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## NECESSITY OF RESPECT THE RELATIONSHIP BETWEEN CULTURE AND INFORMATION TECHNOLOGY IN MANAGEMENT BUSINESS SYSTEMS

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**ABSTRACT:** The same application software and information systems used today on all continents, in spite of the fact that users of such systems from different national and organizational cultures. In this paper we argue that with respect and encouraging cultural diversity in the business environment can positively influence both the way of understanding, acceptance and use, and the information technology. Also it is shown the cultural heritage of a country's contemporary business culture and its impact on the development of information technology.

**KEYWORDS:** culture, information technology, business systems, management

### INTRODUCTION

Information technology nowadays is developing rapidly. Global communications network is transformed almost every aspect of our lives. This includes the way we work, rest, entertainment, energy, education, political involvement, family experience, social structure, and communication in general.

So far, published numerous papers study the success of the project software development or information systems affect not only professional competence closely involved in the project, but by engaging experts from different cultures gives the final product that is logically acceptable for the global market. Companies who understand how the concept of multiculturalism affects business and those that have adopted this concept have the opportunity to improve their competitiveness in the market. The rapid development of information technology and its use in everyday life certainly had an impact on improving the quality of education. Both, in business and in education and the present trend is the globalization. Regardless of the choice areas of expertise in the study, it is practically inconceivable that the student does not have some kind of basis by management during the study needs to process. Since the majority of literature based on American theories that emphasize diversity as an asset, it certainly had an impact on the ability of young professionals in coping with cultural differences in everyday life. This phenomenon has certainly had an impact on the ability of experts from many countries to be the most easily cope with the difficulties that carry the cultural differences, which makes them ideal for working in a multicultural environment.

Companies today face greater challenges than ever before. A large percentage of cooperation is achieved

with the countries that are remote and which are not known much. For successful cooperation besides knowing the language, it is necessary to know the culture and the national office staff. Language is no longer a barrier, as it is now mostly used English as the universal language. Today we have two extremes, globalization and the spread of mass culture on the one hand, the individual cultures of each country to the other. Despite the cancellation of today tends differences still remain remnants of national culture whose traces can not be deleted. Cultural diversity is inherent in global development. This is because team members have different national, organizational and professional culture. The very cultural diversity has a positive impact on the development of information technology It can have a positive impact on the promotion of creativity but can be barriers to communication and knowledge sharing. No matter what condition the different cultures different ways of business communication, while the use of new technologies in everyday business and personal life leads to the formation of a universal pattern of behavior. This evolutionary process allows individuals in different locations, different cultures, expectations and objectives that are part of the same virtual team. The paper will draw attention to virtual teams and how cultural differences among them can influence the activities and the final results, as well as the possibilities of business development at the global level.

### CULTURAL IMPACT ON INFORMATION TECHNOLOGY

With increasing levels of multiculturalism in today's business and the necessity of information systems development and management of information systems should be considered in light of the cultural factors that affect their usefulness. Hofstede's observations, [14] and analysis provide scholars and

practitioners valuable insight into the dynamics of cross-cultural relations. However, like any scientific work can not avoid criticism. There are many more scientists who support Hofstede than those who do not. Most cites the fact Hofstede. Many people fully include their findings. Great interest has been placed on the culture of the business in the last two decades. With increased national diversity in today's business culture still gives an important dimension. Culture is important for many aspects of business life, especially in terms of design, development and management of information systems, protocols and infrastructure. Design and management choices in information systems are the result of individual values, and these values are the product of socio-cultural background. The values are the product of professional designers, social and organizational context that includes education and experience of an individual. The choice of design is strongly influenced by the socio-cultural environment. Despite the universally recognized importance, the impact of cultural factors on IT results received limited attention by researchers of information systems. When people are faced with information technology in information systems, human cultural values must be taken into consideration. Many cross-cultural researchers, including Hofstede, [14] were criticized for not providing clear guidelines. Hofstede's research has had a major impact on academics and practitioners. Hofstede's model has been instrumental in the realization of many operating systems, including: entrepreneurial behavior, conflicts, dynamics and success of the working group, innovation, leadership styles, management control systems and many other cross-cultural issues. It is necessary that the researcher overcome the many factors that are not common in typical research tasks. [14]

- Problems of definition
- Methodological simplicity
- Equivalence - There are four dimensions: functional, conceptual equivalence of measurement instruments and

As a result of Hof-multinational study are four dimensions of cross-cultural differences that influence the development of information systems, [14, 19]

- power distance - Impact of power distance in information systems has been studied by many researchers. Power distance also has an influence on web design and user interface. For example, the website of the universities in Malaysia are highlighted symbols of power, and on the website of the University in the Netherlands focuses on the students and shows how they are able to improve themselves (there is the possibility of virtual college tour through the camera).

Using information technology to interpersonal communication can be interrupted in different ways, caused by cultural differences. As the communication by electronic mail is considered the least intrusive use of information technology can promote

communication between employees at different hierarchical ladder / positions in companies.

The negative social effects of using email despite individual efforts of individuals, training and other types of training and looms, can mitigate the importance of this communication "tools". Also the communication through information technology can be considered too "remote", which might be less popular.

- individualism / collectivism - This scale measures whether people prefer to work in groups or individually. It indicates the degree of social / communication integration. The U.S. has the lowest values of the scale, ie., they prefer individual results. It stems from a cultural upbringing that people are expected to be independent at a very early age. On the other hand, in Guatemala people means the most to work in groups and performance are attributed to a cooperative achievement. Lifestyles in Guatemala would likely be based on close family ties, with strong community support.

Promoting cooperation is one of the main goals of information systems. Tools such as the Internet and forums, shared drives and Group Support Systems are just a few of the tools that support collaboration. They provide new ways for knowledge sharing, reuse, and expansion of cooperation. These tools support the group discussion, decision making and assist in networking. Within the framework Hofstede's culture, it is possible that an individualist culture to be more resistant to these collaborative efforts support while the collectivist culture much easier to adopt. It is possible that the development of such common information systems pronounced in individualistic societies, whereas collectivist societies do not require additional support.

- masculinity / femininity - This scale is not related to the dominance of sex. This shows the extent to which male traits such as power, assertiveness, performance, success and more preferred over female characteristics, such as personal relationships, quality of life, service and prosperity. Japan ranks lowest on the scale Hofstede and shows that they are very fatherly oriented. The other extreme of Hofstede's research as Sweden and Norway. The people in these two countries are likely to show more empathy for their colleagues.

Interpretation of "paternal" approach to IT management could be interpreted as a controlled, centralized approach. With regard to standards, architecture, settings and processes, centralization involves top-down approach. Developers who work in the "masculinity" and the target are process-oriented, and developers who work in the "feminine" are more oriented towards long-term relationships. Some researchers suggest training as a solution to help developers with the distinctive "effeminate" characteristics, approaching developers with strong traits of "manhood." It has been proven that the good relations between people, and promote the exchange of knowledge relating to trust, which contributes to better organizational performance. Therefore, it

appears that employees with strong feature "femininity" contribute significantly to the organization.

□ *Uncertainty avoidance* - Cultural dimension of uncertainty avoidance is the degree to which people feel threatened by the lack of structure or uncertainty of events. It Refers to the way in Which people deal with it in the future to have full control over when events or events beyond their control. People with low levels of uncertainty avoidance will require a structure with clear rules and guidelines. Hofstede found that Greece had the lowest level of uncertainty avoidance. Therefore, the people of Greece will be willing to make decisions and they will require a very structured work routine. The Swedes on the other hand can work well without structure and have high tolerance for ambiguity. The researchers found that uncertainty avoidance plays a major role in small companies form alliances technology. Small companies face two types of uncertainty: relational uncertainty is derived from the risk of partnership and technological uncertainty is derived from the risks of new technology itself. The researchers found that the company's medium level of uncertainty is likely to access technological alliances, in order to avoid uncertainty. In a study of technology acceptance model across cultures, it was found that uncertainty avoidance is different in different cultures adopt new information technologies. This study explains how to embrace the new technological models in different cultures such as Sweden and the United States, not Japan.

Dependence on information systems brings another dimension of uncertainty and risk. Possible threats are thieves, loss, misuse of data, destruction, and denial of service. Consequences may include unavailability, legal liability and financial losses. They can be detrimental to the survival of the organization. All of these risks can be minimized / mitigated, but also costs related to such a reduction. It is expected that companies with low tolerance of the risk to invest in mitigation of these processes. Further research on how different cultures influence these threats can provide additional research .

#### **THE IMPACT OF TECHNOLOGY ON CULTURE**

The mere application of a technique depends on logic and social needs. For example, today's computer technology is not based solely on the technical logic but also in many aspects related to the social logic and social needs. It all starts with the interaction of certain technical understanding of the social logic. It is a process of exchange and feedback between certain techniques or resources and man. It is the logic of interaction between technical and social aspects of call technology.

Information technology has a social dimension. There is a twofold process. The first is the introduction of technology in the social sphere of logic. The second is the introduction of the social logic of the technical sphere, which is at the heart of technological dynamics and its correlation with culture.

Techniques and created within a particular culture and it represents the product of the same culture as the result of some social needs. The relationship between any technique or technology and its social context is never deterministic and it is never possible to determine a single cause for any cultural or social situation. What you can look for the elements and processes that determine the joint influence of technology. Therefore, none of the techniques and the technology itself is not positive or negative, and even neutral. The impact of technology has opened up new possibilities, but does not specify the selection and implementation of specific options.

There is not only the impact of technology on culture. There are multiple relationships between people who invented, created, or use a variety of techniques in a variety of ways.

Rapid and large changes in technology influenced our daily lives, including the concept of culture. It all began the twentieth century, when the scientific process speeded up. The elements of today's culture are: the availability of information, freedom, social heritage and environment, and new pressures, the appointment of working conditions in companies, adverse impact "of new technology." Application of new technology has provided more time for training, and improve the conditions for the work. Technology can be considered as a means of culture absolve a man of some forms of oppression in their daily lives. Again, some individuals believe that today is one more "subdue" technology. Thanks to technology, man is able to encounter different cultures.

A man is placed in an appropriate social environment of a particular culture. In this important role of religion. The impact of religion on education. This is especially true for religious minorities. Language, habits, customs, traditions, climate in a specific geographical area affected both the mentality of the people, and their culture. The use and development of technology today, communication between people is facilitated. Nowadays, spatial distance is no longer a problem in the business. That's why we have more widespread distribution business outside the home country. Culture is one of the factors that has a special meaning and that today's management should pay special attention.

Development of new information technology network follows the logic that looks at the different categories of time and place. Customers around the world who use the internet do share some common values and customs. This allows them to communicate with each other and create a simpler form of "social organization". This common set of values and practices can be called technological culture. See the development of cultural forms that are not based on a particular geographic or historical-based culture has crossed over them. A potential problem may arise if the new film is not only a technological culture that is new, additional level of culture, but replaces other cultural forms and thus reduce the existing cultural diversity.

Information Technology today is determined very fast development. It may increase the effects of cultural differences between those who have access to

information technology, ie. belong to an online community, and those who do not have such access. Such a division may result in the exclusion of certain social groups. The groups remain excluded from access to information technologies remain excluded from contemporary culture. This can reduce the contemporary cultural diversity. Due to the rapid development of information technology and the strong impact it has important spot emerging problems and tries to solve them.

Increased intensity and scope of communication has resulted in two different trends. The first trend is towards unification, through two mechanisms - the domination of one culture over another. This may result in the disappearance of the weak or the emergence of new cultural mix where diversity is reduced to common elements as the original layers of culture lost. Another trend is the acceptance of cultural diversity because it allows for dialogue between members of different groups, which may again result in the emergence of several new cultural forms. How could any cultural form to survive it must continue to live and change it. Culture is alive only when it is adapted to their environment and continues to produce new cultural forms. Information technologies are mixed in the human environment and thus alter the conditions of existence of different cultures. It is logical that today's living culture to find new ways of expression and organization using information technology. Culture is necessary to try to understand as a means to integrate existing technologies into its own dynamics. As a rule, when people get used to the technology, to accept both her face, positive and negative. It is supposed to be how technology improved, and its negative consequences better managed. Many of our daily activities depend on the smooth functioning of the communication technologies.

Of particular importance is its tendency Internet time, not space. Distance does not lose importance, but we are all connected in cyberspace. A sense of community that is created on the Internet largely depends on the activity that occurs under its own terms. Internet brings us a sense of connection, but it is a random connection.

High technology has the greatest impact on the changes in communication and in general to changes in lifestyle, understanding of culture and ways of doing business. Deleted the boundaries of the area as well as the traditional boundaries between people. Now people are faster and easier to connect, but the connection at the moment can be found in different parts of the globe.

Even if the mass and virtual culture tends deleting old, traditional boundaries, people who meet at business meetings carry the characteristics of the cultures they come from. Sometimes these meetings can be very unpleasant, if encountered by people who come from very different cultures are pre-assembled. This may have a negative impact on a potential or current job. Therefore, the cultural impact can not be underestimated.

Thanks to a revolutionary improvement of computerized technology, powerful and cost-

effective components, the computer has entered almost all the "pores" of human life. In many industrialized countries, more than half of all households has a personal computer. Mobile devices are also massive and fast.

The use of technology has accelerated communication, and people made more accessible to one another. It is also changed, and communication. Communication via PCs and is usually done in writing. Even if you take into account that they can use cameras with high quality, it is not the same as when communicating in person. The fact that the missing effect of non-verbal communication. It is very important to our forming an impression of the caller to recipient better understand what we want to tell him.

Besides the Internet erases the barriers of space between people, it also changes the way of life. Some believe that such people somehow makes the isolation, because people on the Internet are a variety of information, do not communicate so much with other people, because they have no need for it. Communication through an intermediary, in this case, machine / computer has become more and more prominent, ie. common. That's what happens when you communicate with other people. Very often, the communication ends with a computer, and he somehow becomes so. window to the world, which can be reviewed simultaneously isolate the person from direct communication with other people.

#### GLOBALIZATION AND APPRECIATION OF CULTURAL DIFFERENCES IN IT TEAMS

Software development is constantly pushing the boundaries that are set by the company, or State. Available media become more sophisticated. Advanced technology costs less. Trends in software development go more towards "virtual nature".

In this section we will focus on the development teams and how cultural differences among their members can influence the activities of the various stages of the cycle.

It will provide the evidence for the need for computerized support through effective conflict resolution, team building, dynamic role assignment, managing IT projects in a culturally diverse environment.

Demanding needs of the IT industry have led to the development of complex applications and modern virtual nature. Lack of skills, the fact that the redevelopment process costs a lot, the time of development and special requirements of the local market are some of the challenges that multinational companies are trying to overcome engaging virtual teams. Of course, there are obstacles that arise in the implementation and maintenance of virtual teams, the most common barriers are related to the characteristics of the team members. The main common factor that affects the effectiveness of virtual teams are different national cultures of their members. Individuals from different cultural backgrounds may have different beliefs, values, competencies and understanding of priorities. There are different models of national culture. Practitioners seek to understand the cultural

differences among the teams who work together or within a team.

In the majority of the members of virtual teams is often lying close to the geographically diverse locations and in different time zones. Virtual teams can involve more than one organization, which means that members of the team may belong to different organizations / companies, but to work together on a project.

Virtual teams have a network structure. They need frequent and structured communication. To work in virtual teams to be effective and to avoid delays and conflicts, the level of trust must be quite high, higher than that of traditional teams. Many companies have access to a large number of experts, in order to reduce the cost of software development project to be open 24 hours a day. This is done by engaging teams in different time zones and sourcing operations to countries with lower standards of living and lower wages. In addition to reducing costs and benefits have called. internationalization of software, creation of localized centers, construction of knowledge base and knowledge sharing. Ten most representative factors affecting the performance and sustainability of virtual teams are [19]:

cultural differences among the team members of different teams, distance between teams, 3 duration / life cycle team, 4 frequency of communication between team members and between teams, meetings held within the team, allocation of roles within the team, dependency between tasks, location of team members, technological requirements, the time differences within the team.

Also IT professionals have different views on the importance of cultural differences. Culture is a sensitive topic for discussion because it has to do with archetypes. The most effective way to deal with cultural differences is to use any of the archetype as a starting point and is constantly supplemented with new information. It should be noted that all the time dominated by individual differences in cultural differences. There are several types of cultures that exist and are responsible for the patterns of behavior of team members. Some types of cultures are stronger than others and dominate the work of all the team members and influence the quality of their interpersonal communication. These types of cultures [19]:

- National Culture organizational / corporate culture;
- professional culture the operational culture within which there are several types of virtual IT team: network teams, parallel teams, project development teams, production teams, service teams, management teams;
- culture team

Every man is a member of multiple culture. This can be one or more national / ethnic cultures, one or more professional cultures, functional culture, organizational culture and culture teams. For example, the Russian programmer on their characteristics more similar to the American counterpart, the developer, but the Russian marketing manager. This example provides sufficient

reason for further debate about whether you cultural differences emerged to the surface in virtual IT teams despite strong professional IT culture.

Managers and team leaders of IT teams need to be aware of the impact of national cultural differences and explore what cultural impact on the formation and management of the teams. This has an impact on strategic planning and human resource management. Under the direct influence of different national cultures, team members are [19]: Team structure, Management team, Communication team members, Conflict resolution

By now it is clear that national culture influences the behavior of virtual teams. Cultural differences among team members may have an impact on conflicts within the team and end results.

## CONCLUSIONS

The global development of business information systems are facing various challenges. Conducted numerous studies illustrating the impact of cross-cultural factors in the development of global information systems. The biggest causes faced by virtual teams effective communication and coordination. Virtual, global teams can be explained as teams consisting of members from different cultures and who are globally distributed. In cross-cultural management has become a common practice of introducing cross-cultural training. This is done to help employees prepare for effective relationships with colleagues who come from different cultures. Characteristic of today's society as globalization and intercultural and use of information technology. It now increasingly characterize our society. One of the most important characteristics of today's successful business leaders in the international arena is intercultural competence. On the other hand the same applications and systems used by people of different national and organizational cultures. The development of information technology faces a number of challenges, including cultural diversity and intercultural management. Cultural diversity is inherent in the global development since the team members have different national, organizational, professional culture. Cultural diversity has a positive impact on the development of information technology. Cultural differences are one of the most important factors that influence both the way of understanding, acceptance and use, and the actual development of information technology.

The globalization of business means that today's modern management is faced with the need to overcome the geographical, political, cultural and other barriers. Particular attention is drawn to the differences in national cultures. Involvement in globalization trends of today'. Globalization enables modern companies many opportunities in the form of market expansion, accessibility of material resources and cheaper labor force, availability of technological and managerial know-how. The advantages that globalization brings, it transcends geographical, political and cultural borders. Information technologies have led to changes that people and companies that are in remote locations make it easy to communicate and do business. This large number

of people provided ample opportunity to become part of the global economy, regardless of which location they live. From the survey results it follows that the potentials of information society indicate the dependence of the spread of globalization of information technology.

In today's modern society, minority groups are common. Multiculturalism is the coexistence of many cultures in a territory. The concept of multiculturalism is characteristic of the English-speaking world. This paper explains how multiculturalism affects business in the IT business. Multicultural orientation of the company and its managers is a feature of modern business. Multiculturalism is not an obstacle that can be overcome, but it is one of the major sources and maintain competitive advantage. It is concluded that the stimulation of cultural differences in business a company can improve its competitiveness in the market.

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