Influence of Knowledge Culture on Effective Knowledge Transfer

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Contemporary organizations operate in turbulent environment, where a strong competition prevails. Present markets are no longer definite geographically, i.e., they became global and international. Therefore the organizations to further remain successful should acquire a long-term competitive advantage. However the enterprises become incapable to ensure this process, since their activities are based on limited material resources only. Unfortunately a competitive advantage may not be guaranteed even by human resources; the shortage of the latter both qualitative and quantitative becomes more significant every day. Knowledge, which generates a new creative potential and establishes a surplus value, becomes the main criterion of the success. Organizations, when developing new knowledge, create organizational perpetuum mobile, i.e., new invented products are manufactured, more efficient methods are applied, thus ensuring profitable activities, which enable to focus even more on the development, transfer and implementation of new knowledge in the organization. However desultory “hunting” or retention of the knowledge will not provide good results. A consistent and systematic process of knowledge management, which is defined by the stages of knowledge identification, acquisition, development, interchange/distribution, application, and retention, is necessary. As one of the most significant factors the spread of knowledge may be mentioned, when knowledge created for all members of organization is transferred. Transfer of knowledge is particularly important, since individual knowledge does not form a surplus value, and may remain individual and ulterior.

The main factors of knowledge management, which lead to successful knowledge management and ensure long-term competitive advantage, are organizational structure, culture, strategy, systems and IT infrastructure, effectual and systematic processes and their assessments (Liebowitz, 1999). Culture may be considered as an essential factor, which not only guarantees a successful knowledge management, but also influences an effective knowledge transfer. An appropriate formation of organizational structure, assurance of transfer channels, introduction of systems and technologies will not result in effective knowledge transfer (Akhavan, 2006). Since knowledge, whatever (definite or rather hidden) is transferred by people. And so often relatively called the “soft” part, i.e., culture, assumes a special importance and significance. Organizational structure allows, and organizational culture ensures an efficient knowledge transfer. The culture of knowledge is defined as organizational lifestyle, which enables and initiates people to create, share and use knowledge on behalf of organization and continuous success (Bock, 1999).

Keywords: knowledge organization, knowledge, knowledge culture, knowledge transfer.

Introduction

A successful activity of knowledge organization is based on constant training, acquisition and transfer of knowledge. Knowledge culture is one of the factors, which results in long-term competitive advantage. In the knowledge management knowledge culture is an organizational lifestyle enabling and motivating to create, share and use knowledge on behalf of organization and continuous success (Bock, 1999). It not only leads to proper environment for effective knowledge transfer and encourages people to share knowledge but also presumes, which knowledge is worth to be managed, and which not; defines relationship between individual and organizational knowledge, by determining, who are likely to possess knowledge to be transferred, and who it should be transferred to; creates a context of social interaction, which defines how knowledge will be applied in specific situations, and forms the processes resulting in development, validation and distribution of new knowledge in the organization. The organizations creating knowledge culture, which prompts inter-cooperation, experimentation, risk assumption, focusing on essential valuables and work models, will create working atmosphere and will achieve better results of organizational training, as well as develop specific routines, which maintain knowledge transfer, in organization. In fact, knowledge culture is one of the factors, development and control of which is the most difficult, as it influences human resources, their behaviour, and it is very susceptible to time. Adam and Creedy (1999) claim, that organizations in order to become organizations of knowledge, should change not their culture, but to adapt the concept of knowledge management to existing organizational culture, since cardinal alteration of current culture will lead to strong opposition reaction of employees, and will considerably aggravate the pursuit of purpose (Denison, Mishra, 1995). Knowledge culture is the “soft” part of organization. The employees identify themselves as the company, become loyal to it only after some time passes, after shake down with expressed valuables, artefacts and standards. However only with implementation of knowledge management, the existing organizational culture will not become knowledge culture. To obtain good results, knowledge culture should be formed gradually, i.e., to introduce organizational
values, related to encouragement for knowledge creation, sharing, and application in daily life of organization, and only then organizational culture will become knowledge culture. The organizations in order to avoid strong opposing reaction, should apply only those features of knowledge culture, which are directly affecting the processes of knowledge management, and make good conditions for them. Other problems of knowledge management are related to the fact, that organizational culture is not homogeneous. Different groups within the organization may have slightly different or completely opposite culture (so called subculture). Thus the strength of knowledge culture, which may be measured in such dimensions as homogeneity, stability, intensity, wide spread, integrity and the same understanding of organization goals, is a very important rate. Therefore a wide and deep spread of essential valuables of knowledge culture within the whole organization (Hansen, 1999), as favourable conditions for knowledge circulations in whole organization will be then created. The purpose of this article is to determine, what features of culture makes optimal conditions for knowledge transfer, and how they affect the transfer of knowledge within organization, and what obstacles result.

An effective process of knowledge transfer directly depends on certain features of knowledge culture. Therefore the analysis of interactions between knowledge culture and knowledge transfer is new and urgent problem.

Object – features of knowledge culture.

Goal – to determine, what features of knowledge culture create good conditions for efficient knowledge transfer.

Methods – comparative literature analysis, and grouping.

In the article scientific literature was referred to, and comparative analysis of literature was carried out. At the end of the article the analysed theories were summarised, and inferences were presented, what essential features should be characteristic to knowledge organization culture to implement the main goal – effective transfer of knowledge.

Knowledge and knowledge transfer

Knowledge is becoming the only and enexhaustible source of organization, which enables development, creation and competition of the company. Consistent knowledge management increases the possibilities of the organization to become the long-term and successful organizations. Probst accentuates the following stages of knowledge management process: knowledge identification, acquisition, development, sharing/distribution (or spread/transfer otherwise), application and retention. Transfer of knowledge might be considered as essential stage of that process, since it ensures knowledge distribution throughout entire organization. Individual knowledge and knowledge not transferred to other member of the organization will never become collective or organizational knowledge. Such knowledge may in the course of time be even lost (in case of employee’s resignment). In the theory of knowledge management there may be found many definitions of knowledge transfer. First of all naturally the major differences between knowledge and information should be found. Though this question is considered in the scientific literature, often information and knowledge are identified. Information in literature is described as state of world (MacMillan, 2000), data having some significance and purpose (Davenport and Prusk,1998), purposeful and useful data (Bierly, Keesler,Chistensen, 2000) significant to a specific subject. In the theory of information information is treated as transferring purport, which does not depend on the individual. It is claimed, that by providing more structure to information, by analysing it, sorting and interpreting, it passes to higher level and becomes knowledge. In that case, information has similar features as knowledge (J.Stankevičiūtė, 2002). While in communication theory information is considered as not containing any purport and information transferor should complete the major part of work by transforming it to knowledge (Sveiby, 1997). This work this theory highlighted as a human factor, which is one of essential elements of knowledge management. Thus knowledge transfer is the process during which one source transfers specific knowledge to other source (Rogers, 1983). A constant movement of knowledge takes place in the organization in all directions, methods and ways. First of all in consideration of knowledge transfer the theory of Polanyi should be referred to, which says that knowledge is spread in two ways: expressed and tacit knowledge should be accentuated in expressing and transferring by means of speech and writing. As knowledge is a result of interaction between creative processes and experience of a person, by its nature is not expressed, however speech and writing allow to partly articulate it by transforming into expressed one. A theory of Polanyi is based on different attitudes to knowledge management in the organization: one accentuates encoding of tacit knowledge by transforming it to expressed one with a help of various means; the second is based on creativity of a person and on interactions between new knowledge creation and grounding, and seeks to make favourable conditions for employees to individually expand and share knowledge within the teams. Transfer of expressed knowledge is not as complicated and difficult as of tacit one. This knowledge could be even equated to information in some sense, because a diffusion of expressed knowledge in organization is enabled with a help of systems and technologies introduced. This type of knowledge is easily shared, assimilated, and institutionalized. Of course an optimum result depends on personal features (ability of absorbance and retention) of transferor and recipient of the knowledge. Transfer of tacit knowledge requires special methods, ways, channels and conditions of transfer (Krogh, Ichijo, Nonaka, 2000). This type of knowledge is hard to purify, transfer and institutionalize (Argote, Ingram, 2000). Therefore in consideration of efficient transfer of tacit knowledge knowledge culture, which conditions a flow of that knowledge in the organization, is very important. Other theoreticians in description of knowledge transfer involve such factors as speed, efficiency, scope, and institutionalization (Nissen, Kamel, Sengupta, 2000). Some scientists state, that neither the rate of knowledge transfer nor the scope of
knowledge being transferred is important. The most important is to achieve a desired result (efficiency), and that knowledge achieved was validated in everyday life of organization (institutionalization) (Davenport, Prusak, 2000). This statement may be agreed upon not in absolute sense, but subject to the situation. In fact, only in critical situations, when quick decisions are to be made, the speed of knowledge transfer is in particularly important. However in knowledge management assimilation of knowledge and institutionalization are mentioned. These are the processes susceptible to time.

Two different schools analyse knowledge transfer. The first school refers to resources based attitude, and states, that knowledge may be transferred efficiently only by controlling major resources. To accomplish that, focus must be directed towards abilities of absorbance and retention. Employees should not only strive to acquire, assimilate, and apply new knowledge (Cohen, Levinthal, 1990), but also to be able to find the ways for its institutionalization as well as for reduction of its tenacity (Szułansky, 1996).

The second school emphasizes that knowledge transfer is a social activity by its nature. Successful transfer of knowledge includes the understanding how employees develop and manage intercommunication (Brown and Duguid, 1991; Dixon, 2000; Goh, 2002; Hansen, 2002). This school highlights such factors as structure, culture, activities, control of teams, and networks as essential and affecting knowledge transfer. The second school, is referred to, since it gives prominence to a human factor and indicates interactions between knowledge culture and knowledge transfer.

Figure 1 shows that, knowledge (definite and tacit) concentrates both in people and in processes. Individual knowledge may be acquired throughout experience and later are formalized (defined), or transferred personally to other individual (tacit). Process knowledge occurs in routines, daily activities of organization. However, even process knowledge may be hidden (appears when a person having specific knowledge about the components participates in the process). Definite knowledge is usually transferred with a help of technologies, in automated way, and without interference of human factor (Garud, Nayar, 1994). The impact of knowledge culture considerably decreases, and knowledge moves by definite channels, methods and ways of organizational structure. To transfer hidden knowledge a human factor should be considered. To ensure this process such knowledge culture of organization should be formed, which would encourage and motivate employees to share and distribute expressable knowledge with difficulty.

Knowledge transfer in organization is conducted in several levels and ways. Knowledge within organization moves in vertical and horizontal directions. General schedule of knowledge movement could be shown by a network, i.e., each part of organization (individual) transfers knowledge to every individual. In a horizontal level transfer of knowledge is analysed under information conversion to knowledge. Information here is acquired from internal and external resources, then it is filtrated, whether it is a new information to the organization, and if it is useful, later allocated. Its effect is verified, further the process of knowledge creation takes place and finally it is spread. Knowledge transfer may be analysed according to the method suggested by Nonaka (1999), where conversion of knowledge from tacit individual knowledge into definite organizational is analysed. In this case knowledge moves in vertical direction. Knowledge transfer may be studied also by applying the conception of “life cycle”. Here knowledge movement takes place since it is identified up to institutionalization (knowledge management steps – creation, organization, formalization, sharing, usage, application). Nissen (2000) integrates all above indicated models and creates multidimensional-phenomenologic model, which reflects knowledge transformation and movement.

Figure 2 very clearly reflects knowledge movement in the organization, at the individual level knowledge is
hidden and it is created, when transforming to group knowledge it is definite, organized, also sharing takes place, at organizational level knowledge is applied, used, but again, tacit knowledge also appears in the processes. Thus in general it may be claimed, that knowledge transfer in organization is a consistent process, during which individual knowledge of one organization member (both expressed and tacit) is transferred apropos and voluntarily (valuables and norms formed by knowledge culture) to other organization member through the channels, means, and methods determined by OVS, which lead to acquisition of collective and organizational knowledge by the organization.

Figure 2. Nissen multidimensional-phenomenologic model of knowledge transfer in organization

Knowledge culture

Before starting the analysis of culture impact on knowledge transfer, initially the culture should be defined. Studies of culture definition showed, that there are more than 160 culture definitions in anthropology, sociology and psychology. But most of them group the following common features: groups or collectivism, life style and habits learned by human, beliefs, valuables, and knowledge obtained. According to Fairbain (2005), organizational culture is a combination of valuables and features describing the organization. Lemken and others (2000) described organizational culture as a whole of philosophies, valuables, assumptions, hopes, and approaches incorporating entire organization. Tyler (1971) describes culture yet more widely: that is a complex comprising knowledge, beliefs, ethics, affinities, habits, and other capacities and behaviours characteristic to a member as a part of organization. This definition emphasises knowledge, individuals, groups and society as constituents of culture. According to Schein (1985), culture is described as an entirety of general valuables, beliefs, and common practice in organization.

Knowledge culture in knowledge management is organizational life style, which enables and motivates people to create, share and use knowledge on behalf of organization and continuous success (Bock, 1999). As to knowledge culture, an attitude of organization members to knowledge, significance of its transfer to the organization is important. Behaviour of organization members, formed by knowledge culture, will determine whether knowledge is shared or not. De Long and Fahey (2000) determined four methods by which culture influences knowledge creation, transfer and usage: initially culture creates an assumption, that some knowledge is worth to be managed, and other is not; secondly culture defines relationship between individual and organizational knowledge determining who is likely to have knowledge to be transferred, who knowledge should be transferred to; thirdly culture creates the context of social interaction, which defines how knowledge will be applied in specific situations; fourthly culture forms the processes resulting in creation, validation, and distribution of knowledge in organization. Analysing impact of knowledge culture on knowledge management activities J.Stankevičiūtė (2002) accentuated the following cultural assumptions: relations of organization members based on trust; openness of organization in respect of its members regarding its activities, problems, experience, goals, and strategy; openness to variety of original approaches and interpretations; dialogue between members of organization; attention to creation of relations and immediate contacts among organization members; belief of organization members that a way to cognition is an endless process; constant questioning of organization’s beliefs about the surroundings; toleration of reasonable risk and failures, and assessment of learning from mistakes at all organization levels; affinity of the main valuables, norms and beliefs of organization culture to the members of organization; readiness of organization to apply knowledge, information, and interpretations of its members in decision making leading to important changes. Assumptions of valuables, norms and beliefs of organization culture are more significant to those knowledge management activities, where tacit cognition and which are oriented towards renewal of cognition. Cultural valuables directly affect the process of knowledge spread in the company, they allow (encourage, motivate individuals) efficient knowledge flow. Also it may be stated, that

Types of knowledge differently determine the influence of culture on knowledge transfer: definite knowledge decreases culture impact on knowledge transfer, and hidden knowledge increases culture impact on knowledge transfer.

Cultures of organizations are different. Certain culture features, beliefs and valuables are characteristic to each company. Therefore it is very important to determine, what features of knowledge culture form appropriate conditions for knowledge management processes. Analysing of knowledge culture features Rao (2002) observes the rule 8 „Cs”: connectivity, content, community, culture (maintenance and vision of the highest management level, shared sense of vision, trust, openness, satisfaction, wish to constantly learn from the specialists of organization), cooperation, capacity, commerce, and capital. Hubert (2002) emphasises creativity, empowerment, enthusiasm, involvement, cooperation, trust, synergy and positive attitude, Davenport and Prusak (1998) suggest such features: reputation, altruism, trust and reciprocity. Most of these features may be attributed to certain groups according to their nature.
Entirety of different features constitutes knowledge culture, which forms suitable environment for knowledge transfer. After features were grouped, the following logical diagram was obtained: the **managers** nurture empowering, motivation of groups, motivation of individual, system of incentive, mistake tolerance, and trust; **individuals**, empowered by manager and trusting him, cooperate, bear the risk, make decisions, become open to changes and experimentation; **behaviour of individuals** forms informal relations between employees (Beech, Crane, 1999). Thus the chain of reasons-consequences may be charted:

![Figure 3. Model of interaction between managers and employees](image)

Although different scientists accentuate different features of knowledge culture, however one the same feature existing in all classifications may be noticed – a trust. This is essential basis both for open settlement of problems (communication and dialogues), and for cooperation. An employee trusting its organization and manager will become open to changes and to experiment. Empowerment is based on presumptions; employees feel trust and want to take responsibility (APQC, 2002). Trust leads to impact of reputation on knowledge transfer (Zaheer, McEvily, Perrone, 1998). Reputation is the opinion of others about person’s capacity to answer their hopes. Reputation may be acquired from previous communication to the third persons and transferred to others, or from direct communication (Rao, 1994). Reputation directly influences the process of knowledge transfer, since knowledge recipient may not accept knowledge transferred due to unacceptable reputation of the transferor, i.e., knowledge recipient will not trust knowledge transferor (Leyland Lucas, 2006).

The culture of organization may be formed in several ways: from top to bottom, from bottom to top, and in both directions, however culture of knowledge organization is formed only from top to bottom and it is com-
pleted by managers. So significance of managers in the context of culture formation is exclusive. Managers start the formation of knowledge already by hiring potential knowledge employees. Such, who are ready to cooperate, are flexible, open to innovations, tend to take risk, responsible, and of course are proficient in their field. The range of absorbance and retention capacity of such candidates is wide and deep. Properly selected employees quicker socialise and start generating new knowledge. Managers who are open to changes, experiment themselves, who tolerate risk and understand, that mistakes are not loss incurred, but they will help to find a right decision, will precondition the creation of suitable environment – knowledge culture. Empowerment for problems, and at the same time the toleration of mistakes develops trust. Managers create and introduce system of incentive, which appreciates and awards for knowledge sharing. It may be claimed, that the manager of knowledge organisation should be attributed to the type of transformational manager. Such a manager trusts, respects others and empowers his employees. It should be emphasised, that we are talking not only about top-ranking, but also about the managers of middle and the lowest link. More important is the fact that managers of middle and the lowest link would feature as transformational managers, since the managers of these links namely create the atmosphere of immediacy, accelerate decision making (to be more correct they have such possibility to accelerate or to slow this process), encourage to share the knowledge, and evaluate those efforts (award for sharing the knowledge) (S. Oliver, Kandadi, 2006).

Several cultures of organization are found in typology literature. Grouping different features different theoreticians suggest various variations of culture types. One of most prevailing typologies is of Cameron and Quinn (1999), which gives four types of culture

- Clan
- Market
- Adhocratic
- Hierarchic

The main features of clan culture are trust, respect, sincere communication, market culture oriented towards results, completion of tasks, correct achievement, and perfect results of activities; adhocratic culture features by innovations and changes, new ideas, vision, new conception testing, hierarchic culture pays great attention to order, stability and succession, analysis and control, as well as to predictable outcome. Thus after analysis of features describing knowledge culture the conclusion could be made, that knowledge culture may be described as combination of clan and adhocratic cultures. The first two culture feature by friendship, support, cooperation, and adhocratic culture features by innovations, rapid adaptation to altered market situation. The centralised power and authoritarian interconnections are not used here. Power is transferred by one individual to another, subject to the task. Individualism, risk acknowledgement are distinctly expressed. It is a dynamic and creative organisation, where employees are eager to devote themselves and take risk. Efficient leadership is based on ability to predict the future, on innovation and riskiness. Readiness for changes and defeat of new obstacles is appreciated.

In summary it may be stated, that organizations creating culture, which encourage inter-cooperation, experimenting, risk bearing, focusing on essential valuables and work models, will create working atmosphere and achieve better results in organizational training as well as develop introduction of specific routines, which maintain knowledge transfer, in the organization.

**Knowledge culture formation**

Knowledge culture is a complex and protractedly formed part of organization. Organization is made up of many different individuals having different attitudes, beliefs, and valuables, not to mention expressed artefacts. In order to create knowledge culture, the system should be implemented, which would encourage employees to cooperate, create, and share knowledge, to experiment. The systems created will stimulate appropriate and desirable behaviour of employees, in the course of time the employees will identify themselves with propagated culture in the company, and will become its full-fledged members. Eventually this system will ensure the formation of employees’ approach to the same training, knowledge significance, sharing, responsibility, interchange, and this means the “spontaneous” formation of knowledge culture. There are also certain requirements for organization members, i.e., they should tend to constant training, be positive, risk and responsibility bearing. Formation of knowledge culture is conducted in several steps: first by employing potentially suitable employees, later by employees’ socialisation in current knowledge culture. However all these processes are in particular susceptible to time. This involve both the search of new and suitable employees, their socialisation, and creation, introduction and implementation of common system. Formation of knowledge culture means the alteration of already existing valuables and norms. And changes may lead to inadequate reaction – rapid change in valuables and norms almost always causes opposition. Therefore as one of key possible obstacles is time. One more of likely obstacles, which will be faced when creating knowledge culture and later transferring knowledge in that environment, is the fact, that organization is not homogeneous. Within the organization different groups may have slightly different or completely opposite culture (so called subculture). It is very important that essential valuables were widely and deeply spread throughout entire organization (Hansen, 1999). Sometimes existing silo metaphor defining different habits, valuables, norms and coordination, cooperation and wish to share knowledge existing in different subcultures can become impossible in the organization.

Suming up it may be stated, that the formation of knowledge culture is a long and complicated process, and very susceptible to time. However a successful knowledge implementation and establishment, what is very important, will ensure a successful knowledge distribution in the organization.

**Suggestions and conclusions**

In summary of influence of knowledge culture on knowledge transfer, it could be claimed, that:
1. Significance of knowledge management in the company is great. One of the main stages is knowledge distribution in the organization, during which individual knowledge becomes organizational, and thus resulting in competitive advantage of organization.

2. OVS enables and provides means for knowledge transfer, and knowledge culture ensures an effective knowledge transfer process.

3. Knowledge culture may be attributed to the type of clan culture having some features of adhocratic culture.

4. Knowledge culture should have the following features: communication and dialogues (open solution of problems); trust and respect to colleagues; empowerment; cooperation; respect and variety; transformational leading; reputation.

5. The main obstacles, faced during formation of knowledge culture, are a long process for the formation of culture itself (creation, implementation, search of new suitable employees, their socialisation), internal existing subcultures, which worsen knowledge culture and are an obstruction to knowledge spread. Absolute alteration of existing culture, but not its gradual adaptation, also may lead to unsuccessful transformation of knowledge culture as well as to aggravate knowledge transfer process.

6. Different types of knowledge differently determine the impact of culture on knowledge transfer: definite knowledge decreases the influence of culture on knowledge transfer, tacit knowledge increases the influence of culture on knowledge transfer.

Organizations are successful when adapt the theory of knowledge management to existing organizational culture, and not in opposite, when they try to adjust their strategies to the theory of knowledge management.

After the analysis of influence of culture on knowledge transfer the following suggestions may be presented:

1. Knowledge transfer should be integrated into common strategy of organization. If knowledge management will exist as a separate strategy, it will be treated as one more strategy to be implemented after the implementation of company’s business strategy.

2. Knowledge transfer as strategy may be hidden under other activities, policy or strategy. Sometimes people resist to changes, innovations. Constant changes rebate people. Therefore after integration of conception of knowledge management into common strategy, and without naming it directly, better acceptance by people may be reached.

3. Knowledge sharing should become a routine, daily practices, and not some especial action. When knowledge sharing becomes a routine process, it becomes a part of culture. It also becomes a norm of behaviour characteristic to entire organization.

4. Knowledge transfer systems should be adapted to previously operating systems. This suggestion is analogous to the first one. People intuitively resist to innovations. If any internal system of information transfer was previously existing (Lotus Notes or other), after introduction of a new system for knowledge acquisition, transfer, the opposition by ignoring a new system will most likely be faced. Informal explanation about existing abilities of the system to transfer knowledge and to compile it will provide much better results.

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