

# Critical Competencies of Virtual Team Members and its Managers for Business Success

Radović Marković Mirjana<sup>4</sup>, Marković Dušan<sup>5</sup>, Radulović Dejan<sup>6</sup>

## Abstract

Virtual teams function in the conditions of great insecurities and specific demands of the virtual environment. Therefore, when forming a successful virtual team, special attention should be paid to choosing its members, on whom the efficiency of the project tasks depends to a great extent. The evaluation of competencies has an exceptional significance in assessing the capacities of the employees, their potentials and limitations in order to foresee their individual success or team success. However, the whole concept cannot be imagined without competent managers who manage and develop virtual teams. According to this, the main aim of this paper is to determine the key competencies of members of virtual teams, as well as of their managers which are characterised by success in business operations of virtual organizations. For establishing the key competencies of virtual teams on one hand and the competencies of their managers on the other, we used literature overview as well as the newest researches in this field. In practice we can conclude that competent managers should use a wide range of new, technologically supported options in forming their strategies with the goal of being able to meet and face the changes, instead of just react to them. Also the authors give numerous examples from Europe which show the comparative advantage in implementing the new technologies by the ones who possess IT education, because they accept them as new ideas faster than the others.

**KEY WORDS:** virtual teams, employees' competencies, organization, information technologies, managerial information competencies

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<sup>4</sup> Corresponding author: Faculty of Business Economics and Entrepreneurship, Belgrade, Serbia, e-mail:mradovic@gmail.com

<sup>5</sup> Belgrade Business School, Belgrade, Serbia, e-mail:dusanbps@gmail.com

<sup>6</sup> Business Academy, Novi Sad, Serbia, e-mail:dejan.radulovic@mrrls.gov.rs

## Competencies: theoretical framework

„The needs for competencies and qualifications at the level of wider social community (region, entity, state) are not easy to determine and are usually considered to be determined at two levels: at the level of an enterprise and at the national level (or perhaps at regional or sectoral level) “ (Praštalo, 2010, str.21). Competency is capability of a person, which is verified by some written document and relates to the fact that this person is able to work in a certain profession (Pukelis, 2009, p. 20). Moreover, competencies show the ability to apply certain knowledge, skills and personal, social and methodological skills, at work (Federal Employment Office, 2011) as well as at personal and professional development. They are related to the demands towards a profession connected to productivity, where competency is defined as a mixture of skills and abilities which are of use with the goal of increase in productivity of an enterprise.

The evaluation of competencies is of exceptional significance in gaining an insight into the capacities of employees, their potentials and limitations, with the goal of precise foreseeing employee's individual success or team success. This evaluation is done when the project teams for project realization are formed, also in cases of forming the teams and in case of an optimization of organization structure. Goals and work success are not being observed individually as isolated elements of employees' development system, but they are intertwined and act together in direction of work, professional and personal development of the employees with the support of their leader (Praštalo, 2010).

Necessary competencies for certain kinds of business tasks can be changed depending on the goals of the project as well as the leadership in an organization. That is, organizations can determine which positions and at which level they demand special competencies (Spencer, Watkin, 2006). It is essential to identify the key competencies of the employees in organizations. Key competencies are transferable multifunctional groups of knowledge, skills, talents and attitudes which are necessary to all individuals for their personal realization and development, inclusion in society and employment (Federal Employment Office, 2011). However, before this process a more thorough analysis has to be done, which gives the key notions of society of knowledge (Drucker, 1994a; 1994b). We are talking about productivity of knowledge and knowledge management. Productivity of knowledge is a new phrase which directly speaks about two criteria: innovation and usability. Instead of one type of knowledge we will talk about groups of knowledge, Drucker points out, and the priority is determining what new knowledge will be necessary, whether it is applicable and what should be done for it to become productive (Drucker, 1995). Human resources management, as a business function, unifies jobs and tasks connected to people, their finding, selecting, their education and development (Praštalo, 2010). While selecting the staff, HR experts should consider competencies that an individual possesses and compare them with job requirements. By reviewing the current abilities of staff and comparing them to the necessary skills, organizations can make better decisions while hiring.

Globalization faces the European Union with new challenges, which insist on wide range of knowledge. European Union is making efforts and warns about the importance and the need for life-long learning and it publishes documents which regulate this area. According to this, information and communication technologies are the subject of significant demand for researchers and theoreticians in the last decade. Since the mid-1980s, information technologies have had a growing strategic influence (Bassellier, et al., 2003). Following this trend, theoreticians have focused on integration of IT professionals

and business managers into creating abilities of information technologies and effective usage and implementation in organizations (Bassellier, et al., 2003; Rockart, et al., 1996). Theoreticians of resource theory suggest relevant steps in the area of connecting human factor with information technologies in creating the sustainable comparative advantage of an enterprise at the market (Barney, 1991) (Mata et al., 1995) (Ross et al., 1996)

In some of the most eminent theoretical overviews the special attention is paid to the significance of human capital in creating the sustainable competitive advantage of an enterprise through modern information and communication technologies. Most of the resource theories advocate unification of human resources factors with information technologies in building the sustainable competitive advantage of an enterprise. (Barney, 1991) (Mata et al., 1995; Ross, et al., 1996).

In virtual companies, special role belongs to a global leader who is usually defined as a person who develops business at the foreign market, sets the strategy of business at the global level and manages various global and diffused teams (Brownwell, 2006). Cross-cultural competencies are a complex notion which includes soft and hard skills. Development of such competencies must include an open approach which does not imply imposed system of values and standard solutions, but the development of personal career and a better life for all the hard-working people. Intercultural knowledge influences greatly the development of personal careers in an organization (Praštalo, 2010, p.17).

If modern organizations expect employees to be flexible and offer innovative solutions, that means that education should offer knowledge and skills which enable the young to creatively solve complex problems (Đurišić-Bojanović, 2009b). It is important to mention that during the education process and process of acquiring skills for a profession, person develops his or her abilities in accordance with the standards of that profession.

Large number of competencies can be divided into two types (Radović-Marković, 2011, p.37):

- competencies which can be successfully applied to a large number of tasks (general competencies);
- knowledge, skills or strategies appropriate for an organization which is specific and which demands special adjustments.

New forms of labour, new technologies and new demands which are set for the employees, have led to gradual redefining of education and to directing individuals and education institutions in that direction. The training of human resources for certain jobs is done primarily with the goal of increase in knowledge and competencies of employees, in order to respond to business tasks better (Radović-Marković, 2011, p.39). General competencies have been especially considered in the recent years in education researches (Barth et al, 2007;. Canto-Sperber, Dupuy, 2001; Holmes, Hooper, 2000; Bennett and Sur, 1999). One of the most important reasons for the development of these researches is to improve the quality of studies and the level of knowledge which students acquired during attending educational programs in higher education institutions. "The goal, in this case, besides the professional development, is promotion of personality development which enables an individual to deal with complex situations and to make decisions easily"(Barth, Godemann, Rieckmann, Stoltenberg, 2007, p. 421). On the other hand, specific competencies can additionally be classified in those that are directly connected to specificity of an enterprise, special tasks and the one that are connected to economic sectors.

We can expect to find in the future researches that the organizations will pay more and more attention to dimensions of virtuality, organizational culture in virtual organizations, virtual teams and their competencies (Skyrik, 2010).

## Virtual teams and e-competencies

By using various measures every enterprise can develop a base of its competencies by gathering of appropriate competencies outside an enterprise, as well as by developing the human resources which are already employed in the organization. These investments will be efficient only if they are used in such a way to aim the market needs. In that sense we use the so-called chain model of competencies, because it directs attention to the activities which enterprises do in order to advance their competencies base in two areas:

1. Development of internal competencies, which represents the measures that a company takes in order to develop and advance the status of the existing competencies of human resources already employed in the company.
2. Gathering the competencies outside a company by buying them as different external competencies which the company lacks, and which are crucial for company's obtaining of better characteristics.

At the personal level, employees should be educated in the area of information technologies, ready to facilitate introduction of information technologies in daily processes in a company by using their skills, but they should be provided with technological hardware and devices. Knowledge in information technologies refer to the wider knowledge and skills which relate to objects, because in such a way they enable the introduction of information technologies into daily activities and processes of an enterprise (Tippins, Sohi, 2003). IT knowledge, skills and operations can exist in an enterprise only if an enterprise prepares a platform for introducing information technologies. Objects of information technologies refer to availability of hardware, software and human resources – employees and managers. Owning of IT knowledge, operations and objects guarantees the readiness of an enterprise to gain, apply and realize integral functional influence of information technologies in cooperation with other resources and as a support to business processes in creating additional value (Bessant, et al., 2001).

Some authors consider experience as an integral part of IT competencies along with the education (Rockart, et al., 1996), (Bassellier, et al., 2003). Experience in applying information technologies refers to the activities which an enterprise undertook in the field of IT projects and the experience in managing these projects. According to the numerous papers of many authors, experience which refers to competencies (Tippins, Sohi, 2003) will probably influence the acquiring of IT skills, as well as the advancement of competencies and resources for the future work of employees and an enterprise. That is why it is expected for the experience in information technologies to support the ICT knowledge and increase the readiness of an employee to efficiently introduce information technologies on the one hand, and readiness of management to increase the investments in tools and ICT equipment on the other hand (Foss, Knudsen, 2000). Discussions on the best practice in education and training for acquiring IT knowledge point out that they are the precondition for building individual and team competencies in that area.

The next framework of resources theory insists on (Lockett,Thompson, 2004) enterprise, with the intention of realizing its goals at the market, especially international, having to possess resources that are: valuable, rare and difficult for imitation and replacement (Barney, 1991), in order to put a barrier for the competitors. IT skills and the will of employees to use ICT devices and tools can create new special values in an enterprise. Extremely important are managerial skills in information technologies (Rockart, et al., 1996), if we consider that these skills can potentially influence the increase in competitiveness of an enterprise. In the industry-related studies it is pointed out that the sector of ICT users, which comprises industries and intensive users of information and communication technologies, own much more competencies in comparison with those

industries in which ICT technologies are not used. Studies, conducted in the USA, Australia and Great Britain show that the enterprises and service activities connected to them, where modern ICT technologies systems and tools are intensely implemented, have significantly higher productivity from those who do not use ICT (OECD, 2010). European Union also marks higher growth in productivity with enterprises which use information technologies intensely in business operations.

Abilities demanded in enterprises which use information technologies intensely imply:

- a) research activities,
- b) development,
- c) design,
- d) strategic planning and
- e) maintenance

These activities are unimaginable without greater support of an individual, employee and manager. Generally speaking, this can be counted as “computer literacy“, which implies using the information technologies while working, relaxing, studying and communicating. From the point of view of labour force, the users of information and communication technologies apply the systems and tools as a support to their work. Skills of ICT users imply: using the tools of the general software and specific software supporting business functions of an enterprise. The skills of electronic business or leader electronic skills, imply abilities necessary to use possibilities enabled by the ICT, Internet and other more efficient and effective performances in various types and sizes of enterprises.

The starting point of every virtual organization is a specific task or a product whose solution demands the combination of certain means from the net, which is the basis of some virtual organization. Usually the completion of every task demands using only a specific part of the net. Once configured, every participant of such an organization contributes to solving the problems within the framework of his own competencies and qualities.

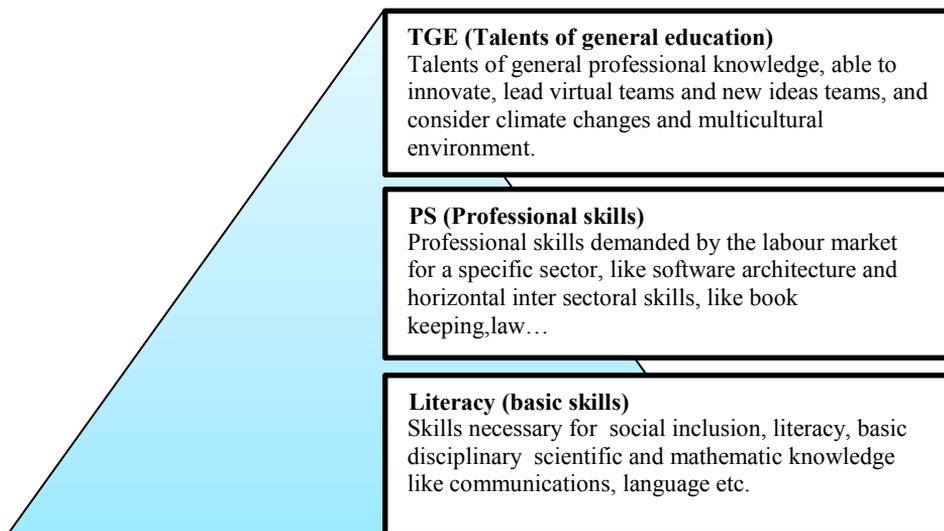
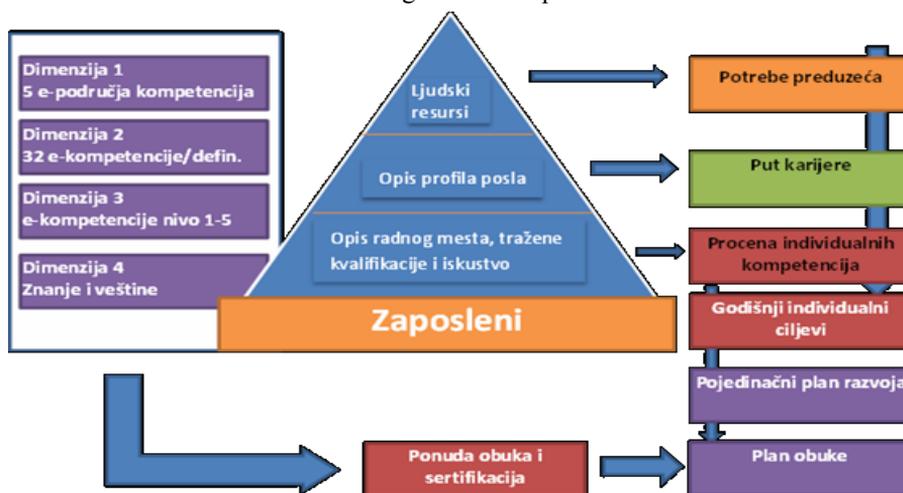


Figure 1: Pyramid of basic skills

Source: INSEAD, 2009 and McCormack, 2010.

Here we think of using possibilities of new ways of doing business, administrative and organizational processes, as well as founding new companies. The following chart gives and overview of the basic skills according to the European Union definition.



Picture 2. European framework of e-competencies

Source: Authors

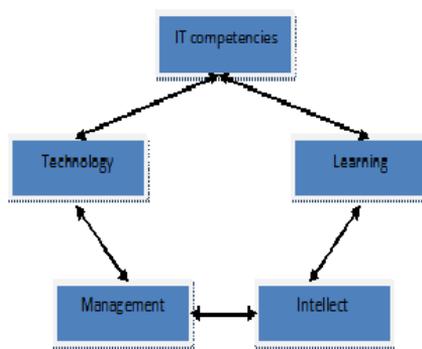
European framework of e-competencies (e-CF) is the contribution to the growing significance of information and communication technologies (ICT) at the global level, as well as the great potential of this sector in creating the employment policy. This is a general framework which enables ICT professionals to describe and develop their own abilities, and to the enterprises and its employees to identify the ones who possess the desired skills or who can advance their skills. European e-competence framework provides the description of professional skills for using the ICT, general framework of competencies and the level of understandable ones in Europe and internationally usable ones. This framework is made for implementation in enterprises, to be used by the users or suppliers of ICT and hardware services, managers and HR departments, educational institutions and training bodies, as well as other organizations in private and public sectors. E-CF is developed in 2008 through the process of cooperation between experts and interest groups from various countries. The application of European framework of e-competencies can be useful to a growing number of those who want to implement it in their business practice.

The experience in using e-CF in numerous applications shows the quality tool which facilitates processes connected to ICT competencies, qualifications and human resources development.

Majority of researchers agree that e-skills are becoming more and more important for advancement of competitiveness, productivity and innovation, as well as for employing the labour force and its professionalization. In that sense, there is a great need for ensuring the knowledge, skills and competencies of managers and IT specialists in that area, but also the users, in order to be able to fulfil highest global standards, which are continually being advanced through the process of effective life-long learning.

## IT competencies of managers

More severe competition and globalization have put innovation in the spotlight of industrial development. The lack of capacities for a successful risks management endangers especially small enterprises. Model of IT competencies of managers has two dimensions: knowledge and experience. The role of an entrepreneur in companies, especially the small ones ( 0–49 employees), which are in majority, is described in literature as leading, managerial and coordinating, but also as entrepreneurial, as taking over the new combinations and responsibilities, risks and innovation, with the goal of realizing the strategic goals of companies (Drucker, 1999).



Picture 3: IT competencies of managers

Source: Authors

Managerial information competencies always include the following areas of IT competencies: technology, engineering and management, intellect and learning. Managers, creative leaders, can use a wide range of new, technologically supported options in formulating their strategies, which they use in business activities in order to encounter changes and not just react to them. That is why, before the IT functions get from the operators to business, it is necessary to create the internal abilities of managers and the atmosphere for permanent learning in order to expand innovative abilities in business by using the IT tools (Bessant et al., 2001), (Barrios, 2007)

Model for creating connections between ICT recourses and processes is given in several stages:

- Readiness – stage of preparation of technical, trade and social infrastructure for a certain ICT initiative of electronic trade.
- Intensity – state and stage of using e-trade scope, value and nature of transactions. It shows who and to what extent uses e-trade, leading sectors and applications.
- Influence – shows the changes in behaviour of using certain ICT project, applications in e-trade, as well as the results, specific expenses and benefits from ICT projects. It also shows added value created by using e-trade.

## Conclusion

Analysing the virtual teams, we can identify main reasons for the increase in virtual team work and using the Internet technologies in organizations. First of all, the appearance of virtual teams represents an answer to various challenges that 21st century organizations face. The appearance of virtual teams was determined by fast changes in business environment, market globalization, as well as the increase in possibilities of inter-organizational cooperation. That affected the forming of various forms of organizational structure as well as the appearance of new work tasks, which demand new knowledge and competencies of employees and managers. Problems in many cases come as a consequence of inconsistency of the conditions for achieving success and current possibilities of an organization. This means the lack of necessary skills of employees and managers in some virtual organization.

For determining the key competencies of virtual teams on one hand and competencies of their managers on the other, this paper used literature overview as well as the newest researches in this field. We came to a conclusion that there is a correlation between various different kinds of changes in organizations and changes which happened by using the electronic functions of an enterprise. Numerous cases in Europe show the comparative advantage in implementation of new technologies by the employees with IT education, because they adopt them as new ideas faster than the others. Also, very high obstacles set for the SMEs' entering some new market have been facilitated by greater usage of IC technologies, because in that way the expenses are reduced, productivity and profitability are increased and labour force is additionally motivated to learn and increase the competencies at work.

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