of Virtual Teams. [online] Copyright © 2015 to 2020 CFI Education Inc. [Retrieved 2020-07-31]. Available at: https://corporatefinanceinstitute.com/resources/knowledge/other/virtual-team/

[16] 10

[17] 10

4.2.8 Offshore ISD Teams

Offshore ISD outsourcing teams subcontract software development work to low-cost locations around the globe. These teams cooperate with onshore teams.[18]

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[18] 15

4.3 Virtual Environment

To distinguish the virtual environment, I would like to cite the author's idea ''*E-environment is the result of developments in e-technologies and their applications in the organizational work environment. In this environment new opportunities arise from the increasing sources of data captured by alternative and different technologies and the wealth of information these can yield* ''[19] (Mohammad, 2009). The main characteristic features identifying the virtual environment include physical distance, communicational distance, organizational distance, and cultural distance. In other words, it is an environment, where the location does not matter and where work can be sent or received by using information technology. To meet business demands, the virtual environment can offer greater adaptability and versatility[20] (Rainbolt, 2019). It is an environment that provides employees a flexible working environment, where they are able to adjust their schedule in accordance to their needs.

Crucial principles for building a functional working virtual environment are primarily building a trusting relationship, promotion of

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[19] MOHAMMAD, Khawaj. E-Leadership: The Emerging New Leadership for the Virtual Organization. Journal of Managerial Sciences [online]. 2009, 3(1), 1-21 [Retrieved 2020-07-17]. ISSN 19924364. Available at:
http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=60071633&scope=site

[20] RAINBOLT, Janae R. "Leaders of Global Virtual Teams: Implications for the Identification and Training of Successful E-Leaders". University Honors Theses, 2019. Paper 782

social-emotional aspects, and establishing a presence for a sense of leadership, despite the cultural variety [21] (Cowan, 2014).

[21] COWAN, Lisa D. E-Leadership: Leading in a Virtual Environment - Guiding Principles For Nurse Leaders. Nursing Economic$ [online] (2014), 32(6), 312-320. [Retrieved 2020-07-17]. ISSN 07461739. Available at:
http://search.ebscohost.com/login.aspx?direct=true&db=asn&an=99954953&scope=site

4.4 Virtual Leader

A virtual leader plays a significant role in a virtual team, her/his main purpose is to control member's activities without any physical contact, in other words, the one leading the Virtual team. "*The official leader of a team that strives for creating structure and guide behaviors towards fixed goals by using information and communication technologies*" [22] (Jönsson, 2016). Team liaison, team direction setter, and team operational coordination refer to the most important responsibilities of a virtual leader [23] (Anoye & Kouamé, 2018).

Leading remotely across multiple locations can be difficult for the team leaders, especially how to keep team members engaged without face-to-face interaction. When leading virtually, the leader's main task is to observe his members virtually. Firstly, a virtual leader should make sure all team members are able to utilize information technology to avoid any hurdle. The success in becoming a prosperous leader of a virtual team lies in building the skill-set, leaders will need to boost team engagement and create an inclusive environment. Consequently, a virtual leader must communicate his ideas to people via CMCS effectively, because his responsibilities don't differ from leaders.

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[22] JÖNSSON, Jessica. To lead from a distance- Virtual Leadership, (English),Jönköping University, Jönköping International Business School, JIBS, Informatics. [online] (2016). [Retrieved 2020-07-16]. Available at:
https://pdfs.semanticscholar.org/adc1/217f31cfec07e74b99c5c13e0c23e5ff83fd.pdf?_ga=2.219
464089.1862368885.1595008570-810900973.1595008570

[23]ANOYE, Alfred Borget , KOUAMÉ, Jean Saturnin. Leadership Challenges In Virtual Team Environment, International Journal of Scientific & Technology Research Volume 7, Issue 7, July 2018. ISSN 2277-8616 [online]. [Retrieved 2020-07-31]. Available at: https://www.ijstr.org/final-print/july2018/Leadership-Challenges-In-Virtual-Team-Environment.pdf

4.5 Virtual Leadership Skills

Since virtual leadership differs from the traditional leadership in nature, the requirements for a virtual team vary in the skill-set. There are several leadership skills that a leader should manage, starting with utilizing technology, recognizing achievements, setting goals and so on. To the most important virtual leadership competencies belong the following:

4.5.1 Digital Literacy

First and foremost, that is a leader expected to master is the digital literacy, that can be defined as *"the ability to use information and communication technologies to find, evaluate, create, and communicate information, requiring both cognitive and technical skills"* [24] (American Library Association, 2013). To put it differently, employees are supposed to utilize modern technologies, so that they are able to work remotely.

4.5.2 Organizational Skills

First of all, there has to be a measurable goal set by the virtual leader in a virtual team. Creating a plan may be helpful for leaders to ensure the member's performance is going in the right direction. [25]

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[24]AMERICAN LIBRARY ASSOCIATION. Digital Literacy Task Force, 2013 [online]. [Retrieved 2020-07-16]. Available at:https://connect.ala.org/node/140464

[25] HR Daily Advisor. HR Daily Advisor [online]. Copyright © 2020 BLR [Retrieved 2020-08-01]. Available at: https://hrdailyadvisor.blr.com/2018/01/05/virtual-leadership-skills/

4.5.3 Communication Skills

Virtual leaders must pay special attention to the way they communicate with others, in order to avoid misunderstanding. Despite the lack of facial expressions, body language, or voice tone, effective communication can be successful thanks to appropriate virtual tools.

4.5.4 Building Trust

Establishing trust and strong relationships are essential tasks of a virtual leader. These can be attained by for instance frequent and reliable communication, being honest to your coworkers, being fair and consistent, and last but not least listening to member's inquiries.

5 INTERACTION

A team's performance can be severely influenced by the style of the team's interaction. These styles include constructive, defensive, or passive behaviours in a group, which determine the outcome[26] (Dubrovsky, Kiesler & McGuire, 1986).

5.1 Interaction Styles

5.1.1 Constructive Behaviours

Constructive behaviours are classified as positively affecting the team's performance. This interaction style is understood as style, where appear balanced concerns for personal and group outcomes, creativity, respect for others, and also being genuine and authentic which builds trust, hence relationships.[27]

5.1.2 Destructive Behaviours

Apart from constructive behaviours, destructive interaction is considered as negatively influencing the team's achievements. A negative approach must be recognized first, providing the team needs to improve work performance. Aggression is one of the behaviours that usually refers

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[26] DUBROVSKY, Siegel, J., V., KIESLER, S., & MCGUIRE, T. W. (1986). Group processes in computer-mediated communication. Organizational Behavior and Human Decision Processes, 37(2), 157–187

[27] LEADERSHIP AT A DISTANCE: Research in Technologically-Supported Work - Google Books. Knihy Google [online]. [Retrieved 2020-08-01] Available at:
https://books.google.cz/books?hl=en&lr=&id=8haPjnHUky4C&oi=fnd&pg=PA127&dq=virtual+le adership+interaction&ots=z9b2vViznL&sig=NfGGPoDJPVEg9PTCKCLQh1TPi1g&redir_esc=y# v=onepage&q=virtual%20leadership%20interaction&f=false

to a defensive mechanism. Furthermore, repression or rationalization belong to destructive behaviours of an individual. These negative attitudes should be reverted to constructive behaviours so that goals can be achieved.[28]

5.1.3 Passive Behaviours

Passive behaviours are characterized by limited communication between individuals, impartiality, or questioning. That is to say, individuals are not willing to pursue not their personal goals and objectives nor the common ones.[29]

All these group interaction styles and dynamics given above, either impede or enhance the team's performance.

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[28] 27

[29] 27

6 CHALLENGES

Information technology makes it possible for organizations to forget about traditional work schedules and adjust the business settings to the virtual environment. The majority of challenges of a virtual team are similar to the traditional one, nevertheless, there can be also named some typical issues that these dispersed workgroups may deal with. Admittedly, not all of the already existing managerial practices can be applied to a virtual environment. This advancement in information technology goes hand in hand with new challenges that individuals have to face.

There is not necessarily FtF interaction between the leader and the recipients, and their communication takes place in the virtual environment. Provided that virtual interaction between team members is on the international level, co-workers may face problems with some issues, such as the language barrier. However, trust and good communication are crucial for successful cooperation between team members[30] (Jönsson, 2016).

There are many challenges present when talking about virtual and global leadership. These challenges are to be mentioned, including the need for training acknowledgment, lack of monitoring or measurement,

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[30] 22

disjointed approaches to training, conflicting cultural messages and other[31] (Mandzuk, 2014).

6.1 Geographical Dispersion

Geographically dispersed teams (GDTs), separated by time, distance, and cultural backgrounds, are dependent on new information and communication technology. These teams are linked together by various electronic devices and communication tools. Although GDTs cannot benefit from physical interaction, information technology allows them to reach their goals effectively without wasting precious time. However, leading a geographically dispersed team may be for leaders challenging. Particularly differing time zones can cause problems, when it comes to the time set deadlines for instance, as a team often consist of members located all around the world, part of the team on one side of the world may be asleep during another part's normal workday[32] (Alfred Borget Anoye, Jean Saturnin Kouamé).

Another barrier regarding geographical dispersion, that can be mentioned is an individual's cultural diversity. Different nationalities are bound by different cultures. This means that each culture has its own set of rules, behavioural norms, and values. Consequently, these cultural differences can lead to unexpected misunderstandings in certain

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[31] MANDZUK, Christina. Challenges of Leading a Virtual Team: More Than Meets the Eye. T D [online]. (2014), 68(1), 20-20 [Retrieved 2020-07-17]. ISSN 15357740. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=93281208&scope=site

[32] 23

situations, which can affect working processes[33] (Hyppönen). Once team members understand these differences, they can boost their performance.

6.2 Communication Challenge

Communication belongs to the essential competencies of virtual team effectiveness. Individuals work across states, countries, or even continents, which makes communication much more challenging. This means that workers need to implement processes and adopt tools to bridge the gaps that naturally occur when working from a distance. According to [34] (Mercurio, 2010), avoiding emotional responses, clarifying expectations, being honest, identifying perspective, and asking questions are necessary principles, which can enhance communication efforts and effectively improve the interaction between individuals. Given these principles, communication depends on the leader's ability to interact, whereas technology enables efforts to be accomplished virtually.

The link between team communication and its performance often has a strong impact on future results that the team achieves. Unlike face-to-face interaction, rich feedback in the form of facial expressions, voice tone, or body language is absent in virtual communication. That is what makes virtual communication much more challenging.

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[33] HYPPÖNEN, Riia. Leadership in Geographically Dispersed teams The Impact of Virtuality on Leader's Role, [online]. [Retrieved 2020-07-23]. Available at: https://www.diva-portal.org/smash/get/diva2:1104398/FULLTEXT01.pdf

[34] MERCURIO, Nancy. Savvy Communication for Virtual Leadership. Canadian Manager [online]. 2010, 35(1), 4-6 [Retrieved 2020-07-23]. ISSN 00455156. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=53887867&scope=site

''The communication exchange is not solely reliant upon the words, but also the interpersonal aspects of the communication, such as behaviour and context''[35] (Morgan, Paucar-Caceres, Wright, 2014).

In addition, communication does not serve only as the way how people share information but also helps to develop a bond of trust, team cohesion, and understanding in the virtual environment[36] (Hyppönen).

6.3 Technology Challenge

As a result of changes in information technology in the business world, new opportunities are increasing for employees within a workplace, while striving to achieve their objectives. The introduction of new information technology provides the possibility for virtual teams to progress in the performance management processes and enables VOs to be proactive to communicate with their workforce via electronic devices.[37] Modern technology provides a variety of communication tools and information sharing means for work to be accomplished, hence every organization encounters challenges when working virtually.

Firstly, when talking about IT, it must be taken into consideration what technology and software are available to the virtual team, especially

[35] MORGAN, Lisa, Alberto PAUCAR-CACERES a Gillian WRIGHT. Leading Effective Global Virtual Teams: The Consequences of Methods of Communication. Systemic Practice [online]. 2014, 27(6), 607-624 [Retrieved 2020-07-26]. DOI: 10.1007/s11213-014-9315-2. ISSN 1094429X

[36] 33

[37] HR MAGAZINE. Successfully Transitioning to a Virtual Organization: Challenges, Impact and Technology. [online]. 2010, 55(4), 1-9 [Retrieved 2020-07-31]. ISSN 10473149. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=49227104&scope=site

with multi-cultural globally distributed teams. Internet access or other services may differ from region to region, which can lead to interaction problems. As soon as there are no barriers regarding access to technology devices and software, the leader decides what communication media would be the most suitable for the team's performance.[38]

Secondly, a leader must make sure all team members are proficient in using preferred technology. It also must be taken into account that employees may be at different proficiency levels regarding working with modern technologies. With this in mind, employees should not only get the opportunity to work remotely, but also get the chance to attend training specifically focused on working virtually.[39]

And lastly, guidelines need to be set in place for communications in the virtual environment. ''Netiquette'', this term stands for types of guidelines, where members learn ''using technology effectively to communicate with others both personally and professionally with knowledge, understanding, and courtesy''. Setting up a set of rules can make it easier to understand what is acceptable, within cultural barriers in regards to interaction.[40]

6.4 Strong Relationship

With a strong relationship being one of the key elements of an effective team, the way to foster trust is fraught with the difficulties of

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[38] 32

[39] 32

[40] 32

forming a common identity with team members in the virtual environment. Being able to build a mutual connection between individuals in a virtual environment, despite the lack of FtF communication, is another challenge to meet. Due to virtual communication, individuals lose the chance to develop relationships to the same level as if they met in person, factors such as geographical dispersion, feeling of isolation or detachment and various time zones are also barriers for building commitment. Under these conditions ''the virtual environment constraints, even impedes the development of trust''[41] (Jarvenpaa, Knoll, Leidner, 1998).

6.5 Security Challenge

Since many organizations nowadays rely on ICT, working on a virtual level means taking cybersecurity risk. High demand for developing a virtualization secure policy is steadily rising. A virtualization secure policy is a combination of measures processes and procedures, that provides protection. *''A security policy at a site determines the relevant security services that must be deployed in that site to counteract threats.''* [42]

As organizations employ people from all over the world, also their security policy may differ. In order to secure sufficient protection, it is necessary to develop a consistent and uniform security policy across the

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[41] JARVENPAA, S. L. , K., KNOLL and D. E., LEIDNER, "Is Anybody Out There? Antecedents of Trust in Global Virtual Teams", Journal of Management Information Systems, 14, 29–64, 1998

[42] 32

participating sites.[43] Comprehensive security plan provides protection against unauthorized access from both internal and external sources. Various methods of security are used in organizations, such as technologies based within the infrastructure itself, hardware or software-based devices, such as firewalls and security management servers.[44]

6.6 Motivation

Leadership is closely related to motivation. Yet leadership concentrates more on the team's results, motivation is what has an effect on an individual's performance. *''Motivation can be defined as an act of influencing others to accomplish a task with rewards or incentives.''*[45] Leader is usually the entity, who motivates individuals, it is someone, who is supposed to attract and retain employees and then energize and lead them to accomplish common objectives. Considering already mentioned virtualization, besides communication or cultural issues occur a motivation problem. Competence, relatedness, and autonomy are the most important drivers of employee motivation[46] (Snyder, 2012). Being able to energize and motivate employees is the complementing task regarding team effectiveness.

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[43] 32

[44] 32

[45] 32

[46] SNYDER, Keather. Enhancing Telework: A Guide to Virtual Leadership.The Public Manager. Spring 2012 [online] [Retrieved 2020-31-07]. Available at: https://pdfs.semanticscholar.org/a020/1b20e4d27a70730efbf8184832f558d1790d.pdf

7   MODERN TECHNOLOGIES

Advanced information technology (AIT) plays a significant role in today's business setting and virtual leadership is highly dependent on collaboration technology and infrastructure. The purpose of Information technology (IT) was briefly described in an article, written by Kirsten Slyter (2019) as *''the application of technology to solve business or organizational problems on a broad scale''*[47] (Slyter, 2019). Another definition for IT is *'' the use of computers to store, retrieve, transmit, and manipulate data or information. IT is typically used within the context of business operations as opposed to personal or entertainment technologies. IT is considered to be a subset of information and communications technology (ICT). An information technology system (IT system) is generally an information system, a communications system or, more specifically speaking, a computer system – including all hardware, software and peripheral equipment – operated by a limited group of users.''* [48]

Technology has transformed methods of communication in organizations and has an enormous impact on social interaction. Furthermore, AIT has influenced leadership style, team performance, and individual motivation. The constant growth of remote teams, telework, and emergent leadership patterns are nowadays dependent on AIT.

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[47] SLYTER, Kirsten. What Is Information Technology? A Beginner's Guide to the World of IT. Rasmussen College. Regionally Accredited College Online and on Campus. Rasmussen College [online]. Copyright © 2020 Rasmussen College, LLC. [Retrieved 2020-08-01]. Available at: https://www.rasmussen.edu/degrees/technology/blog/what-is-information-technology/

[48] WIKIPEDIA. Information technology. [online]. Available at: https://en.wikipedia.org/wiki/Information_technology

8 COOPERATION METHODS

Mutual cooperation is one of the key elements in regard to achieving common goals within individuals. Accordingly*, ''co-operation is an activity within a group when members divide sub-tasks among themselves and until the end of the project they are responsible only for them'' [49]* (Arnold, Ducate and Kost, 2012).

Cooperation consists of various inputs and efforts of individuals, that contribute to future outputs, better productivity, and effectiveness. Some of these inputs are to be mentioned, such as individual and collective capabilities of the team, shared knowledge structures, or performance along with the skills applicable to a certain task. Strong shared mental models and transactive memory systems belong to types of shared knowledge structures.[50] Shared mental models can be understood as communicating the following strategies and proper understanding of required tasks. And transactive memory lies in an individual's responsibility, where each employee is able to do a particular task. The aim of cooperation methods should contribute to mutual objectives and efficiency.

[49] ARNOLD, N., DUCATE, L., KOST, C. Collaboration or Cooperation? Analyzing Group Dynamics and Revision Processes in Wikis. CALICO Journal,Vol. 29 No.3, pp 431-448. [online] 2012. [Retrieved 2020-08-05]. Available at:https://www.researchgate.net/publication/269815243_Collaboration_or_Cooperation_Analyzi ng_Group_D_y_namics_and_Revision_Processes_in_Wikis

[50] KORSGAARD, M. & PICOT, Arnold & WIGAND, Rolf & WELPE, Isabelle & ASSMANN, Jakob. Cooperation, Coordination, and Trust in Virtual Teams: Insights from Virtual Games.10.1007/978-1-84882-825-4_20. [online] (2009). [Retrieved 2020-08-05]. Available at: https://www.researchgate.net/publication/225931591_Cooperation_Coordination_and_Trust_in_ Virtual_Teams_Insights_from_Virtual_Games

PRACTICAL FRAMEWORK

9   COMMUNICATION TOOLS

Information and communication technology such as social media, video chat, telephone, e-mail, electronic database, or teleconferences, and others enable workers to interact and communicate internationally with colleagues. Each team member can share content and information from any location easily by using project management tools, real-time chat tools, voice & video conferencing tools, document collaboration tools, knowledge centre tools or internal communication tools.[51] There are countless communication tools in today's technology-driven business world, therefore it is a leader's choice what collaboration tool will be suitable for the team.

9.1   Project Management Tools

Project management tools are used in virtual teams to track member's tasks, organize work, manage projects, or monitor progress, in order to run a project smoothly. In addition, project management tools help to facilitate collaboration, planning, documentation, and evaluation in a virtual team.[52]

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[51] POOFHUB. 15 Best Team Communication Tools for Businesses In 2020. ProofHub: All-in-One Project Planning Software. No Per User Fee [online]. Copyright © ProofHub [Retrieved 2020-18-08]. Available at : https://www.proofhub.com/articles/team-communication-tools

[52] WRIKE. Versatile & Robust Project Management Software [online]. Copyright ©2006 [Retrieved 2020-18-08]. Available at: https://www.wrike.com/project-management-guide/faq/what-are-project-management-tools/

9.1.1 Scoro

Online business management Scoro introduces a comprehensive project management solution for organizations. Scoro enables us to gather important project information in one central place. The main features of Scoro range from calendar management, task scheduling, gantt chart to quoting and invoicing, and even more.[53]
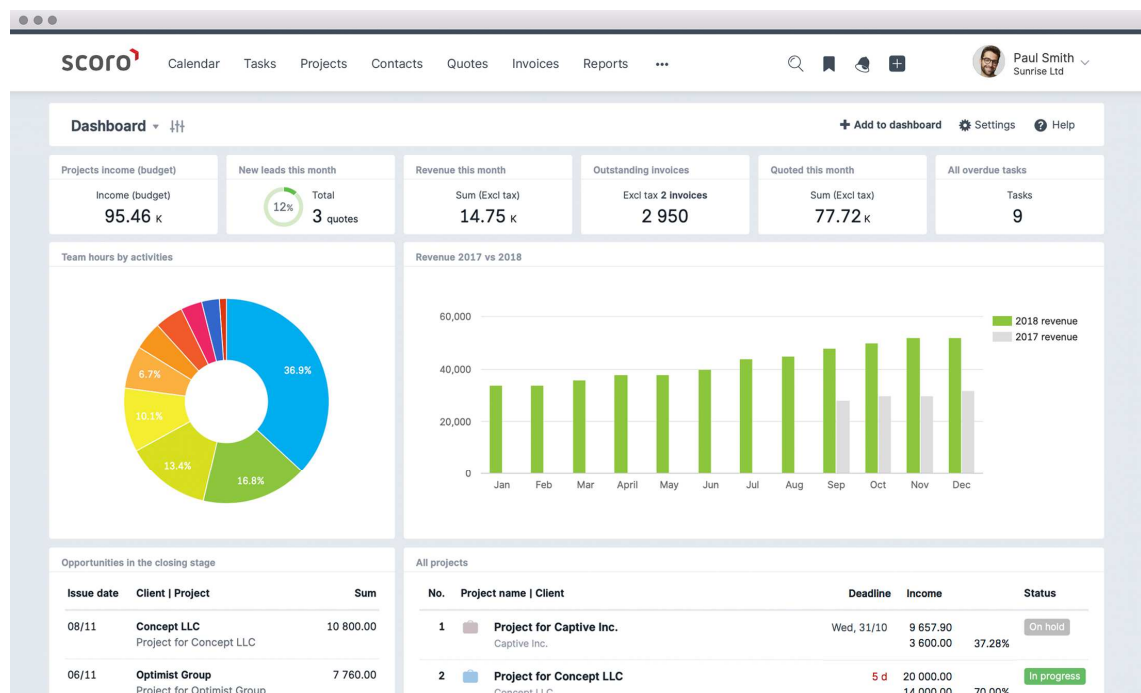

Figure 2: SCORO. Company Dashboard [online]. [Retrieved 2020-23-08]. Available at: https://www.scoro.com/company-reporting-dashboard/

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[53] SCORO. Company Dashboard [online]. [Retrieved 2020-23-08]. Available at: https://www.scoro.com/company-reporting-dashboard/

9.1.2 ProofHub

Another work management software, that provides ultimate control over virtual projects and facilitates cooperation.[54] ProofHub is characterized by features such as easy planning, organizing, and delivering projects on time. ProofHub makes it easier to divide work tasks, monitor progress, and store information in a central place as well.

9.1.3 Trello

Trello is a widely-used communication platform, that enables co-workers to communicate with external partners, cooperate with colleagues, and run projects easily and fast. Trello helps with team organization, workflow, productivity boost, and also task scheduling. [55]

9.2 Real-time Chat Tools

Real-time chat is a way of communication, where individuals communicate in real-time on a website. Live chat communication offers text messages also a variety of media including video, audio, or emojis.

9.2.1 Slack

Communication platform Slack was created to simplify professional and organizational communication between co-workers. Slack brings

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[54] 51

[55] TRELLO.How To Become A Project Management Master With Trello. Trello Blog - Organize anything, together. [online]. Copyright © Copyright 2020, Trello, Inc. All rights reserved. [Retrieved 2020-23-08]. Available at: https://blog.trello.com/project-management-power-ups

information, people, and conversation tools together and forms an effective online environment.[56]

Figure 3: SLACK. Windows, Downloads. [online]. Copyright © Copyright 2020 Slack Technologies, Inc. All rights reserved. Various trademarks held by their respective owners. [Retrieved 2020-23-08]. Available at: https://slack.com/intl/en-cz/downloads/windows

9.2.2   Chanty

Chanty makes it easier to connect individuals in real-time, allowing them unlimited messaging in either personal or group chats. Chanty

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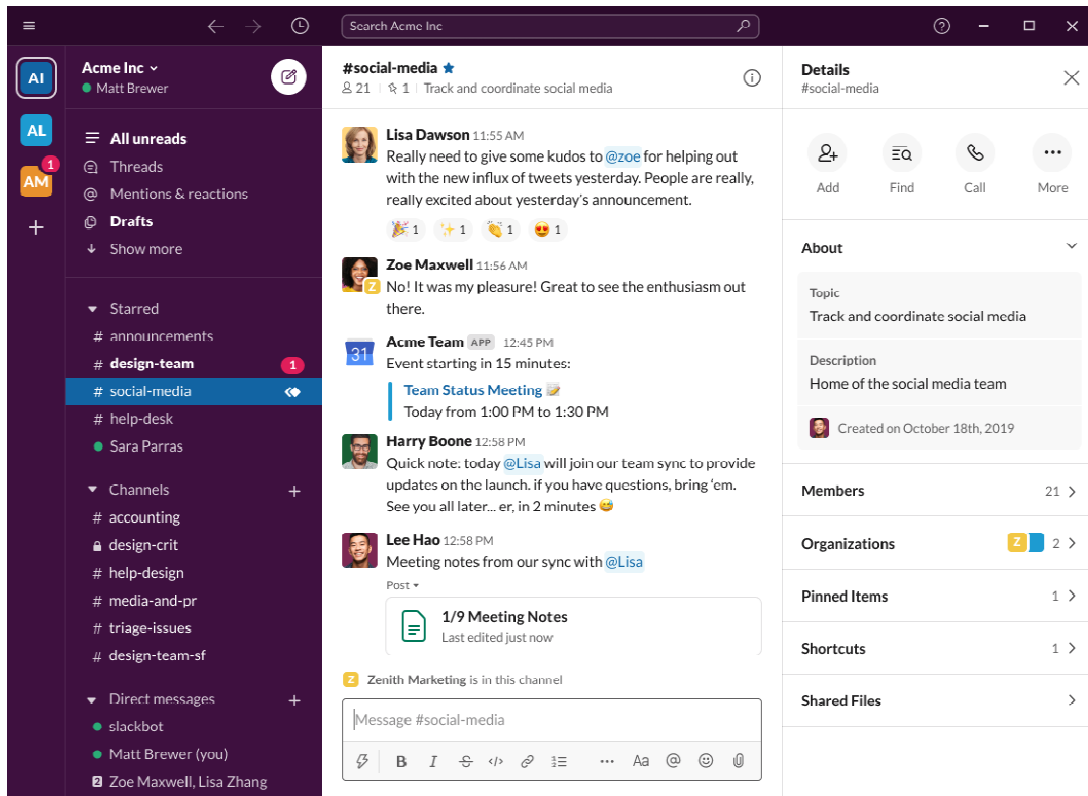[56] SLACK. Windows, Downloads. [online]. Copyright © Copyright 2020 Slack Technologies, Inc. All rights reserved. Various trademarks held by their respective owners. [Retrieved 2020-23-08]. Available at: https://slack.com/intl/en-cz/downloads/windows

allows delivering important information instantly to others, as well as sharing files or making calls.

9.2.3 Microsoft Teams

Unified communication and collaboration platform Microsoft Teams enables to organize not only online video conferences or group chat but also access to documents and files in real-time.

9.3 Voice & Video Conferencing Tools

These types of communication tools were created to simplify communication within GDTs. Voice & video conferencing has brought meeting solution innovation, which provides participants simultaneous communication via ICT. It is used primarily for frequent communication, team negotiations, or remote offices meetings. Moreover, online conferencing provides not only audio and video calls but also screen sharing, discussion threads, file sharing, pinned messages or @mentions.[57]

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[57] 51

9.3.1   Google Meet

Google Meet is another conferencing platform used for business needs. The main aim of this platform is to mediate online settings for virtual conferences and makes it accessible for everyone from any device.[58]
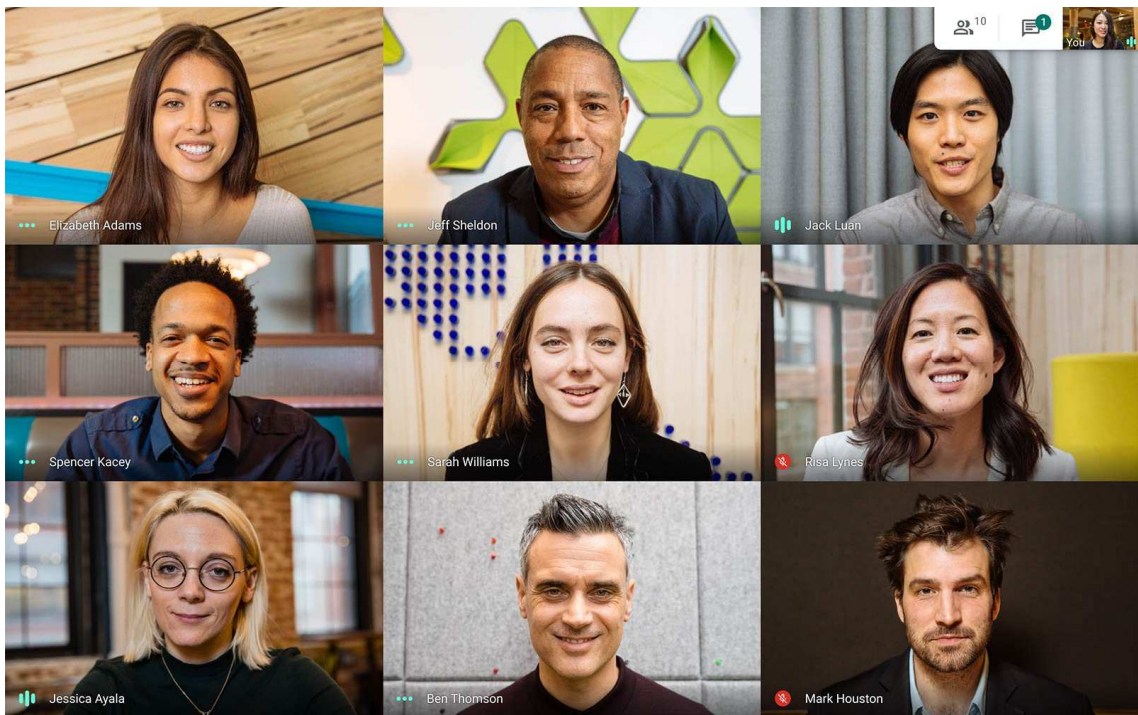

Figure 4: GOOGLE MEET. [online]. [Retrieved 2020-23-08] Available at:
https://meet.google.com/

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[58] GOOGLE MEET. [online]. [Retrieved 2020-23-08] Available at: https://meet.google.com/

9.3.2 Zoom

Zoom is a widely used communication tool for video and audio conferencing, web conferencing, webinars, or even broadcasting conferences for a large passive audience. Besides that, it also allows users to share their screens, exchange files, or communicate via digital whiteboard. [59]

9.3.3 GoToMeeting

GoToMeeting is a video conferencing app used by organizations to broadcast webinars to thousands of viewers. This app allows users to schedule business meetings, connect with others, or to share screens.[60]

9.4 Document Collaboration Tools

There is no more necessity to send or email attachments to co-workers. Document collaboration tools enable workers to share, view, edit, and work on a document at the same time. Furthermore, document collaboration tools provide compatibility with countless file types, cut down on confusion, and increase efficiency.

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[59] ZOOM. Video Conferencing, Web Conferencing, Webinars, Screen Sharing.[online]. Copyright ©2020 Zoom Video Communications, Inc. All rights reserved. [Retrieved 2020-23-08]. Available at: https://zoom.us/

[60] GOTOTMEETING. Online Meeting Software, Video Conferencing & Web Conferencing. [online]. Copyright © 2020 LogMeIn, Inc. All rights reserved. [Retrieved 2020-23-08]. Available at: https://www.gotomeeting.com/

9.4.1 Google Docs

Google Docs is another document collaboration tool, widely used for creating, editing, and storing documents. Documents or spreadsheets can be edited or updated in various fonts and formats by all editor in real-time.[61]
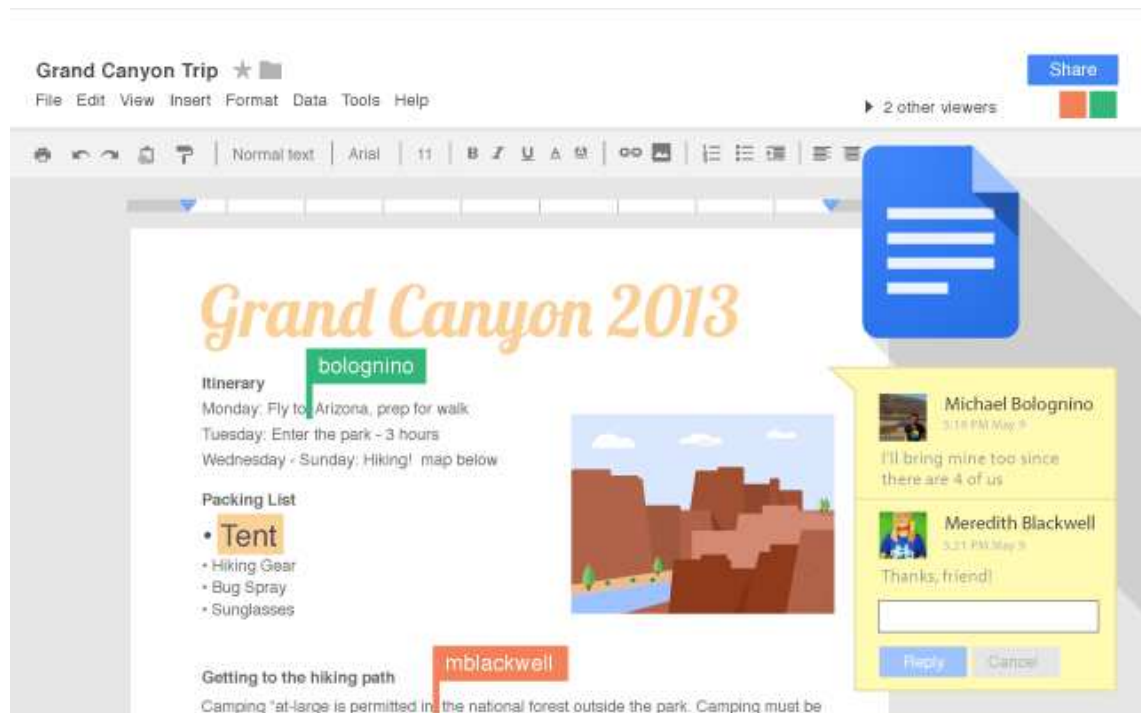

Figure 5 : GOOGLE DOCS. [online]. [Retrieved 2020-23-08]. Available at:

https://www.google.com/docs/about/

[61]GOOGLE DOCS. [online]. [Retrieved 2020-23-08]. Available at:
https://www.google.com/docs/about/

9.4.2 G Suite

G Suite software from Google allows users to work on documents and spreadsheets easily in real-time. Numerous users can edit, share, and comment documents simultaneously and every change is saved automatically, which makes it well-arranged.

9.4.3 Dropbox

Dropbox is a file hosting service, that provides an easier way for organizations to share information, without necessarily sending large files. It is storage, that lets users save files online and share them easily with others.

9.5 Knowledge Center Tools

Knowledge Center Tools were created to simplify computer-mediated communication between individuals. Via these tools, people are able to send or receive information immediately. Users get the opportunity to embrace visual task boards, discussion boards, interactive to-do lists, task assignments etc.

9.5.1 Taskworld

Taskworld is a collaboration platform helping to facilitate primarily task work division, project management, planning, and monitor performance in a team. Visual task boards, timelines, interactive dashboard, information filtering, task prioritizing, task & project status

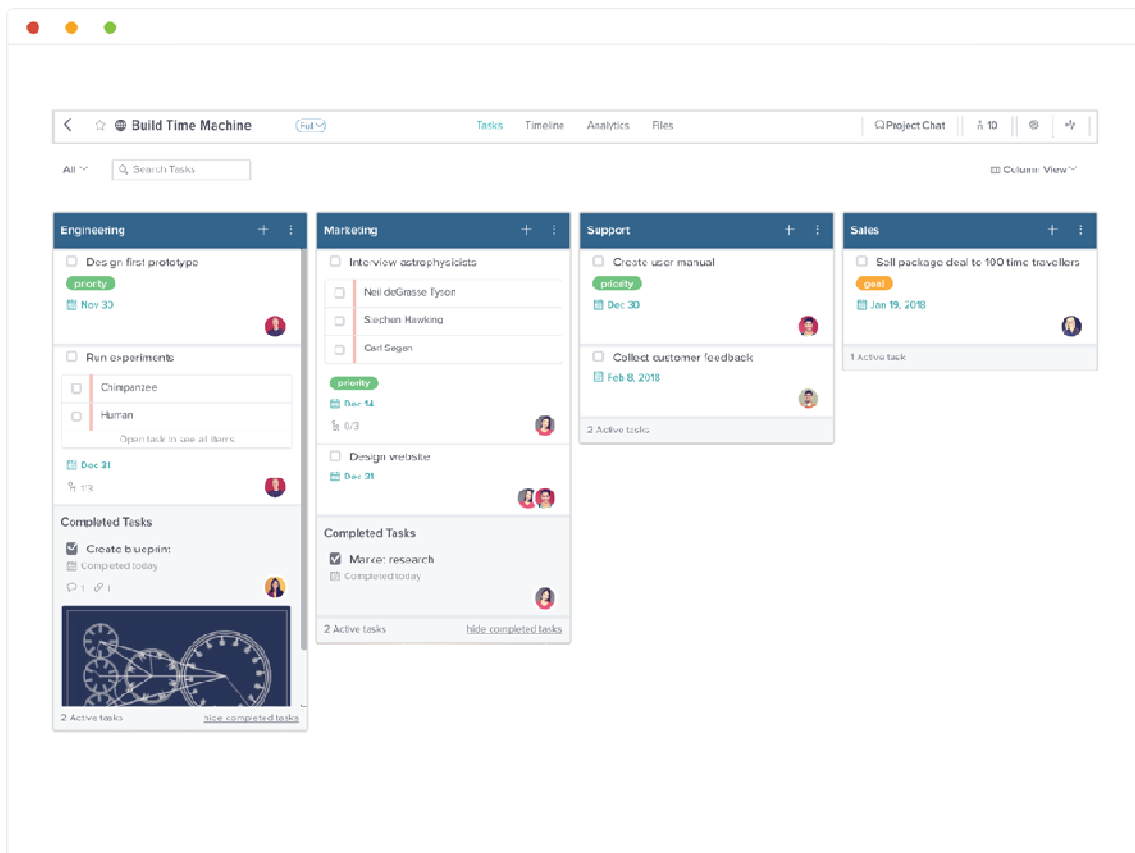tracking, and task calendar are some of the features of the Taskworld collaboration tool. .[62]

Figure 6 : TASKWORLD. Project Management Software Built for Teams [online]. Copyright © 2013 [Retrieved 2020-23-08]. Available at:

https://taskworld.com/?utm_source=google&utm_medium=cpc&utm_campaign=S_EN_Tier2_Br and&utm_

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[62] TASKWORLD. Project Management Software Built for Teams [online]. Copyright © 2013 [Retrieved 2020-23-08]. Available at:
https://taskworld.com/?utm_source=google&utm_medium=cpc&utm_campaign=S_EN_Tier2_Br and&utm_term=Taskworld%20Exact&gclid=Cj0KCQjwp4j6BRCRARIsAGq4yMEkOp98XSP9eiZ 1Tbu9IU62-TzUpa-Pn9GKi_oqHpxh8qjl9v5zUUUaAkJLEALw_wcB

9.5.2 HelpCrunch

HelpCrunch is a database, where users can share knowledge and manage teams. All information is stored in one place and is accessible to all members. The main features include Convenient text editor, categories, sections, folders, or multilingual content.[63]

9.5.3 ProProfs

ProProfs is knowledge management software, with the aim of building testing and sharing knowledge among individuals. Besides the knowledge base, ProProfs offers solutions for training software, virtual classroom software, or quiz maker.[64]

9.6 File-Sharing Tools

File sharing tools make it possible for users to exchange large files easily and quickly. Furthermore, file sharing tools offer file storage and a method to securely share files via links.[65]

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[63]HELPCRUNCH. Knowledge Base Software. Customer Communication Platform, Live Chat & More [online]. [Retrieved 2020-23-08]. Available at: https://helpcrunch.com/knowledge-base.html

[64] PROPROFS. Delightfully Smart Tools. ProProfs: SAAS Software for Training, Customer Support & More [online]. Copyright © 2005 [Retrieved 220-23-08]. Available at: https://www.proprofs.com/about/

[65] COMPARITECH Limited. 10 Best Secure File Sharing Tools for Business in 2020 (Paid & Free). Comparitech - Tech researched, compared and rated [online]. Copyright © 2020 All rights reserved. [Retrieved 2020-18-08]. Available at: https://www.comparitech.com/net-admin/best-business-file-sharing-tools/

9.6.1 Google Drive

With Google Drive users can easily create new documents, spreadsheets or presentations, and share them with others in real-time. Google Drive enables users to store, and share files in one secure place.
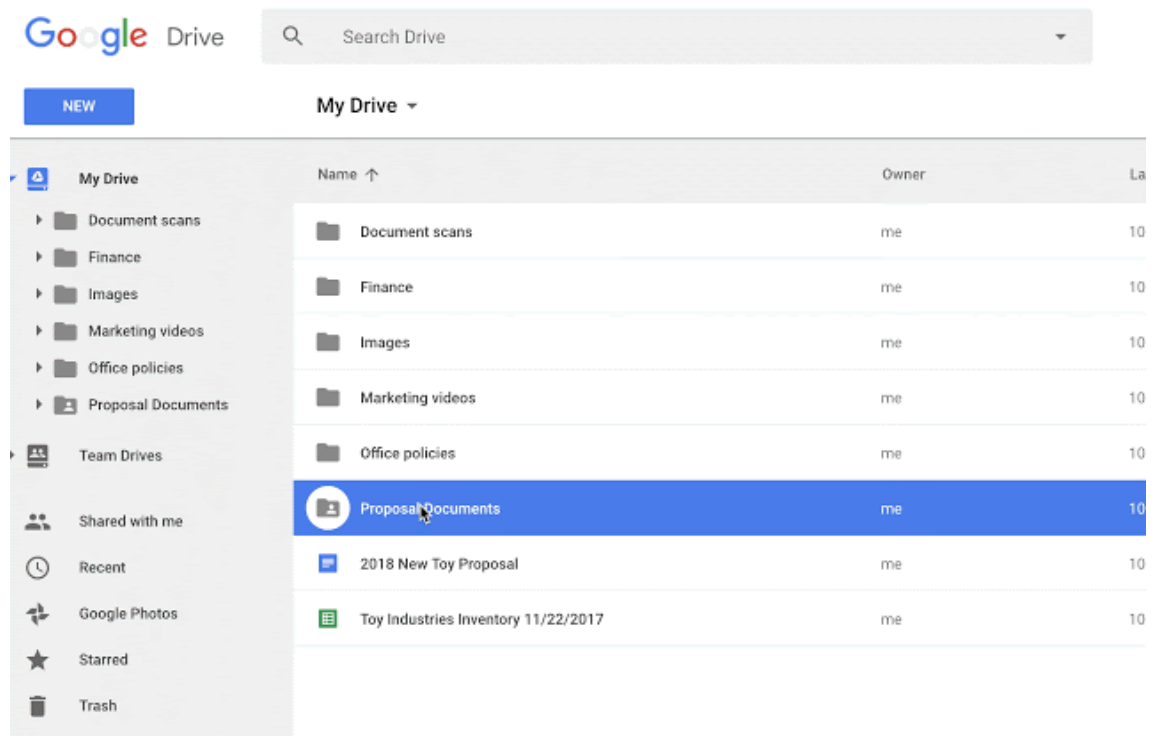

Figure 7: GOOGLE DRIVE. Available at: Gsuite.com

9.6.2 Microsoft OneDrive

Microsoft OneDrive is a file hosting online service that provides storage space for files that are secured and accessible at the same time.

9.6.3 FileCloud

FileCloud allows sharing files and synchronizing data and makes it accessible from any electronic device. Moreover, the system includes features such as admin dashboard, peak usage, access by geography, and other file analytics.

9.7 Internal Communication Tools

Internal communication refers to driving knowledge and information within an organization no matter if it's personal or team communication.

9.7.1 Troop messenger

Troop Messenger is a communication platform, that makes internal communication secure and flawless. Trooop Messenger offers not only private or group messaging, but also HD Video & Audio Calling. [66]

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[66] TROOP MESSENGER. Office Chat and Instant Messaging App For Business. [online]. Copyright © .Company name All rights reserved. [Retrieved 2020-23-08]. Available at : https://www.troopmessenger.com/

Figure 8: TROOP MESSENGER. Office Chat and Instant Messaging App For Business.
[online]. Copyright © .Company name All rights reserved. [Retrieved 2020-23-08]. Available at :
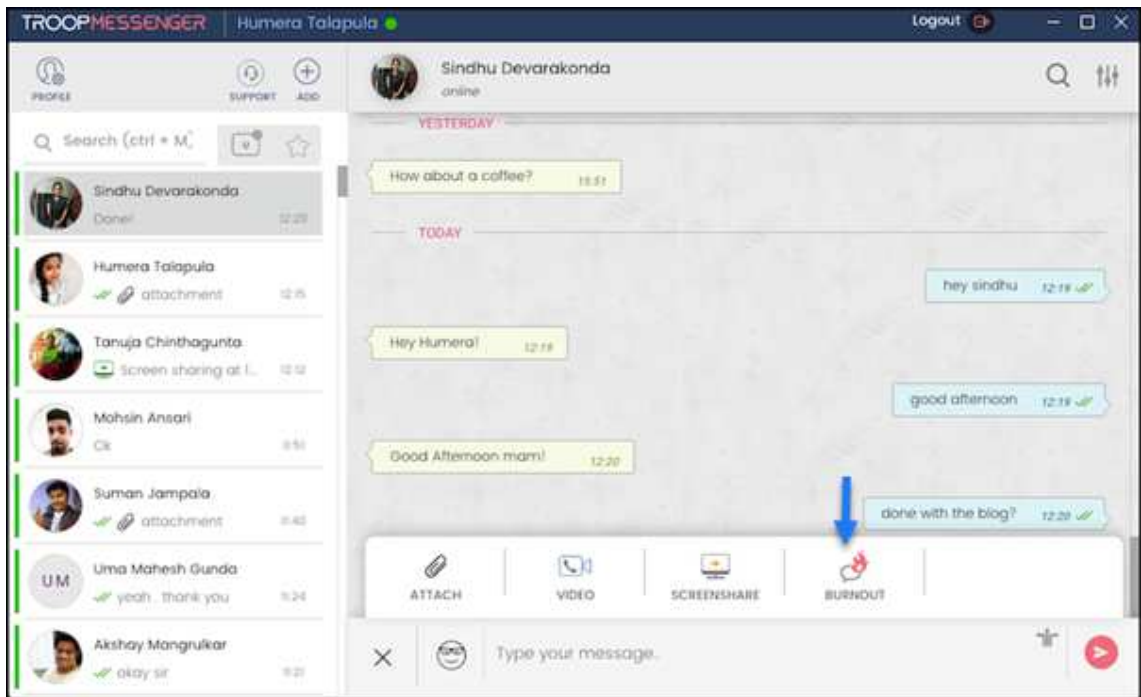https://www.troopmessenger.com/

9.7.2 Jive

Jive brings a collaboration solution for online business. It is a
software platform, where individuals are able to reach anybody and build
a social network via this shared communication portal.

10 ADVANTAGES

Although there are many challenges to face in the virtual environment, there also exist significant benefits to consider. Virtual leadership is growing in popularity because of numerous benefits related to virtual environments. These benefits include cost savings, flexibility, time management, productivity and location independence, which will be more explained below.

10.1 Cost Savings

Shifting from traditional leadership to virtual one gives the organization considerable advantage associated with cost savings. Virtual leadership appears to be cost-effective, as it removes added expenses such as executive's travel, transportation, lodging, or food costs. Additionally, in VOs go away expenses on real estate, office spaces, utility bills, basically on office infrastructure. Another option on how to save money in an organization is the possibility to outsource operations to low-cost regions, which is typical for offshore ISD teams.

10.2 Flexibility

Virtual organizations offer individuals a flexible working environment, where individuals can adjust their schedules, that fit their needs the best. Virtual leadership breaks the traditional norm of a rigid 9-5, Monday to Friday work structure. When working remotely, employees are able to manage both their personal and work life, in other words, they can enhance their work-life balance and tend to be more productive and satisfied in their job.

10.3 Time Management

It is not necessary to spend time commuting to work in a virtual environment. Spending time commuting to work might be for employees stressful and unpleasant, which can in the end result in unproductivity and poor work performance. Therefore, reducing the amount of time spent commuting can not only boost business but also leads to effectiveness.

10.4 Productivity

Employees are more likely to accomplish more in less time when working from home, as they are being appraised based on the final results of their work, and not on the time spent in an office. The absence of noise, office politics, and interruptions allows employees to focus on what is most important and let them get more work done.

10.5 Diversity

Providing that, a team consists of members from different geographical locations, members form team diversity, and enhance group dynamics. A multicultural team brings multiple ideas and diverse points-of-view for solutions. Leaders can take advantage of putting together a team of people with the specific talent needed to complete certain tasks independent of their location, that is to say, use the global talent.

10.6 Location Independence

Another considerable benefit of virtual leadership is location independence, that gives both employees and employers the opportunity to meet their demands. Remote work is not limited by geographical

location, which means that work can be done from any location. With a virtual environment occurs a broader range of opportunities in the business world.

11 DISADVANTAGES

Beyond the already mentioned advantages of virtual leadership, exist also disadvantages to be considered before transitioning to virtual leadership. Many of the disadvantages of virtual leadership reflect from the challenges of virtual leadership. Disadvantages can be seen as well as advantages from three different points-of-view, these are individual, societal, and organizational.

11.1 Cultural Conflicts

As a team usually consists of members from different cultures working together, cultural conflicts may occur. Various cultural backgrounds may lead to a lack of trust in the team and may impact collaboration later on. In order to avoid these cultural issues, educating employees can help to understand cultural differences and improve their cooperation.

11.2 Difficult Remote Coordination

In the virtual environment, it may be difficult for leaders to manage employees across several time zones. It is important for each member to know what others are doing and how everything fits together so that coordination will be successful. That is why it is necessary to create a plan that can ease the problems of leading from afar, and then enforce members until they are assimilated.

11.3 Social Isolation

Being able to work from home can sometimes result in social isolation and a feeling of loneliness. Social isolation is caused by a lack of physical interaction between individuals, that can impact their well-being. Removing physical connections and social stimulation can even affect not only employee's engagement but also their performance. Therefore, recognition and appreciation are crucial in order to keep employees engaged in a virtual organization.

12 CONCLUSION

In today's technology-driven business environment, organizations have started relying more on virtual leadership. The world is becoming globalized gradually, and the business environment is an ever-evolving enterprise, which makes it difficult for organizations to keep up with development and constant progress. While there are significant differences between traditional leadership and a virtual one, organizations can consider conceivable advantages for using virtual teams. Many organizations started transitioning traditional leadership to a virtual one based on effectiveness. Remote work has grown significantly due to geographic or time constraints. Virtual leadership offers a solution for managing team cooperation and interaction around the world across different cultures, various time zones, and organizational contexts. However, challenges are ever-present when talking about leadership. All the challenges related to virtual leadership can be overcome, if done so successfully, virtual organizations are going to thrive. Communication and collaboration belong to the key elements in a virtual environment, and therefore it is important to choose suitable communication tools.

The benefits of a virtual workforce are immense, virtual leadership reduces the need for unnecessary personal meetings, helps to minimize office expenses, saves time, and leads to better productivity. The widespread use of advanced information technology enables individuals to congregate virtually and achieve their common goals and pursue their objectives, despite geographical or cultural differences. Considering these advantages and disadvantages it can be said that the advantages outweigh the disadvantages; it is all about finding the right solution. Nowadays virtual leadership is a non-reversible phenomenon.

13 BIBLIOGRAPHY

ONLINE SOURCES

ANOYE, Alfred Borget , KOUAMÉ, Jean Saturnin. Leadership Challenges In Virtual Team Environment, International Journal of Scientific & Technology Research Volume 7, Issue 7, July 2018. ISSN 2277-8616 [online]. [Retrieved 2020-07-31]. Available at: https://www.ijstr.org/final-print/july2018/Leadership-Challenges-In-Virtual-Team-Environment.pdf

ARNOLD, N., DUCATE, L., KOST, C. Collaboration or Cooperation? Analyzing Group Dynamics and Revision Processes in Wikis. CALICO Journal,Vol. 29 No.3, pp 431-448. [online] 2012. [Retrieved 2020-08-05]. Available at:https://www.researchgate.net/publication/269815243_Collaboration_or_Cooperation_Analyzing_Group_D_y_namics_and_Revision_Processes_in_Wikis

AMERICAN LIBRARY ASSOCIATION. Digital Literacy Task Force, 2013 [online]. [Retrieved 2020-07-16]. Available at:https://connect.ala.org/node/140464

A MERCURI URVAL SURVEY in cooperation with Business School Ingolstadt. Virtual Leadership and Team Work. [online]. Copyright © [Retrieved 01.08.2020]. Available at: https://www.mercuriurval.com/globalassets/articles/virtual-leadership--team-work_press.pdf

BARNWELL, Dwayne, Shea NEDRICK, Elizabeth RUDOLPH, Mohamed SESAY a William WELLEN. Leadership of International and Virtual Project Teams. International Journal of Global Business. [online] 2014, 7(2), 1-8 [Retrieved 2020-07-18]. ISSN 21517541.Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=97722072&scope=site

BERRY, Gregory R. Enhancing Effectiveness on Virtual Teams. Journal of Business Communication. [online] (2011), 48(2), 186-206 [Retrieved 2020-07-17]. DOI: 10.1177/0021943610397270. ISSN 00219436

BJORN, Pernille & Ngwenyama, OJELANKI. Technology Alignment: A New Area in Virtual Team Research. Professional Communication, IEEE Transactions on. [online] 2011. [Retrieved 2020-08-01]. 53. 382 - 400. 10.1109/TPC.2009.2034926. Available at: https://www.researchgate.net/publication/224606462_Technology_Alignment_A _New_Area_in_Virtual_Team_Research

CAREER CLIFF. Traditional Leadership - Examples of Traditional Authority. Career Cliff - Career Blog [online]. Copyright © 2020. All Rights Reserved. [Retrieved 2020-07-31]. Available at: https://www.careercliff.com/traditional-leadership/

CASCIO, W. F., & SHURYGAILO, S. E-Leadership and virtual teams. Organizational Dynamics. [online] 2003. 31(4), 362–376.[Retrieved 2020-08-01]. Available at: https://doi.org/10.1016/S0090-2616(02)00130-4

COMPARITECH Limited. 10 Best Secure File Sharing Tools for Business in 2020 (Paid & Free). Comparitech - Tech researched, compared and rated [online]. Copyright © 2020 All rights reserved. [Retrieved 2020-18-08]. Available at: https://www.comparitech.com/net-admin/best-business-file-sharing-tools/

COWAN, Lisa D. E-Leadership: Leading in a Virtual Environment - Guiding Principles For Nurse Leaders. Nursing Economic$ [online] (2014), 32(6), 312-320. [Retrieved 2020-07-17]. ISSN 07461739. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=asn&an=99954953&sc ope=site

CPL RECRUITMENT. The Advantages of Working with Virtual Teams. Cpl Recruitment. Recruitment, Staffing and Outsourcing Solutions. [online]. [Retrieved 2020-08-15]. Available at: https://cpl.com/cpl-insights/insight-plan/what-are-the-advantages-of-working-with-virtual-teams/

ECKHARDT, Andreas, Florian ENDTER, Anthony GIORDANO a Paul SOMERS. Three Stages to a Virtual Workforce. MIS Quarterly Executive [online]. 2019, 18(1), 19-35 [Retrieved 2020-07-31]. DOI: 10.17705/2msqe.00006. ISSN 15401960

FARAJ, Samer, Srinivas KUDARAVALLI a Molly WASKO. LEADING COLLABORATION IN ONLINE COMMUNITIES. MIS Quarterly [online]. 2015, 39(2), 393-412 [Retrieved 2020-08-02]. ISSN 02767783. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bth&an=102375757&scope=site

FINANCIAL MODELING COURSES & TRAINING - Financial Analyst Certification. Virtual Team - Learn About the Different Types of Virtual Teams. [online] Copyright © 2015 to 2020 CFI Education Inc. [Retrieved 2020-07-31]. Available at: https://corporatefinanceinstitute.com/resources/knowledge/other/virtual-team/

FLEXJOBS. 400 Bad Request. FlexJobs: The Best Remote Work From Home & Flexible Jobs [online]. [Retrieved 2020-08-15]. Available at: https://www.flexjobs.com/blog/post/benefits-of-remote-work/#:~:text=According%20to%20Global%20Workplace%20Analytics,Overhead

HR MAGAZINE. Successfully Transitioning to a Virtual Organization: Challenges, Impact and Technology. [online]. 2010, 55(4), 1-9 [Retrieved 2020-07-31]. ISSN 10473149. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=49227104&scope=site

GETTING VIRTUAL TEAMS RIGT Harvard Business Review - Ideas and Advice for Leaders [online]. Copyright © 2020 Harvard Business School Publishing. All rights reserved. Harvard Business Publishing is an affiliate of Harvard Business School. [Retrieved 2020-15-08]. Available at: https://hbr.org/2014/12/getting-virtual-teams-right

HR Daily Advisor. HR Daily Advisor [online]. Copyright © 2020 BLR [Retrieved 2020-08-01]. Available at: https://hrdailyadvisor.blr.com/2018/01/05/virtual-leadership-skills/

HYPPÖNEN, Riia. Leadership in Geographically Dispersed teams The Impact of Virtuality on Leader's Role, [online]. [Retrieved 2020-07-23]. Available at: https://www.diva-portal.org/smash/get/diva2:1104398/FULLTEXT01.pdf

JÖNSSON, Jessica. To lead from a distance- Virtual Leadership, (English),Jönköping University, Jönköping International Business School, JIBS, Informatics. [online] (2016). [Retrieved 2020-07-16]. Available at: https://pdfs.semanticscholar.org/adc1/217f31cfec07e74b99c5c13e0c23e5ff83fd.pdf?_ga=2.219464089.1862368885.1595008570-810900973.1595008570

KAYWORTH, TIMOTHY R. a DOROTHY E. LEIDNER. Leadership Effectiveness in Global Virtual Teams. Journal of Management Information Systems. [online] 2001, 18(3), 7-40 [Retrieved 2020-07-20]. ISSN 07421222. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=5848171&scope=site

KERBER, Kenneth W. a Anthony F. BUONO. Leadership Challenges in Global Virtual Teams: Lessons From the Field. SAM Advanced Management Journal (07497075) [online]. 2004, 69(4), 4-10 [Retrieved 2020-07-25]. ISSN 07497075. Available at:

http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=15287605&scope=site

KORSGAARD, M. & PICOT, Arnold & WIGAND, Rolf & WELPE, Isabelle & ASSMANN, Jakob. Cooperation, Coordination, and Trust in Virtual Teams: Insights from Virtual Games.10.1007/978-1-84882-825-4_20. [online] (2009). [Retrieved 2020-08-05]. Available at:

https://www.researchgate.net/publication/225931591_Cooperation_Coordination_and_Trust_in_Virtual_Teams_Insights_from_Virtual_Games

KHURRAM, Mehtab, & Rehman, AMJAD & Ishfaq, SAIRA & Jamil, RAJA. Virtual Leadership: A Review Paper. Mediterranean Journal of Social Sciences. 2018. 8. 183-193. 10.2478/mjss-2018-0089. Available at:

https://www.researchgate.net/publication/326104137_Virtual_Leadership_A_Review_Paper

LEADERSHIP CHARACTERISTICS FOR SUCCESSFUL GLOBAL VIRTUAL TEAMS. Sean's MBA Learning Journal. Sean's MBA Learning Journal. My MBA journey 2014 onwards [online]. [Retrieved 2020-07-20]. Available at:

https://mbasean.wordpress.com/2015/01/23/leadership-characteristics-for-successful-global-virtual-teams/

LEADERSHIP AT A DISTANCE: Research in Technologically-Supported Work - Google Books. Knihy Google [online]. [Retrieved 2020-08-01] Available at:

https://books.google.cz/books?hl=en&lr=&id=8haPjnHUky4C&oi=fnd&pg=PA127&dq=virtual+leadership+interaction&ots=z9b2vViznL&sig=NfGGPoDJPVEg9PTCKCLQh1TPi1g&redir_esc=y#v=onepage&q=virtual%20leadership%20interaction&f=false

MALHOTRA, Arvind, Ann MAJCHRZAK a Benson ROSEN. Leading Virtual Teams. Academy of Management Perspectives [online]. 2007, 21(1), 60-70 [Retrieved 2020-07-25]. DOI: 10.5465/AMP.2007.24286164. ISSN 15589080.

MANAGEMENT STUDY GUIDE- Courses for Students, Professionals & Faculty Members. Different Types of Virtual Teams [online]. [Retrieved 2020-07-16] Available at: https://www.managementstudyguide.com/types-of-virtual-teams.htm

MANAGEMENT STUDY GUIDE. Advantages and Disadvantages of Virtual Teams. Management Study Guide - Courses for Students, Professionals & Faculty Members. [online]. [Retrieved 2020-08-15] Available at: https://www.managementstudyguide.com/virtual-teams-advantages-and-disadvantages.htm

MANDZUK, Christina. Challenges of Leading a Virtual Team: More Than Meets the Eye. T D [online]. (2014), 68(1), 20-20 [Retrieved 2020-07-17]. ISSN 15357740. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=93281208&scope=sit

MARINESCU, Paul, George-sorin TOMA a Cosmin-alexandru ŞTEFAN. Leadership for the Virtual Age. Ovidius University Annals, Series Economic Sciences. [online] 2015, 15(2), 283-286 [Retrieved 2020-07-20]. ISSN 23933127.Available at: http://search.ebscoho st.com/login.aspx?direct=true&db=bsu&an=113732241&scope=site

MCCANN, Jack a Thomas KOHNTOPP. Virtual Leadership in Organizations: Potential Competitive Advantage? SAM Advanced Management Journal (07497075) [online]. 2019, 84(3), 26-35 [Retrieved 2020-07-16]. ISSN 07497075. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=142081263&scope=site

MERCURIO, Nancy. Savvy Communication for Virtual Leadership. Canadian Manager [online]. 2010, 35(1), 4-6 [Retrieved 2020-07-23]. ISSN 00455156. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=53887867&scope=site

MOHAMMAD, Khawaj. E-Leadership: The Emerging New Leadership for the Virtual Organization. Journal of Managerial Sciences [online]. 2009, 3(1), 1-21 [Retrieved 2020-07-17]. ISSN 19924364. Available at: http://search.ebscohost.com/login.aspx?direct=true&db=bsu&an=60071633&scope=site

MORLEY, Sandra, Kathryn CORMICAN a Paul FOLAN. An Analysis of Virtual Team Characteristics: A Model for Virtual Project Managers. Journal of Technology Management [online]. 2015, 10(1), 188-203. [Retrieved 2020-07-20]. DOI: 10.4067/S0718-27242015000100014. ISSN 07182724

MORGAN, Lisa, Alberto PAUCAR-CACERES a Gillian WRIGHT. Leading Effective Global Virtual Teams: The Consequences of Methods of Communication. Systemic Practice [online]. 2014, 27(6), 607-624 [Retrieved 2020-07-26]. DOI: 10.1007/s11213-014-9315-2. ISSN 1094429X

POOFHUB. 15 Best Team Communication Tools for Businesses In 2020. ProofHub: All-in-One Project Planning Software. No Per User Fee [online]. Copyright © ProofHub [Retrieved 2020-18-08]. Available at : https://www.proofhub.com/articles/team-communication-tools

SALAS, Eduardo, Marissa L. SHUFFLER, Amanda L. THAYER, Wendy L. BEDWELL a Elizabeth H. LAZZARA. Understanding and Improving Teamwork in Organizations: A Scientifically Based Practical Guide. Human Resource Management [online]. 2015, 54(4), 599-622 [Retrieved 2020-07-20]. DOI: 10.1002/hrm.21628. ISSN 00904848

SLYTER, Kirsten. What Is Information Technology? A Beginner's Guide to the World of IT. Rasmussen College. Regionally Accredited College Online and on Campus. Rasmussen College [online]. Copyright © 2020 Rasmussen College, LLC. [Retrieved 2020-08-01]. Available at: https://www.rasmussen.edu/degrees/technology/blog/what-is-information-technology/

SNYDER, Keather. Enhancing Telework: A Guide to Virtual Leadership.The Public Manager. Spring 2012 [online] [Retrieved 2020-31-07]. Available at: https://pdfs.semanticscholar.org/a020/1b20e4d27a70730efbf8184832f558d1790d.pdf

UNI ASSIGNMENT CENTRE. Types Of Virtual Teams Management Essay. [online] Copyright © 2020 UniAssignment.com, 2013. [Retrieved 2020-07-31]. Available at: https://www.uniassignment.com/essay-samples/management/types-of-virtual-teams-management-essay.php

WIKIPEDIA. Information technology. [online]. Available at: https://en.wikipedia.org/wiki/Information_technology

WRIKE. Versatile & Robust Project Management Software [online]. Copyright
©2006 [Retrieved 2020-18-08]. Available at: https://www.wrike.com/project-
management-guide/faq/what-are-project-management-tools/

ZIPPIA .8 Benefits of Allowing Employees to Work Remotely. [online]. Copyright
© [Retrieved 2020-08-15]. Available at: https://www.zippia.com/employer/8-
benefits-allowing-employees-work-remotely/

PRINTED SOURCES

BURKE, C. S., WILSON, K. A., & SALAS, S. (2003). Teamwork at 35,000 feet: Enhancing safety through team training. Human Factors and Aerospace Safety, 3(4), 287–312

BURMA, Z. A. (2014). New organization structures: Virtual organizations. International Journal of Engineering and Applied Sciences, 6(2), 18-27.

DUBROVSKY, Siegel, J., V., KIESLER, S., & MCGUIRE, T. W. (1986). Group processes in computer-mediated communication. Organizational Behavior and Human Decision Processes, 37(2), 157–187

JARVENPAA, S. L. , K., KNOLL and D. E., LEIDNER, "Is Anybody Out There? Antecedents of Trust in Global Virtual Teams", Journal of Management Information Systems, 14, 29–64, 1998

RAINBOLT, Janae R. "Leaders of Global Virtual Teams: Implications for the Identification and Training of Successful E-Leaders". University Honors Theses, 2019. Paper 782

TOWNSEND, A. M., DEMARIE, S. M., & HENDRICKSON, A. R. (1998). Virtual teams: Technology and the workplace of the future. Academy of Management Executive, 12(3), 17-29

ANGICKO-ČESKÝ, ČESKO ANGLICKÝ SLOVNÍK. Olomouc: Fin Publishing, 2002. Slovníky (Fin). ISBN 80-86002-81-0.

KADLEC, José, Rogerová Rádl Diana, Deloitte. Jak na Virtuální Školení: 2020, 1. Edition. Version 1.0.0-CZ-PDF

14 ABSTRACT

This thesis aims to analyse some of the elements that characterize virtual leadership, teams, cooperation, and technology, as they play an increasing role in today's business world. Further, the thesis focuses on present challenges regarding virtual leadership and factors that contribute to the virtual team effectiveness. Eventually, there is a comparison of pros and cons associated with E-leadership. The thesis is divided into two main parts, theoretical and practical. The theoretical part deals with theoretical information drawn from bibliographic sources and defines leadership structure, cooperation methods, and modern technology. The practical part contains various potential communication tools to be used in an organization, then benefits and disadvantages to be considered. The conclusion is devoted to weighing the advantages and disadvantages of virtual leadership.

15 RESUMÉ

Cílem této práce je analyzovat prvky charakteristické pro virtuální vedení lidí, týmy, spolupráci a technologii, neboť v dnešní době hrají významnou roli ve světe obchodu. Dále je práce zaměřena na přítomné výzvy spojené s virtuálním vedením a faktory, které přispívají k efektivitě virtuálních týmů. V závěru práce je porovnání výhod a nevýhod týkajících se virtuálního managementu. Práce je rozdělena na dvě hlavní části, a sice na teoretickou a praktickou. Teoretická část je zaměřena na teoretické informace, získané z bibliografických zdrojů, a popisuje strukturu vedení, metody spolupráce a moderní technologii. Praktická část obsahuje různé druhy komunikačních prostředků, které mohou organizace užívat, dále pak výhody a nevýhody k uvážení. Závěr je věnován porovnání výhod a nevýhod virtuálního vedení lidí.