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# **Managing Virtual Teams Guidelines to Effective Leadership**

Thesis 2012

## **Abstract**

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Managing Virtual Teams, 44 pages,

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Degree Programme in International Business

Bachelor's Thesis 2012

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As companies are operating more and more globally, the need for virtual teams is growing rapidly. The aim of this study was to provide some essential information and guidelines for any organisation that is planning to establish a virtual team as well as any individual who is planning to join a virtual team. Information and guidelines provided by this study would be a great asset to organisations, managers, team members etc. to gain a better knowledge and confidence at the commencement stages of the process. The main focus was to identify the primary factors that enable effective leadership in a virtual environment.

Data were collected in two stages using qualitative method. The first stage was reviewing literature to get sufficient knowledge from different sources regarding the topic and the second stage was conducting a survey with the case company.

The outcome revealed that in order for the team leader to be effective when managing a virtual team following skills are required: ability of the team leader to encourage and motivate, providing clear goals and objectives, ability to endorse trust, ability to manage cultural diversity, interpersonal communication skills, providing consistent feedback, and the ability to measure team's performance.

Keywords: Virtual team, leadership, trust, communication, cultural diversity

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# 1 Introduction

## 1.1 Background of the study

Is nothing more exciting than being a part of the team that you feel comfortable, appreciated, motivated, a team when you can share knowledge and learn from each other, a team when you can trust each other and achieve great results.

The question that arises is: How do we create and sustain a dream team, a team that will harvest great success and maintain friendly and encouraging environment.

Managing a team that is geographically dispersed is a much more daunting task compared to the traditional team. It is much easier and convenient to deal with a team that you face every day rather the team you might actually never have a physical interaction.

When establishing a new virtual team, organizations need to make sure that people with the appropriate skills and knowledge are hired as well as appropriate technology is implemented, but most of all the efficient leadership is required to build and maintain successful virtual team.

## 1.2 Objectives

Managing a virtual team is the topic that has come to the limelight in recent years especially with the rise of the globalization and Internet. Globalization has created the need for the virtual teams whereas the Internet has made it possible for virtual teams to tie physically together.

*Managing a virtual team means managing the whole spectrum of communication strategies and project management techniques as well as human and social processes in ways that support the team (Kimball 1997).*

Managing virtual teams is rather wide topic and there are quite many aspects that could be investigated. The main objective of this study is to find out how to manage a virtual team effectively. The main focus is effective leadership – unfolding the core skills for effective virtual team leader. The goal of this study is

to provide the reader with some cohesive information and guidelines on how to implement and manage virtual teams.

### **1.3 Scope and delimitation of this research**

There are many factors that contribute to virtual team effectiveness. Earnhardt (2009) identifies some of the main factors that enable the team to work effectively. Clarifying objectives, technology and team forming are the main factors that enable team success (Earnhardt 2009).

I believe that leadership factor is one of the primary factors that delineate virtual team success or failure. The primary focus of this study will be to identify the key skills that enable effective leadership in virtual teams. Clarifying objectives and team forming are part of the leadership and therefore both concepts are included in this study. Also trust and culture diversity in virtual teams are included in this study because both factors empower effective leadership.

Technology also plays a major role in virtual environment since communication between team members is done via electronic media, but this study does not cover this issue. Conflicts between virtual members are potential since cultural differences and lack of face to face meetings might generate misunderstandings but this research does not address this issue either.

## **2 Research Questions**

There are many studies being conducted on how to build and manage virtual teams mainly focusing on technology and trust, but there seem to be a lack of information regarding leadership qualities to effectively manage virtual teams. The research questions are based on the leadership concept.

### **2.1 What are the primary factors that enable effective leadership in virtual teams?**

Managing virtual team certainly requires appropriate skills and knowledge. This question intends to identify primary factors that enable virtual leader to be effective when managing a virtual team.

### **2.2 What are the advantages and disadvantages of virtual teams?**

The answer to this question intends to identify all the possible benefits and costs related to a virtual team so the organization can have a better picture before deciding to establish a virtual team.

### **2.3 How important is trust in virtual team and how it can be build?**

This question attempts to seek the answer regarding the importance of the trust factor in the virtual team and how the trust can impact the team's performance and also a team leader's role in promoting trust in the virtual team.

### **2.4 What is the impact of cultural diversity in the virtual team?**

This question tries to identify the main barriers that are caused by different cultural backgrounds in the virtual team and how can these barriers be diminished.

### **2.5 How important are communication skills in the virtual team?**

This question will address the issue of the communication factor in the virtual teams - how important is to have good communication skills as a team leader and as a member of the virtual team.

### **2.6 How to measure virtual team's performance?**

The last question of this study intends to find out the best method to measure the output of virtual team.

### 3 Literature Review

#### 3.1 Understanding the importance of team

No one can perform all the tasks on his own; support and guidance of other people are needed to accomplish successfully any complex assignment, therefore the need to achieve great results quickly and efficiently has led to creation of teams. Explaining the team it might not be as straightforward as it seems. Sometimes **group** and **team** terminologies are used interchangeably despite the differences that exist between them two. Perhaps first we should look how these two terms are defined in order to accurately highlight the main differences.

The Penguin English dictionary defines group as:

*A number of objects or people, which can be regarded as a collective unit or as sharing certain characteristics; number of people sharing views, social customs, beliefs, etc.*(Clutterbuck 2007,p38).

Katzenbach(1999) defines team as:

*A small number of people with complementary skills, who are committed to a common purpose, performance goals and approach, for which they hold themselves mutually accountable* (Clutterbuck 2007, p. 38).

As we can see from the above definitions there is a difference between these two concepts. In the team, members are interconnected with each other, they share responsibilities, they work together towards common goal, and they help each-other because they are fully aware that the final outcome is achieved by collective performance. Just like in any sports team where all the players work together for the common purpose – to win the title, and if they do not achieve that, there is no individual to blame but the whole team takes responsibility. In the other hand group members work independently and they do not share responsibilities because they do not work together for the common purpose. Final outcome is achieved individually and if there is a failure, group members will try to blame each other.

Stough et al (2000) believes that quality, productivity and morale are improved when team is utilized, and for these obvious reasons teams have become very important for any type of organization (Stough et al 2000).

Maier (1967) lists some of the main benefits of teams such as:

- Greater quantity of ideas is generated from the team rather than one individual
- Teams improve understanding and acceptance between individuals
- Motivation increases when working in a team rather on your own
- Team eliminates or balances the personal biases that can slow down the decision process
- Teams sponsor more innovative and risk-taking decision making. (Stough et al 2000.)

The above list provides a good grounding for organizations to establish teams. But these benefits can be utilized only if the right team is put in place. Not every team will harvest a great success. Putting bunch of people to work together does not necessary guarantee pleasing results. There should be an effort and support by the organization to develop the team to the fully functional team.

Team development and team work is certainly a big challenge for any organization. For the team leader to successfully navigate his team to the right direction it is absolutely necessary to understand different stages of the team development and its role in every phase of the team development.

### **3.2 Stages of the team development**

Team formation is the main challenge for the team leader; therefore careful attention is required in order to develop the team to fully functional team.

Hertel et al (2006) emphasizes the importance of this challenge; *Improper team formation can be detrimental to team success, as the incorrect mix of individuals can hinder the virtual team's production on a given project* (Earnhardt 2009).



Team leader should be aware of this challenge in order to take appropriate actions to lead the team effectively by hiring people with appropriate skills, providing clear goals and guidelines right at the beginning of the team formation, defining roles and responsibilities for each member and provide full support and encouragement to the team to build good relationship and trust between members based on mutual interest.

Besides understanding the above challenge, it is very important for the team leader to understand the different phases that team might go during its development and its role in each phase. The action of team leader taken each phase determines the success or the failure of the team.

Gignac (2004) has provided a good explanation for each phase of the team development using Tuckman's model (1965) called stages of group development.

Bruce Tuckman (1965) has proposed a model of five stages explaining team development and behavior and the leader's role in every stage of the development. The five stages of his model are (1) forming, (2) storming, (3) norming, (4) performing, and (5) adjourning (Gignac 2004, p. 68).

**Forming** - According to the model, forming stage is the most crucial one for leader's guidelines and directions. It is the team leader's role to provide clear goals and objectives for the team. This will avoid any confusion among team members and everyone should know his/her roles and responsibilities. The importance of the team formation is highlighted by Learner (2008) "*Leaders of distributed teams should have a heightened sense of awareness of subgroup formations and their faultiness*" (Earnhardt 2009).

Team formation plays a substantial role in the success or the failure of the team and therefore this delicate stage needs significant care by the team leader to safeguard the team to the right direction.

**Storming** – This stage begins when conflicts arise due to the resistance of the team members to be influenced by others. At this stage team leader acts as a coach and should try to create better understanding between members.

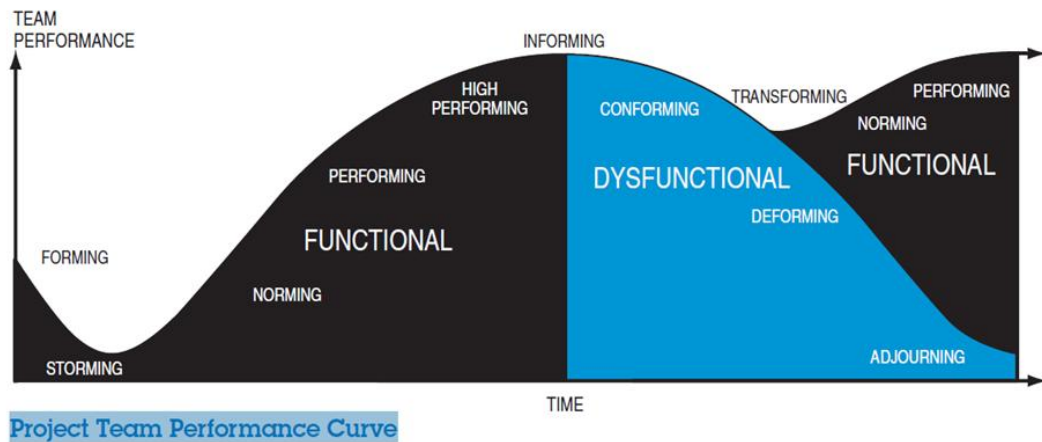
**Norming** – At this stage roles and responsibilities are established and the team members develop commitment and create stronger unity between them. Also a team leader gains more respect from the team members and overall team responds better and consensus can be reached without difficulty.

**Performing** – As the name suggests, at this stage the team try to achieve the objective. Even though conflicts might arise at this stage, team members will try to resolve these conflicts in a positive manner since mutual understanding and shared vision has been developed. At this stage, leader only needs to delegate and oversee the work.

**Adjourning** – is the last stage and refers to the break-up of the team. Team has accomplished its mission and experience is reassessed in terms of lesson learned (Gignac 2004, p. 69).

Dr. Tom Edison of Defense Acquisition University (Edison 2008) has come up with “complete” development life cycle of the team based on the Tuckman’s five stages. Edison believes that Tuckman’s model does not provide sufficient understanding of the team development and it is not applicable for all teams and different situations, therefore he has taken the challenge to expand the model by adding four new stages for deep understanding of the team development, especially during the team’s dysfunctional phase that might cause the team to slip-up.

According to Edison team goes through functional and dysfunctional stages and it is very important to understand the dysfunctional stage so the mistakes can be corrected and team can be put back on track to be effective again. Beside Tuckman’s phases, Edison has added four new phases of the team development which are: informing, conforming, transforming and deforming. Figure 1 shows Tuckman’s five stages and four new stages added by Edison.



Project Team Performance Curve

Fig.1. Development stages of the team (Defense AT&L: May - June 2008)

**Informing** – is the tipping point of the team development and is part of the functional stage. Gaden (2002) stresses out that once the team has reached the high performing stage, results including challenges and success should be communicated to the organization so others can learn from it and the outcome can be used by other teams within organization to accomplish similar success or avoid mistakes made by other teams (Edison 2008).

**Conforming** – conforming stage is the dysfunctional characteristic of the team. Team members are beginning to think alike and there is a lack of individual creativity or the new ideas by the team members. Even though the team members are much more comfortable with each other at this stage, the lack of innovative ideas can hamper effectiveness of the team and can lead to the termination of the team.

**Deforming** – When the team has reached the conforming phase, it has become dysfunctional. Team eventually will collapse because there is no passion and creativity in the team. Team members will start to miss meetings, some of them might even leave the team and those who stay are ineffective.

**Transforming** – To avoid deforming of the team there is one thing that can be done; transforming or readjusting the team. Transforming is basically a transitional stage between functional and dysfunctional team. Once the team has become dysfunctional it needs to go via drastic changes otherwise it will fail. It is the team leader’s job to react quickly to the situation in order to save the team.

The team leader needs to find ways to energize the team again by bringing new ideas and creative techniques to the team, bringing new members or even bring in an outside facilitator. Transforming enables the team to get on its feet again and if enough resources and stimuli are injected to the team, it will become high-performing again. (Edison 2008).

### **3.3 Virtual team concept**

Globalization has forced organizations to change fundamentally in the way they do business. As Duarte and Snyder(2006) advocates, in order for companies to gain competitive advantage they must reshape continuously to adapt to the new changes in the global environment, and a virtual team work has become the most common way to do that (Duarte & Snyder 2006, p. 3).

There are many different definitions for virtual teams, but the two following definitions will be used for the purpose of this study.

*Fundamentally, virtual teams are groups of people who find themselves separated by distance and/or time, yet have common tasks to perform. The interactions of virtual team members will rely on electronic communications media such as e-mail, audio and video conferencing and web-based tools. The team must deliver at least the results that would be expected of a traditional, co-located team, but from their separated locations (Edwards et al 2004, p. 6)*

*A Virtual Team – also known as a Geographically Dispersed Team (GDT) – is a group of individuals who work across time, space, and organizational boundaries with links strengthened by webs of communication technology. They have complementary skills and are committed to a common purpose, have interdependent performance goals, and share an approach to work for which they hold themselves mutually accountable (McNamara 2000, p. 1).*

Just like in the traditional team, all the members of the team must communicate and collaborate with each-other in order to get the job done but from geographically dispersed locations. The geographical distance between the team members can create havoc between team members if the team is not managed

properly. It is the managers' duty to facilitate and manage the collaboration among team members with the help of the appropriate technology that enables efficient communication.

Virtual environment is not suitable for everyone. Being able to work independently and motivate yourself are two the most obvious factors a virtual member should possess. Also a communication skill is a must since all the work is done via information exchange between team members from different geographical locations. The question is what can and should the manager do to create and maintain an efficient virtual team. This issue is the primary concern of this study and will be discussed in details in further chapters.

### **3.4 Why using virtual teams**

Globalization has created opportunities for companies to enter international markets, but at the same time the level of competition has increased. In order to compete in such an intense market race, organizations need to react quickly to the customers' demands to beat the competition.

If there is one thing that today's global market demands from a company that is truly set to succeed it is flexibility. Virtual teams allow any organization to rise to this challenge in a number of different ways. Often, flexibility comes at a cost, but the converse can be true of virtual teams; if correctly implemented they have the potential to deliver significant cost savings to a company currently relying on traditional working practices (Edwards et al 2004, p. 15).

When establishing a virtual team, companies have the opportunity to select the employees from different parts of the world and hence collect the most flexible and talented people. Increasing globalization, heightened security awareness, and tightening travelling budgets are all factors that will foster further growth for virtual environments (Davison et al 2006, p 5).

### 3.5 Advantages of Virtual Teams

Team work and knowledge sharing between organization's members is one of the priorities of any enterprise nowadays. This notion is very much applicable to virtual teams as well, but sharing information is done mainly via electronic communication media. Having the right technology in place enables efficient communication and collaboration between team members. Technological factor is important component in managing virtual communication but this study does not address this issues.

Even though working in different locations and time zones appears to hamper collaboration between team members, in the other hand it creates an opportunity for the organizations to provide solution and react swiftly to market demands at any time of the day.

*Virtual solutions can deliver to employees the flexibility to design the way they work around other commitments and preferences they might have (Edwards et al 2004, p. 16).*

Virtual teams can work around the clock since members are located in different time zones and that gives the team a great advantage to respond to market demands at any time of the day.

Perhaps one of the key advantages of the virtual team is the ability to hire best people for the job. Unrestricted geographical location enables a virtual team to hire most skilled and experienced people from different parts of the world. Pool of talented people can be put together to increase efficiency and productivity of the business. Knowing the fact that virtual members do not need to travel reduces travelling costs and also reduces costs of renting office space because virtual members do not need to be physically in office.

Jury (2011) believes that Virtual teams are much more effective than traditional teams based on the evidence collected. He has highlighted some of the companies who have benefited greatly by implementing virtual teams. According to Corporate Executive Board, Volvo has decreased travel costs by 50 % and also

75% of workers believed they have increased their value to the company by using virtual teams. BT (British Telecom) claims that virtual workers are 20% more productive and spent less time off sick than their counterparts - the office based workers (Jury 2011.) Some of the most important advantages of virtual teams are summarized in the table 1.

<b>Time saving and Increased productivity</b>	Since members are located in different time zones, work is not limited to 8h but business can be expanded to 24h work. Also elimination of travel reduces level of stress and hence it helps to increase productivity.	(Snowdon 2011) (Wotton 2012)
<b>Extended market opportunity</b>	An ability to establish a 'presence' with customers worldwide. This can also enable small businesses to compete on a global scale without limiting the customer base.	(Snowdon 2011)
<b>Accessing wider pool of talent</b>	Talent is not limited to one town. Skilled people from different parts of the world can be put together in one team and that gives great advantage to a company.	(Wotton 2012)
<b>Cost savings</b>	Virtual team members do not need to travel and that reduces travelling costs, commuting and paying for office space.	(Wotton 2012)
<b>Increased job satisfaction</b>	Virtual environment allows for flexibility in working hours. Flexibility increases happiness among team members and hence increased performance is generated.	(Marotta 2006)
<b>organizational flexibility</b>	The ability for an organization to bring people together from remote geography and quickly form a cohesive team that is capable of quickly solving complex problems and making effective decisions is an enormous competitive advantage.	(Ryner 1997)
<b>Innovation and synergy</b>	Synergetic interaction is achieved in virtual teams when representatives from different locations are put together. By virtue of different locations, members can tap into multiple sources of information and knowledge, and this broad spectrum of knowledge can be leveraged on behalf of the team and the organization	(Gibson and Cohen 2003)
<b>Effort and Performance Gains</b>	Diverse intelligence in virtual teams allows better performance. Also some form of electronic media facilitates equality and effort made by each mem-	(Gibson and Cohen 2003)

ber. Virtual communication decreases power and hierarchy issues and many managers find that performance is easier to document and review in virtual teams.

Table 1. Advantages of virtual team

### 3.6 Disadvantages of Virtual Teams

Despite having many advantages of establishing virtual teams, there are also drawbacks associated with virtual teams. Let's face it, it is much easier to communicate and exchange ideas with people sitting around you than people who are thousands of miles away from you and you have to entirely rely on electronic media tools to get the job done.

Absent face to face interaction, different cultural backgrounds and time-zone gap between the virtual team members are some of the hurdles that have to be diminished to enable efficient collaboration in virtual environment.

Laxa (2011) highlights the possibility of misinterpretation in virtual teams since missing face to face interaction can decrease the ability to read and express emotions accurately. Table 2 highlights some of the most obvious disadvantages associated with virtual teams.

<b>Communication deficiency</b>	Difficulties in communicating and understanding one another, resulting in a lack of common ground, trust, and shared responsibility.	(Edison 2009)
<b>Incompetent team members</b>	Unreliable and unskilled team members can have negative impact on the team.	(Snowdon 2011)
<b>Feeling secluded and isolated</b>	Decrease in a job feedback leads to a team member feeling isolated.	(Tabari et al 2004)
<b>Lack of engagement and commitment</b>	A lack of full engagement and commitment by all team members to deliver their best performances when completing tasks and progressing toward team goals	(Edison 2009)



<b>Ineffective collaboration</b>	Inability to collaborate in a way that takes advantage of different perspectives, knowledge, talent, and expertise	(Edison 2009)
<b>Lack of the project visibility</b>	Care must be taken so that workers feel a part of the big picture. In order to maintain the advantage of increased productivity, teams need to know their part in the entire project as a whole.	(Marotta 2006)
<b>Logistics difficulty</b>	If teams are dispersed across different time zones, it can be very difficult to get in touch with one another. It is important to establish the agreed upon means of communication at the outset.	(Marotta 2006)
<b>Lack of transparency</b>	Team members may not readily level with the other members regarding their project issues or difficulties. Granted, this is also a problem with physical offices, but it's a lot easier to hide when your interaction with others is limited to online tools.	(Laxa 2011)
<b>Dysfunctional Conflict</b>	Different cultural backgrounds, technology failures, communication deficiency can create misunderstanding between team members and hence trigger a hostile situation within the team which might result in dysfunctional conflict	(Gibson and Cohen 2003)

Table 2. Disadvantages of virtual team

### 3.7 Potential costs of virtual team

According to Edwards et al (2004), when an organization decides to set up a virtual team, it should weigh carefully all the costs of a virtual team against the traditional (co-located) team in order to avoid any nasty surprises. Table 3 and 4 highlight all the potential costs of a virtual team and a co-located team, including tangible and intangible costs.

<p align="center"><b><u>Virtual working potential tangible costs</u></b></p>	<p align="center"><b><u>Co-located working potential tangible costs</u></b></p>
<ul style="list-style-type: none"> <li>- Training of employees in ICT use and new work methods</li> <li>- Upgrading IT infrastructure capital and labour costs</li> <li>- Creation of IT support service labour costs</li> <li>- Security infrastructure capital and maintenance costs</li> <li>- Travel costs for relationship developing meetings</li> </ul>	<ul style="list-style-type: none"> <li>- Disturbance allowances</li> <li>- Overseas living allowances</li> <li>- Local tax assessment costs</li> <li>- Travel costs within temporary locations, as well as subsistence expenses</li> <li>- Intercontinental travel and subsistence costs</li> <li>- Rents while on secondment</li> <li>- Business removal expenses</li> <li>- Consultant travelling and accommodation costs on top of daily charge</li> <li>- Lost time costs whilst travelling</li> </ul>

Table 3. Tangible and quantifiable cost impacts of virtual working and co-located working (Edwards et al 2004).

<u>Virtual working potential tangible costs</u>	<u>Co-located working potential tangible costs</u>
<ul style="list-style-type: none"> <li>– New challenges for communication between team members</li> <li>– More effort required to build team spirit and identity</li> <li>– Potential for more misunderstanding, which reduces efficiency</li> <li>– Time zones may constrain the communication window</li> <li>– Possible customer dissatisfaction – for instance, if there is impaired data security</li> <li>– Possible overreliance on technology if team members ‘forget’ their interpersonal skills</li> </ul>	<ul style="list-style-type: none"> <li>– Work can be less efficient at the start due to changed surroundings</li> <li>– Loss of possibility for 24-hour working</li> <li>– Loss of flexibility to access all the expertise required, which is only available if physically accessible</li> <li>– Less opportunity to introduce experts for short periods</li> <li>– Less focus on communications and the processes of interaction</li> </ul>

Table 4. The intangible and less quantifiable cost impacts of virtual working and co-located working (Edwards et al 2004).

## 4 Trust – enabling factor of virtual team work

### 4.1 Role of trust in a virtual team

Trust plays a major role in any team’s performance. When the team members are able to trust each other and their team leader, undoubtedly they will do their best to accomplish any given task.

Building trust between team members is proven to be difficult even in the traditional team, where visual elements of trust such as body language for instance, can be expressed and analysed much easier when the team members are fac-

ing each other. Needless to say one can imagine how challenging would be to build trust between team members that are separated by geographical distance, culture difference and time zone.

We have to remember that not only the geographical distance is the hurdle that the team have to diminish but also cultural difference is equally big or even bigger hurdle that can have a negative impact on trust between team members.

There are many different factors that contribute to form and maintain trust within the team. Before we identify these crucial factors of building trust, first we have to understand the concept of trust - what exactly is trust.

*A willingness to increase your vulnerability to another person whose behaviour you cannot control, in a situation in which your potential benefit is much less than your potential loss if the other person abuses your vulnerability.” (Definition from Zand, quoted by W.G. Hugli in Gignac’s book (Gignac, 2004, p. 62)*

As we can see from the above definition, trusting someone means we have to be able to rely on the other person; we have to show commitment and respect to each-other. Being honest with other people creates sense of confidence and hence generates trust. Trust might not be the ultimate factor of successful team work, but undoubtedly is one of the key factors that enable efficient collaboration between team members; fundamentally it glues the team together.

Virtual team work brings many benefits such as bringing together skillful and talent people from different parts of the world and cutting travelling costs but the main disadvantage is the circumstances on which the team members communicate, meaning that they are not able to meet face-to-face which might cause the feeling of the team member been isolated and hence damage the trust.

Peter Andrews from the Consulting Faculty at the IBM Advanced Business Institute explains very well how hard is to build trust in the virtual team:

*You probably would not climb Mount Everest with a guide you’d never met or hand your life savings over to an investment counselor you only knew through a phone call. The more you have at risk, the more you need to trust those around*

*you. Yet we are asked to trust our careers to people we may never meet face-to-face (Andrews 2004.)*

That explains how hard is to establish trust between team members in virtual team, but without trust unfortunately the team cannot be successful. Mistrust occurs more when people don't see each other, so all issues of mistrust need to be resolved immediately. If a team member indicates any dissatisfaction or expresses hostility, a team leader has to react quickly to resolve these issues in order to avoid any further damage, because we have to remember that destroying trust it's much easier than building it.

#### **4.2 How to form patterns of trust within virtual team**

To create that strong bond between team members, efficient communication is essential. As a team member you have to show your commitment to other team members and show them that you are reliable person, so when you say you'll do something you do it, understanding deadlines and explain clearly what you can do and what you cannot do. Replying to messages instantly shows that you are committed to the project and other members can rely on you. Being optimistic during the conversations and share small things of your personal life with other team members creates positive atmosphere and it really helps to build trust.

These are some of the features that help to build and maintain trust in virtual team and when the trust is established things will work much smoothly and the team will produce much better results. Successful collaboration can only happen when all the team members trust each other, share knowledge between each-other in order to achieve common goal and produce amplified results. Trusting and bonding cannot be forced out of participants, but a team leader can have a great deal of impact in establishing trust and creating strong bond between team members.

## 5 Communication – make or break factor of the virtual team

Healthy relationships are conceivable when people can communicate with each-other. Communications is one of the main factors that enable efficient team work.

Hackman (1990) postulates that *Teams are more effective when members can combine their individual talents, skills, and experiences via appropriate working relationships and processes* (Ferreira 2011).

Even in a traditional team when members have face to face meetings, communication quite often becomes problematic. One can imagine how difficult can be in the virtual environment when adding language differences, time zones and culture differences, communication becomes even bigger challenge.

Kossler et al (2007) has provided a very useful list of things that team members love or hate and these things can have great impact in the relationship and communication flow between members. Table below could be very useful for any team leaders to beter understand how to overcome communication hurdles.

### Dispersed Team Members Have a Love-Hate Relationship

Dispersed team members love...	Dispersed team members hate...
New communication technology	Breakdowns or not knowing how to use it
Exposure to and learning from new ideas and methods	Not understanding how something works at a different site
Learning about different cultures	Misunderstandings that result from speaking different languages

Being able to travel to interesting sites and countries	The travel time and lengthy meetings they have once or twice a year
That they are capable of 24 hour problem solving and customer response	That they are expected to be available to respond to the customer around the clock
Being independent - no one looking over your shoulder	Feeling of been left out and isolated

Table 5. Love and hate relationship of dispersed team members. (Kossler et al 2007.)

According to Kossler et al (2007) there are two major issues that should be considered by the team leaders before the inauguration of the team:

Does the organization provides full support to the team in order to ensure team's success, and the second issue is concerned with the set up and implementation of the team's first meeting. Second issue deemed to be the most critical one and this is the crucial time for team leader to promote membership and trust, to define roles and responsibilities of each team member and to establish reliable communication channels (Kossler et al 2007, p. 12.)

Another crucial component that should be added to the list is the selection of the team members and technology. When setting up the team it very important for the team leader to select the people with appropriate skills, especially communication skills since success of virtual team rely on efficient communication. Despite having its importance, technology itself cannot do the job if team members are not willing and able to communicate with each-other. Incompetent team members can have negative effect on the rest of the team and even can cause the failure of the team.

Dorr and Kelly (2011) suggests that self-motivation, self- reliance, and the ability to tolerate uncertainty are the key attributes that virtual team member should possess. Also communications skills are essential as well as the ability to work

independently. Human resources in conjunction with the team leader should ensure that people with appropriate skills are hired in order to ensure team success and achieve amplified results.(Dorr and Kelly 2011).

Gratton and Ericson (2007) deem the following features as enablers of successful virtual team (Dorr and Kelly 2011.)

- Executives support
- Effective HR practices
- Well-structured teams
- Strong team leaders

**Executive support** – When managers support the development of social relationships (such as trust) between team members, it proves to increase the performance of the virtual team.

**Effective HR practices** – Training in skills to build collaborative behavior and informal community building are two specific HR practices that have demonstrated to increase virtual team effectiveness. Collaborative behavior includes appreciations of others, engaging in purposeful conversations and resolving conflicts in a proper manner. Informal community includes feedback, monitoring and coaching. The latter HR practice helps team members to avoid the feeling of being isolated; it helps them to feel more connected to the organization.

**Well-structured teams** – This feature highlights again the importance of hiring people with the appropriate skills to join the virtual team. People who are good communicators, reliable, independent and self-motivated will fit well in virtual team.

**Strong team leaders** – To ensure virtual team success, strong leadership is a must. Due to the nature of the virtual environment, virtual team leader should possess additional skills as opposed to the traditional team leader such as the ability to build trust between team members, interpersonal communication skills(including the ability to provide consistent feedback), and have emotional intelligence (ability to perceive, control and evaluate emotions of oneself and other team members). (Dorr and Kelly 2011.)



## **6 Culture diversity in the virtual team**

### **6.1 Understanding culture diversity**

According to professor Geert Hofstede “Culture is the collective programming of the mind distinguishing the members of one group or category of people from others” (Hofstede 2012). Language, beliefs, values, clothing, attitudes and behavior are main elements that form the culture. These elements are implanted on us from childhood and might affect the rest of our lives. These elements create differences between cultures and dictate how people behave.

Behavior plays a major role in intercultural communication since much of the communication is expressed through nonverbal cues. The proportion of nonverbal behavior communication compared to a verbal communication varies from culture to culture. Communication that is mainly based on words and less on behavior is known as “low-context”, and the communication that uses lots of nonverbal behavior is known as “high context”. This dissimilarity in communication styles between low and high-context cultures creates frequent, significant obstacles to intercultural communication. (Novinger 2001, p. 21.)

The question is how to combine these different communication norms and styles to create a pleasant and understanding environment, without denying anyone’s cultural habits, because we have to remember that virtual team will not function by only exchanging information, but by creating a strong relationship and mutual understanding between team members.

Understanding culture is the key to the efficient communication in any team, but when we think about the culture diversity of the virtual team, understanding culture differences becomes a prime factor of proficient communication, therefore intercultural communication skill is a must not only for the team leader but also for all other participants.

## **6.2 The impact of different cultures in virtual team and how to overcome these differences**

Culture differences reside in each and every one of us and therefore a team leader should have a will and capacity to learn and analyze these differences when establishing a team. Inability to understand these differences can undermine trust. If these differences are not understood and managed appropriately, may create conflicts between members and even dismantle the team.

Culture has great impact in our lives. It affects how we live and work, how we organize things and how we perceive. Even though the language seems to be the main hurdle to intercultural communication, understanding culture itself perhaps is much greater hurdle than the language.

On an individual level, members of dispersed teams enjoy some advantages over their counterparts serving on local teams. For example, as members learn about cultural differences through their work with others, they can develop more agile emotional competencies that enhance all of their work relationships. Members also gain international business knowledge and build resiliency by expanding their personal and professional networks. They gain a sense of empowerment through the autonomy that often accompanies the responsibility of serving on a dispersed team (Kossler et al 2007, p. 10.)

Culture diversity should not be seen as barrier to the team work, but as a rich resource and a great advantage to overcome intercommunication difficulties with overseas customers. Organizations can benefit greatly by using the cultural diversity to better understand the customer's perception. Who can understand better for instance the Chinese customer perceptions than a Chinese person? Having members from different cultures and backgrounds could be a great asset to the organization.

The benefit of cultural diversity can be achieved only if these differences are understood and managed properly. Inability of the team leader to manage the culture difference between team members can lead to misunderstandings and conflicts which can have immense impact on the team's performance.

Professor Fernandez (2007) depicts the role of the team leader in the diverse environment by using a Chinese symbol called Yin and Yang. This symbol is represented by a circle where half of the circle is black and half white, but in the white half there is a black dot and in the black half there is a white dot. This symbol explains that the reality is formed by the opposites such as man-women, strong-weak, hard-soft, wet-dry etc. According to the professor Fernandez, the role of the leader is not to eliminate one of these sides, but to bring harmony between both sides, so they are able to work together. (Fernandez 2007.)

In fact these opposites are interdependent and interconnected with each other and should not be seen as opposites, but as two different sides that when combined together will form a strong union.

## **7. Measuring team's performance**

As with any other team, virtual team performance should be measured in order to find out if the objectives have been reached and what needs to be done to upsurge team's performance. Team leaders should assess their team performance in interval basis to prevent the team from failing to achieve projected results.

Measuring results means evaluating the performance achieved in relation to predefined goals and objectives. Outcome does not include only financial performance but also it includes sharing and creating knowledge as well as increasing the intellectual capital in order to improve organizational agility and competitiveness. Brown (1999) proposes five different components to measure virtual team performance (Gignac 2004, p. 90.)

### **1. Task accomplishment**

Task accomplishment refers to the ability of the team to meet its objective when taking into account time and resource constraints.

## **2. Efficiency**

Efficiency means the ability of the team to accomplish the task using minimal input in terms of time and resources.

## **3. Quality**

Quality refers to the ability of the team to produce results that approximate or exceed industry standards.

## **4. Adaptability**

How does the team response to external influences and pressure. This refers to the ability of the team to react to the external changes and the ability to quickly adapt to these changes.

## **5. Fulfillment of the members developmental and resource needs**

The last component measures the opportunities for individual growth and learning and fundamentals in terms of human resource management ( Gignac 2004, p. 91.)

Francine(2004) suggests that organizations that uses virtual teams must look at financial and human capital criteria in order to justify the investment, and build the business case as well as measure performance. Measuring means comparing intended results with the results achieved. (Francine 2004 p.92).

# **8 Leading virtual team**

## **8.1 Leadership concept**

Northous (2007) deems leadership as *“a process whereby an individual influences a group of individuals to achieve a common goal.”* (Jones et al 2007).

*Yukl (2006) defines leadership as “the process of influencing others to understand and agree about what needs to be done and how to do it, and the process of facilitating individual and collective efforts to accomplish shared objectives”* (Jones et al 2007).

Both definitions portray influencing as key element of leadership perception. A team leader should have the ability to influence and guide the team to the right direction to achieve anticipated results. To be able to exercise the influence and persuade the team to work together for the common purpose, a team leader should possess certain skills and knowledge that this study partly intends to identify.

Professor Fernandez (2007) uses a metaphor of building a house “The House of Leadership” to explain core skills needed for effective leadership. Even though Professor Fernandez refers to western leadership in China, his guidance offers very strong leadership groundwork for any type of leadership in any country. According to Professor Fernandez effective leadership is achieved by mastering following skills:

**FOUNDATION / PROFESSIONAL COMPETENCIES** – Strong base or foundation is required when building the house, otherwise it will not stand. As the foundation or bases of the team leader are **skills** and **knowledge** therefore a team leader should have adequate skills and knowledge.

**THE WALLS / MANAGING PARADOXES** – After the strong base is put on place, there is nothing left but start building walls. Leadership walls are ability of the leader to manage paradoxes. To be able to manage the paradoxes a team leader should be humble, strong, patient and fast.

**Humble** - Directive or aggressive leadership can cause failure, therefore Influencing and coaching is much more effective leadership style.

**Strong** – means sticking to your principles. Core values of the companies should never be compromised.

**Patient** – a team leader should listen and observe carefully in order to have clear understanding of all the team members. Especially when working with people from different cultures and backgrounds it takes time to understand them, thus a team leader should be tolerant.

**Fast** – means ability of the leader to quickly adapt to new changes and the ability to make quick decision when necessary.

**THE ROOF / SOCIAL SKILLS** – social skills refers to the ability of the team leader to create and maintain a strong relationship with all the team members.

Professor Fernandez advises that a team leader should be open minded, listen to others what they have to say and do not think that you have all the answers and overall have sense of humour. (Fernandez 2007)

## **8.2 Virtual leadership**

To help us understand the virtual leadership, perhaps first we should answer the question: what exactly is the virtual leadership? *If anyone on a team you lead normally works different hours or locations from you or any other team members, then you manage a virtual team* (Fisher 2009).

Leading a virtual team and maintaining team effectiveness is undoubtedly different and more challenging than leading traditional team. Fundamentally the way the team is managed defines the difference between success and the failure of the team and hence success or the failure of a project or even organization as a whole. Organizations should be aware of this when hiring or assigning someone a team leader's position. People with most appropriate management skills should be hired. The question is what skills a virtual team leader should possess. What can and should a team leader do to enable smooth running of a virtual team.

Even though there is a great difference when managing virtual team compared to the traditional team, the baseline for leadership skills though is similar and therefore we will dig a little bit deeper to identify some of the common skills of the team leader regardless of the working environment.

First of all successful teams need to be well designed, including defining the purpose of the team, defining clear roles for each member, building up management expertise and the most important one is to define clear goals and objectives (Kossler et al 2007, p. 6-7).

When the team members are provided with clear goals and objectives, they will be more committed to the given task, because they share same vision and that enables better collaboration between members.

There is something else that needs to be done before we get to the point of defining roles and objectives. Team formation is the primary challenge a team leader has to overcome. Team members might come from different countries and backgrounds and have different characteristics. It is a big challenge for the team leader to understand and be able to combine these different characteristics to create a solid team by assigning roles and tasks appropriately to each member. When establishing a virtual team, a team leader should pay an extra attention since team members come from very different cultures and backgrounds and it is much more difficult to build and maintain trust-enabling factor of successful team work. Interpersonal and intercultural communication skills are absolutely essential at this stage.

According to Kossler et al, a team leader who promotes membership in the team will be much more successful in building trust between team members. Below there is a list of different tactics that can be used by the team leaders to promote strong sense of membership. (Kossler et al, 2007, p. 9)

- Keep the team informed of long-term organizational changes.
- Ask the team for input on critical organizational issues.
- Make time for team-building activities.
- Encourage personal contact and communication among all members.
- Hold face-to-face meetings.

The last one might be impossible in certain cases, but it would definitely create relaxing atmosphere and comfortableness between team members. I have personally been working in a virtual team with members that I have never met and with members that I have met and without no doubt I was much more comfortable exchanging e-mails with people I have met in person.

Team leader's consistent support is absolutely essential to maintain effective collaboration and team effectiveness. Leaders can support their teams by:

- Recognizing them and their importance
- Encouraging members to explore questions that matter including questions about how they are working together

- Supporting the creation of some kind of shared space (the feeling that there is an infrastructure where people are working together)
- Facilitating the coordination of the technology, work processes, and the formal organization
- Recognizing reflection as action and as legitimate work (getting the infrastructure of the organization to support the learning process)
- Supporting activities which make the informal network visible. (Kimball 1997.)

Besides providing a full support to the team in order to create a friendly and pleasant working environment, a team leader should envision the future by communicating the desired target to the rest of the team. But a team leader should not be transfixed by the long term vision, but all the current changes should be closely monitored in order to navigate the team to the right direction. The aim is to persuade the team to achieve greater results over and over again. To achieve intended results innovative approach is needed.

*As a leader you don't want happy, comfortable people in your team. You want passionate, energetic people who are keen for the journey and ready to take on a challenge (Sloane 2008,p6).*

Once again, providing clear goals to the team triggers persuasion to reach the anticipated target. Constant supporting of the team leader is needed for the team members to be inspired and embrace the future. Individual commitment and effort is also required from each member for the team to be successful.

### **8.3 Requirements for successful virtual leadership**

Based on the literature review ideas and recommendations of different authors have been assessed in order to provide a summary of key factors that enable effective leadership. This final outcome is also used as the framework to form questionnaire for the case company. To be an effective virtual team leader, following skills listed in the table below are absolutely essential.



<b>Key skills for effective virtual leadership</b>	
<b>Ability to manage culture diversity</b>	Culture diversity in virtual teams can be beneficial if cultural differences are understood and managed properly
<b>Providing clear goals and objectives</b>	Team can only be successful when they know where they heading to and why it is worthwhile to reach anticipated destination.
<b>Ability to build trust between team members</b>	Trust is the glue that sticks the team together, therefore a team leader must have the ability to facilitate trust in virtual team
<b>Communication</b>	Team leader should establish reliable communication channels because majority of the work is done via electronic media.
<b>Ability to encourage and motivate</b>	The team leader should have the ability to motivate and encourage team members to give their maximum in any give task
<b>Ability to provide consistent feedback</b>	Providing feedback it motivates the team to produce better results. Situation in the virtual team should be monitored closely and if problems appear, it is the team leader's duty to provide sustainable solution.

<b>Measuring performance</b>	Results should be evaluated to find out if objectives have being reached and if needed actions should be taken to improve team's performance.
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Table 6. Core elements that enable effective virtual leadership

## 9 Case study

### 9.1 Case study background

The case company is a worldwide high-tech organization that has sites all over the world. To maintain its leadership in the technological solutions the case company strives to win the “talent war”. Hiring the most talented people is in the heart of the case company. Human capital investment is seen as a precondition for growth. The case company is truly global operating in more than twenty different countries across the world.

### 9.2 Case team profile

For this research I have constructed a questionnaire to conduct a survey with the case company. Majority of the questions are open-ended with few closed-ended questions. Using open-ended question gave me an opportunity to get deeper and diverse answers since respondent has the flexibility in answering the questions without me dictating or categorizing the answers. I have also used closed-ended question when I needed straight forward answers.

The response rate was rather disappointing. Out of 13 virtual managers only 5 of them responded. The advantage is that all the respondents have from 6 to 25 years of virtual leadership experience, they do not belong to the same team and they are dispersed in different geographical location. Variety of answers provided by five different managers gave me an opportunity to capture more holistic view of the virtual leadership concept.

### 9.3.1 Core elements of effective virtual leadership in the case team

The first question of the web based questionnaire intended to identify the main factors that enable the team leader to be effective when managing a geographically dispersed team, which is the objective of this study. There is a great similarity between respondents based in Finland, but there is significant difference between the managers based in Germany and Finland. Table below displays the summary of the answers regarding core elements of effective virtual leadership in the case study.

Respondent 1	<ul style="list-style-type: none"> <li>– Trust</li> <li>– Clear procedures</li> <li>– Modern working global tools</li> </ul>
Respondent 2	<ul style="list-style-type: none"> <li>– Communication</li> <li>– Common tools</li> <li>– Clear instructions</li> </ul>
Respondent 3	<ul style="list-style-type: none"> <li>– Working telecommunication tools</li> <li>– Clear processes and procedures</li> <li>– Regular open communication</li> </ul>
Respondent 4	<ul style="list-style-type: none"> <li>– Honesty</li> <li>– Responsibility</li> <li>– Competency</li> </ul>
Respondent 5	<ul style="list-style-type: none"> <li>– Trust</li> <li>– Delegation</li> <li>– Informal communication</li> </ul>

Table 7. Three most important factors that enable effective virtual leadership

The outcome reveals that providing clear goals and objectives is absolutely crucial to ensure the team is heading towards right direction. Majority of the respondents pinpointed communication and common working tools as prime factors that enable effective leadership. Trust is also deemed as an important factor followed by responsibility and competency. Below chart indicate the importance of the factors in the case study teams according to respondent's opinion.

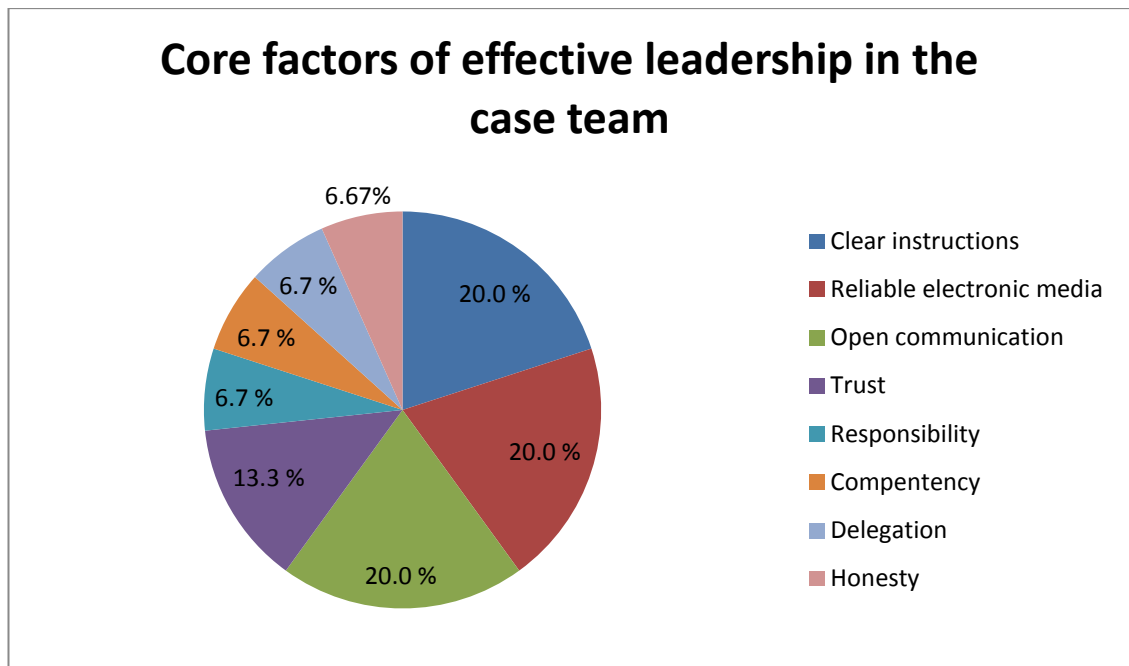


Fig.1. Main factors of effective leadership in the case team

It is important to highlight that one of the respondents underlined delegation as a key factor of effective leadership. That means that a team leader should get other people involved in the decision making process. A team leader should not try to make all the decision on its own but should delegate some of the responsibilities to subordinates. Empowering subordinates to make some of the decisions it helps the team leader to save time, it is a good way to help people to develop management skills and also delegation enhances motivation among subordinates. Above all it helps the team leader to be more efficient. As Woodrow Wilson, ex US president quotes *"I not only use all the brains I have, but all I can borrow."*

Good team leader should make people in the team to feel positive and empowered otherwise eventually they will feel discouraged and hence become ineffective.

### 9.3.2 Obstructive factors of the virtual leadership in the case teams

The second question of the survey intended to find out the main challenges or factors that disrupt the virtual team to be effective. Table 8 displays the summary of the main challenges faced by case study teams.

Respondent 1	<ul style="list-style-type: none"> <li>– Time Difference</li> <li>– Distance</li> <li>– Unclear instructions</li> </ul>
Respondent 2	<ul style="list-style-type: none"> <li>– Unclear targets</li> <li>– Changing objectives in between</li> <li>– Bureaucracy</li> </ul>
Respondent 3	<ul style="list-style-type: none"> <li>– Conflicting targets</li> <li>– Unclear procedures</li> <li>– Time zones</li> </ul>
Respondent 4	<ul style="list-style-type: none"> <li>– Dispensable bureaucracy</li> <li>– impractical management rules</li> <li>– Different company cultures within organization</li> </ul>
Respondent 5	<ul style="list-style-type: none"> <li>– Poor electronic equipment</li> <li>– Lost time to travel to face to face meetings</li> <li>– paternal guiding and face to face meetings</li> </ul>

Table 8. Main disruptive factors in the case study teams

According to the team leaders from the case study, there are quite many hurdles that can obstruct the virtual team to be effective. Unclear procedures and of course distance and time zone are the most disruptive elements in the virtual team. Some of the managers point out that unessential bureaucracy and management rules which are away from practical work life can also impact the team effectiveness. These factors are described in the chart below using the percentage according to their impact based on the respondent's opinion.

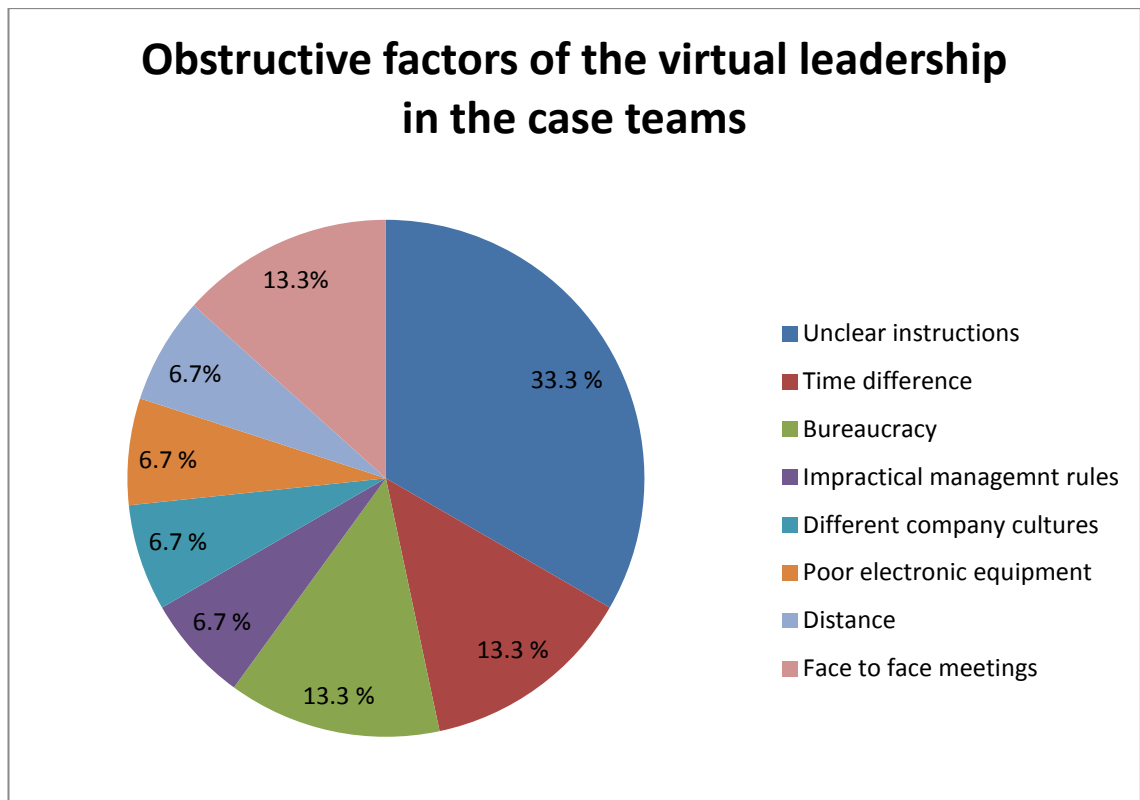


Fig.2. Main factors that disrupt effective leadership in the case team

### 9.3.3 Leadership approach in the case study teams

When it comes to a leadership style there seem to be contradictory view between Finnish managers and the German managers. All Finnish managers believe that a virtual team leader should follow certain leadership pattern whereas German manager believes that a team leader should be flexible and adaptable to different situations because working with people cannot be standardized.

### 9.3.4 Communication problems in case study team

Cultural differences and language barriers according to the case team can create misunderstandings between team members and hence generate communication problems. Also lack of information, poor training, remote meeting systems and bureaucracy are deemed as a communication problem in the case teams.

As stated in the literature review culture dictates our lives and dictates how we organize and perceive things. When adding language differences, the possibility of misunderstanding increases. All these constraints create immense communication problems, but these problems can be decreased if not completely diminished if the team leader and all participants are aware of these constraints. Some managers suggest that open communication, being responsible and competent can stimulate better collaboration in the virtual team. Knowing the fact that most of the communication in the virtual team is done via electronic media such as e-mailing, messaging, video conferencing etc. organizations should make sure that virtual team is equipped with reliable technology.

Also face to face meetings seem to be an important element in the case study teams, but the proximity of these meetings is very diverse. Some managers suggest that once a year face to face meetings are significant while some of them suggest weekly or at least monthly face to face meetings.

Face to face meetings eliminate misunderstandings and allow team members to express their views using verbal and non-verbal cues, which is impossible to do that via electronic media. Sometimes face expressions tell you more than thousand words. It is very beneficial once in a while to arrange face to face meetings because that allows the team to get better known each other, to develop trust and develop stronger relationships.

### **9.3.5 Building trust and keeping the team motivated**

Working on your own can lead to feeling isolated and neglected. Virtual managers of the case team suggest that team leaders should make regular phone calls to the team members even without special issues to discuss in order to keep them engaged and also arrange face to face meetings if feasible.

Trust is regarded as a decisive factor for effective virtual leadership in the case study teams and the best way to build and maintain trust with all the team members is by acknowledging their effort, providing support, giving incentives, providing consistent feedback, communicating not only within business frame

but also for the purpose to develop strong social relationships. One manager suggests that the team leader should be available at any time. It does not mean to be available 24/7 but to build a good relationship and relaxing environment with all the team members so they will feel free to seek support if needed.

### **9.3.6. Cultural diversity in the case study teams**

When it comes to cultural diversity there seem to be a dissimilar opinion between case study teams. Some of the managers see cultural diversity as a great advantage if properly managed. One manager with very diverse team believes that when managing people with different backgrounds you need to have different approach, for some people you have to be a leader and for some you have to be a mentor. Another manager deems cultural diversity as a great advantage but cultural differences should be respected.

This depicts the need for the team leader to flexible and adaptable to different situations. It is almost certain that in order to develop high performing team depends directly on the team leader's ability to provide adequate training for each member according to their needs. Perhaps different motivational methods and different communication styles should be used to fit individual needs.

## **10 Conclusions**

Globalization has generated the need for the virtual teams. Having virtual teams in place it gives the organizations a great advantage to compete and react quickly to the customer demands, but putting bunch of people together does not guarantee satisfying results. Effective leadership is required to guarantee team's and organization's success.

How well the team performs it depends on how well the team is trained and how well the team is managed. It depends on the ability of the team leader to develop the team to a prosperous team.



The outcome of literature review and the case study findings divulge some of the fundamental skills needed for the virtual team leader to be effective. Those skills are discussed in detail in the previous chapter. The findings drawn from this research are sufficient enough and have a potential to be used as ground-work by any organization for the purpose of training new virtual managers.

## **11 Recommendations for further research**

The main focus of this study was to find key skills needed to manage virtual team effectively. There are many other areas that can be explored in future studies. For instance how to resolve conflicts in virtual teams could be one interesting topic to be studied. Another topic could address technology issues; what kind of technology should be implemented when establishing virtual team. Culture diversity has been mention in this study but not too deep. Culture diversity in virtual teams also can be further researched.

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