

**Czech University of Life Sciences Prague**

**Faculty of Economics and Management**

**Department of Management**



**Diploma Thesis**

**Virtual Teams in Practice**

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## DIPLOMA THESIS ASSIGNMENT

Alexandra Přebilová

European Agrarian Diplomacy

Thesis title

**Virtual Teams in Practice**

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### Objectives of thesis

The aim of this thesis is to explain the concept of virtual teams, and examine whether cooperation between team members is different to that of members of a conventional presence team.

### Methodology

The methodology begins with a review of literature drawn from books and journals. The practical part will be based on a case study of two teams of people working in the same sector one team is working in a conventional form and the other as a virtual team. The team members will be presented with a questionnaire, which will then be followed by a structured interview which will be analysed in detail.

## **The proposed extent of the thesis**

Approx 60 pages

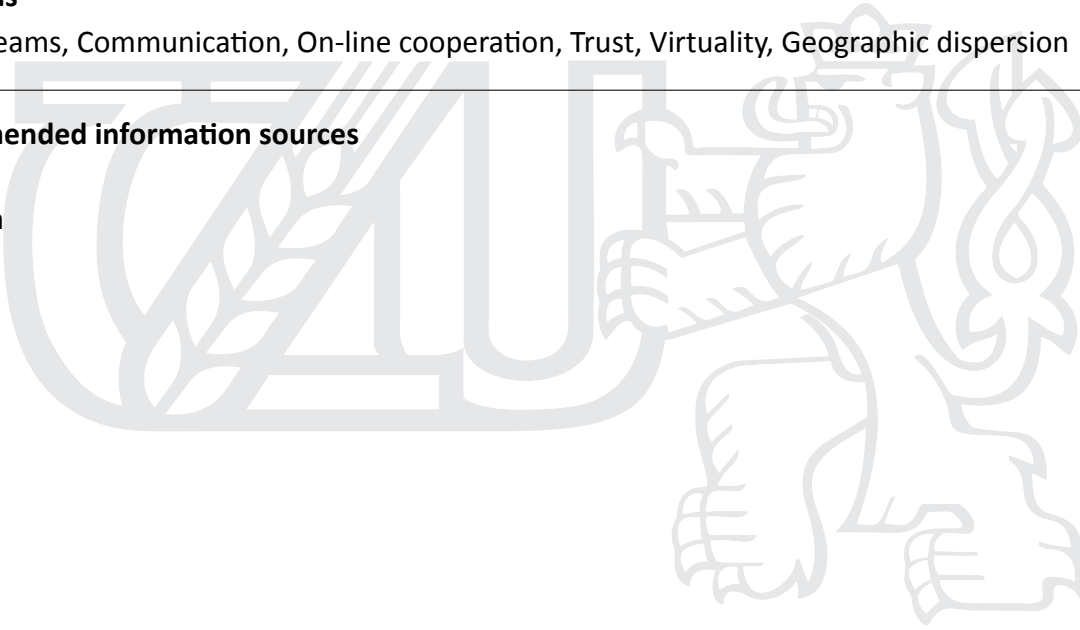
## **Keywords**

Virtual teams, Communication, On-line cooperation, Trust, Virtuality, Geographic dispersion

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## **Recommended information sources**

Belbin  
Tuckman



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## **Declaration**

I declare that I have worked on my diploma thesis titled "Virtual Teams in Practice" by myself and I have used only the sources mentioned at the end of the thesis. As the author of the diploma thesis, I declare that the thesis does not break copyrights of any third person.

In Prague on 30. 11. 2015

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### **Acknowledgement**

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# Virtuální Týmy v Praxi

## Souhrn

Tato diplomová práce je zaměřená na šetření virtuálních týmů v praxi. Tým lidí, který se pohybuje ve virtuálním prostředí, byl zvolen pro analýzu a následnou evaluaci. V návaznosti na zjištěných informacích o vybraném virtuálním týmu práce poskytuje návrh na zlepšení jeho efektivity. Diplomová práce je rozdělena na teoretickou a praktickou část. Pro získání lepší představy o fungování a kooperaci virtuálních týmů jsou v teoretické části poskytnuty různé definice a vysvětlení daného tématu. Praktická část práce prezentuje zvolený virtuální tým a jeho atributy. Tato část práce dále obsahuje polo-strukturovaný rozhovor a online dotazník pro objektivnější výsledek. Konečná část práce se skládá z výsledků, jejich vyhodnocení, navrnutí vylepšené týmové strategie a také ze závěrečného shrnutí.

**Klíčová slova:** virtuální tým, komunikace, on-line spolupráce, důvěra, virtualita, geografické rozptýlení

# Virtual Teams in Practice

## **Summary**

This Diploma thesis focuses on investigation of virtual teams in practice. A team of people who work in virtual environment was selected in order to be examined and evaluated. In accordance to the findings about the chosen team, the thesis provides suggestions to improve its effectiveness. The content of the thesis is divided into theoretical and practical part. Definitions and explanations of the phenomenon of virtual teams are outlined in the theoretical overview in order to draw ideas about how these teams cooperate and function. The practical part presents chosen virtual team and its attributes. This part of the thesis also includes a semi-structured interview and an online questionnaire to bring objective information on the topic. At last, the proposal of improved team strategy is established at the end of the thesis and conclusion is provided as well.

**Keywords:** virtual teams, communication, on-line cooperation, trust, virtuality, geographic dispersion

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## **1. Introduction**

Technological progress and globalization phenomenon is without a doubt reflected in the speed of the civilization. The world is becoming interconnected thanks to the immense use of computers. Today, the advanced information technologies allow us to be in touch with almost anyone in the world at any time, no matter where we are. We are able to transfer an e-mail, video or sound to the other end of the world within seconds. The existence of the Internet is now part of everyday reality of most of the people in the world and brings huge opportunities. Many people cannot even imagine what it would be like if Internet did not exist. Also, work in today's organizations is increasingly linked on the global level and it is becoming more complex and dynamic. Through virtual teams, companies are able to connect work of experts from all over the world which makes them more effective, competitive, and reduces their costs. Cooperation across distance and time however inevitably brings certain implications not only for the firm and its functioning but also for the people that work there.

The topic of virtual teams was selected for this Diploma thesis since it has not yet been explained on a larger scale in literature. At the same time, many aspects of working in virtual teams are often neglected which is a paradox due to the fact that these kinds of teams are more and more seen in practice. This fact was therefore one of the reasons why I decided to pursue the issue of virtual teams and learn more about them because I see future in this kind of cooperation for organizations. Furthermore, chosen virtual team which was examined consists of members which are associated with my close relatives and therefore I was able to get to know what they do very closely.

## **2. Thesis objective and methodology**

The main objective of this thesis is to provide insight into the issue of cooperation in virtual teams with emphasis on areas of communication, motivation and management of virtual teams. It should provide a comprehensive summary of the cooperation within virtual teams and also a proposal of improved strategy for the chosen virtual team.

Firstly, the thesis describes the theoretical issues in relation to virtual teams, their existing types, dissimilarities from traditional teams, managing strategies, ways of communication, and psychological aspects of cooperation in virtual teams. Secondly, practical part of the

this thesis introduces a case study of a chosen virtual team and its investigation. This qualitative research serves as a basis for the proposed upgraded team strategy and recommendations. The practical part also includes a semi-structured interview which was made with the manager of the selected virtual team. Additionally, to get more objective information, 25 people which have experience with virtual teams were selected to fill in an online questionnaire from which the final data were transferred into graphs to indicate results. It is expected that the proposed strategy should bring improvements for the whole team and be beneficial for its existence.

### **3. Literature review**

#### **3.1 Definition of team and virtual team**

Humans are creatures extremely sociable and need to work with other people. It might be because of possible social connections, interpersonal communication, comparing of personal abilities with others or simply because of mutual enrichment. People in our surroundings give us the opportunity to communicate and also they provide us with a scale to compare our behaviour, way of thinking and our achievements with others. They lead us to evolve in a natural way, they give us reasons to think, to look for answers and for alternative possibilities. It is therefore obvious, that human beings naturally tend to work in teams.

##### **3.1.1 Team**

Firstly, it is essential to know what the word “team” means by itself. Although it seems to be simple, there might appear a question whether a manager leads a group or a team. Group is a unit of people, who do not have a common interest, do not have one target and each one of the members does whatever he or she wants. However, this statement is wrong because it describes a freshly herded crowd, not a group. Group is on the other hand characterized by people who have their own individual tasks while all tasks might have only one goal.[9]

**Meredith Belbin:** *“A team is not a bunch of people with job titles, but a congregation of individuals, each of whom has a role which is understood by other members. Members of a team seek out certain roles and they perform most effectively in the ones that are most natural to them.”*[2]

Teams can be created by only two individuals – by a manager and his assistant or two business partners, as well as there can exist many people in a team such as sales teams, accounting departments or teams of doctors. Also, leaders can manage more than one team at the same time. In relation to the topic of teams, it is possible to divide them into internal and external ones. *Internal team* is managed and controlled regionally. Leaders of these internal teams has usually everyday visual contact with all team members who typically work in the same building or office. Internal team is able to develop very quickly thanks to this constant contact of its managers and members and it is generally faster to assemble and internal team than the external one. The most important element of an internal team is a narrow range which comprises leader of the team and its individual workers. *External team* is managed and controlled remotely. They can be regional, national and international as well. Managers of such teams lead people which are not present in the same building. Leadership of an external team brings various challenges and it is necessary to take into account all problems of cultural differences.[12] An external team might therefore be a kind of virtual team.

When speaking about teams, it is also necessary to mention the well known article written by Bruce Tuckman in 1965. This classic article called “Developmental Sequence in Small Groups” describes stages through which team members go through during the lifecycle of a team. With reference to "the stages of group development", they are most frequently cited as forming, storming, norming and performing. Tuckman provided an empirical research which described the group development stages under a variety of settings as well as their applicability to both group structure and task activity. Additionally, Tuckman’s subsequent article from 1977, called Stages of Small-Group Development Revisited, noted that subsequent empirical studies suggested a termination stage which was named adjourning.[XVI.]

Regardless of the duration which can vary, the order of developmental phases is according to Tuckman constant. The stage of forming includes testing of the group which is characterized by dependence and strong focus on goals. Next stage which is called storming is sometimes also referenced to as crisis. Main reason of this is the fact that during this stage, the group goes through a strong intragroup conflict and through emotional reactions to the demanded requirements. Third phase consists of norming. The

group cohesion is developing during this stage, there is optimal exchange of relevant information and group norms are formed. Sometimes stage of norming is called stabilization. The roles are established in the performing stage of the cycle and also the ability to solve problems emerges. Lastly, in the phase of adjourning, activities are terminated and the group is slowly breaking apart due to the loss of its significance.

This model of group development can be applied in practice on both traditional and virtual teams however the virtual ones, on top of that, have to face challenges created by the virtual environment.

### 3.1.2 Virtual Team

When we mention virtual team, we are speaking about a group of individuals whose work is connected by communication technology such as internet, telephone, fax. These people have the same goal despite the possibility of working from various parts of the world – they are geographically dispersed.

Whether one consciously chooses to be part of a virtual team or finds oneself joining in a more informal way, the team is likely to exist for one or more of the following purposes:

- To engage individuals on the team with the best skills and expertise for the work, regardless of where those individuals are physically located
- To ensure twenty-four-hour coverage on a service, problem, or task by team members working across time zones
- To reduce office overhead by having team members work from home
- To adapt an as-needed approach to scheduling human resources in order to save time or money, or both[18]

What makes virtual teams virtual is geographical dispersion and the use of technologically mediated communications. The members of virtual teams are not collocated; their primary work sites are different from one another. They may be located in different buildings, cities, states, nations, and even continents. Team members may belong to the same organization or to multiple organizations as well.[11]

All teams must communicate, coordinate, and collaborate to get the task or project done. However, while conventional teams accomplish this mainly through face-to-face

interactions, virtual teams predominantly use information and communication technology (ICT) to communicate, collaborate, share information, and coordinate their efforts. Working predominantly through ICT represents the key factor that distinguishes virtual teams from traditional ones. Although we recognize that virtual team members are often separated by miles or even continents, they may also be situated in adjacent offices in the same facility, if they chose to communicate predominantly through ICT. Similarly, distance does not play a role in virtual teams spread out in time. For instance, people could share the same physical facilities but be present at different times, creating the need to communicate through ICT. For this reason, geographic dispersion is considered to be a key feature of a virtual team's configuration but not a defining characteristic.[7]

### 3.1.3 Virtuality

Although virtual teamwork and cooperation is a current topic globally, it has been difficult to define what the concept of virtuality means across multiple institutional contexts.[IV.] Despite their growing popularity in organizations, our understanding of virtual teams is still at an embryonic stage. As of today, the term "virtual team" has been loosely defined in the academic press, and empirical findings have been generalized across all types of virtual teams.[19]

Being virtual is a matter of degree and refers, according to various authors (DeSanctis, Staudenmayer & Wong, 1999; Jarvenpaa & Leidner, 1998; Mowshowitz, 1997), to dimensions such as spatial distance, time, cultural diversity, temporality, organizational contract, and mode of interaction. The concept of virtuality in work arrangements refers to executing work through the intermediary of cyberspace. More specifically, it refers to a context in which work is done at a distance, generally outside conventional offices, regardless of when and where, and in which interactions are mediated by technology.[I.]

According to Gibson & Cohen (2003), virtuality is seen as a continuum. Virtual teams range in their degree of virtuality, from slightly virtual to extremely virtual. Where a team exists on this continuum is a function of the amount of dependence on electronically mediated communication and the degree of geographical dispersion.[11] This means that for example a team of people working in different time zones or on different continents is more virtual than a team which is located in one city or state. Also more virtual will be a

team which does all the work through teleconferences and e-mails than a team which meets face to face once a month.

#### 3.1.4 Geographic dispersion

Geographic dispersion is closely related to the term globalization because the way of doing business has changed dramatically over the past decade. Huge progress in technologies enables people from different parts of the world to communicate like there was no distance between them. The need for dispersed groups and individuals to communicate and the ready adoption of ever more efficient communication tools to address that need are almost as old as human civilization itself. Separated by time and distance, geographically dispersed team (GDT) members have to grapple with such issues as how people interact with technology, how geographical, cultural, and temporal distance affects teamwork, and how to communicate effectively when dispersed so widely.[20]

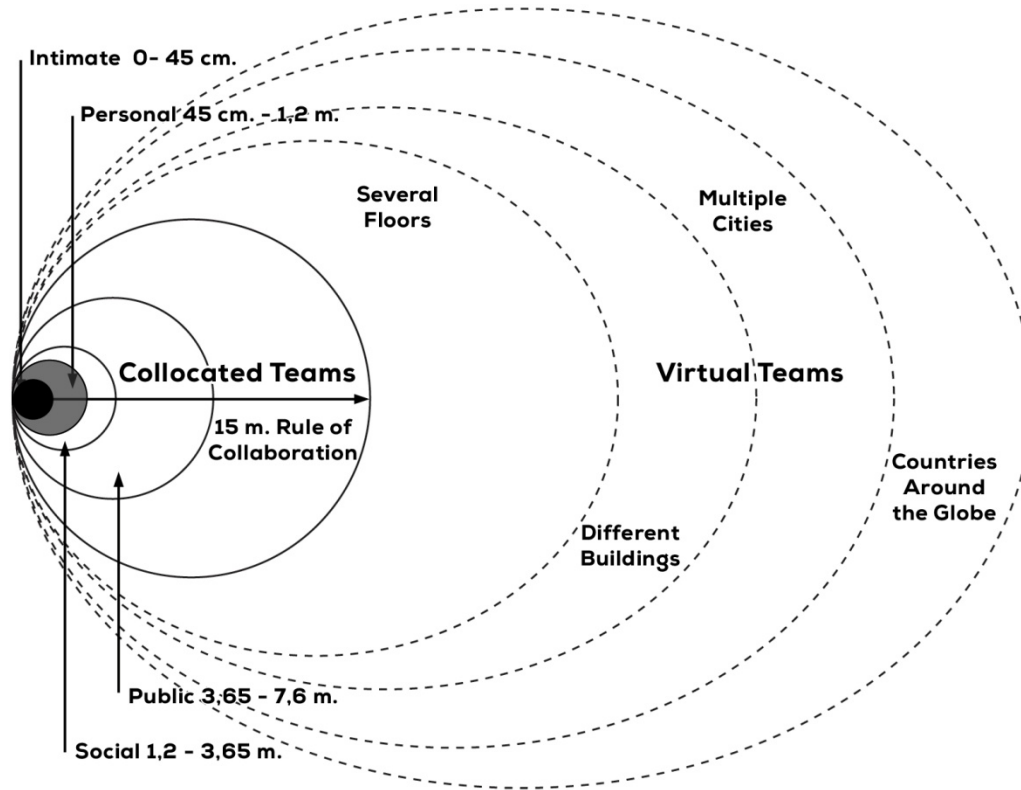
### **3.2 Differences between virtual and conventional team**

Why is it so important to distinguish different types of team management? And what is it, that makes conventional teams so diverse from the virtual ones? General rules dealing with management, formation and motivation of a team are in the case of the conventional one approved by many years of practice and they are recognized and valid not only because they have been so successful in practice. On the other hand, when speaking about virtual teams, this practical knowledge is reliable only partially. Despite this, possible mistakes made by managers during their work with a virtual team will have a greater and long-term effect. Rules proved by conventional teams, however, form the basis for success in virtual management as well. It is therefore important to have an experienced manager with knowledge of leading a conventional team to form and manage people virtually.

Common and maybe most frequent complaint of managers of virtual teams is that they manage people who are not officially their subordinates. Literally this is captured in one sentence stating: “How can I want something from him when the one who gives him work and bonuses is a totally different person? This violates basic rules of management.” Stated example illustrates the main differences which are imposed on conventional and virtual teams.[9]



Figure 1 15 Meter Rule – Collocated to Virtual Distance



Source: Lipnack & Stamps (1997)

The picture above (Figure 1) indicates the collocated to virtual distance and was introduced by Lipnack & Stamps in 1997. This model shows that conventional teams include personal layers of intercommunication. Increasingly, people are no longer within shouting distance even though they work together and it is the personal distance that is important from a team perspective. Also, time becomes a problem when team members are not in the same place and need their activities to be synchronized however, teams working in the same place might have time problems as well. For instance, salespeople are rarely present in their office at the same time which means that collocated teams also cross time and should think virtually.[16]

Working in conventional team means having a certain possibility to supervise and check working performance and commitment of employees and also the possibility to motivate and encourage them. It is easier to valorise individual and team responsibility or react quickly if anything goes wrong. Managers of virtual teams must think ahead and should take into consideration the following points:

- Anonymous communication
- Team roles and natural/unnatural social relationships
- Extend of the issue
- Confusing situations and conflict of priorities
- Different cultural and working habits
- Different levels in company's hierarchy
- Different motivation for reaching goals[9]

The way of communication is an obvious difference between virtual and conventional team. Members of virtual teams may not even have the necessity to meet or communicate outside of work which leads to lack of social contact and high level of anonymity.

Anonymous communication forces team members to treat each other in different way, they do not have personal relationships such as people who work in traditional teams so therefore they adapt their behaviour. Anonymous communication comprises many pitfalls and complications. Here we are also speaking about the difficulties of online communication where the subject matter may be security, privacy and anonymity.

It is important to remember that e-mail, like personal chatting at the water cooler, should not be just all business. An e-mail should be also used as an avenue to encourage interpersonal communication by adding a personal touch that reflects and understanding of the receiver's background, interests, or home life. Writing e-mails to team members using a personal tone, similar to what would be used when speaking to someone in person, is more effective than a formal, impersonal tone. Like other electronic communications, anyone who receives an e-mail also has the Forward and Print options. It is impossible to take back what has been written once the Send button has been pushed. E-mail communication makes documentation easier and is also considered discoverable evidence for lawsuits.[15]

When discussing differences of virtual and conventional teams, team roles and social relationships also play big roles. Regular team develops in a natural way and this process needs time. On the other hand, virtual teams are usually set up very quickly and are not always put together with respect to team roles of the members. Can everybody be a team player? The basic tool that helps maintain relationships between

team members at a good level especially during times of confusion or failure is one's emotional intelligence which draws people's skills and attitudes. There are four basic elements of emotional intelligence which are the following:

- **Controlling yourself** – the ability to control or redirect destructive impulses and moods and regulate our own behaviour
- **Self-awareness** – the ability to know and name our own moods, emotions and motives, to understand them, to know and to perceive their impact on other people
- **Social consciousness** – the ability to understand the emotional adjustment of other people and the skill to treat them according to their emotional reactions
- **Social skills** – the ability to create and manage relationships in order to achieve results and the ability to find common ground

Each individual has different emotional intelligence and there are also people who do not pay attention to it and who do not take it seriously. It is better while forming a team to not count on these people because they may work very efficiently on their own though they are not ready to exist in a team.[14]

The extent of the issue in the case of conventional team includes a defined range of problems or an exact part of problems within the organization. This means that there exist departments which are specialized on individual issues. By contrast, virtual teams are set up across functions or regions and they deal with complex problems.[9]

Confusing situations and conflict of priorities may also arise within virtual teams. There is a vast range of Information and Communication Technology tools available for today's virtual team workers to be used. But more channels can mean more opportunities for misunderstanding and conflict. To negate this problem, managers need to set clear rules for using communications tools. It is important during the planning phase of the project to agree on seemingly trivial things such as e-mail response rules. Should people respond to e-mails within four hours or 48 hours? If people are in a meeting or at a conference, should they set up an out-of-office notification? Once the rules are clear, constant monitoring of communication in the group by managers is needed.[IX.] Another confusion might occur when people working in virtual team are members of conventional teams at the same time. Then there are paradox situations when member of the virtual team is managed by his

official corporate superior at one time, but simultaneously also by few managers of virtual teams.[9]

Different cultural and working habits is another point which distinguishes conventional and virtual teams. Virtual team is the most amazing body in which various nationalities, regions and professions are mixed.

It is critical not only to understand cultural differences but to know when and if to accept them. One of virtual project managers (anonymous) working with multicultural teams within an organization sums this up: “It is a big mistake to try to change your global partners to bridge the cultural gap. You will be wasting your time. You have to respect that it exists and you have to adjust your style to work with them. It will be worth it – believe me. Not understanding their ways will result in an unsuccessful project. You have to be sensitive to their concept of time, religion, power, communication, and individualism.” Cultural differences might affect employee interactions, communications, and knowledge sharing, thus compromising the strength of the company and also may affect the organization’s ability to process information, influence behaviours or distort perceptions. Differences in cultures can contribute to strained interpersonal relationships and inconsistencies between management philosophies as well.[15]

Virtual teams also need to cope with different levels in company’s hierarchy. Unlike conventional team which is made up of colleagues on the same level of organizational diagram, virtual team connects individuals at various managerial levels which means people with different social statuses. So called reference groups depend on person’s lifestyle, income, professional prestige, way of behaviour, expressions. People who work in virtual teams come from diverse reference groups, they prefer different life values yet they have to support and respect each other.[9]

Despite all members of a team have the same target, one of them might take it very seriously while others perceive it as less important.

People therefore need different motivation for reaching goals. Leaders of virtual teams cannot monitor, assess and recognize teams’ performance the way they would in a conventional team because time differences, language and culture magnify these challenges. However, virtual teams can be motivated by overcoming these challenges

through trust, communication, recognition and rewards. Managers must encourage team to be reliable, consistent and responsive, and to focus on results rather than on processes, but they must not exert too much control as that can decrease level of trust. Also isolation and detachment in virtual teams can result in low satisfaction and productivity. Communication is therefore necessary where goals, expectations and roles are clearly communicated. Each team member should be encouraged to speak up and share ideas.[X.]

The table below (Figure 2) illustrates what distinguishes virtual teams from conventional, face-to-face teams. Distributed teams face all the traditional challenges that any other team faces, and in addition to this, still have to deal with new communication challenges.[XII.]

*Figure 2 Traditional versus virtual team characteristics*

| Traditional Characteristics                                | Virtual Characteristics  |
|--|--|
| Fixed team membership                                      | Shifting team membership   |
| Members are drawn from within the organisation             | Members can include people from outside the organisation                             |
| Members are only part of one team                          | Members are part of multiple teams   |
| Members are co-located organisationally and geographically | Members are distributed organisationally and geographically                          |
| Teams have a fixed starting and ending point               | Teams form and reform continuously   |
| Teams are managed by a single person                       | Teams have multiple reporting relationships with different people at different times |

Source: Kimball (1997)

### **3.3 Types of virtual teams**

As in any other team, members of virtual teams also have a target that needs to be reached. When it comes to teams in general, people which are part of it have to collaborate whether they do it virtually or face to face. This however can depend on the type of a particular team because the way of cooperation between team members may differ. Virtual teams, unlike traditional ones, must in addition accomplish their task by working across distance, time, and organizational boundaries and by using technology to facilitate communication and collaboration. According to Duarte and Snyder (2001) there exist seven basic types of virtual teams:

- 1) Networked teams
- 2) Parallel teams
- 3) Project or product-development teams

- 4) Work or production teams
- 5) Service teams
- 6) Management teams
- 7) Action teams[6]

### 3.3.1 Networked teams

In a networked virtual team there are usually people who cooperate together to achieve a common target and who naturally work across time and distance. This type of team includes individuals which are rotating on and off the team as their expertise is needed which means that it is usually created just frequently and later breaks up. Here we can experience lack of clear definition between a network team and the organization and the team members may not even be aware of all the individuals, work teams, or organizations in the network. The duration of any networked team may vary according to time needed for resolving the particular problem or target. As a good example of networked team we could mention The National Aeronautics and Space Administration (NASA). NASA uses a networked team for the Space Station Freedom Program. Team members come from over a dozen different nations and all NASA centres and include huge number of external suppliers, scientists, and corporate partners. Team members from different organizations come in and out of the network as their expertise is needed to make recommendations on the design and utilization of the Space Station.[6]

### 3.3.2 Parallel teams

These teams are made of specialists who deal with tasks or assignments which cannot usually be solved by the organization itself. This is why we call them “parallel” because while there exists an established team working on a project, there is another one (mostly virtual team) which contributes to the work at the same time.

A parallel team is different from a networked team because it has a distinct membership that identifies it from the rest of the organization.[6] It is mostly a short-time team which can be both external or internal. Examples of such teams may be various global customer services which are able to make specific recommendations to different users. On the other hand, there is also the possibility to set up a virtual parallel team which would work domestically in one state or city.

### 3.3.3 Project or product-development teams

Virtual project teams are created around a specific task. Members of the team are selected based on their role and expertise in relation to that task. These teams are created for the life of the project.[VII.] Virtual project or product-development teams mainly specialize on the creation of a new product and therefore the result of their work can be just this product, information system, or organizational process.

The difference between a project and a parallel team is that a project team has usually longer existence and cooperates for a longer period of time. Also project teams have a charter for making decisions and not just recommendations. Again a great example is an organization NORTEL, which used a virtual product team to develop a common platform for a world telephone. The outside of the phone looks the same in every country, but its displays are capable of being modified by the consumer to meet almost any language requirement.[6]

### 3.3.4 Work or production teams

These types of virtual teams usually work and perform as the ordinary ones which means they are working on some ongoing task and they have one function. Work or production teams might be compared to regular team only their communication functions virtually. Their membership can be clearly defined and most of the time work or production team works in a particular area within a company.[VII.]

For instance, the team members have access to the organization's virtual space where they can cooperate, they rarely see each other but might have some meetings to improve their work, this however is not a rule. Team members practice individual tasks or work and contribute to the team.

### 3.3.5 Service teams

Network support is crucial for most of the firms all over the world and service teams, as we can tell from the term "service", are responsible for providing the right one to all of their customers whether they live in Europe or any other continent. With the improvement in technology and with time changes, virtual service team operates across time to give their customers the best service possible 24/7.

### 3.3.6 Management teams

Separation by time and distance might also be the case of management teams. Today, many of these teams, although dispersed across the country or around the world, work collaboratively on a daily basis. It is true that these teams often cross national boundaries however they almost never cross organizational boundaries. In addition, managers can hold number of different passports and therefore there is a need to be able to manage their teams virtually.[VII.]

### 3.3.7 Action teams

When mentioning action team, it is a virtual team which is set up for a purpose, usually to offer some kind of immediate response to emergency situations. They cross distance and organizational boundaries.[6] The example of such team cooperation could be some technical problem, natural disaster, unexpected change at the market place or some crash.

### 3.3.8 Other types of virtual teams and their specifics

In practice, virtual teams vary according to many different aspects such as specialization, style of work or duration of the task. Apart from the seven basic types of virtual teams which are mentioned above, Evangelu & Grundel (2011) distinguish three types of virtual teams according to the time aspect:

- *Virtual crisis team*
- *Virtual project team*
- *Permanent virtual team*

Virtual crisis team is usually created because of some unexpected situation or some acute problem. Main target of this team is therefore to bring a fast solution for the particular issue. This type of team may be compared to the already mentioned “action team” as it deals with emergency situations as well. Virtual crisis team works for relatively short period of time until the problem is solved. Common features of crisis teams are that they have a clear, predefined target which is however very general and that they do not know the duration of their action in advance. The team members are mostly experts which means that dealing straight with the issue is expected and therefore there is no time for searching for team roles.



On the other hand, project teams deal with predefined assignment which is usually also defined in time and which can be talked about as a project. Here we have a clear start, finish and target. The most important point of project team is effectivity. Formally named team leader is in this case the project manager.

Permanent virtual team has unlimited time of operation with the target of looking for solutions of repeated situations. The start of functioning of these permanent teams is clearly defined but there is no exact date of the end. The objective of the team is known to all members who have to fulfil the Key Performance Indicators (KPIs).

### **3.4 Starting a virtual team**

It is highly important for a team, and for virtual team even more, to go through individual development phases before they focus on their main task. Virtual team works in unnatural conditions from which lack of communication and interaction can be mentioned and therefore its starting and development stages differ.

According to Duarte & Snyder (2001) it is possible to enter the process of starting a virtual team at any of suggested six steps. Some of these steps are also appropriate for conventional teams. This six-step plan for the team includes:

1. Identifying team sponsors, stakeholders, and champions
2. Developing a team charter that includes the team's purpose, mission, and goals
3. Selecting team members
4. Contacting team members
5. Conducting a team-orientation session that includes orientation to the task, team norms, technological planning, communication planning, and team building
6. Developing team processes[6]

Here what needs to be underlined is the selection of the team members. This setting phase is usually short and the process depends on previously defined target. The leader or manager is responsible for the main task because the success is dependent mainly on his abilities and experience. It is his or her responsibility to get and recruit necessary employees, familiarize them with the goals, methods, rules, and formal principles for successful cooperation. Evangelu & Grundel (2011) mention three basic points which

show the main differences between forming virtual and conventional team and which are the following:

- When forming a conventional team there is a possibility of taking people from inside and outside the organization at the same time. The specifics of setting up a virtual team include the fact that the future team members are picked from a narrow range of candidates who are available at the time.
- There is usually enough time for starting a conventional team and getting to know the candidates. Also there is no lack of personal contact.
- The time for setting up a virtual team is mostly limited and very short. This causes that there are not enough opportunities to carefully choose the candidates. Managers than subconsciously expect the idea that people working in one firm naturally know each other very well which is not always true.

Forming a virtual team requires taking more strategic steps and also strategic thinking. The success is directly dependent on experience and knowledge of each manager and the crucial mistake he can make is not handling a correct definition of the objective.

#### 3.4.1 Setting the objective

When there is necessary in a team to clarify what is expected, where is the team heading, and if the members want to keep their motivation and the motivation of all other collages than setting of the objective must meet certain conditions. The objective can be SMART, it can fulfil QQT conditions, or it can have other acronyms.[14] SMART is an acronym standing for Specific, Measurable, Achievable, Relevant and Time-bound, and it has been around for 30 years.[8] QQT (or sometimes used acronym QQT/R) is a concept developed by Elliott Jaques and stands for quantity, quality, time/and resources. When you assign a task, you and your staff member need the same understanding of the quantity and quality they will produce, the time they'll do it by, and the resources they will use.[XV.] Nevertheless if the objectives should be effective they have to be specific, concrete, clear, motivating, achievable, and formulated by those, who are responsible to obtain them.

While setting the objective, Evangelu & Grundel (2011) state that one should remember the real change that is to be reached by the team, especially its consequence. Managers often keep up with the SMART methodology for setting the objective however they set the

objective only as a foregoing step that needs to be reached before the required change. The team objective is an important future state, which the team wants to achieve, and which determines the direction of its activities and represents incentive to work for the team members. This state is a change from the status quo. Furthermore, clear objective has a unifying effect for the whole team.

### 3.4.2 Team norms

Virtual team leaders should see themselves as norm setters. They should initiate the development of team communication norms and be sure that they are taught to new members and enforced. Team leaders should educate team members about information sharing pitfalls and the consequences of making assumptions about remote partners and locations. Norms should encourage people to seek out information when questions arise.[11] Establishing team norms helps to clarify expectations about acceptable and unacceptable behaviours for all who work in or with the team. The norms guide participation, communication, conflict and meeting management, problem solving, and decision making.[6]

Virtual team norms according to Duarte & Snyder (2001) include the following:

- Telephone, audio conference, and video conference etiquette and meeting management, such as techniques for ensuring participation from all team members, protocols for saying who one is before one speaks, using the mute button when one is not talking, giving people who are using a second language time to collect their thoughts, using a meeting agenda, taking and distributing minutes, and rotating time zones.
- Guidelines regarding acceptable time frames for returning telephone calls and e-mail messages and the uses of voice mail and pagers.
- Guidelines about using e-mail: when it should be used, when it should not be used, and how e-mail messages should be constructed - including when to flag messages as “urgent” and as “important.”
- Which meetings must be attended face-to-face, which can be attended by audio conference or video conference, and which can be missed.

- How work will be reviewed and approved. This includes which team members will review work and which ones can approve deliverables.
- Procedures for scheduling meetings using group-scheduling systems.
- The types of technological applications to be used by team members and the policies regarding upgrades. (More than one team has encountered compatibility problems when a team member has upgraded software ahead of the others.)

### 3.4.3 Communication planning

How team members communicate with one another and with important stakeholders throughout the team's life is a critical success factor. It is the primary way in which virtual teams manage organizational boundaries. Teams that keep to themselves or engage in low levels of communication negatively affect their performance.[6] A communication plan should define the rules of engagement and the frequency of communication. It should contain a repository of contact information for all team members, as well as a listing of all the status update meetings, and also the project manager's preferences in terms of how he or she would like to be contacted. When starting a project staffed by a virtual team, a meeting outlining the communication plan should be set up to share the plan with every member of the team and to clarify any ambiguities. The communication plan should be updated regularly.[XI.] Understanding the term "effective communication" is fundamental for a team to perform successfully. On the other hand, it is highly important to really know the meaning of it to be able to practice it. Generally, people may think that communication means only getting adequate information however they forget to check if they are able to provide the information themselves and how they do it. It is good to remember that the communication rules of particular virtual team should not limit its mutual communication but rather stimulate and facilitate it.

### 3.4.4 Technological planning and team building

Planning what technologies will be used by the team is a vital part of the team's orientation session. Each virtual team needs to determine how it wants to work and then select the most complementary and cost-effective technology.[6] Means of communication are closely related to this topic and will be described in detail later in the thesis.

When it comes to team building, such activity might look impossible to realize when working with virtual teams. Although online team building is in its infancy, researchers have recommended social activities that involve eating and drinking. Surprisingly, such activities can be conducted electronically. Amusing as it may sound, some authors recommend sending video captions of members having bagels and coffee or champagne and cookies (Armstrong & Cole, 2002; Thompson & Coover, 2006). Whether the manager decides to do a face to face orientation session, which is not always possible, or audio/video conference, he should remember two things. Firstly, it is important to count with possible cultural bias when selecting team-building activities. Secondly, when having experienced virtual team members in the group, sometimes they may perceive too much time spent on team building session as a waste of time. Sometimes it is reasonable to wait until the team members have had a chance to start the work and get to know one another as dependable and competent before initiating in-depth team building.[XI.] So although virtual team building has been largely overlooked, clearly it can be accomplished, with benefits likely similar to those of traditional teams.[18]

### **3.5 Management and leadership of a virtual team**

Recently managers have had to deal with a challenge of new situations in business because no longer they can meet with their employees face to face to discuss potential problems. Virtual cooperation has brought many difficulties for managers because they find themselves in a situation where they have to accomplish a standardly set up target under non-standard conditions. Evangelu & Grundel (2011) sum up the most important conditions and their characteristics which influence managerial work in virtual team:

- Limited influence when setting up the team. The team is formed from available candidates where primarily their time availability, expertise, experience and language skills are the critical factors
- Difficult choice when new members of the team are necessary to accept
- The need to control employees' efficiency, personal preferences, the way of communication or conflict resolution despite no or little personal contact
- The need to be able to estimate abilities of employees and assign tasks effectively despite little knowledge about the team members

- The ability to evaluate employees without the possibility of observation of his or her work and factors which could affect the difficulty of the task
- Lack of information which could help the manager to make a personal opinion and to act as objectively as possible
- The need for the manager to be an authority despite not knowing all employees personally
- Difficult evaluation of employees in terms of different culture of each team member, different norms, communication, thinking and different way of showing respect
- The need to create hierarchy between team members
- The need to create conditions which would take into account the reference group of each team member to have a unique virtual team
- Difficult observation of team climate because of limited possibility to communicate with the team as one unit
- Special situation for the team members in terms of lack of social reasons to communicate mutually, the need to build an atmosphere for cooperation a team synergy
- The importance of team objective at all development stages
- Lack of organizational support for the team manager[9]

It is now more than clear that mentioned conditions which affect virtual managerial work put the leader into very special and difficult situation when he or she needs to meet concrete target while recognizing new, unproved ways of how to do it.

For virtual teams to be successful, the leadership of the organization must establish a culture that values teamwork, communication, learning, and capitalizing on diversity. The key to establishing an organizational culture that promotes virtual teamwork is that virtual team leaders and managers at all levels must be open to change and must support virtual teamwork.[6] Team leaders can make a difference in how they can handle the information in virtual teams and the conclusions that team members draw about each other and the task.[11] Zaccaro & Burke (1998) mention that a leader's role is to be a social problem solver. Leaders analyse the specific challenges at hand and generate and implement solutions.

Even though there does not exist only one best way of leading a virtual team, there have been mentioned basic leadership structures. According to Nemiro (1997, 2004), these leadership structures which are used by virtual teams include:

- Permanent team leaders
- Rotating team leaders (every team member is a leader at some point)
- Managing partners who govern the overall operation of the team, combined with rotating project leaders who supervise specific projects or tasks
- Facilitators or coordinators used by self-managed teams that need additional support in a specific area
- Leaderless or self-led teams[18]

It is shown in Figure 3 when these different leadership structures might be used in practice. The usage of the different structures varies according to roles among the team members and also according to their trust, skills, and knowledge. On the other hand, it is possible that the teammates of a particular virtual team are so well coordinated that in the end they do not necessarily need one person to take over the leadership. In this case however trust between the co-workers plays a big role.

Figure 3 When to Use Different Types of Virtual Team Leadership Structures

| When to Use Different Types of Virtual Team Leadership Structures |   |
|---|---|
| Leadership Structure  | When to Use   |
| Permanent leader  | High degree of role differentiation among members<br>Members with different areas of expertise/knowledge<br>Different areas of work task integrated by leader<br>High level of interaction between leader and individual members  |
| Rotating team leader  | Members perform similar tasks<br>Projects divided up based on client preference and type of projects members enjoy<br>All members are equally able to lead<br>All members know ins and outs of the business<br>Meetings formally established<br>High level of trust<br>Some stable staff and procedures |
| Managing partners combined with rotating project leaders          | Diverse business; multiple projects for different companies<br>Members with different areas of expertise but can also support others<br>High level of trust<br>Comfortable with being leader or member  |
| Facilitator or coordinator  | Self-managing teams that need additional support<br>Open and constant communication and information exchange<br>Facilitators possess technical, interpersonal, and project and task management skills   |
| Leaderless or self-led  | Members with similar or equal status or rank<br>Members with similar backgrounds and expertise levels<br>Members choose to be part of a team that benefits them in some way and all are equally invested in the team's outcomes<br>High level of trust  |

Source: Nemiro (2008)

Of course good virtual team managers must be able to handle many challenges and stressful activities. Alternative thinking, independence in thinking and decision-making, strategic thinking, openness to changes and new things or empathy in relationships are just general presumptions that virtual team managers should be able to cope with. However, this does not have to be always true. For instance, what can managers do if they realize that they do not have enough of alternative thinking to lead the team? A method called *mind mapping* is a very beneficial tool for developing one's alternative thinking. Mind maps help us to plan efficiently, manage information effectively, and increase



potential for personal success. They are useful when targets are less clear. When faced with making difficult decisions it is important to remember that having a goal is always better than having no goal. The benefit of mind mapping is that it keeps you in the driving seat of your life/task and reminds you that you have the freedom to choose your actions and responses.[5] Almost all difficulties of leading a virtual team can be overcome with time and sufficient diligence and determination.

Nevertheless, according to Evangelu & Grundel (2011), psychology remembers one area which is inherent for all people and because of which we make similar mistakes in relationships. This area deals with *attribution theory*. One of the first pioneers of this theory is F. Heider (1958) and was followed by other authors who brought new interesting ideas into managerial psychology. Heider's basic premise was that people have an innate need to understand and control their environments. Thus, individuals function as "naive psychologists", developing casual explanations for significant events. These beliefs about causation influence expectations, which, in turn, influence subsequent behavior.[17] In other words, these attribution schemes show us why and how a person explains the causes of his or her own behavior and how a person defines the causes of other people's behavior. It is interesting to see how the scales of our evaluations differ regardless of our intelligence or education.

To conclude this, virtual team leaders have to secure the same management processes as leaders of conventional teams: planning, management, leadership, motivation, control, evaluation – however virtual team leaders do it from a distance, with little communication and limited possibility of control. These managers therefore must have high professional self-esteem and also so called personal inner modesty.[9]

### **3.6 Means of communication used in virtual teams**

Communication is an integral component of success for any team. Strong interpersonal communication has been associated with valuable outcomes such as increased trust, commitment to the workgroup and organization, shared expertise, and ultimately improved performance.[V.] To be able to communicate across remote geographical distances[3] while being a part of virtual team, it is necessary to choose the most suitable way of communication between team members. This process is part of the technological planning phase of a team. Today, with fast technological advancements, we can choose from many

different means of communication apart from the most natural one which is face to face contact.

### 3.6.1 E-mail

E-mail is an electronic messaging system which is well known to almost all people today. This communication channel is suitable for transferring information which does not require too much explanation and immediate reaction. It is also great for sending some kind of additional information, documents, tables, numbers, dates or diagrams. On the other hand, e-mail is no longer a quick note-messaging service and courier; it is a vehicle for team scheduling, project management, time management, electronic administrative support, tracking critical success factors, and calendaring.[18] Although it is often treated as conversation, e-mail is not conversation, and people who use it for business communications must always remember that it endures.[13] Jovin (2007) also mentions that every professional e-mail requires understanding of components that should be included in each message.

Every serious e-mail should include the recipient, subject, salutation, message content, closing line, and signature file. We should also pay attention to spelling, capitalization, type of font and completeness of information. The way how team members communicate through e-mail is more or less out of manager's control. Despite this, it is appropriate to build some kind of e-mail culture within a team or organization. According to Nemiro (2008), to make the most effective use of technology, many virtual teams establish communication protocols. Such e-mail protocol may, for instance, look like this:

- Clearly identify the subject of the message in the subject line
- All e-mail messages will be short (no scrolling required) and to the point.
- E-mail will not be used for philosophical debates
- All distribution lists will be kept current
- E-mail will not be used for urgent messages
- Accepted responsibility for a personal delivery (face-to-face or voice-to-voice) of any urgent message
- To enable message prioritization, code the top of each message with either "requires action" or "for your information (FYI)"

- Sign all messages
- E-mail is a supplement to, not a substitute for, personal interaction
- Do not spam
- Treat people electronically the same way you would in person
- Instead of copying long quotes from others, briefly summarize them and add attachments, if necessary[18]

If responsibly used, similar kind of established protocol or organizational e-mail culture can make such basic communication channel as e-mail a highly effective and productive tool for any team.

### 3.6.2 Virtual meetings generally

A virtual meeting is an event when various participants from different locations join in. These kinds of meetings however require good planning and also a certain design which should be made beforehand and should include information such as who will attend the meeting, how it will be managed or which communication technology will be used. In addition to the normal meeting planning activities for a conventional team, virtual team meetings require management of particular success factors to get good results. According to Julia Young (2009), these factors include:

- Planning a viable agenda or series of agendas
- Effective use of technology
- Preparing participants and pre-work
- Keeping participants focused and engaged during a virtual meeting
- Building trust and social capital
- Maintaining momentum between meetings[XVII.]

These basic steps are therefore useful no matter how a virtual meeting is conducted and should serve as a good outline every time a team needs to communicate together or settle particular issues. It is also useful to determine the level of interaction needed to meet the objectives whether they are for communication, data gathering, idea generation, problem-solving or decision-making. The type and level of interaction needed for each part of the meeting will in turn determine the tools and technology that will be necessary.[XVII.]

Figure 4 Different communication technologies according to place and location

|  |  |
|--|--|
| <b>Same place (co-located)</b><br><b>Same time (synchronous)</b><br>Face-to-face meetings<br>Computer-supported meetings | <b>Different place (distributed)</b><br><b>Same time (synchronous)</b><br>Audio (telephone) conferencing<br>Video conferencing                               |
| <b>Same place (co-located)</b><br><b>Different time (asynchronous)</b><br>Library (resource center)<br>"War" room        | <b>Different place (distributed)</b><br><b>Different time (asynchronous)</b><br>Voice mail<br>Electronic mail<br>Computer conferencing Groupware (Intranets) |

Source: Kimball (1997)

As the table above (Figure 4) shows, there may be real-time communication activities, like video teleconferencing or audio conferencing, where people are in different places participating at the same time; or, they may enable participants to join in from different places at different times.[VII.] This simple chart indicates that there are many possible options for teams and for virtual teams to communicate and it shows which communication channels to use in a various situations.

### 3.6.3 Teleconference

Teleconference is a shared telephone call between more than two people who are connected by a special teleconference device. The participants of the call are usually connected by assigned phone numbers or codes. This technology often replaces the standard meetings which are not always possible in virtual teams. Teleconferencing might be unnatural for the participants because they have to communicate with number of people which cannot see each other and which cannot speak spontaneously. Participants of teleconference are also not aware of what other people are doing during the call and might easily loose track with the speaker.

However, teleconferencing can be also beneficial for the organization and the team. It enables people with disabilities or family commitments or from distant locations, to contribute more easily to meetings, reduced hassle of travel, saves time, brings better work-life balance, saves costs, and improves organizational efficiency, cohesion and resilience.[XIII.]

The key for a successful teleconference is an experienced moderator and stable rules which need to be followed. The moderator sets up the rules and familiarize all participants with them before the beginning of every teleconference.

#### 3.6.4 Video conference

Video conference is in other words a form of teleconference with the difference of having some visual contact. The use of this type of communication might help the virtual team members to feel closer to each other and enables them to express themselves in a better way.

By letting participants read facial expressions and body language, video conferencing helps organizations compete in an increasingly complex and global marketplace. It is shown by research that people generally understand more when they see people speaking, rather than just listening to their voices.[II.] Also, when using video conferencing as a communication channel, organizations benefit from cost saving, time saving in terms of no need to travel, or the possibility of discussion and visual demonstration. Nevertheless, a competent moderator is required as well as for teleconferencing to lead the whole conference.

#### 3.6.5 Other groupware

##### Chatrooms

This can be either a public internet discussion or corporate discussion. The role of chatrooms for virtual teams is however limited because it is not about having a structured meeting or talk with team members and also the moderator is missing. Chatrooms might be beneficial for the exchange of experience, new thoughts, and opinions.

##### Online file sharing and collaborating tools

Such tools can be a great support for a virtual team. These file sharing instruments help teams to communicate and share all required files and documents and also enables each team member to edit and return the documents back. Huge advantage here is that all shared data remains safe at one place. On the other hand, if we are speaking about safe and quality sharing tools, usually a monthly fee is required to be able to work with it so it means an extra expense for the organization. Moreover, members of the team require training in order to take full advantage of all capabilities of a group collaboration system. Training should also deal with more than how to use system features but it should illustrate how to

solve group problems using particular features and how to deal with group use of a specific feature.[XIV.] To mention at least the most known and used sharing and collaborating tools, they are the following: Dropbox, OneDrive, MediaFire, 4Shared, Google Drive, Box. All these “applications” enable the users to store, share, edit, and download documents while being able to install it on any device at the same time.

### Social networks

Social networks might as well be used by teams and virtual teams for communication and cooperation. This type of communication is however suitable for less formal communication, sharing opinions or quick feedbacks. While there exists a huge number of various social networks from which each focuses on a different social group, managers could find useful for example LinkedIn which is mainly used for professional networking.

Today, Information Technology is part of our everyday life and demands that are required by virtual teams are high. It is not just about being a good manager anymore. The managers should understand things such as how to share files and applications, pass control to other presenters, use network-based recording, and enable webcam conferencing. They should as well become experts at using other scheduling, project and content management, and document management software. Managers must understand the limitations and degrees of integration across all those software applications, mainly because of overlapping features, which could become redundant and confuse team.[XI.]

## **3.7 Psychological aspects of cooperation in virtual teams**

### **3.7.1 Communication**

There is no doubt that the art of effective communication and persuasion is important for all of us who need to convince other people about our opinions, objectives and intentions whether it relates to our personal life or work life. In today’s world of unceasing flood of information, it is much harder to reach mutual understanding and that is why this topic should be put in the first place. Real communication requires namely trust, honesty and empathy. It can be mentioned that our behaviour, perception and experience influences many aspects of communication but conversely, communication itself influences our psyche. This fact shows that communication represents an essential variable for virtual

teams which could influence other processes and phenomena that function and interact inside a particular virtual team. Communication is an important factor in a team's success. Virtual environment fundamentally transforms the ways in which teams operate. Technology introduces a critical variable that radically changes the choices for communication and the effectiveness of it.[6]

### *Specifics of communication in virtual teams*

Of course, virtual communication brings many obstacles and in general differs from every day face to face communication. Despite this, even in normal life, people tend to communicate virtually more and more mainly because it is easier, it saves their time and also effort.

Mediated communication makes it more difficult to identify and resolve misunderstandings that arise. Visual and auditory cues provide important indicators that help us to understand when meaning is and is not being conveyed. As an example, a puzzled look tells communication partners that their communication may not have been fully understood. This signal gives an opportunity for the communicator to repair the communication and ensure understanding.[11] On the other hand, mediated communication might be cost-effective for organizations and creates equal opportunities in the workplace. Physically disadvantaged employees have greater access to the virtual environment than the physical workspace. This creates more diverse teams and fosters greater creativity and innovation.[III.] It is important to remember, especially in the case of virtual teams, that the value and the effect of a well-thought-out telephone call should not be underestimated. The biggest difficulty is that we cannot see the other person with whom we are communicating and therefore we cannot watch his or her body language.[4] Furthermore, people increasingly tend to use e-mail instead of a telephone to communicate which brings even more obstacles because many people do not consider possible misunderstanding and effect. The question regarding when it is suitable to use e-mail was however already mentioned earlier in the thesis.

What our colleagues say, what expression they have in their face, what is the position of their body, the distance from us, or what is the height and modulation of their voice, all this affects how their message will be understood and accepted. The importance of

communication is therefore vital for processes within the group and for the outputs of the work of its members for both conventional and virtual teams. Nevertheless, face to face communication, which is surely one of the best ways to transfer complex information between people, is in virtual teams used modestly or it does not occur at all. In this sense it might be true that virtual teams will always have to work with a certain handicap.

#### Limiting factors of communication in a distributed team

There is often more information to be shared in virtual teams than in the conventional ones. Moreover, virtual team members in many cases fail to anticipate which pieces of information are important to share and how information sharing is affected by the use of technology-mediated communication.[11] Therefore, it can be mentioned that disadvantages of virtual teams compared to traditional teams are most visible in terms of communication. This is so, because communication is crucial for good and effective distributed team. The virtual team members have to face some complications and they have to be able to overcome them at the same time. In the best case, team members would have particular strategies or guidelines which could help them when resolving difficult situations.

To mention the most important complications of virtual communication it is clear that each person will always have different working methods and practices. Nevertheless, there are factors such as cultural differences, technology, time difference, geographical dispersion or diverse ways of organization and one's priorities which should not be forget. Also, failures to share important task, social, and contextual information can have a detrimental impact on the attributions that virtual team members make about each other. With information-sharing failures, the trust between virtual team members can be affected as well. Such failures can be devastating to team trust when they occur early in the life of a virtual team. Moreover, if there are technical systems and procedures newly adapted, teams are particularly vulnerable to information-sharing errors.[11]

This means that despite all innovations and technological development, practice proves that it is useful and appropriate for virtual teams to manage at least a short face to face meeting usually at the beginning of their work. The meeting would therefore be realized



during the formation of the team. On the other hand, there is not always a possibility to get all the team members together at the same time and at the same place.

### *Social psychological aspects*

Naturally, peoples' behavior changes with the increasing use of electronic communication. Even if it might not be obvious, individuals act and express themselves differently when they are communicating through electronic technology. Kiesel; Schnider & McGuire (1984) pointed out few issues which should be considered when speaking about psychological aspects of virtual communication:

- **Time and Information Processing Pressures** - availability of instantaneous electronic communication might lead people to expect immediate responses
- **Absence of Regulating Feedback** - electronic communication may be inefficient for resolving coordination problems such as telling another person you already have knowledge of something that is being explained; head nods, smile, eye contact, distance, tone of voice, and other nonverbal behaviour used in traditional communication give speakers and listeners information they can use to regulate, modify, and control exchanges
- **Dramaturgical Weakness** - absence of nonverbal behaviour such as taking the head seat, speaking loudly, staring, touching, and gesturing
- **Few Status and Position Cues** – blind communication with respect to the vertical hierarchy in social relationships and organizations
- **Social Anonymity** - electronic communication tends to seem impersonal
- **Computing Norms and Immature Etiquette** – mixing work and personal communications together, using inappropriate language and disregarding normal conventions of privacy[VI.]

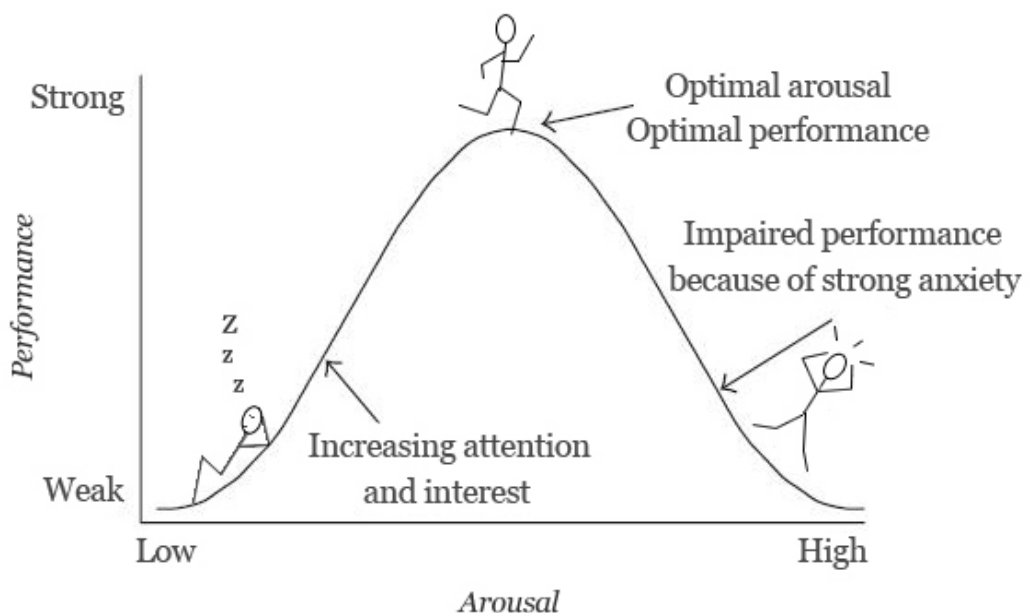
Demands that virtual communication, virtual influence, and virtual negotiation require are enormous. Rational thinking, knowledge of possible alternatives and restrictions, experience and constant openness to other people are the most important requirement. On the other hand, it is necessary to bear in mind that virtual teams have significantly worse conditions for their existence and the way of reaching goals compared to the conventional teams. Despite the fact that virtual management and work might seem profitable from the economic point of view, it is a problematic issue regarding social psychology.[9]

### 3.7.2 Motivation

Motivation together with efficiency are the key aspects of any successful team. The motive represents some kind of psychological power or impulse. It can be understood as a psychological reason of particular behaviour which gives it psychological sense and individualizes its experience.

In 1908, psychologists Robert M. Yerkes and John Dillingham Dodson introduced so called Yerkes–Dodson law which deals with the relationship between excitement and performance. This law claims that with increasing arousal (motivation), the effectivity increases at the same time but only up to a particular point. If the level of activity is too high, it has a disturbing influence on the performance.

Figure 5 The Yerkes-Dodson law



Source: <https://www.adelaide.edu.au/uni-thrive/revive/stress/>

As shown in the graph above (Figure 5), the most suitable level of arousal is the average one which means that it is not low but not too high either. Also, the right activation depends on the type of activity.[VIII.] The goal of each motive is reaching a point of psychological saturation which usually means a state of fulfilment and internal satisfaction.

The process of motivation is important not only for individuals but for teams as a whole at the same time. According to Geister (2006), there are four important components of motivation of virtual team members which are valence, instrumentality, self-efficacy and trust. Valence can be explained as some kind of value which illustrates subjective importance of team objectives for each member. Instrumentality stands for the need, which each member of a team has, to contribute to the performance of the whole team. This means that all members need to feel that they have participated on the result. Self-efficacy on the other hand shows the capability of the members to fulfill required tasks. Trust in the meaning of certain willingness to trust to somebody or to be dependent on another person, group or technology is a factor which should not be forgotten as well.

The importance of motivation was also mentioned by Nemiro (2008) who provided critical points for good motivational leaders. The leaders of virtual teams have to overcome the challenges caused by virtual environment. Solutions for this include:

- Using rich communication technologies like videoconferencing or teleconferencing for conveying the team's vision and to inspire motivation.
- Managing time to provide feedback by scheduling regular one-on-one conversations with each team member.
- Exploring other creative ways to provide feedback, for example publicizing a report of each team member's performance.
- Acknowledging team members' responsibilities external to the virtual team, and avoiding setting goals that would conflict with their other work.
- Building a team identity by structuring tasks interdependently and building team confidence.
- Extending team confidence by displaying self-confidence, meeting face-to-face with the team, celebrating early successes, demonstrating optimism, helping the

team surmount obstacles, and ensuring that adequate tools and resources are at the team's disposal.[18]

The performance of the team is one of the key assumptions for its effectivity and therefore there is a direct proportion between these two variables.

### 3.7.3 Effectivity and feedback

In order to be successful in any kind of business, it is necessary for teams and individuals to realize the assigned work effectively. With the help of providing regular feedbacks, teams than can evaluate whether their work is effective or not. This means that there is a relationship between feedback and effectivity and the role of feedback is very important. Of course, there exist different types of feedback regarding who is providing it to who:

- “Bottom-up”
- “Top-down”
- “Horizontal”
- “360°”

Top-down feedback means, and it is obvious from the term, that the manager is the sole evaluator of his employees or subordinates. In contrary to this, bottom-up feedback is the performance appraisal method by which the employees give their feedback to the manager. When the team members provide feedbacks between themselves, then we are talking about the horizontal type. There is also a possibility that it may be a combination of all sources, including the clients, which means 360° - feedback. On the other hand, it is necessary to mention that again, virtual teams have limited opportunity to provide feedback in the team, mainly because meeting face to face is usually absent.

The success of a virtual team depends on many variables. Duarte & Snyder (2011) mentioned seven factors which according to them affect the probability of the team's success:

1. **Human resource policies** which should support virtual working and cooperation and at the same time recognize, support, and reward the people who are part of the team.

2. **Training and on-the-job education and development** needs to be applied as well. Team members should have access to continual on-line training and technical support. It is beneficial to create systems for sharing knowledge across functions, projects, and organizations.
3. **Standard organizational and team processes** make the work process much easier and might reduce the time needed and eliminates the need for unnecessary reinvention of operating practices. Standard technical processes might include for instance team charters, project planning, control, estimates of costs or definitions of requirements.
4. **Use of electronic collaboration and communication technology** which means selecting such electronic collaboration and communication technologies which would meet the needs of the particular team.
5. **Organizational culture** in the meaning of creating some kind of norms which would be valid for the organization and the virtual team. These norms and values should focus on collaboration, respecting and working with people from all cultures, keeping criticism constructive, and sharing information.
6. **Leadership support of virtual teams.** Managers of virtual teams must be open to all changes, they must be experienced and of course support virtual type of cooperation. Good manager is the key person in a virtual team.
7. **Team-leader and team-member competencies** are important factors as well. Virtual teamwork is not for everyone.[6]

## **4 Practical part**

### **4.1 Methodology and the starting point**

Because this thesis is focused on the issue of virtual teams, a particular case study research was selected as the most suitable one. This case study is based on detailed examination and analysis of chosen virtual team which will then serve as a basis for the subsequent proposal for improved strategy plan for the team. The analysis of the team will also include a semi-structured interview and an online questionnaire.

The starting point of the thesis is mainly the fact that virtual teams have not yet been considered as an important study subject despite that today, they are present in many organizations worldwide and the issue of virtual teams has not been examined in academic literature in detail. This case study is based on the assumption that effective communication and good management strategy are the essential conditions for a successfully functioning and cooperative environment in a virtual team. Therefore, the questionnaire and the questions included in the interview are closely related to the issue of effective communication in a virtual team and particular problems of the chosen team drawn from the team analysis.

### **4.2 Main objectives**

The primary goal of this thesis is to provide a basic insight into virtual teams and into the issue of cooperation between the team members. The analysis will follow the specifics which are so typical for virtual team and its functioning. From the point of view of communication, the thesis will outline the strategies which are used in practice in the virtual team as well as the meaning and effectivity of face to face meetings.

Secondly, the objective of the thesis is to propose a plan and specific requirements, which should help the virtual team to be more effective and to consider possible changes and improvements which could enhance the success of the team.

### **4.3 Research questions**

Answers to questions which are falling into the following areas are expected: communication, motivation and team management. Relating communication in the team, there is an emphasis on face to face meetings and on communication practices familiar to

the team. The aim is to detect unsatisfactory habits, repair them and propose possible improvements. In the area of motivation, it is important to examine strategies of the leader and the coordination of the team. Also the team as a whole and its management will be evaluated to see which manners are beneficial for the team and which are not. At last, answers to the research questions will provide a comparison of work of virtual and conventional teams in the selected areas.

**Questions focused on communication:**

Is the role of face to face meetings different for virtual and conventional teams?

Which parts of communication differ the most between virtual and conventional teams?

**Questions focused on motivation:**

Does motivation have the same influence in virtual and conventional teams?

What could negatively affect the motivation of the team members?

**Questions focused on team management:**

How important is the role of feedback for the virtual team members and for members of conventional teams?

What are the main competencies of a good virtual team manager and what additional competencies are required compared to management of traditional teams?

**4.4 Semi-structured interview**

Part of the research of the thesis is a semi-structured interview with a manager who leads the chosen virtual team. The interview was individual and the manager freely answered questions, which were prepared in advance. The interview was realized at the work place of the respondent and was recorded for the subsequent examination. The opening part included introduction and also information about the purpose of the interview. It included eleven questions and three additional questions and was designed for approximately 45 minutes.

The exact questions used for the interview are listed below. However, the structure of questioning could have not been the same because the interview followed respondents'

answers and reacted to them. The method of semi-structured interview served for gaining information about issues which are important for virtual team leaders and which are on their daily working basis.

**Interview questions:**

1. Which specific communication channels do you use in your virtual team?
2. How often do you have face-to-face meetings? Who is responsible for planning the meetings?
3. Would you consider these meetings as long-term effective?
4. Do you use/have communication norms inside your virtual team? If yes – are they used in practice effectively? If not – why?
5. What would you consider as the biggest obstacle in virtual team coordination? Why?
6. Can you specify positive factors of a virtual team?
7. What on the contrary are the biggest risks of a virtual team?
8. What are the main differences between working in a conventional team and the virtual one?
9. Are there any special competencies or skills needed? If so, can you give an example?
10. Are the roles clear in the team?
11. Are there regular feedbacks between the team members?
12. When I asked about communication norms I had in mind some kind of communication standards which are used and respected by all members of the team. For example: etiquette, specific time for answering to e-mails or missed phone calls, when to tag an e-mail as urgent and so on...
13. You mentioned that it is sometimes difficult to find motivation in a virtual team. Do you, as a team leader, have any specific tactics to motivate team members? Do you motivate them regularly?
14. You also talked about giving feedback at the meetings, which however take place only once in a while. Have you ever thought about making regular phone calls with each team member which would regard specifically feedback about their work and evaluation of things which you liked and which you did not like?



#### 4.5 Online questionnaire

Second part of the research included creating an online questionnaire with multiple choice questions. This questionnaire was presented to chosen individuals which have had experience with virtual teams.

For creating of the questionnaire, Google Docs was used mainly because it is user-friendly, also enables users to see the results and makes it easier to work with data. The online questionnaire has been dimensioned in such way that should enable the respondent to fill it in very quickly, maximum of 10 minutes.

The respondents were carefully chosen. Main required condition was that all of them needed to have at least one experience with leading or being part of a virtual team either from their current job or from the past. The research sample in this case numbered 25 respondents from which there were 7 females and 18 males.

*Figure 6 Representation of men and women in the sample for online questionnaire*

| Gender | Frequency | % share |
|--------|-----------|---------|
| Female | 7         | 28      |
| Male   | 18        | 72      |
| Total  | 25        | 100     |

Source: own table

#### Questions from the online questionnaire:

1. What is your gender?
2. What is your age?
3. Which communication channel is mostly used in your team?
4. What is the frequency of face to face meetings in your team?
5. Do you miss the ability of direct contact with the team members?
6. Do you use or have communication norms in your team?
7. Which one of the following is the best motivator for you in the team except your salary?
8. What is the biggest barrier of working in a virtual team?
9. What is the biggest advantage of working in a virtual team?

10. If you could choose and decide in which team you would like to work in the future, what would it be?

#### **4.6 Chosen virtual team and its profile**

A team of people who work for a project virtually was chosen to be examined and evaluated in the thesis. This small virtual team prepares materials for a particular web site and provides various articles and information about cycling and everything associated with it to the public. Their mission is to provide news and everything which is interesting for the readers and cycling fans quickly and effectively.

The web page is available at *www.mtbs.cz* and is one of the web sites which fall under a company called Cycling Media s. r. o. which specializes on all kinds of cycling. Sites that belong to Cycling Media s. r. o. include *www.kolo.cz*, *www.damynakolech.cz* or *www.supercycling.cz* from which each web page focuses on a specific field in cycling and also has a different team of people who create the web page and its contents. Even though these teams might from time to time cooperate with the team that is preparing *mtbs.cz*, the thesis will deal and focus only on the functioning and internal matters of *mtbs.cz*.

##### **4.6.1 Team members**

Chosen virtual team consists of five permanent members and about six external members who contribute to the web site but in most cases these members have their own permanent jobs in different organizations. This means that the team as a whole is not stable and it is changing according to the need and availability of the external members. Also it is necessary to mention that all team members come from Czech Republic and therefore create the web site in Czech language. The target audience are primarily Czech readers.

To preserve privacy of the team members, only their first names will be used in the thesis. Surely, the most important members of the team are Jan and Petr who are the leaders of the team and editors in chief. At the same time both of them focus on specific spheres of cycling. Other member and editor is Michal whose main responsibility is photography and who is a crucial Czech sports photographer despite working in such small redaction. Other member Thomas is mainly a technical editor. Further, accounting and everything connected to it is covered by Zuzana. Of course, there is also a person who creates the final web design and cannot be omitted from the team because it is just the design and well

arranged site which is very important for the readers. The external members are the integral part of the team and are devoted to various tasks. The functions and responsibilities of the team members are shown in the table below in detail.

*Figure 7 Team members and their functions*

| <b>Name</b>      | <b>Focus</b>   |
|------------------|--|
| Jan              | Chief editor; reports from cycling races   |
| Petr             | Chief editor; engineering; bike testing  |
| Michal           | Photography; editing   |
| Thomas           | Technical support; testing; editing; cooperation with Petr; opponent and support |
| Zuzana           | Accounting; advertisement; purchases   |
| External members | Proofreading; corrections; curiosities; news in cycling; reports; interviews     |

Source: own table

#### 4.6.2 Editorial system

As a virtual team it is necessary to have a common system which is used and understood by the members in order to be able to communicate and share documents. In this case it is even more important because the web site must be updated and “fresh” every day to be attractive for the readers and therefore team members have to use such editorial system that is well-arranged, fast and easy to use.

The editorial system used by the examined virtual team is paid and managed by an IT specialist. All team members have access to the system by their own login name and password. When a member is logged in there are different folders available. As it is shown in the print screen picture (Figure 8), these folders are divided into sections, articles for publication and concepts. Furthermore, sections are split up into particular topics:

- Newscast
- mtbs.cz
- Forum
- Photo gallery
- Bike technics

- Calendar of races
- Bazar
- Blog
- Articles
- Quick news

Here, team members can choose the exact topic they want to write about and add a new article into the right section. Articles for publications are those articles which were already written and corrected but they are waiting for publication. The date of publication is chosen by the author or team leader beforehand although it can be changed. Concepts are draft texts which are waiting for finalization.

Figure 8 Editorial system, sections

| Sekce |                                 |               |                          |           |           |  |
|-------|---------------------------------|---------------|--------------------------|-----------|-----------|--|
| #     | Jméno                           | Akce          |                          |           |           |  |
| 1     | → Zpravodajství [zpravodajství] | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 4     | → MTBS.cz [mtbs]                | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 5     | → Fórum [forum]                 | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 9     | → Fotogalerie [foto]            | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 15    | → Bike Technika [bike-technika] | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 16    | → Kalendář závodů [kalendář]    | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 17    | → Bazar [bike-bazar]            | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 18    | → Blogy [blogy]                 | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 19    | → Články [informace]            | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |
| 20    | → Právě se stalo [bleskovky]    | Přidat článek | Upravit/odstranit články | Komentáře | Nastavení |  |

| Články k publikaci |           |                             |       |                |         |           |
|--------------------|-----------|-----------------------------|-------|----------------|---------|-----------|
| Sekce              | Kategorie | Titulek                     | Autor | Datum a čas    | Akce    |           |
| Fotogalerie        | Technika  | Fotogalerie: Ghost AMR LT 5 | petan | 23.11.15 15:11 | Upravit | Odstranit |

| Koncepty      |                 |  |         |                |         |           |
|---------------|-----------------|--|---------|----------------|---------|-----------|
| Sekce         | Kategorie       | Titulek  | Autor   | Datum a čas    | Akce    |           |
| Bike Technika | Testy - Recenze | Ministerstvo schválilo první cyklistickou kvalifikaci: Mechanik jízdních kol | germano | 20.11.15 00:00 | Upravit | Odstranit |

Source: Internal redaction system of mtbs.cz

All articles are written, reviewed, corrected, controlled and edited here. The important factor here is adding comments to the articles including information about when was an article last edited or revised and by who (Figure 9). Of course, communication between team members plays a huge role here, because articles which were not corrected should not be published. However, this happens in the team quite often because the time pressure leaves no choice.

Figure 9 Editorial system, revisions

Revize článku

Komentář k editaci:

| Revize     | Datum               | Modifikoval | Akce         | Komentář                 |
|------------|---------------------|-------------|--------------|--------------------------|
| Revize 1.2 | 19.11.2015 19:21:13 | petan       | Rozdil k 1.1 |                          |
| Revize 1.1 | 29.04.2015 08:56:50 | petan       | Rozdil k 1.0 |                          |
| Revize 1.0 | 29.04.2015 08:56:10 | petan       |              | První revize a publikace |

Upravit  
 Přepsat datum/čas

23 / 11 / 2015 at 15 : 11 (dd/mm/yyyy hh:mm)

| Listopad, 2015 |    |    |    |    |    |       |
|----------------|----|----|----|----|----|-------|
| Dnes           |    |    |    |    |    |       |
| wk             | Po | Út | St | Čt | Pá | So Ne |
| 44             |    |    |    |    |    | 1     |
| 45             | 2  | 3  | 4  | 5  | 6  | 7 8   |
| 46             | 9  | 10 | 11 | 12 | 13 | 14 15 |
| 47             | 16 | 17 | 18 | 19 | 20 | 21 22 |
| 48             | 23 | 24 | 25 | 26 | 27 | 28 29 |
| 49             | 30 |    |    |    |    |       |

Vyber datum

Přidat zpátky mezi koncepty   
 Odstranit

Upravit text

Source: Internal redaction system of mtbs.cz

The editorial system has many advantages which help the editors with their work. For example, it is possible to return to already published articles and correct/edit them on the rebound. Also, team members are able to see on the web site how many readers already viewed a particular article and therefore they can react to that.

#### 4.6.3 Communication in the team

As it was already mentioned many times in this thesis, effective communication is a critical factor for virtual teams. At the same time, it can be the biggest obstacle for the team because if the team members do not communicate with each other enough it might be one of the possible reasons why the team is not successful.

After discussions with members of the chosen team it is clear that the most important communication channels used in the team are: e-mail, telephone, text messages, occasional face to face meetings and personal meetings between some members. Nobody mentioned the use of teleconferences or video conferences.

### Face to face meetings

Although the examined team is cooperating virtually, face to face meetings are not entirely excluded from their agenda. This is mainly thanks to the fact that all team members come from the same country, some of them even from the same city, and managing a meeting is not a big problem.

These face to face meetings take place usually two times a year, in the high season there might be another one. The team usually gathers at a prearranged place and discuss issues concerning the team and its functioning. Mostly, the discussed topics include:

- The direction of their work and web site, the aims of the team
- Planning, what readers want to read and who will write about it
- Internal communication

#### 4.6.4 Potential problems of the team

Even the best team has its strengths but also its weaknesses. From several meetings with the team members and with taking a deeper look inside the chosen team, it was not so difficult to discover potential obstacles which do not allow the team to move forward. A problem which should be mentioned at the first place is inadequate communication between the whole team. It was already mentioned that there are situations when members do not follow the basic principles. Here, we are talking about situations such as publishing an article which has not yet been corrected. This can be a big threat because readers than criticize not only grammar used in the texts but also quality of the whole web page. Also, the team does not always stick to the editorial plan. Deadlines are not met in time and sometimes things and tasks that should be done are not.

Secondly, financing represents a permanent barrier for the team. After questioning Jan (leader of the team) about difficulties of the team he mainly spoke about financing and pointed out that factors which keep the website going are mainly the advertisement, banners, and service which guarantees firms that they will be mentioned on the web. The demands from the readers are naturally getting bigger but there are not enough resources to finance more people who would deal with these demanded topics. This means that the redaction is not able to publish everything that readers want. In the past, there already have been proposals for imposing a charge on the content of the web page or at least part of it.

As expected, the reactions were mixed. This year there was a survey done by the redaction on the topic of charging the web page. The results are available at [www.mtbs.cz](http://www.mtbs.cz) and state that from 400 respondents, 61% would be willing to pay for the content of the web and 39% would not pay. Interesting results concerning the contents of the web page are available as well. From the 400 respondents, 48% miss articles about advices for travelling, 41% miss interviews, and 40% of questioned respondents miss advices which would relate to servicing or repairing. Furthermore, criticized issues are also PR articles (38%), unclear arrangement of the web site (30%), and excessive advertisement (26%). In the end however only 16% from 400 respondents would be willing to pay for the web site contents in the unchanged current form. Introducing paid access for the readers is still a topic which is being discussed by the team. The redaction is at the same time trying to prepare the system and contents of the web site for it as well as the readers. Despite all this, results from the survey does not always provide accurate information and comments (mostly negative) on the web page under the article about paid access should be also taken into account.

Thirdly, insufficient management of the team might be a problem as well. In this case it would be worth considering if, for example, the leader has particular troubles with work management, if everything he wants is clear inside the team or if he should think about bringing up some teambuilding activities. The manager is the key person in the team and therefore he needs to have certain ideas and objectives which should be delegated to all members of the team.

#### 4.6.5 Competition

As a small virtual team which creates Czech web pages for cycling fans and other people who are interested in such topic, there is no competition in the Czech Republic. However, after reading through comments of readers on the web page, various conversations and blogs on the internet, it is necessary to mention two other sites which should be taken into account as a competition:

- [www.mtbiker.sk](http://www.mtbiker.sk)
- and [www.cyclingnews.com](http://www.cyclingnews.com)

To get the idea about the actual difference between these websites, let us compare their official Facebook profiles. The web cyclingnews.com started in 1995 and today it is a publisher which is known worldwide with its 463 584 fans on Facebook. Despite its success it is still a website which is only available in English language. This represents a certain barrier for the Czech reader and therefore it should not be seen as a direct competition of mtbs.cz. Nevertheless, this does not apply to the Slovakian web mtbiker.sk. Although it seems that this web is underestimated as a competitor for mtbs.cz, there are many factors that should be taken into consideration. Not only that its Facebook fan base is more than five times bigger (51 648 fans) than the mtbs.cz one (9 717 fans), but also it is readable for Czech people as it is published in Slovakian language which is generally understood in the Czech Republic. Also, the Slovakian website has good ratings with regard to its arrangement and diversity of available information.

At last, bike magazine called Velo should not be omitted from the competition. This magazine, although being a classic printed media, represents the main rival of mtbs.cz in the Czech Republic. Velo is published every month for 89 CZK per one copy and it is also available in electronic version for 79 CZK. Of course, the important fact to mention here is that Velo functions as a conventional team and charges readers for their published work.

#### **4.7 Findings from the interview**

The interviewed manager of chosen virtual team Jan specifies, that he more likely sticks with proved and rather classic communication channels ... *“We do not use any special communication means in the team and we like to communicate by ways which are well-known for every member of the team. Telephone and e-mail are the critical means of communication in the team. We also widely use Google for sharing documents, according to us it is very effective, simple and fast. In the past, we also used applications designed for project management a few times from which I can name for example Basecamp.”* Face to face meetings are not realized so much often as we would expect however the manager of the team agrees, that they are from time to time necessary ... *“The face to face meetings of the whole team are not periodical and they are not a routine of the team. The exception is however the time during off-season when we gather even once in two weeks. This is because in the high season all team members know and are sure what is their particular job and what to do. We also spend a lot of time in the field, mainly attending bike races,*



*presentations of various brands or we are testing new products for the customers (...). In my eyes, these face to face meetings are surely long-term effective because as simply as it sounds – they work.”. Although Jan does not speak about having strict communication norms in the team, he points out that effective communication is a vital factor of good virtual team ... “There are not any communication standards set up in the team and it seems that all team members realize that they should return missed calls whenever they find out that they missed it. Of course that right now I am lightening the issue but I have to say, that in my opinion we have not had problems with communication so far. Maybe this is why we do not apply any regulations in this respect (...). In a successful virtual team - communication and quick reactions to missed phone calls and received e-mails are the Alpha and Omega.”.*

Coordination of a virtual team is not as simple as it sounds. Jan, as a leader of the team, has many obstacles which he needs to overcome every day. He states that diversity, irregularity and lack of instant contact of the team members makes the work much harder ... *“I would say that the biggest obstacle in my team would be the irregularly scheduled meetings. We do not yet have any kind of, let’s say, set timetable of our meetings. Sometimes the pause between the meetings is just too long. Additionally, I would like to say that I consider the lack of chance of immediate sharing and exchanging information on the daily agenda as an obstacle as well.”.*

Surely, leading a virtual team and being its part brings its positives as well. Jan highlights especially cost effectivity of the virtual team ... *“There is many and many positive factors regarding virtual teamwork. Those of capital importance are in my view the saved money for office rent and also the extra time we get thanks to the fact that we do not have to run down to the office every day (...). Another thing which I very much appreciate is the possibility to spend more time with my family.”.* Motivation in general represents an important part of peoples’ work and its effectivity. According to Jan, this applies to virtual teams even more than to the conventional ones ... *“Sometimes it is hard to find the initial motivation and start working when there is nobody supervising you. When working from home or when having home office, there is many disturbing elements that you need to just let go and not pay attention to them. In my case these are mostly my kids, housework and things like this that distract me from working (...).”* As a leader, Jan has to motivate his

team however he mentioned, that he sometimes feels that there should be more support provided from him for the team ... *“I do not have any special motivational tactics for my team. Direct motivation for them is the possibility to travel abroad and visit various races and shows. However, I have to say that when it comes to regular motivation of the team, there are certain blank spaces which I could work on and improve.”*

Other difficulty for Jan represents the lack of contact with his teammates ... *“Sometimes I also miss the instantaneous contact with my colleagues, the possibility to discuss a particular problem.”* The ability to discuss directly about an issue is according to Jan the main difference between working in a conventional and virtual team ... *“Of course that there are many things which distinguish my work from a work of managers of traditional teams. However, I have to repeat myself and speak about the limitations of immediate contact and communication with my team members. Discussing a particular problem or topic which is important for us over the phone is never as effective as face to face communication.”*

In relation to required skills or competencies which are necessary for all virtual team members, Jan does not outline any special ones. Again, he is touching motivation and also the passion for what he does ... *“I think that in this kind of job, there is a need to have amenability and to be willing to put all afford into it. You also have to like what you do to have self motivation. My team members take their work seriously but at the same time they have passion for it, they have passion for bikes and cycling, it is part of their life. Without this I think there cannot exist such thing as successful team work (...).”* Team roles should be clearly distributed in any kind of team. Jan speaks about specific roles in his team with a distance, because the size of the team also matters here ... *“I would say that yes, the roles in the team are clear for everyone however maybe the fact that my team is so small brings it to different to different dimension. It might occasionally happen, that someone’s work is overlapped by other person and vice versa. On the other hand, I do not see a big problem in this, because whenever this happens, the team members let others know about the changes. An as I already said, information spreads fast in the team thanks to its small size.”*

Last but not least of the discussed topics during the interview with Jan was giving feedback. According to him, feedback is an integral part of mutual communication in the

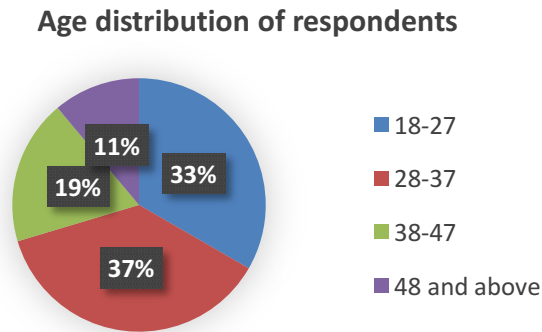
team and should not be put aside. Yet he admits that giving feedback regularly to the members of the team is not always possible for him ... *“When you ask me about giving feedback to my team it is not so simple because when working virtually, you cannot supervise people on the daily basis (...). Therefore, I do not give feedback regularly. This is because it usually takes turn at the meetings, which only take place once in a while as we talked about it earlier. You cannot see the team in their daily mode and you cannot make a concrete picture for yourself about how they really work (...). In virtual teams, feedback might come after a while when it is not already relevant.”*. After my suggestion of thinking about realizing regular phone calls with team members in order to inform them whether their work is sufficient and in order to give feedback, Jan was little hesitant ... *“Honestly, I have never thought about implementing such tradition in my team. Nevertheless, I must admit that feedback might also include motivational elements which could be very beneficial for the whole team. In the near future I would surely like to think about bringing feedback into my daily tasks and about using it more than I do right now. It would definitely help me to reassure the team members that I am the right person at the right place and that they can trust in what we do.”*.

The interviewed manager Jan sees future of virtual teams in many organizations. Among the most frequently mentioned topics belong mainly the importance of effective communication between the team members, motivation, and also good management of the team. The need of willingness, compromise and openness to new ways of problem solving are the essential factors for effectively functioning virtual team.

#### **4.8 Findings from the online questionnaire**

As it was already mentioned earlier in the thesis, the online questionnaire was filled in by 25 different respondents from which all of them have practical experience with virtual teams. Their age distribution was divided into four groups as it is shown in Figure 10. It follows that most of the respondents were between 28 – 37 years old (37%). Also it should be mentioned that 33% of them were younger respondents under the age of 27. This shows that younger generation is naturally more familiar with virtual work and information technologies. After that five of the respondents were between 37 – 48 years old (19%) and only three of them were 48 years old or above (11%).

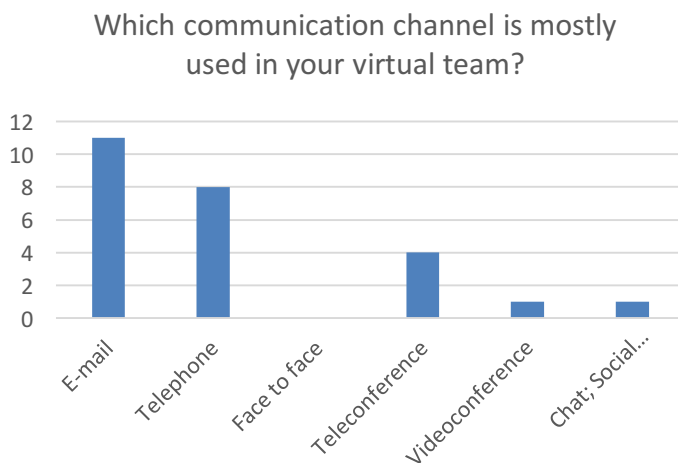
Figure 10 Age distribution of respondents



Source: own graph

To illustrate which means of communication are mostly used in virtual teams, the following chart (Figure 11) is provided. What we can see from the first view is the fact, that no one from the respondents chose face to face communication. This result was however expected as virtual teams are not built to cooperate this way. On the other hand, the use of telephone and e-mail is a common way of communication for most of the respondents. E-mail is naturally on the first place (11 respondents). Teleconferences were considered useful by four of the respondents. Beside this, use of videoconferences, chats and social networks occurred in the responses as well but they were not strongly represented as only 2 respondents selected this option.

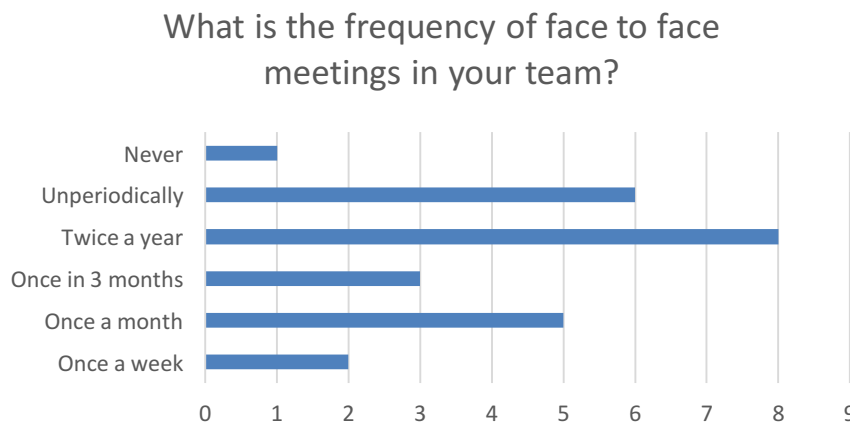
Figure 11 The most widely used means of communication in virtual teams



Source: own graph

Despite the fact that virtual teams realize face to face meetings only once in a while, one of the questions of the online form was actually mapping the frequency of these meetings. Firstly, it should be pointed out that only one of the respondents has never had a meeting with his or her team. This is probably due to the fact, that this virtual team really works across geographic dispersion and that getting all team members to one place at the same time is just not possible. Most of the respondents (8) attend meetings twice a year. Six of the questioned people have face to face meetings irregularly. Therefore, it can be stated that their sessions take place whenever there is an urgent topic to be discussed or some important issues to be solved. Five respondents have face to face meetings once in a month, three of them once in 3 months and only two respondents meet with their virtual teams every week.

*Figure 12 Frequency of face to face meetings in virtual teams*

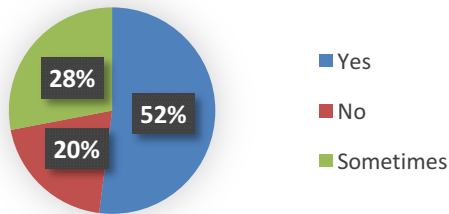


Source: own graph

Next question shown in Figure 13 touched the topic concerning direct contact between the team members. More than half of the respondents (52%) feel that lack of direct contact, including the non-verbal elements, with other team members is a problem. For them this is the weakest attribute of working in a virtual team. 28% of the respondents miss the direct contact only sometimes and 20% of them feel that face to face contact with their team mates is not necessary.

Figure 13 Lack of direct contact in virtual teams

**Do you miss the ability of direct contact with the team members?**

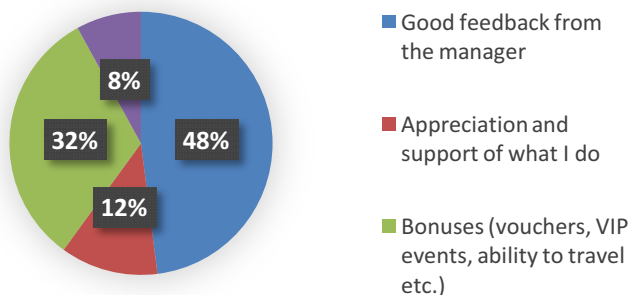


Source: own graph

Efficiency of the team is also surely defined by motivation of its members. It is true that workers without motivation do not perform good-quality outputs. Figure 14 displays factors, which are somehow motivational for the respondents. It is necessary to say that salary of team members was not counted as motivational factor here. Majority of questioned people (48%) consider good feedback from their manager as the most effective motivation. After this, additionally offered bonuses such as various vouchers and VIP offers are important motivational factors for the respondents (32%) as well. Only 12% from the repliers feel motivated by appreciated work and its support from their employees or leaders, and at last 8% of respondents perceive the ability of team building and trainings as motivational.

Figure 14 Motivational factors in virtual teams

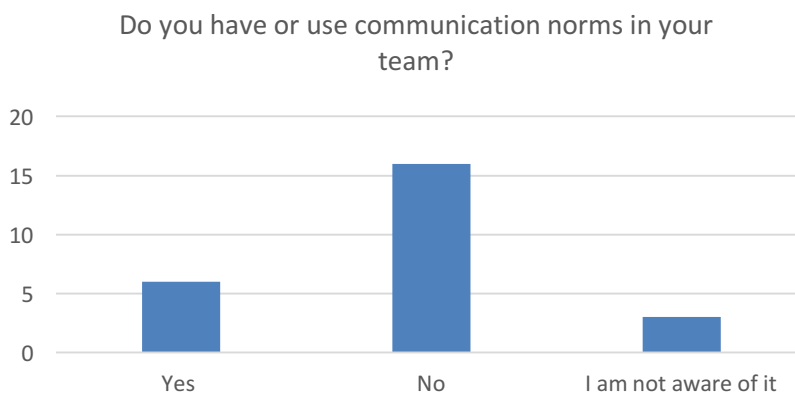
**What is the best motivation for you in the except your salary?**



Source: own graph

Communicational norms seem to be ignored or used very modestly in virtual teams. Figure 15 shows that three questioned people are not even aware of having any designed norms inside their teams. Most of the respondents (16 people) state that they do not use any communication norms inside the team. Finally, six of the respondents acknowledge established norms which relate to communication in their virtual teams.

*Figure 15 Communication norms in virtual teams*

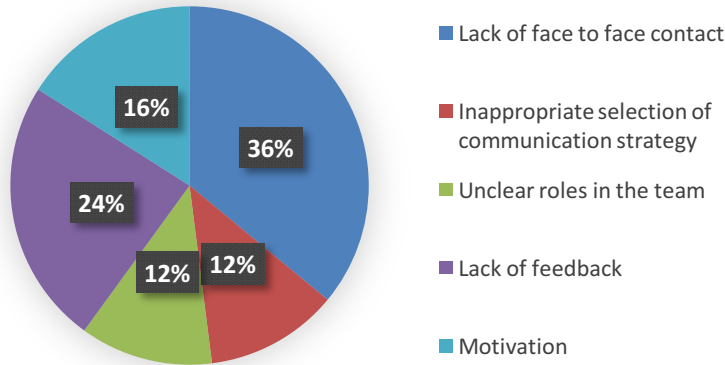


Source: own graph

Questioned persons were also asked to state what is the biggest barrier which they see in participating in virtual teams. This is shown below in Figure 16. Again, lack of face to face contact was predominantly selected (36% of respondents) as the greatest barrier of virtual team cooperation. Secondly, inadequate feedback which would evaluate the performance of team members was mentioned as a barrier by 24% of them. This hangs together with the deficiency of direct contact between managers and team members. 16% of the respondents also mentioned lack of motivation as their barrier to effective performance. Remaining 24% of the respondents are divided by half who feel that there are unclear roles in their team and the other half takes inappropriately selected communication strategy as an obstacle.

Figure 16 Barriers of working in virtual teams

### What is the biggest barrier of working in a virtual team for you?

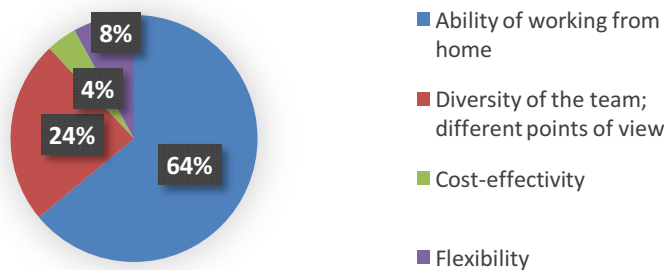


Source: own graph

To detect positives of virtual teams, respondents were also asked what for them is the fundamental advantage of working in such teams. As it can be seen in Figure 17, overwhelming majority (64%) responded that the biggest advantage is the fact that they can work from their homes. Positives of diversity of the team and availability of different points of view in the team were also mentioned as advantageous by negligible part of respondents (24%). At last, minority of questioned persons feel the advantage of virtual teams in its flexibility (8%) and cost-effectivity (4%).

Figure 17 Advantages of virtual teams

### What is the biggest advantage of working in a virtual team?

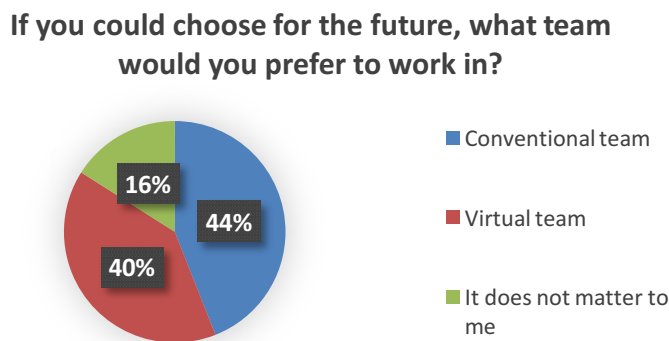


Source: own graph



To illustrate the issue of virtual teams even more, last question of the questionnaire included part where respondents could state, whether they would prefer working in conventional team or the virtual one in their future. From the replies, it is not apparent that there is dominant preference of one form of teamwork to the other. It is therefore clearly illustrated in the following graph (Figure 18).

*Figure 18 Preference of respondents*



Source: own graph

## **5 Evaluation of results and recommendations**

After the examination of chosen virtual team and taking deeper look into its everyday functioning, there emerge factors which from my point of view could be improved in order to enhance success of the team. The following recommendations serve to illustrate steps, which could be taken by the team and its leader to see whether revision of the team strategy would help to be more effective and competitive in the market. Proposed recommendations are built on findings from discussions, interviews, analysis of the data from the questionnaire and deep investigation of the chosen virtual team and its cooperation. Thanks to the fact that I have met in person with majority of the team members during my research, I was able to create a vision about their attitudes towards the job and generally see what is on their daily agenda. The effectiveness of chosen virtual team is expected to be improved after taking recommended steps however they only serve as a suggestion.

## **5.1 Proposal of improved team strategy**

### **5.1.1 “Start with yourself”**

Chosen virtual team is small and therefore it is clear for its members what are their tasks and priorities. However, in order to improve the team’s performance, it is necessary to begin from the start. As a first step I suggest realization of face to face meeting of all team members. This meeting would be planned in detail by the manager of the team in advance. The manager should find out which date and time would be acceptable for all of the team members, he should carefully choose place of the meeting, and assure smooth course of the meeting by defining topics and problems which should be covered. At the same time, he should try to preserve a friendly and positive attitude towards the team members and attract them with his plans and ideas.

#### **Suggested topics to be covered during the meeting:**

- Where we are right now and where are we going?
- Why should we change our strategy? Explaining the team why there should be changes done in the team and its cooperation.
- Defining potential problems and finding how to improve them. Bringing specific ideas and presenting them to the team.
- Listening to ideas of the team members. Discussion.
- Building a real plan with specific deadlines and making sure everyone knows what is his or her task.
- Ensuring that each member participated in the discussion and that all ideas were taken into consideration.
- Motivation of the team members. Trying to convince them that changes will bring positive results.

This strategic meeting should ensure that there will come changes in the future and that all team members agree with it. Also, it should serve the manager to gain more respect and trust from the team members.

### **5.1.2 Web page and its design**

The design of the website is a critical factor for the team and its success. Today, keeping track with new technologies and innovations is an important and necessary requirement for

all teams, especially the virtual ones. The team should take into consideration that their web page might be outdated and not attractive enough for the readers. Most importantly, it should be user friendly, simple, well arranged and interesting for the reader. What should be also kept in mind is the fact, that readers of mtbs.cz are mostly men/sportsmen and bikers which are looking for information and news from the cycling world. Also, the readers are already used to the current appearance of the website and it is necessary to inform them regularly about changes and their advantages because especially Czech people are conservative and not open to fast changes.

Good idea would also be to consider colour division of sections on the web, fonts of the text general arrangement. Investigation of various successful websites which are famous on the internet could bring more ideas for changes.

### 5.1.3 Implementing communication and team standards

As it is obvious from the interview with the manager of the team Jan, which was provided earlier in the thesis, for him it is not necessary to have any communication norms in his team. Jan states that in his small team everyone recognizes communicational ethics. Despite this, I suggest putting together at least few basic standards which would be always respected by the team members and which would secure that their work will be done the right way.

#### **Norms to be respected by all team members:**

- Keep in touch with other team members and check your e-mail every day; return calls
- Exchange the documents using an application which was agreed upon
- Face to face meetings are mandatory or obligatory; attend all of the mandatory meetings
- Let team members know if you are “unavailable” in advance
- E-mails are only to be used for exchanging information not for solving problems
- Respect the agenda during face to face meetings
- The agenda for meetings is always available in advance of every meeting (at least the day before) for all team members
- Give feedback if you promise so

#### 5.1.4 Calendar of face to face meetings

The low frequency of face to face meetings was also mentioned by the interviewed manager Jan, and additionally the online survey also shows that members of virtual teams miss the direct contact with other members of the team. Following this, I would like to propose a “meeting calendar” which would be put together every time at the beginning of new calendar year. This calendar would be assembled by the manager and then distributed to all team members. Planned face to face meetings would be marked mandatory or obligatory.

#### 5.1.5 Using motivation to improve performance of the team

Motivation in virtual teams is a difficult issue. Self-motivation is one thing, but team members primarily need to be motivated from the person which leads them. My suggestion is therefore addressed to the manager of the team. Of course firstly the biggest motivation for all employees is the reward, in other words salary. However, I propose that Jan should focus mainly on making his team members appreciated, give them opportunities for self-development and encourage creativity. Also, what could be beneficial and motivating is announcing some kind of contest between team members for best article/best photo/best idea/most read article and so on. Whenever possible, team members should work outside, visit races, test products and participate in everything they feel that would be attractive for the readers. The manager should support them in these activities and whenever there is success, team should celebrate it. Last but not least, the manager should avoid useless meetings and stick to the meeting calendar.

#### 5.1.6 Give feedback

According to the interview, giving feedback is a big weakness in the team. Also feedback goes hand in hand with motivation because if you provide great feedback to your employee, he will be content and motivated and continue with good performance. I suggest that Jan should establish for instance specific days or moments when he would personally meet with a team member and give him feedback about his work, whether it would be good or bad. He should find regularity in this task and take it as an important part of his job. Another suggestion for Jan is to participate in few trainings or seminars for better supervisory and management skills.

### 5.1.7 Realization of upgraded research; getting opinions from readers and seeing the possible options

Last suggestion will concern the issue of charging a fee on the web page. Right now, the web is alive thanks to the advertisement which makes big part of the website, and to many readers it gets annoying. To reduce the advertisement from the website it is however necessary to ensure different kind of financing of the web. Here it is reasonable to think about providing all contents of the website to the readers and charge each of them a small fee for being able to read it. This is a very sensitive topic but could be effective. In order to gain more information and opinions about this issue from the readers, I suggest carrying out of another research which would cover all present and potential readers of the website, and than processing of the gained data to see the real outcome. In accordance to this, the team would make a specific plan on how much they would charge the readers and how it would be done. At the same time, I suggest to provide an upgraded high quality photo gallery on the website which would include professional photographs. These photos would be available on the web only in a smaller format and if any of the readers would like to see it in better quality, he would have to download it for a symbolic fee. This would secure at least a small additional income for the redaction and would be considered as fair from the reader at the same time.

## **5.2 Differences of virtual and conventional teams in selected areas**

As already mentioned earlier in the thesis, answers to questions from different areas are expected to be provided. Firstly, communication in teams plays a huge role of their cooperation. If there is insufficient or lack of mutual communication between the team members, then the team cannot function correctly. Face to face meetings are crucial for both virtual and conventional teams. On the other hand, these meetings are perceived differently by virtual team members and by members of traditional teams. While people who work and cooperate with their team members daily in the office and who see meetings as a normal everyday activity, people from virtual teams appreciate the ability to see their colleagues in person much more. This means that the role of face to face meetings is more important for virtual team members because apart from this, they only communicate virtually. Members of traditional teams have the opportunity to meet teammates daily and to quickly react to changes and new information thanks to the ability of working in the same building or even room. They can spread information very quickly and also they can

naturally use the nonverbal communication. For instance, when the manager of chosen virtual team Jan wants to quickly inform Petr about some urgent work there is a possibility that he will not reach him because Petr will be busy at the moment. On the contrary to this, people, who work in the redaction for Velo magazine, share the same office and it is enough for them to make few steps and inform other team members about an important issue.

The influence of motivation is also a significant factor in teams. Both virtual and conventional team members have to be motivated by the managers to increase their potential. There is however a particular disadvantage for virtual team managers because they are not able to encourage their team members periodically. In conventional teams, motivational behavior can be practiced daily and is very effective. Team building activities are part of the motivation of the employees and in conventional teams these activities are used very often. On the other hand, virtual teams are not usually able to realize them as much as they would need. It is known that there exist two types of motivation: positive and negative. While positive motivation brings rewards for the workers, negative motivation means forcing them to work by means of threat or punishment. Negative motivation should be used wisely and not very often or only for short term because its effectivity could turn into bad results. At the same time, team members can loose motivation if they are not satisfied with their work or with the environment in which they work. Of course this applies to both virtual and conventional teams. Virtual team members should practice more self-motivation which can help them to focus on their task.

All teams are always built on mutual cooperation and interaction. Members of teams have clearly defined tasks and objectives that they should follow and managers help them to get the work done. Feedback on the performance of the team members is a substantive issue. Without feedback, team members do not know if they exercise their tasks the right way and if their work effectively for the manager. This applies to both virtual and conventional teams but again, virtual teamwork has worse conditions for providing feedback. At last, the method of virtual management, leadership, motivation and control requires different managerial approach than to which we are used when speaking about conventional management. Even though the manager of chosen virtual team Jan mentions in the interview that competencies of a virtual manager are mostly self-motivation and the will to

do the work, there are more complications. In addition to the competencies of a manager of traditional team, virtual team manager needs to be able to find alternatives and new ways of doing things, he needs to have knowledge about information technologies, he needs to be open to changes and to be satisfied with limited ability to communicate and control.

## **6 Conclusion**

The aim of this Diploma thesis was to explain the concept of virtual teams and at the same time examine whether cooperation between its team members is different to the collaboration of members of traditional teams. In the context of virtuality, the thesis mainly focused on communication, motivation and leadership.

The theoretical part of the thesis is divided into seven sections which define the basic definitions and characteristic of virtual teams. Firstly, general definitions of teams and virtual teams and relating terms are introduced. This is followed by illustration of differences between virtual and conventional teams and existing types of virtual teams. The Diploma thesis also describes how to start up a virtual team and its management structures. Last two sections are dedicated to the means of communication which are used in virtual teams and psychological aspects of cooperation in virtual teams such as communication, motivation, effectivity, and feedback.

As a follow-up to the theoretical basis, the practical part introduces a specific virtual team which was chosen for analysis. Through investigation of team's internal documents, discussions with team members, interview with manager of the chosen team, and online questionnaire presented to people that work in distributed teams, issues relating virtual teams were examined from different angles in order to understand them. Considering the mapping nature of this analysis, summarization of results and answers to the research questions are presented in the closing chapter of evaluation of results and recommendations as well as a proposal for improved strategy for the chosen virtual team.

Although the investigation of the thesis was limited and should rather be taken only as a recommendation, it is necessary to say that it might contribute to understanding of problems of geographically dispersed teams, which due to today's technological development are becoming common parts of many organizations worldwide.

The existence of virtual teams still has unclear areas that have not yet been investigated in the long run. The trend of increasing use of computers and information technologies for the purpose of communication has an impact on human psychology and behaviour and is worth further research.



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## 8 Supplements

Supplement n. 1 – logo of [www.mtbs.cz](http://www.mtbs.cz)



Supplement n. 2 – online questionnaire

1. What is your gender?
  - Male
  - Female
  
2. What is your age?
  - 18-27
  - 28-37
  - 38-47
  - 48 and above
  
3. Which communication channel is mostly used in your team?
  - E-mail
  - Telephone
  - Face to face
  - Teleconference
  - Videoconference
  - Chat, Social Networks

4. What is the frequency of face to face meetings in your team?
  - Once a week
  - Once a month
  - Once in three months
  - Twice a year
  - Un-periodically
  - Never
  
5. Do you miss the ability of direct contact with the team members?
  - Yes
  - No
  - Sometimes
  
6. Do you use or have communication norms in your team?
  - Yes
  - No
  - I am not aware of any
  
7. Which one of the following is the best motivator for you in the team except your salary?
  - Good feedback from my manager
  - Appreciation and support of my work
  - Additional bonuses (vouchers, VIP events, ability to travel etc.)
  - Teambuilding activities and training
  
8. What is the biggest barrier of working in a virtual team?
  - Lack of face to face contact
  - Inappropriate selection of communication strategy
  - Unclear roles in the team
  - Lack of feedback
  - Motivation

9. What is the biggest advantage of working in a virtual team?
- Ability to work from home; “home office”
  - Diversity of the team; different points of view of the team members
  - Cost-effectivity
  - Flexibility
10. If you could choose and decide in which team you would like to work in the future, which one would it be?
- Virtual team
  - Conventional team
  - It does not matter to me