The given article tries to define the specific form of human capital – human capital network. The article underlines the role of human capital in modern economy. Moreover, the article explains the notion of a knowledge worker. The article shows that human capital network is a concept which is the combination of a modern knowledge worker with requests of a modern market which is highly dominated by many kinds of network relationships and by modern technologies. The main goal of the article is to identify the notion of human capital network.

**Keywords:** human capital, knowledge worker, human capital network.

**Introduction**

Development of the global economy which caused changes in communication, competitiveness, cooperation between different kinds of institutions, market units and individuals; has also influenced the way the modern world is perceived. The world where different kinds of social objects are dependable and where they co-create wild-spread structure which is complicated and dynamic structure and is related to network.(see: Castells, 2007).

We exist in a world defined also as e-economy. E-economy meaning electronic economy can be understood as conducting economy processes using electronic means of data processing.

Development of teleinformative technologies has caused changes in processes being held in enterprises and between them. It has also brought changes in contacts
with clients as well as in relations between individual clients. Employees and their way of work have been changed as well.

Independently, apart from network directing approach and the e-economy concept one can observe, on the market, the concept of modern economy based on knowledge. It is a kind of vision of economy where creating and appropriate usage of knowledge becomes the main factor causing rise, it is at the same time necessary condition for the improvement of effectiveness and innovativeness of enterprises what means it is also necessary to improve of ‘well-being’ of the whole society.

A very crucial role, in this model, plays a process of effective creating and knowledge usage, on the market, as well as the development of an informative society and modern technologies. Knowing human is knowledge creator and teacher, human capital is highly evaluated. Because the role of network becomes human capital network. It is consisted of elements which are vital for modern e-economy-based on modern technologies as well as on economy which is based on knowledge. In the light of the above assumptions the main aim of the given paper is to identify the concept of human capital network which functions in the e-economy.

The article is based on the analysis of the topic literature and other researches related to this issue.

1. The role of human capital in the modern economy

Nowadays, human resource management, everywhere it occurs, has been perceived as highly important as far as economic activities are concerned. Other factor, apart from typical economic changes, which made the role of human impact and their knowledge more important is the economic situation. It is widely known that in order to develop a business entity needs to have financial capital. Nevertheless, such kind of capital can hardly be obtained in times of sluggish economy and crisis. Luckily, many companies have noticed a type of an inexhaustible capital which is human capital. It can be referred to as being the core of intellectual capital as human is the one who can bring knowledge to his firm and use it properly.

There are many different views concerning human capital. According to encyklopedia.pwn.pl it is a combination of knowledge resources, abilities, health, vital energy, work capability, an ability to accept changes and possibilities to create new solutions.

As far as economic activities are concerned human capital can be presented as a combination of such factors as:

1. features an employee possesses: intelligence, job commitment, engagement in work, energy, positive attitude towards life, accuracy, honesty, reliability;
2. employee’s learning abilities: brain capabilities, imagination, analytical skills, creativity;
3. employee’s motivation to share information and knowledge with others: teamwork skills, goal aiming (Sokolowska, 2005).

Growing importance of non-material resources including human capital means enterprises are able to, thanks to employee's creativity, achieve success on the market. Often it does happen because this capital becomes a part of business network where giving his unique competencies he can get a financial support as well as support from his organization. In this way we know what knowledge do certain employees possess (who are people working for different organizations). It happens thanks to the systems of human resources management (job recruitment processes, choosing and selecting employees, motivation system and encouraging human resources personnel self-development).

In order to increase knowledge and put it on the higher level one has to take the most advantage of the social and organizational capital which consist of both gathered and codified organizational knowledge as well as the knowledge flowing through organization, This type of knowledge origins from network of relationships inside and outside a company. The consequence of using the concept of economy based on knowledge is therefore successive creation of structure of business relationships (as a result of globalization and liberalization observed also on a global scale) where (thanks to modern technologies) we can observe a fast knowledge and information flow, processing and increasment. Subjects who are a part of network build an organization. Its strategic goal is development achieved through working out the unique added value which allows the whole organization to gain competitive advantage.

2. Knowledge workers and human capital network

Nowadays, management studies underline the importance of human capital and employees' innovative behavior during learning processes and when changes within organization are introduced, as well as during building new relations. Moreover, one can observe a change in perceiving the meaning and the role of human inside an organization. It happens together with the evolution of models and conceptions of organization which use the new paradigm. This new vision of a complex man is related to such concepts as: being ready and willing to learn, being open for new challenges, being able to change motivations, awareness of own’s needs and abilities. All of these lead to pro employee's self-development behaviors.

In order to function properly in conditions of fast speeding changes, in their environment, modern organizations need to cope with contradictions. They have to both take care of the need to stabilize and maintain their business position as well as
to introduce new solutions. A man is a “wheel” speeding organization changes, his willingness and openness for changes, abilities, attitude and motivation have influence not only on the whole process of change but also on abilities of an organization to see and initiate a change as well as on abilities to build new relationships.

Human capital consists of relationships meaning one’s abilities to share knowledge and to give trust, they are organization's value. Competencies refer to knowledge, willingness, capabilities and abilities to take advantage of communication with others, experience and one’s education level. Qualities can be described as competencies which make an individual or a group unique. They influence choice of tools an organization uses and activities it undertakes by distinguishing which activities, business behaviors are appropriate and which are not.

Unsteady market environment we observe today forces entrepreneurs to develop appropriate knowledge and creative thinking on a multidimensional level. It enables them to foresee and plan successive business behaviors (Jabłoński, 2014). Therefore, to meet these needs one needs the kind of people who can be perceived as creative, who possess specialistic knowledge, an ability to think in a creative way, personal entrepreneurship who are highly motivated and whose position in a creative environment is steady.

Modern job market is based on creativity to the great extend. Nowadays, both an employer and an employee have to show their creativity on every steps they take concerning their tasks and during an organization managing. Creative employees are an organization's high value as they are those who create innovative solutions themselves. These who are creative not only possess specific qualities of personality but they can also present high cognitive flexibility.

Creativity has always been the core of business, however, never has it been exposed as much as it is today. From their definition creativity meaning an ability to create something new and needed is an element of entrepreneurship which cannot be omitted (Amabile and Khaire, 2011). It is this quality which enables creating new companies and continuous actions of those organizations which are the best, after they gain a global status. However, because creativity has been perceived as difficult to describe, define and to control – it has not been the most popular concept for the most managers. Moreover, concentrating on better tasks performing has been more effective and brought more gains then concentrating on creativity itself.

Apart from the concept of creativity the second notion strictly related to employees is the concept of knowledge. It can be described as the most important resource in the 21st century which helps to develop creativity, improves imagination, gives birth to an artistic anxiety, is of a dynamic character and always has to be useful no matter what circumstances we meet.

This combination shows the new category of employees has been created-knowledge workers. In the modern society they are the ones who create, store, use and spread knowledge and information. It means they belong to the new category of
specialists whose main task is to use and share knowledge in a productive way as well as to create and implement new ideas which will allow an organization to fit their strategy to changes going out in a business environment.

These workers can be characterized as follows:

- they present a high level of specialized knowledge, education or experience. Their main goals are creating and spreading knowledge or using it in a practical way,
- they can follow highly abstract concepts, they do not follow routine and they feel the need for continuous updating their knowledge,
- they freely ask for autonomy, trust. They want their work to be evaluated and they need to understand the whole context, they need to learn through experience and they are aware they have to share their ideas with experts (Davenport, 2007).

Knowledge workers are professionalists. They possess high competence, they are able to play different roles within organization. Their experience is broad, they have many abilities and capabilities and they are mobile. Furthermore, they are highly independent as they sell their services only to a certain extend and they are free to change their employees what is a risk of loss for a company they work for. Therefore, employers need to do their best to keep knowledge inside an organization.

When company’s success and its ability to compete with others do not depend so much on physical (materialistic) and financial resources but mostly on the usage and knowledge management (Jaruga, Fijalkowska, 2002), an employee is perceived as the best company’s investment. Knowledge workers should know company’s policy very well, they should also be engaged in it on an intellectual and emotional level what is possible only when they are treated appropriately for example as business partners are. Such circumstances can help to build loyalty.

Investing in the human capital should be understood as company’s costs which are used to gather the human capital or help to rise its productivity (Bochniarz, Gugala, 2005). The difference between them and other investments is their high risk which results from the autonomy of human capital as well as from the fact that the rate of return is difficult to be calculated.

Therefore, organizations on modern global and competitive markets create a value when taking risk, investing in people and creating unique combinations of assets. Companies introduce new combinations and proposals of assets also non-materialistic assets which are of rising importance including these which are related to human capital- they are those which enable changes in creating values.

Therefore, the management which will keep knowledge inside an organization is needed no matter what the level of employee turnover is. Knowledge workers do not like to be given commends, orders, their work plan is difficult to create and predict, the best results they achieve are when they work with others in network of contacts (Davenport, 2007). It is widely known that almost nobody likes to be given...
orders at work, however, a knowledge worker has a possibility to share his own view, and when employer will not take it seriously, a worker easily can change his working place and in this situation it is the employer who looses the most.

Knowledge workers are highly mobile because they are professionals and their professionalism is based on their individual competence, perfect actions and intellectual activity. Time and place of work are not so much important as knowledge workers thanks to many means of communication and connection they use – as it is possible in e-economy conditions, and thanks to their competencies, can work everywhere they want. The organization itself is more interested in knowledge and experience a worker possesses. An employee on the other hand is not so much interested in this certain organization as he does not need only one organization to build his own carrier, he can choose an organization he likes and change it whenever he likes (Perechuda and Morawski, 2005).

It is worth mentioning that the given workers possess a very special resource-knowledge which can be characterized by the fact that its quality does not get smaller when it is given to others. Therefore, knowledge workers can perform tasks for others, including competitive organizations. This means a challenge for a given organization as it should encourage employees to be loyal and to engage in goals of his organization. Nowadays, in the conditions of the knowledge society more and more often groups of knowledge workers are created, they are called self-realization network or intellectual network.

Social changes create attitudes and behaviors of others, they also have an influence on how people are employed. Groups of specific employees who came from the network begin to be active on the market. They are individuals who borrow others their competence, they drive to be independent, self-efficient and to stay free as far as their employment is concerned.

They are knowledge workers mentioned above. Employees of this type support partnership in the network and take advantage of the change that is done- they are source of knowledge and information (Fryczyńska, 2012), they are business partners for a company and sometimes even they are its competitors.

The appropriate usage of competence in the network of technological connections with partners and clients is a challenge related to the human capital management. It is necessary to operate in the field of rising market competitively (Dziwulski, 2012). Network organizations managing human capital are aimed at creating such network relationships which can use the needed human capital and can create human behaviors which will help to achieve the wanted goal (Łobejko, 2010).

Taking specific features of modern employees who represent human capital into account, one can say that every networking employee tries to create such a network of relationships which can use the capital he needs what means it works in order to achieve its goal. This situation shows that human capital in the network
has to be treated in a special way. Human capital in a network organization consists of all the employees who perform tasks they were given and they perform services on their own. What is more, they are engaged in work which is aimed at some goal, which can create positive outcomes—economic and others, for both an employee and his organization.

What is characteristic is the fact that human capital in the network is changeable and additionally many networks and organizations take advantage of the same human capital. Therefore it has to be put into two types:

1) micro-human capital of network organization and
2) macro-human capital network economy.

Nevertheless the both types are doing their best to perform their tasks well.

Changes on the market, however, caused that the external market began to be more important than the internal one (Bohdziewicz, 2013). This means a change is needed for both an employer and an employee. An employing company needs to develop more flexible ways of employment, it is the necessary condition to adapt to business environment changes. Employees on the other hand have to be aware a modern workplace can be changed and sometimes it has to changed as it does not give a life-lasting employment as it used to in the past. They have to be prepared for often changes of a workplace and types of employment.

Conclusion

According to Peter Drucker “What differs organizations is the fact that some of them can make ordinary people do unordinary things what is possible only when they do jobs for which their maximum abilities can be used” (Drucker, 2004). Bearing this in mind and summing up above claims one can say that (Pocztowski, 2007):

1. The new economy is characterized by: globalism, tough competition, constant innovations, breaking up monopolies, technological progress, informatization, multicultural diversity, customer orientation and changes on the work market.

2. New organization is characterized by: human capital, key competencies, hierarchy restriction, managing projects, network organizations, virtualization of marketing activities, managing professional workers, hiring talented employees.

3. A new employee is characterized by: being knowledge worker, he learning whole his life, he changing jobs and functions, less steady employment, the fact that his work is related to task not to place where tasks are performed, creative thinking, teamwork; managing his own time, health and carrier.
These features of a new economy explain why there is a need to know, to identify and to understand the concept of human capital networks which are perfectly suited for modern concept of the e-economy.

When identifying the concept of human capital it is worth mentioning that it is related to the two important issues.

First of all, it is the capital most of all made of knowledge workers which are characterized by: high competencies, ability to play different, changeable organizational roles, experience on many fields, abilities and capabilities and mobility. This last feature suggests that this group of workers is highly independent as they only sell their services partially and they can change their employers easily.

Secondly, human capital network depends on the network of relationships which exist on the market which are to create such a network of relationships which can use the needed human capital and such behaviors which will help to achieve the goal. This forces to treat human capital in a special way. Nevertheless, one has to bare in mind that people are the ones who mainly spread knowledge in an organization.

This means that the development of human capital is a necessary condition to develop knowledge and human capital network is a specific form of an organized human activity based on features of modern employees and of modern market.

This activity when supported by usage of modern technologies makes knowledge diffusion faster.

Literature

SIECIOWY KAPITAŁ LUDZKI

Streszczenie

W niniejszym artykule podjęto próbę omówienia specyficznej formy kapitału ludzkiego – sieciowego kapitału ludzkiego. W artykule wskazano na rolę kapitału ludzkiego we współczesnej gospodarce, wyjaśniono pojęcie pracownika wiedzy. Wykazano, że sieciowy kapitał ludzki to pojęcie, które powstało jako skutek połączenia nowoczesnego pracownika wiedzy z wymogami współczesnego rynku, na którym dominują różnego rodzaju sieci powiązań i nowoczesne technologie. Celem niniejszego opracowania jest identyfikacja koncepcji sieciowego kapitału ludzkiego.

Słowa kluczowe: kapitał ludzki, pracownik wiedzy, sieciowy kapitał ludzki.

Translated by Anna Kwiecień