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A POSSIBLE APPROACH OF THE CULTURAL ASPECTS DIAGNOSIS IN COLLABORATIVE VIRTUAL TEAMS

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Abstract: This paper aims to analyze Collaborative Virtual Teams by taking into consideration items as national culture members' impact upon the whole team and linguistic characteristics of the members. Starting from the conceptual framework definition (describing the concepts of collaborative virtual teams, multiculturalism, cross-cultural and trans-cultural aspects) and also from the advantages of cross-cultural teams, as it appear in relevant references, the paper will focus then on a possible research approach of characterizing cultural aspects (by considering behavior issues and linguistic characteristics) based on a pilot marketing research based on a questionnaire. The conclusions made underline the idea that the virtual cross-teams success depends on how the cultural diversity is managed.

1. INTRODUCTION –BRIEF OVERVIEW OF COLLABORATIVE VIRTUAL TEAMS

Taking into account the specific needs in term of communication and information, knowledge exchange between employees of different services or qualifications, is required inciting the participants for having a collaborative behaviour regardless of their hierarchy level in the company. Over the last few decades, engineering processes have evolved radically. Industries evolved from a very sequential and centralized processes engineering organization, to a simultaneously and distributed organization worldwide. These changes have led companies to review their working methods and their organizational culture definition in order to be able to move from a conservative culture to a knowledge shared culture (and to define them as learning organization).

The *collaborative work* concept re-groups all human activities made by calling upon several persons, simultaneous or not. American English Dictionary defines *collaboration* as action to work together, particularly for joint intellectual efforts. The process of collaboration can be understood using a model in four steps, as described in Figure 1.
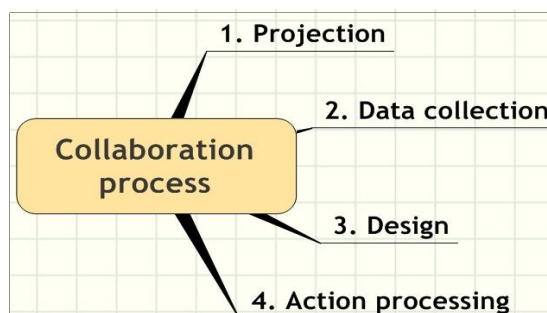

Fig. 1 The Process of Collaboration Using a Model in Four Steps.

Collaboration can be seen from the point of view of its spatial dimension, when referring to distances. Before the current information and communication technologies (ICT) development, remote synchronous collaborations didn't have a deep interactive dimension. Really, the only tool used was the phone, which didn't allow than audio communication. This tool does not allow collaboration on a document of an interactive and sufficient manner. The change brought by computer science and ICT is that this kind of cooperation can now be remote synchronous and interactive. You can now collaborate on

a document (of different type) shared by all persons participating in the collaboration (Al Ebrahim et. al., 2009).

ICT has allowed the creation of a new type of working team, called the virtual team. In recent years, this type of team met an exponentially proliferation. Different type of organizations support virtual teams development for increasing efficiency of a large variety of activities, such as the research and development, the exchange of knowledge (knowledge management), educational (learning and training), manufacturing and marketing (in geographically distributed locations) and other. The advantages of this type of teams are obvious: people no longer have to work effectively in the same physical space; participants can contribute to task attendance from any location around the globe, in any moment of day or night. Breaking the barriers of time and space, a virtual team utilizes at maximum the members experience from the organization (or more organizations) without withdraw the participants from other projects or involve relocation expenses. Thus, even at the level of determination, such teams have a huge potential for the improvement of organizational efficiency.

In this context, a group of workers spread organizational and/or geographically gather to work together on a common project, via communicational and informational technology is considered to be a virtual team (Townsend, DeMarie and Hendrickson, 1998). Koulopoulos and Frappaolo (1999) defines the ad-hoc teams or virtual teams as recombined work structures that quickly approach people and resources in order to solve a particular problem or a customer requirement. Such a team make easy all or most of the interactions by electronic means (Grosse, 2002) by having few face-to-face meetings or not at all because its members are not closer in physical space. In fact, from geographically point of view, the team members can be very widespread, in different countries or even on different continents. They can be members of different organizations, brought together because of their expertise or interests, in order to find a common solution to a certain problem (Godar and Ferris, 2004). ICT and virtual space influenced the working groups in three ways:

- Have introduced new dimensions of communication between members breaking the traditional barriers of time and space,
- Changed the traditional group processes and,
- Have increased the enormous capacity of the group access to information, exchange, handling, recovery or storage.

Although there have been numerous research on each of these three effects of technology, the activity it is most focused on individuals rather than groups. In addition, the inter-human communication supported by ICT, computers, Internet/Intranet/Extranet promotes equality and roles flexibility, but it is less *rich* than traditional communication *face-to-face* and often lead to isolation feelings and individualization (Godar and Farris, 2004). The technology use does not turn a team into a virtual team because teams also localized in the same space often relies on technological support. What is more important is the use degree of the electronic communication that grows *virtuality* because virtual teams do not have the option to use those technologies or not, depending on the technology.

1. MULTICULTURALISM. INTERCULTURALITY. TRANSCULTURALITY

The concepts of multiculturalism, interculturality, transculturality are more frequent not only in scientific field, but also in colloquially everyday language. Everyone knows that we live in a *multicultural society;* the University in a particular city has become over time *multicultural*, that there are as many *multicultural families*, *multicultural citizenship*. The

definitions of this phenomenon underline more differences between the specialists then similarities.

Multiculturalism means cohabitation of different cultures in general (in the anthropological sense) within a social system (most often in the context of a nation) even if this is peaceful coexistence and conflict (Lüsebrink, 2005). It seems that the term multiculturalism was born in 1941, in the United States, while the concept of a multicultural society was used for the first time in 1964, in Canada (Mintzel,1997). In conclusion, multiculturalism can be defined in relation with the way in which people from different cultures share the same common territory, potentially resulting in interaction. At the opposite part, pluriculturalism is the way in which different cultures exist in the same territory, without any interaction and allowing to different collectives to maintain and live with their differences.

Johann Gottfried Herder is considered the first author who speaks not only of *culture,* but also of *cultures*. In his book *Ideen zur Philosophie der Geschichte der Menschheit*, published in several volumes between 1784 - 1791, culture appears as being *the existence blood of a people* (Herder, 1999, p. 361). It doesn't appoint a fact, but a fiction. Culture, as Herder designed, involves *the substantiation mixing social, intercultural and ethnic demographics* (Welsch, 2004).

Interculturality covers entire phenomena assembly which takes up at the meeting of two cultures. This thing results from the analysis of the term itself, but the disputes appear when it raises the question: what is culture? Our cultures are characterized to a large extent in *blends and intermissions*. This new structure that goes beyond the traditional concept of *culture* as it has defined by Herder and it is called transculturality. The idea of a culture is strictly related to ethnicity, according to several contemporary authors, outdated. It can't any longer work not even as a useful fiction. Mass communication systems have led to a emphasized cultural combination. *The current cultures are characterized in general by hybridization.* (Herder, 1999, p. 50). Interculturalism can be defined as sharing and interacting with people from others cultures completely different our own culture.

Transculturality, a term created in the early 1940`s, by Cuban anthropologist Fernando Ortiz (transculturación) characterizes not only companies, but also persons. *Cultural transfer comprises three moments: the selection process, mediation and reception. Cultural transfer is the cultural process of transposition from a culture to another culture of information, speeches, text, images, institutions and procedures for action.* This process is also called *intercultural transfer* and includes, in addition to the points made above, and *the cultural dimension of the transfer objects, products and consumer goods. Cultural transfer processes capable to rich all sizes on the anthropological concept of culture* (Welsch, 2004).

1. APPROACH REALTED TO THE CULTURAL ASPECTS DIAGNOSIS IN THE COLLABORATIVE VIRTUAL TEAMS

Social culture is defined as the pattern of values, traits or behaviors shared by the people in a region (Hofstede, 1980; Schneider, 1989). Culture in international management research has been largely increased throughout the years, especially in the research filed. Hofstede (1980) identified four major value dimensions of cultures. These culture values include power distance (or the limit at which people can accept authority and the difference in society and their organizations), uncertainty avoidance (people try to avoid ambiguous situations), individualism (a people's self concept of being or becoming independent persons or the dependence to a specific group) and masculinity versus feminine values.

Traditional teams turn into virtual teams and activate their own activity from a distance towards the headquarters of the organizations within so called workgroups. The virtual teams use the specific tools and technologies of information and communications: groupware, enterprise resources planning and documents management systems. The members' communication from a virtual team it is made electronically through a fiber optic technology, without geographical restrictions and may never meet face-to-face. The collaboration it is made using the IT new technologies and tools. By collaborative work it can understand a group of people where each member brings their own contribution to the realization of distributed tasks. Effective collaboration requires actions on many fronts: early involvement and the availability of resources to effectively collaborate; a culture that encourages teamwork, cooperation and collaboration; working effectively as a team and collaborate with team members; defined responsibilities for team-based collaboration; defined development process based on rapid exchange of information and collaboration; virtual relocation or the existence of collaboration technologies.

Due to the geographical distance separating the virtual team members, communication and information technologies are the most important tools to facilitate interaction and collaborative work. Communication is a important factor for any team or person. But, the communication becomes more important in the case of virtual teams, being also called as culturally diverse from different point of view. Mehrabian in his study *Nonverbal Communication* underlined the effectiveness of human communication. According to Mehrabian, 11% of the meaning of a communication is represented by words, 32% represented the voice tone, the volume of the words used and 57% is contained in body language that can express lot of things about us as a person.
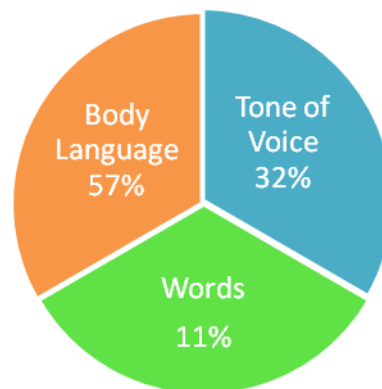

Figure 2. Effectiveness of Human Communication (Addapted from Mehrabian, 1972).

In the virtual teams the communication it's not based on first language or body language, but the misunderstandings can become a difficult problem in this case. In desingning a collaborative team environment, three areas must be take into consideration: people, process and technology.

Trust is the most important aspect for a successful team. The communication in a team will bring step by step a string trust between the teams' members. Having trust, they will be able to understand and rely on each other. Trust is the succesful ingredient in a virtual workplace. According to Patrick Lencioni, *trust is the foundation for a functional team.*

Figure 3. Important Aspect for a Successful Team (adapted from Lencioni, 2002)

As we know the three cultures, national, personal, and corporate are separate entities and interconnected with one another (Gardenswartz, Rowe, Digh & Benett, 2003). These three cultures are clearly used when multicultural in virtual teams is debate.
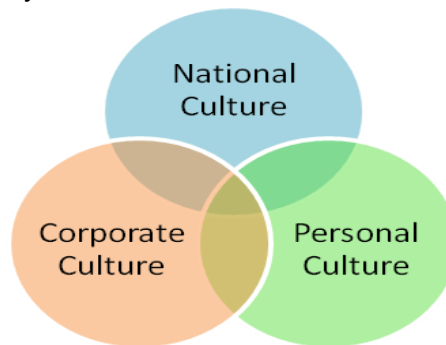

Figure 4. Cultural Dimensions (adapted from Gardenswartz, Rowe, Digh & Benett, 2003)

Team members are aware of their own culture and, in the same time, they can make progress to understand other cultures. This will be possible by learning how to build trust with people from different cultures. No borders between cultures, this is the ideal that we want to achieve.

1.1. AVAILABLE METHODS AND TOOLS – BRIEF OVERVIEW

Software, hardware, the underlying technology and innovative processes in network`s infrastructure and they are tools that facilitate working within virtual collaborative teams. The purpose of their use is to facilitate collaboration and communication between members` teams. Emails, virtual conferences calls and video conference are the most used tools rather than face-to-face communication. In consequence, it is important to choose the best communication environment and tool for each situation/context and taking into account the entire collaborative virtual teams.

In modern Era we can speak about smoothing and differences cancellation. The best example in this case is the mono-cultural model. This model is focused on educating community members in the spirit of a culture (usually dominant) who reflect the way of life and the conceptions of a big people community, heterogeneous from the spiritual and behavior point of view. The following research methods can be used for the phenomena study: documentation, language analysis, critical discussion, observations and the conceptual reconstruction, case study, logical formalization, modeling; but, the most

efficient methods are: focus-group and brainstorming. Those last methods underline the best communication and interaction between the members' team and allow behavior study. Psychology and multicultural counseling is the guideline on person; verbal, emotional and behavior expressivity, person respect, authenticity and empathetic understandings are the main characteristics observe in this case.

Organizational culture is recognized as a major stockholder to knowledge management because represents a source of primary competitive advantage for organizations in their request to achieve the objectives.

1.1. SURVEY METHOD (BASED ON A QUESTIONNAIRE) – THE RESEARCH SCENARIO USED

In the context of the presented research, data were collected using a pretested questionnaire from a sample of, probably, over 40 persons/subjects employed in multinational companies and in the "Politehnica" University of Timisoara (male, females of different ages and educational background).

The sample structure was characterized by the following variables: the average age of the participants/subjects involved in the research was between 20-30 years old (33%). The seniors' participants/subjects average age was between 50-60 years old (21%). Regarding gender characteristics: 54% of the participants were male, while 46% were female. Most of the employees/subjects have Romanian nationality and only a few were Serbian and Hungarian (5%).

The questionnaire consists of closed questions, as well as open questions. The open questions provide and allow participants/subjects to respond (give opinion) using their own beliefs. The closed questions provide answers chosen by participants according to their own opinion. Usually a Likert scale have been use to rank the importance of their answer. Those questions provide quantitative results.

The questionnaire presented in this article is at the pre-testing stage (on-line questionnaire was developed and test), and that is why the presented research is considered a pilot testing. The questionnaire announcement was distributed via email to members of collaborative virtual teams (they were part of different national and international research projects) within "Politehnica" University of Timisoara - Romania and, to employees of important multicultural companies (these employees are master students of "Politehnica" University of Timisoara – Romania, too). Questionnaire results were captured using an on-line tool and all the results were store in a database. The on-line questionnaire was open for pre-testing during one week (from 11 of March 2012 till 18 of March 2012). After this period, the fill-up questionnaires were processed. Even if the participants belong to different organizations, they kept in mind just a particular team when they answered the questionnaire.

The presented research was inspired by the survey of Anawati and Craig (2006). In the following there will be presented only part of this exhaustive research results related to the objective of analyzing Collaborative Virtual Teams by taking into consideration items as national culture members' impact upon the whole team and linguistic characteristics of the members. The questions that are correlated to our research objectives were:
- In which way do you adapt your behavior when working in a cross cultural team?
- Should the other team members be aware of your culture?
- If the behavior within a cross cultural virtual team should be adapted, to whom should it be adapted?
- Do you have the sense of affiliation to a certain group?

1.2. RESEARCH RESULTS AND CONCLUSIONS

In the following there are presented the research results related to this questions and the corresponding research conclusions and hypothesis.

Table 1. In which way do you adapt your behavior when working in a cross cultural team?

Options	No.	Percentage* [%]
Humor as important part of the social life	11	46%
Avoiding slang/colloquialism/jargon/acronyms	5	21%
Confirm understanding	8	33%
Ask open questions to check understanding	11	46%
Repeating with own words to check understanding	5	21%
Others	2	8%

*) Note: Some subjects choose multiple checkboxes; % results may sum up more than 100%.

Conclusion 1 (correlated with Hypothesis 1): Most of the persons/subjects adapt their behavior using the humor or asking extra and open questions for checking understanding and trying to avoid the misunderstandings that may appear in a virtual collaborative team. Other subjects recognize that they avoid inappropriate words (as slang, colloquialism, jargon, acronyms) or they try to repeat the message, information for a better understanding of the work situation and task.

Table 2. Should the other team members be aware of your culture?

Options	No.	Percentage* [%]
Often	3	13%
Regularly	4	17%
Sometimes	9	33%
Rarely	6	25%
Never	2	12%

*) Note: Some subjects choose multiple checkboxes; % results may sum up more than 100%.

Conclusion 2 (correlated with Hypothesis 2): In this case, the answers received show that most of the employees/subjects don't emphasize the culture aspect. The answers were unexpected, but this fact shows that employees/subjects try to have a cross border communication.

Table 3. If the behavior within a team should be adapted, to whom should it be adapted?

Options	No.	Percentage* [%]
Enterprise	4	17%
Team manager	13	54%
I don't know	3	12%
Other	4	17%

*) Note: Some subjects choose multiple checkboxes; % results may sum up more than 100%.

Conclusion 3 (correlated with Hypothesis 3): The answer *team manager* was the first often choice for most of the subjects and this may be caused by the cross-cultural virtual teams need for efficiency in their work processes. The research results show that most of

the Romanian employees/subjects are connected to a classical organization structure, coordinated by the *team manager*. It's very difficult to change the human mentality in this case.

Table 4. Do you have the sense of affiliation to a certain group?

Options	No.	Percentage* [%]
Affiliation to nation	13	54%
Residence country	5	21%
Local workgroup	6	25%
Other	9	38%

*) Note: Some subjects choose multiple checkboxes; % results may sum up more than 100%.

The answers show that there is a very strong affiliation to nation, to other groups and to local workgroup. In the answer "other" we may include the participants' special relation with: family and close friends or their social environment related to their hobby and sport.

In the case of the Romanian persons, criticizing and praising is preferred to be done directly. Also, the research results have underline that 42% of participants have pretty good English communication skills and only 29% are excellent. The communication in foreign languages is not a real problem for the Romanian subjects involved in cross-cultural virtual teams.

2. CONCLUSIONS

The presented research focused on the characterization of some cultural aspects in virtual teams. Starting from a suggestive literature review, we debated some of the real issues that concern virtual organizations and organizational culture. After a short introduction where the collaborative virtual teams were described, there have been analyzed the research results gained by a marketing survey based on an on-line questionnaire in which there were involved employees from "Politehnica" University of Timisoara and from important multinational companies in the West Region of Romania (the sample consists 40 subjects most of them Romanian).

The partial research conclusions underline the following issues:
- When working in cross-cultural virtual teams the Romanian subjects adapt their behavior using the humor or asking extra and open questions for checking understanding and trying to avoid the misunderstandings that may appear in a virtual collaborative team;
- Most of the Romanian employees/subjects don't emphasize the culture aspect;
- Most of the Romanian employees/subjects are connected to a classical organization structure, coordinated by the *team manager*;
- Romanian employees/subjects have a very strong affiliation to nation, to other groups (related to their social environment) and to local workgroup.

The results limitation is given by the low number of subjects that were included in the research sample and by the dominant Romanian nationality of the subjects (only the opinions from Romanian to other cultures has been collected). These limitations will be overtaking by future researches, by the extension of the proposed research scenario to a real international community that develops, generate virtual projects teams.

The presented research discovered that it is very difficult to create formal cultural topics because, at the end, everybody has a different reaction. But when virtual teams' members are wearing in a tolerant and permissive way, they will surpass the related cultural difficulties.

The more geographical dispersion of the team is, the more likely the team will have members from different parts of the world. As we know, the diversity and virtual elements of virtual team may increase ambiguity and complexity of understanding the other members. And now it's very simple to arrive at misperception, misinterpretation, misevaluation, misunderstanding or miscommunication. According to these aspects, the virtual multicultural teams are difficult to manage. Manager has the important role in the team`s coordination. The success of a multicultural virtual collaborative team depends on how the diversity is managed.

If the involvement in the common task is according to the demands, the task will be accomplished successfully. PC Conferences/collaborative tools can be very good support for the intercultural collaboration process because offers many expression possibilities and explanation of complex issues and may be recommended as a useful investment. At the end, even though current technology provides amazing possibilities for virtual cross-cultural teams, the classic face-to-face meetings remain indispensable as part of team building effective involvement. The study, statements and observations, on organizational culture in the research scenario underlined two big common perspectives: the culture put the accent on the individual culture of the team (or the partners) and the culture is in a transition stage.

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