ADVANCED COMMUNICATION TECHNOLOGIES AS SUPPORTING TOOL FOR CONTEMPORARY MANAGEMENT

NAPREDNE KOMUNIKACIJSKE TEHNOLOGIJE KAO SREDSTVO ZA PODRŠKU SAVREMENOG MENADŽMENTA

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Abstract: *Successful management depends on a good communication. Communication in and out of the enterprises is very hard and complicated. Managers try to find new ways which will help them to have faster, simpler and permanent exchange of information. Appearance of the ICT and internet has contributed to be used new types of communication technologies that have enhanced the management process. The mostly used concept for computer assisted communication is collaborative software or groupware, which covers a wide range of communication techniques and tools.*

Key words: *Communication technologies, internet, tools, enterprises, management*

Sadržaj: *Koliko će menadžment biti uspešan zavisi od dobre komunikacije. Komunikacija unutar i izvan preduzeća vrlo je zahtevna i komplikovana. Menadžeri pokušavaju da nađu nove načine koji će im omogućiti bržu, jednostavniju i permanentnu razmenu informacija. Pojava interneta i IKT doprinela je razvoju novih tipova komunikacionih tehnologija koji su unapredili menadžment proces. Najčešće korišćeni koncept kompjuterski podržane komunikacije je kolaborativni softver ili groupver, koji pokriva širok spektar komunikacionih tehnika i alata.*

Ključne reči: *Komunikacijske tehnologije, internet, alati, preduzeća, menadžment*

1. INTRODUCTION

All enterprises in dynamic world are struggling to become bigger and to disperse their activities on different geographical location. The motive is to have bigger market share and to gain bigger profit. The idea for this decision is depending on the quality of the people and technology and the combination of these two resources. Management takes a big part from the success of every enterprise. To have a good management it is necessary to have a good communication and flow of the information in and out of the organizations. The communication technologies during the times are very advanced and can help to managers to save time and money. There are different communication technologies and all of them are used in order to have success in management process and in realization of the function for organizing, leading, delegating, coordinating, cooperating and controlling. If the

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communication technologies can ensure successful management, this indicates that they play a crucial role in the success of the enterprises.

This paper explores different types of communication technologies that can allow managers to work "anytime, anywhere". This study is concentrated on the European Union territory, which included 27 member states at the time of research.

2. GLOBAL TREND: NEED OF NEW COMMUNICATION IN MANAGEMENT

With the globalization, a lot of enterprises have dispersed their activities and there has occurred the difficulties how to manage them. Starting from the beginning the enterprises are using telephones and written documents like primary communication. But, one decade ago the communication has become a new dimension using the internet. This can be confirmed with the information in Table 1, where is monitored the trend of using the telephone line in EU countries from the period of 2004-2013. The number of the fixed telephone line is decreasing during the years and compared with the 2004 in 2013 we can notice that are decreased for 9,635%.

Fixed telephony - main telephone line	*European Union (27)*
2004	239.022.064
2005	237.310.072
2006	237.340.311
2007	229.630.111
2008	226.166.738
2009	233.886.904
2010	230.365.704
2011	226.043.291
2012	220.894.517
2013	215.991.716

Table 1: The number of fixed telephone line in EU [1]

This trend is occurred after the appearance of the internet, which benefits are used in contemporary management. Managers are aware of the advantages of the Internet and started to use it, like supporting tool in their permanent communication process. The percentages of enterprises (with 10 and more employee) that has internet access in the European Union is depicted in Table 2. There can be noted that the increasing trend is present and from 2010 to 2014 the enterprises are very close to have internet access in every enterprises. The plus benefit of this communication is saving the costs that are given previously for the telephones.

Year	*Enterprises - level of internet access* *(% of enterprises with 10+ employees)* *European Union (27)*
2010	94
2011	95
2012	95
2013	96
2014	97

Table 2: The percent of Enterprises with 10 and more employee that has internet access in EU [1]

The 96% in 2013 are elaborated in Figure 1, where is given separately percentage of the enterprises that has internet access according to their size: small, medium and large. The percentage of all tree types is higher, but the large enterprises, because of the bigger scope of their work use internet in their daily activities, including the management functions. For that purpose it is necessary to have internet based communication.
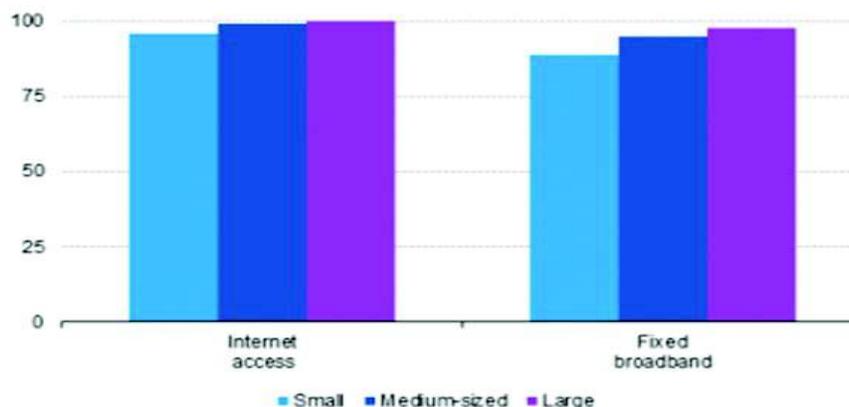

Figure 1: Enterprise use of information technology in EU in 2013 (% of enterprises) [1]

Using Internet access in almost every enterprise allow managers to use the new types of communication technologies. The fixed broadband coverage is increasing in EU countries, but the technologies progress related to Internet continues, and next step is using the mobile broadband coverage. Managers easily accept these communication technologies which will help them to do their work and save the time. The trend is moving from fix to mobile internet. In the 2008 the mobile coverage was 74.4% which has drastically increased to 89.9% in 2010. The difference of 15.5% for just 3 years is good indicator for the trend that is coming - the mobile internet.

Year	*Fixed broadband – coverage*	*Mobile broadband – coverage*
2008	92.8	74.4
2009	94.4	82.0
2010	95.3	89.9

Table 3: The percentage of fixed and mobile broadband coverage in EU (27) [1]

3. ADVANCED COMMUNICATION TECHNOLOGIES IN MANAGEMENT

Now a day, using ICT technologies is crucial for the success of the small business and the big corporations. Communications, as essence of effectiveness and efficiency, are in the focus of the contemporary management. A lot of application software is designed. The mostly used concept for computer assisted communication in business is Collaborative software or groupware. Some authors, for this concept say that it is umbrella that covers a wide range of communication techniques and tools.

In the research paper [2] groupware is part of Computer-supported cooperative work (CSCW), as phenomena for human business interaction. Here, have to be emphasized that

CSCW goes beyond building technology itself and looks at how people work within groups and organizations and the impacts of technology on those processes. This paper summarizes the innovative techniques and tool for collaboration in the enterprises. According to the level of collaboration groupware can be divided into three categories. First category is communication, as unstructured interchange of information. The category that is put on the second level is conferencing, which refers to interactive work with discussions, document shearing, making deals etc. The third category is co-ordination that refers to complex interdependent work. The focus here is put on the tools for the first two categories – electronic communication tools and conferencing communication tools.

2.1. ELECTRONIC COMMUNICATION TOOLS

Characteristic of electronic communication tools is that they are means of sending messages, files, data, or documents between people. These tools have ability to facilitate the sharing of information. Because of that they become popular business tools. According to the statistics the most often used are: e-mail, faxing, voice mail and web publishing. E-mail use methods for exchanging digital messages and present an instant form of business communication. The advantage of email over the telephone communication is speed: you can send attachments with an email that contain important documents. Also, with e-mail companies one can make archives. The convenience of email prevents from having keeping file folders filled with papers and makes the important correspondence portable. Emails are free to send and are usually received fairly quickly (a couple of seconds after sending). Very important characteristic, which is reason for often usage in business, is that the messages that are send via email can be encrypted making it possible to send confidential information.

Faxing is the telephonic transmission of scanned printed material. The main advantages of using this communication tool are: relative cheap cost, easy

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installation, also they are simple to use and require very little training. With voice mail systems, calls are answered and routed quickly and efficiently. With several customizable options, voice mail systems can help organize office messages quickly and efficiently as well as provide friendly customer service, thus saving one time and money while maintaining its

professional image. Voice mail reduces unwanted interruptions. Also, these tools increase efficiency from 10% to 20%, reduce labor costs and improves customer service.

2.2. ELECTRONIC CONFEFENCING TOOLS

In business sector conferencing is often used method for communication. According to the time there are two types of conferencing: synchronous (real – time /online) and asynchronous conferencing (there is a delay in interaction between contributors).

Electronic conferencing tools facilitate the sharing of information, but in a more interactive way. Examples of tools that allow conferencing are: Internet forums, videoconferencing, data conferencing, Electronic Meeting Systems (EMS), instant messaging, application sharing etc. Video conferencing is mostly used tool by small business and big corporation. The communication in video conferencing is realized by simultaneous two-way video and audio transmissions. Because of that, this tool can be characterized as very efficient.

Videoconferencing is currently being developed as cloud-based or cloud-supported and can be designed for use by SMEs. [4] According to the report, "How We Work: Communication Trends of Business Professionals" [3] 64% of those surveyed used instant messaging; 61% tapped social media; 58% texted; and 54% spoke via video conference. In addition, 69% participated in audio conferences and 67% joined a web conference. For business purpose, other tool that is often used is data conferencing. The difference between video conferencing and data conferencing is in interaction and presentation devices

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such as a screen, keyboard, mouse, camera, etc. that can be shared or be able to control each other computer. More advanced tool for communication is computer-based system that stimulates problem-solving and decision-making within a group and it is known as electronic meeting system (EMS).

EMS systems are distinct from web conferencing systems, although both have some features in common and complement each other in the modern workplace. The unique features of EMS overcome the limitations of traditional face-to-face meetings such as lack of participation, criticism and domination of the proceedings by a few members. [5] Some of advantages of this system are: increased interactivity and participation by parallelization; more sophisticated analysis by voting and analysis in real time; less effort in preparation by

using meeting templates; repeatable meeting and workshop process through meeting templates.

4. CONCLUSION

We live in a very dynamic world and to be in the step of the changes in the world we should be very flexible. The same aim has the enterprises which want to be more successful and profitable. The enterprises want to disperse their activities in more countries in EU. To have an effective and efficient management process they are using new types of communication technologies. The implementation of these communication technologies can ensure saving of time and money.

According to the results of the research in this paper is obviously to see that the trend of using communication tools is changing. The first type of communication through telephone is decreasing, while the internet access in the enterprises is increasing which indicate on the new communication types using are connected with internet. Managers gaining the benefit of the internet started to think to move on another more sophisticated way of communication – collaborative software or groupware as a part of computer-supported cooperative work (CSCW). This is the latest novelty in the communication technologies and the benefits are used by the contemporary managers.

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