

Knowledge Management Done by the Hungarians

Andrea Bencsik, Renata Machova and Endre Hevesi
J. Selye University Komarno, Komarno, Slovakia

Abstract: Knowledge management has been becoming increasingly popular, as a field of research and that not only on a theoretical level but also as a subject of empirical research. In spite of the fact that new research findings are published in the field every day, it often happens that the readers of these research studies still have a feeling that something more should be done. The study after is a study that summarizes the main results of the research into the use of knowledge management practices in the past few years. The results of the already conducted qualitative and quantitative research show that inspite of numerous efforts and initiatives, there is not a single knowledge management system which could serve, as an example to prove that any of the theoretical models work in practice. The reasons for this lying in the background are summarized in the study after in which researchers aimed to point out the lack of cultural and economic precondition in Hungary. The study deals with their ethical and moral aspects and with their existence on a corporate level and also presents concrete cases. The research results are presented on the basis of the well-known Probst Model and provide an insight into the most typical problems on a corporate level.

Key words: Knowledge, knowledge management, organizational culture, Probst-style Model, trust

INTRODUCTION

Researchers have been committed to promoting and emphasizing the importance of knowledge management for many years. A large number of empirical surveys have been conducted among SMEs, corporations and institutions to find out how businesses at home could be convinced to utilize this logic or culture which offers a lot of opportunities (Handzic and Leader, 2006; Bencsik, 2011a, b). There are some crucial steps among the elements of the system which usually draw the attention of the public and of experts; however researchers concentrate on single individual steps of the system in vain, if the whole thing does not make up a strategy, if the managements of companies are not able to create the cultural preconditions that are necessary in the background and if researchers do not want to realize the own deficiencies or if researchers do not want to understand and see the potential economic benefits arising from using the system (Ogiwara and Young, 2010).

Several problems have been pointed out in the field through earlier research on theoretical level regarding where the biggest deficiencies are and which tasks must be completed most urgently (Evangelista *et al.*, 2010). However, there has not been a major breakthrough so far. There are several, mainly large corporations who claim that they have already elaborated or are elaborating their own knowledge management strategies; nevertheless,

experience shows that these strategies do not work in practice (Gholami *et al.*, 2013; Bencsik, 2011b; Chen and Huang, 2009; Noruzy *et al.*, 2012).

The detailed results of earlier research projects have been published (Bencsik, 2011a, b, 2012; Dahiya *et al.*, 2012; Choochote, 2012; Kmiecik and Michna, 2012) but this time, researchers will approach knowledge management from a little different perspective. Without naming or describing the surveyed companies, it will introduce those findings which clearly indicate the visible reasons for why knowledge management does not work in the surveyed businesses in general.

It is necessary to introduce the model used in the research briefly for the following reasons: Firstly in order to ensure that the theoretical logic of the knowledge management system and the findings of surveys conducted on the basis of one of the most successful and best applicable models are understandable just like how they arise from each other. Secondly, it is necessary to describe the phases of the KM System so that they are identifiable for all readers.

The cycle of the knowledge management system: The definition of knowledge management defines a chain of activities, a loop which describes the management of knowledge, as a progressive, developing and cyclical process (Davenport, 1996; Gholami *et al.*, 2013).

The best known model is the one of Probst *et al.* (2006) which is made up of 8 building blocks. These 8 building blocks are the following steps: Setting of knowledge goals, identification, acquisition, generation, distribution or sharing, use, utilization or application, retention and assessment.

One of the basic needs of businesses is to get a relevant overview about what knowledge they need (setting of knowledge priorities) (Alawneh *et al.*, 2009; Gottschalk, 2005; Hansen *et al.*, 1999; Evangelista *et al.*, 2010) and to what extent that knowledge is available in their organization (knowledge identification). In order to reach these 2 things must be done (Newk-Fon *et al.*, 2012; Konigova *et al.*, 2012). Firstly the existing data, information and knowledge processes must be analyzed and it must be also evaluated to what extent they meet the existing needs. Secondly the data, information and knowledge needs must be determined on the basis of the earlier mentioned analyses (Probst *et al.*, 2006).

Knowledge acquisition can take place in 2 forms: In a formal or an informal way (Gaines, 2014; Holder *et al.*, 2006; Turban *et al.*, 2005; Garbay, 2000). According to Davenport and Prusak informal networks are usually more precise but usually need personal interaction. At the same time if there is personal interaction, knowledge is spread through word of mouth. As a result, the networks naturally create the preconditions for successful knowledge exchange (Bencsik *et al.*, 2009).

Still, it is not enough to simply collect information, since if a corporation wants to gain a major competitive advantage, knowledge must be developed on individual and organizational level alike. The aim of knowledge generation is to reach that the necessary knowledge is generated internally by the employees which involves the development of ideas, models, skills, products, processes, etc. (Whelan *et al.*, 2010; Jafari *et al.*, 2011; Bencsik and Solyom, 2011).

The aim of knowledge distribution is to multiply knowledge within a firm (Erhardt, 2011; Karreman, 2010; Walsh, 2014; Swart, 2007). Knowledge transfer is made up of 2 parts: Forwarding and the acquisition of knowledge by a given person or group. If knowledge is not acquired by its potential receiver, there will not be any knowledge transfer. The availability of knowledge does not mean that it will also be acquired.

The goal of knowledge utilization (Seidman and McCauley, 2005; Blom *et al.*, 2007) is to ensure that knowledge is utilized productively to increase the efficiency of a given firm. This is the main goal of knowledge management. All efforts will be in vain if knowledge is not utilized.

The role of knowledge storing/retention is to ensure that the identified, acquired or developed, distributed and

utilized knowledge will be available for the company's employees in the future too (Spender, 2011; Liebowitz, 2008; Rohrer and Pashler, 2007). The making of knowledge searchable and accessible via different methods, tools and processes is also related to knowledge retention. Continuous and regular updating and refreshing, as well as relevant protection against unauthorized access are also parts of knowledge retention. This phase also involves the recording, structuring and storing and updating of knowledge.

The last building block is knowledge assessment (De Vries and Petersen, 2009; Fonseca, 2006; Sveiby, 1997; Volkov and Garanina, 2007) which is often considered less important than it really is, since things which can not be measured are usually not given adequate attention. Knowledge assessment enables us to find out whether goals have been achieved and makes the changes in organizational knowledge visible (Probst *et al.*, 2006).

The elements of the knowledge management cycle should not be researched on their own but as a system of elements with its own interrelations (Swart *et al.*, 2007; Cai *et al.*, 2009; Mazilescu, 2010). Knowledge management is efficient, if there is a certain knowledge-sharing organizational culture which is based on mutual trust (Daud and Yusoff, 2010; Davenport *et al.*, 1998).

On the basis of the logic of the earlier described model, this study will introduce those factors which hinder the KM implementation and make the use of knowledge management systems impossible in Hungary.

Before the introduction of the steps of the model, it is necessary to specify 2 elements which are absolutely vital for a company in order to be able to build its strategy around the logic of knowledge management (Swart *et al.*, 2007; Cai *et al.*, 2009; Mazilescu, 2010; Probst *et al.*, 2006; Khoshshima *et al.*, 2004). These are the following:

A well-established IT system which is completely adapted to corporate processes and is able to support them fully. However, it is very important to note that there should be only a single system within a company (Noszkay, 2007; Evers and Gerke, 2013).

Establishment and maintenance of a learning-organization culture which enables the reaching of individual and organizational goals that are built on trust, based on joint thinking and actions but at the same time promotes independent thinking and the acceptance of responsibility, as well as creates continuous learning opportunities (Senge, 1990; Eggs, 2012; Islam *et al.*, 2011; King, 2001; Ling, 2011).

Research question: On the basis of the earlier shown theoretical model and research results, researchers formed some research questions:

- Is there any KM strategy at companies?
- How can these organizations operate their knowledge management system?
- Are there best or worst practices, methods and tools which can help other companies as an experience in case of their KM system implementation?

In the research, researchers have looked for the answers to these questions and at the end of this study findings give a panorama of the answers of the Hungarian practice.

MATERIALS AND METHODS

Description of the surveys: The researches into knowledge management, its use in firms, methods and relations to corporate processes were conducted between 2006 and 2013 in several phases with a variety of main aims. They were conducted by using qualitative and/or quantitative research methods. The peculiarities of the research projects are summarized in Table 1.

The current situation in Hungary and its peculiarities regarding knowledge management will be introduced through the qualitative elements of the research.

Method of research: Qualitative research is based on an intensive and/or long-term interaction with a research field or a life situation (Miles and Huberman, 1994).

In the framework of such research, researchers gain a holistic (a systemic, comprehensive and integrated) insight into the logic, structure and the explicit and implicit rules of the subject of the research (Malhotra, 2002; Witherell *et al.*, 2010; Ohkubo *et al.*, 2013).

Qualitative research methods are aimed at understanding the problem and are based on working with a small research sample. The methods of qualitative research can be put into 2 large groups. On the basis of whether the respondents know about the aim of the research, researchers distinguish between direct and indirect methods (Malhotra, 2008).

The two most frequently used qualitative methods are the use of focus groups and interviews. Focus groups are unstructured and indirect interviews (Malhotra, 2008).

During an interview, the information is elicited from one person. In contrast to focus groups, in-depth interviews enable a deeper exploration of a specific problem area or of a concrete response (Malhotra, 2008).

Bearing in mind the earlier presented advantages and disadvantages and taking into consideration the correlations researchers used both techniques in the different stages of the research. The guidelines of the interviews to be followed had been set in advance; thus the areas of key importance to be covered had been identified in advance as well (The questions had been determined on the basis of the steps of the Probst Model). During the evaluation of the results the findings of previously conducted (exploratory) quantitative research were treated as a presupposition, so researcher tried to assess the own impact on the responses. Researchers came to the conclusions in the light of this.

Table 1: Peculiarities of the research projects conducted between 2006 and 2013

Duration and time of the research	Aim of the research	Those involved in the research	Size of research sample	Method of research
2006-2007	Peculiarities of knowledge sharing among different age groups	3-7 years old, 6-15 years old, 14-19 years old, 18-25 years old, those >25	100-150 persons in each age group (Hungarian-Slovak comparison)	Questionnaire, structured interview
2008-2009	Elaboration of knowledge management strategies	SMEs	456	Questionnaire
2008-2010	Building of knowledge management systems and organizational learning	SMEs	508 (Hungarian) 238 (Slovak) 19 (Hungarian) 5 (Slovak)	Questionnaire, structured interview
2008-2009	Team work in order to facilitate knowledge sharing	Profit oriented businesses	486	Questionnaire
2010-2011	Use of tools to facilitate knowledge retention	Educational institutions Businesses employing >250 people	491 (students-teachers) 312 30 5	Questionnaire, structured interview, case study
2012	Establishment and the functioning of learning-organization culture	Profit oriented businesses	38	Interview
2012-2013	Correlations between emotional intelligence and knowledge management	Economic entities	246 10	Questionnaire, focus group meeting of managers
2013	Functioning of mentoring systems	Economic entities	43	Structured interview

Table 2: The conduct of the qualitative research (following the same logic in the case of interviews and focus groups)

Variables	Survey report
Data collection	
Prior to the interviews	Context research of the surveyed organizations
0-10 min	Description of the research aims, its expected results and its methodology
10-60 min	Exploring of the interviewed leader's opinion about the characteristics of his or her organization in accordance with the steps of the Probst Model
60-90 min	Storytelling
90-95 min	Closing, recapitulation
Data recording	
Before the interview	Preparation of notes on the basis of online and personal sources
During the interview	Note taking, digital recording (if permission given)
Following the interview	Completion of notes, additional digital recording if there is a need
Data analysis	
Following all interviews	The data were not analyzed after each interview but as a whole after all interviews had been conducted
	Choosing of appropriate methods for data analysis
	Collection and finding of opinions which are similar to different from or contradict the results of the quantitative research.
	Similarly, collection and finding of opinions that justify and complement the results of the quantitative survey

Target population, sampling unit and the research sample:

The target population is made up of elements which have common features and are suitable for the analysis of the researched field (Malhotra, 2008).

In the research, the research sample was made up of SMEs or in other cases of corporations, profit-oriented and non-profit institutions.

The research sample was selected from the target population. Qualitative sampling can be described with the following features (Miles and Huberman, 1994):

- Small sample and embeddedness into context (as opposed to large samples without taking context into consideration)
- A concrete sample is chosen deliberately with a certain aim (as opposed to accidental sampling)
- Theoretically, oriented sample (as opposed to representativity)
- The sample is made up gradually (as opposed to a pre-defined sample)

In this research, the aim was not to draw conclusion which were true for the whole target population. That is why, researchers did not need a representative sample. As a result, there was no need for accidental sampling either (Malhotra, 2008). When choosing the sample researchers tried to make it as much diverse as possible, thus researchers decided to use judgmental sampling. All surveyed persons were managers.

The conduct of the qualitative research: The interviewer and the data analyst have a significant influence on how interviews are conducted and evaluated. In order to avoid distortions, researchers followed the same procedure during the interviewing of each manager. In most cases, researchers did not derive from the procedure with the exception of few cases. When researchers did so, the changes were only minor ones. The steps of the collection of managers opinions and of their evaluation are shown in Table 2.

The analysis of data collected through qualitative research differs from the analysis of those collected via a quantitative one since, it can be done in many ways. It is the choice and responsibility of the researcher to chose the most appropriate method (Ryan and Bernard, 2003; Strauss and Corbin, 1990; Miles and Huberman, 1994; Maxwell, 1996). It is better to develop a unique model for each research than to use an already applied methodology from a previous research which might not be completely suitable to reach the goal. The research aims were reached through the following steps:

- Mapping of the first impressions and identification of the so called overall picture
- Functional analysis of the interview answers on the basis of the individual steps; putting of the pieces of the puzzle together, finding of interrelations

First impressions and the recognition of the overall picture, i.e., of Mintzberg's elephant:

Researchers tried to read through the notes from different perspectives and to determine problems, remarks, suggestions or taboos in relation to the individual steps of the Probst Model.

The perspectives were the following: What they did, what they did not do, what their feelings were, what they wanted to the reasons behind and the general circumstances.

These perspectives brought up similar issues but from different angles. The situation was similar to the one of Mintzberg *et al.* (2005)'s. Strategic Safari conducted with blind people who had to describe an elephant but could touch only some parts of the elephant's body without seeing the animal as a whole. It is of no surprise that their images of the elephant largely differed. Bearing in mind the danger of getting lost in details, after several readings researchers aimed to determine what may hinder the building of a knowledge management system by the interviewees. The interviewees pointed out that system

building is a result of an important adaptation skill. It is an effort to tackle an opportunity or to avoid a threat which effort is a novelty in relation to competitors and it helps the business or organization to maintain success.

The determination of the overall picture was followed by the identification of the pieces of the puzzle: They also served, as a tool to confirm that the overall picture was drawn up correctly. The key elements researched were the steps of the Probst Model (Probst *et al.*, 2006). The most frequently mentioned problematic issues and fields are analyzed after.

In the following studies, the result gained during the survey, as well as the conclusions driven from them will be made complete with the personal experience and the ones of other colleagues who also took part in the research.

RESULTS

The observations gained through the analysis of the steps of the Probst Model: As it has been mentioned earlier, the steps of the Probst Model will serve, as a basis for the summarizing of the practical observations. Researchers would like to emphasize that the text after is based on the general observations, experiences and the research results gained through the interviews and focus groups. There are always exceptions which prove the rule in the case too, i.e., they prove the causes why KM systems do not work in Hungary. The system of interrelations in the Probst Model can be seen in Fig. 1.

As it can be seen, the steps or building blocks of the model are built on each other and relate to each other. This is already foreshadowing the requirement which appears in the learning-organization criteria, namely that the management must be able to see, recognize and constantly keep in mind this interrelation. Let us consider the conditions for the implementation of the steps and analyze the requirements for practices to do so.

Step 1: The company, as a whole first needs to determine its knowledge priorities and goals (Polanyi, 2009; Alawneh *et al.*, 2009; Gottschalk, 2005; Evangelista *et al.*, 2010). Why does not it exist or work?

Practice shows that most SMEs do not have a strategy (Bencsik, 2011a) and they do not want to have one either. Their aim is to survive which does not need a strategy, only manoeuvring. The smallest businesses do not think at all that thinking on a strategic level is important or they do not possess the necessary skills to do so. Hiring a consultant is not an option for them, since their aim is to survive. They do not have the necessary resources to finance such services either.

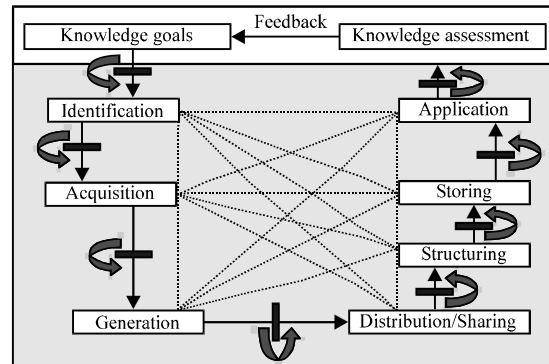


Fig. 1: The system of interrelations in the Probst Model (Probst *et al.*, 2006)

On the other hand, corporations rarely lack strategies (Hamsioglu, 2011). Still, it often happens that the strategies elaborated by the higher levels of management do not make it to lower levels. In other cases, managers working at different levels of management do not go along with the initiatives of the top management or there are disputes between them. As a result, it is not the goals that gain priority but their own interests. This problem immediately arises again in the case of the next step of the Probst Model. The elaborated strategy is not followed: They delegate wrong tasks to the wrong people.

Step 2: The next step to be taken in the framework of the knowledge management system is knowledge identification which is not viable without the implementation of the first phase (King, 2001). Researchers have also observed a number of typical solutions for this:

The first one is based on the thought that if there is not a strategy, the next step will not be taken either. These companies are trying to meet current needs regarding quality and quantity and they do not make developments; they can not or do not want to do more. In this case, the companies will exist while there is still a need for their product or service. Their survival after that however is rather questionable. Thus, there is no need for knowledge identification, since future needs do not appear as a challenge in the life of the business.

The other solution is that being self-confident enough, they make themselves believe that they are able to react promptly to changes of the business environment on their own without outer help. They can utilize the necessary knowledge that is needed to solve the problems or survive without the necessary knowledge having been previously identified. They do not need real knowledge identification in this case either. The earlier mentioned 2 approaches are only 2 different managerial approaches.

One of the most frequently observed weakness of corporations is that they are not aware of the inner knowledge within their own firm. Though, they roughly know what skills their employees have there are unused knowledge reserves in all cases. This means that they do not use solutions that make knowledge identification available. They do not have a map of their knowledge and competences; there is not an available and regularly updated database of their stock of knowledge within the organization. Therefore, they hire a new staff or an expert which generates unnecessary expenses. Employees at lower management levels of multinational corporations often articulated that the managers at higher levels who delegate tasks are often not interested in what extra tasks their subordinates would be able to perform on top of their regular duties. Top managers only want subordinates to keep the rules and to perform their assigned regular duties. They do not want them to work independently. There is much room for the improvement of the fairness of job selection processes as well. If researchers do deeper research into this area, researchers will find that an incredible amount of unidentified hidden knowledge can be revealed. If this knowledge could be quantified, it might convince the management to change their approach mentioned earlier.

Step 3: If the leaders, management or owner of a firm become aware of their own weaknesses, the acquisition of the missing knowledge will be considered by them as a key to survival (Gaines, 2014; Holder *et al.*, 2006; Bencsik *et al.*, 2009; Bencsik, 2011b).

In the surveys conducted over the past few years 60% of SMEs claimed that while looking for the necessary knowledge (a new employee), they could not choose the most suitable one because they did not have enough financial resources to do so. This deficit presents itself in two forms. Firstly, companies do not have money to hire an expert in order to ensure that a selection brings the expected results. They can not even use the selection techniques which help them to find the most suitable applicant. Secondly when they manage to identify the most suitable potential employee who would be able to come up to future expectation, they do not have enough money to offer him or her a competitive salary and benefits; thus they lose the chance to make that person stay with the company.

There is another problem which is not in connection with the amount of available finances. It is rather cultural and is present at SMEs and corporations alike. The phenomenon is that there is no real selection of candidates. Though, there are official selection procedures, they do not bring the expected results.

Companies would need outstanding experts, i.e., there would be a need for knowledge but the presence of social relations and favouritism result in the fact that in most cases, those get the jobs who so to say have to get them. These are candidates whose acquaintances, families and friends have good contacts. This national culture truly undermines the most important criterion of the KM system. It undermines the firms efforts to gain a competitive advantage on the market. In the majority of the cases, the selection procedure cannot bring results that are based on unbiased decisions.

If there is inner recruitment for a position or chance for employees to get higher on the career ladder, the selection procedure or promotion is not unbiased either. In the earlier mentioned cases, it is not those who possess the necessary knowledge who get the position or promotion but corruption and personal contacts prevail. It is also important to mention that when we talk about the necessary knowledge we do not exclusively mean professional skills but other qualities as well. We have personally observed that financial losses or damages in these cases are rather high, especially in the case of higher management positions. In addition, since there is not an opportunity to test what would have happened, if the selection had been unbiased, companies do not know what they lose, since they never try the so called fair way of selection. It would be worth quantifying how much companies lose due to bad decisions, due to loss of motivation and as a result of employee dissatisfaction.

Besides the standard ways of knowledge acquisition managers also indicated the presence of dishonest, unfair ways too. These are among others, colleagues who can be bribed or convinced to leave the firm, stolen ideas, as well as the acquisition of companies or making them go bankrupt, etc. Since, these methods are rather costly, they are primarily typical for corporations.

Step 4: If companies have to use their existing knowledge resources and the knowledge of the newly hired staff will these companies be able to finance the costs of knowledge generation (Bencsik *et al.*, 2009; Ratten and Suseno, 2006)?

Another typical problem is that newly recruited employees lack appropriate language competencies which causes operational problems from their 1st day at work and as a result of misunderstandings they cause financial losses too. The problem with the approach that it does not matter, if someone is not competent enough and will learn the necessary things at the company is also frequently mentioned. The latter approach also might work but the financial losses caused during the

acquisition of the necessary new technical and economic skills and knowledge are always born by the company. If there is not a person who the new employees can ask, it is them who have to come up with solutions. In some cases, they are able to come up with the right solution but in some cases, they are not. The question is how much loss this causes in the meantime?

This can create invisible losses or even losses of assets: Companies do not spend money on the selection of new staff, i.e., they do not pay for the necessary knowledge. On the other hand, they spend a never counted amount of money on the employment of people who do not contribute to the success of their business. What is more with their insufficient knowledge and lack of skills, these employees even cause economic losses to businesses (Whelan *et al.*, 2010; Jafari *et al.*, 2011).

A manager of a well-performing company in Austrian ownership said that each newly recruited employee has a truck that he or she can load with faults without any consequences meaning that employees at companies do not have to bear the consequences of bad decisions. Has he ever counted what costs more? Whether, it is a proper selection procedure/knowledge acquisition-training/knowledge sharing or so to say random recruitment based on personal preferences and the financial loss generated by an employee who was left alone.

One of the most frequently observed weakness of corporations is that they are not aware of the inner knowledge within their own firm. Those corporations that do not have financial problems allocate resources in their annual budget for the further training of their employees. The allocated money must be spent. In practice at lower management levels, it often means that it does not matter who attends what kind of training even if the course is unnecessary for those people. They do so in order to be able to prove on study that the money intended for the purpose was spent. Another way to spend the resources is to let employees choose what training course they want to attend. As a result, it often happens that the staff will do it the easy way: They choose to develop skills that they already have thus avoiding having to work and learn.

A similar phenomenon can be observed in cases when a certain type of knowledge is present but the management either do not notice it or they do not want to utilize it intentionally. A corporate executive also pointed out during an interview that the management do hinder creative and motivated colleagues in innovation at the firm. He said that it is the owner's ideas that must be implemented. Nobody is interested in the fact that some others might have better ideas. Researchers need to do

what has been ordered to be done. Not only does this cause a temporary problem in the self esteem of employees, it also demotivates them and makes them feel useless.

Step 5: The most critical step of knowledge management systems is the creation of necessary conditions for knowledge sharing (Bencsik, 2011b; Tjakraatmadja *et al.*, 2011).

The usual approach and way of behavior towards knowledge sharing can be expressed in one word: NO! Of course we have observed very sophisticated and direct ways of expressing this thought but this was the main idea behind all of them. It has been generally observed that those employees who are asked to share their knowledge will never help their colleagues get into a higher position or get a higher salary at their own initiative. They treat them as competitors. It is widely known that in spite of efforts made to improve the situation in this field, there is no cooperation at the workplaces. There is often too much competition between colleagues and managers. The managements of companies try to force their employees to share knowledge through team work and joint problem-solving activities but in practice these techniques do not work; they do not bring the expected result. The reason for this is that mistrust is very strong and it is a part of the national and corporate culture in Hungary. Also, the holding back of knowledge is also a result of practices dating back even several hundreds of years in history and also a result of the current economic situation. There were several cases when employees who were about to go on a maternity leave or to change their position within the company clearly stated that it was not in their interest at all to share their complete knowledge with their successors. This is especially true for those who are leaving the company and will work for another one and for those who worked on a temporary contract. They argued that if the new colleague was better, they would not have a chance to come back and work for the same company again.

In the case of employees leaving the company completely, there were reports that they deployed accounts, deleted everything from their computers, destroyed documents, scared away the clientele, etc. These were perhaps the most extreme cases; however there were also a lot more and more sophisticated practices.

There is also an extreme but the real problem, namely; a situation when there is nobody who could share the necessary knowledge. This happens when the firm either enters a new business field or the person leaving the company never meets the successor. In the latter case, the new employee has to solve all problems alone and this

might cause economic disadvantages such as, wrong technical solutions in appropriate procedures and processes, use of too many materials in production, faulty products, low-quality services, etc.

During the research, researchers heard about a large number of cases that all could have been avoided if there was a culture of mutual trust, cooperation between colleagues, a will from the management and know-how (Janicot and Mignon, 2012; Ghobadi and D'Ambra, 2011).

Step 6: In accordance with the steps of the Probst Model, if researchers presume, theoretically that knowledge sharing works at organizations and businesses to some extent, it must be made sure that the shared knowledge is utilized to the highest possible level and is incorporated into everyday processes and work (Noszkay, 2007).

Since, it is very difficult to tell how much employees develop, e.g., during a training course, it is even more difficult to state to what extent they incorporate their new knowledge into their everyday work. This is especially, true for soft skills which can be measured with much higher difficulty than other professional skills. As an example communication trainings, personal efficiency trainings, team building and conflict management trainings could be mentioned. Since, these skills and knowledge are hard to measure, their lack and its negative impact is even more difficult to express in numbers. There are obvious manual activities where the earlier mentioned problem is much simpler to measure and solve; however in most cases the real loss is not caused by these.

This question is particularly interesting when the previous steps of the Probst Model are not implemented, appropriately in a business or organization. If knowledge identification was not satisfactory and there was no knowledge acquisition and if employees reject knowledge sharing, practically there is nothing to do in the framework of knowledge utilization. In that case, organizations can concentrate only on everyday routines which will serve, as a tool for the implementation of activities but with a loss of interest, no one will deal with the question of knowledge utilization after a while.

When researchers raised the question of knowledge utilization during the research, the majority of managers did not even understand what researchers wanted to discuss. Employees are obviously expected to use their knowledge; however no one asks the question whether they use their complete knowledge or just a part of it whether that knowledge is still useful or it would be better to forget it or whether their knowledge is very much valuable and should be utilized fully. Financial losses and social disadvantages are very difficult to express in

numbers in this respect again still, time should be devoted to raising this question in order to consider the elements of losses and consequences.

Step 7: If the earlier described phases of the Probst Model worked properly in organizations and businesses, the next step could be implemented. The information, i.e., the knowledge that is or might be used and needed by employees should be retained. It should be incorporated into the organizational memory and should be made available for everyone. If the previously discussed phases of the Probst Model are established thoroughly, they provide a solid background for retention which can lead to a truly successful functioning of corporations. Routines may work well; the corporate culture can help the organization to make up for its deficiencies or to help find specific knowledge within the organization. If the organizational memory is well established, it can be an incredible help to identify knowledge, since everything is documented and available (Chu *et al.*, 2011). Unfortunately, experience shows that usually there are problems with the 1st steps of the Probst Model and as a result of this, knowledge retention does not usually work either.

The problem is that businesses often do not even recognize that in spite of the fact that they take the role of IT seriously and they repeatedly invest huge amounts of money in new technologies making the use of new IT solutions obligatory for the staff, they still fail to make good use of the advantages arising from these developments. Here, researchers mean that too much information is just as big of a problem as insufficient knowledge. Employees get innumerable emails and receive an excessive amount of unwanted data and unnecessary information. They do not already know what is that they really need what is important and what they should ignore.

A further problem arises when we start to deal with knowledge which can not be stored in any database which is difficult to share. Knowledge elements that can not be documented, such as ethical norms, behavioral expectations, relationships and other corporate habits are usually present in the form of routines and are available for each employee. It is an expectation that, those behavioral patterns which are unique in a given company are retained in the organizational memory even if they cannot be put down on study, explained or taught through standard methods. If only single people have expert knowledge in individual areas at an organization and the holders of the knowledge leave, they will take away that knowledge from the company with themselves if it does not become part of the organizational memory while they are still with the firm.

At one of the surveyed organizations, there were 7 different IT systems being used at the same time which served more or less the same purpose. The employees stated that they did not use all of them. It was their own choice which one or ones they preferred to use. There were however, only one or two databases which had to be updated regularly. Thus, the employees learnt quickly that it did not make any sense to use all of them and they made their choices on their own which in fact should not have been allowed. The question automatically arises whether it is possible that no one needs the data content gathered in one place? If it happens so, the person will have to collect the necessary information from three or more databases.

Step 8: Knowledge assessment is a kind of feedback for employees and the management in the cycle of knowledge management. It indicates how much the knowledge of the organization corresponds to the standards stipulated in the corporate strategy whether long-term objectives can be met through the utilization of the existing knowledge (Bencsik, 2011b; Phipps and Prieto, 2012; Pirkkalainen and Pawlowski, 2012).

The respondents mentioned only one thing belonging to this category, namely; performance evaluation. It is known that performance evaluation is used in SMEs very rarely while in large corporations, it has become inevitable. However, the technique of its implementation is also a source of many problems. The majority of managers do not attribute great importance to performance evaluation; they do it because it is necessary. However, they do not evaluate in the light of their company's strategy. Thus, the process does not bring any benefits to the organization. The majority of managers feels uneasy about discussing problems and someone's weaknesses.

In one case, researchers were told that at one firm, it is the manager's personal assistant who brings the evaluation sheets to be signed by subordinates. At another firm, the respondents indicated that though they receive the evaluation sheets from their managers personally, no one asks any questions, since they are afraid of the consequences. They do not ask questions, even if they feel their evaluation was unfair. The evaluation in many cases is not based on real performance and knowledge utilization. What makes the use of performance evaluation even more frivolous is that the results of the evaluation do not have any consequences on the evaluated person, apart from offendedness and personal clashes.

DISCUSSION

The qualitative research was aimed at the analysis of the opinions of the surveyed companies, firms and

organizations. The knowledge management systems of their organizations were analyzed on the basis of the 8 steps of the Probst Model. In this study, researchers focused on those results of the research projects which hinder the proper functioning of knowledge management.

The earlier mentioned critical problems can be observed in most Hungarian businesses today and bring about negative consequences in their knowledge management processes (Bencsik, 2011b; Leal-Rodriguez *et al.*, 2013). The findings of the research in relation to each step of the Probst Model are summarized after:

Knowledge priorities: Rather limited use not complex, different interests of owners and managers, this is identical to the results seen in other researches presented in the professional literature (Alawneh *et al.*, 2009; Gottschalk, 2005; Hansen *et al.*, 1999; Evangelista *et al.*, 2010).

Knowledge identification: Rather limited use if there is no strategy, it makes no sense. This result is supported by other research results, as career prospects is a very important factor in the lives of today's youth (Phipps and Prieto, 2012; Konigova *et al.*, 2012).

Knowledge acquisition: Cultural, moral, ethical, economic problems appear. The latest and freshest Hungarian research done by KPMG in 2013-2014 also supports this claim. From the point of view of the employers, trust is a key term in knowledge acquisition and sharing and the behaviour and the example shown by the management can influence trust to a certain degree (Ragab and Arisha, 2013).

Knowledge development: They do not know how to do it. They do not invest in it. They think it is unnecessary. As Tai (2005) puts it if a culture encourages knowledge development and knowledge sharing and is more open in general, it will also be more willing to create and operate a proper knowledge management system (Lee *et al.*, 2011; Whelan *et al.*, 2010; Jafari *et al.*, 2011; Nijenhuis, 2013).

Knowledge sharing: It is nearly impossible to implement. It is done because it is told to be done. On the one hand, this contradicts the own experience and previous research results; on the other hand the results of the international researches do not support it either (Berends *et al.*, 2006; Endres *et al.*, 2007), as those results prove that the lack of willingness to share knowledge can in most cases be traced back to fear about the individual's career (Wang and Noe, 2010; Lin, 2007).

Knowledge utilization: It is an obvious expectation but it is not controlled and does not fulfil its role. Researches conducted some years ago were aimed at the connections between emotional intelligence and knowledge management system, the results clearly showed that organizations who pay attention to emotional intelligence are also able to function better regarding knowledge utilization (Bencsik, 2012).

Knowledge retention: Too much IT is rather a disadvantage than an advantage. This result correlates with the results gained from the interviews handed out to various managers, all of which claim that tacit knowledge can either not be retentioned at all or can only be transferred partially. The companies feel the losses but they have not yet reached the point where they also feel the economic repercussions of those losses (Hafiza *et al.*, 2013). The utilization of the mentoring system has a long history, although its application is often superficial and serves only to retention/share explicit knowledge; the connections rarely run deep enough to allow for long-term cooperation and tacit knowledge retention as well (Shaari *et al.*, 2010; Bencsik, 2012).

Knowledge assessment: Rather limited use; there is no elaborated methodology. Experts point out (De Vries and Petersen, 2009; Fonseca, 2006) that the task of the traditional HRM must be extended. This means that its role in knowledge economy must be revised inside and outside the company as well (Chivu and Popescu, 2008; Mavodza and Ngulube, 2012). Several of the firms interviewed in the research are only in a very initial phase in this respect.

CONCLUSION

Based on the research, results and the experience gained from the professional literature, researchers can see that knowledge management system building is a basic requirement in a company's life. However, the surroundings, supervision, quality and usefulness of the earlier mentioned knowledge sharing are not well thought out. The factors which play an important role, here are connected to soft skills, human relations, trust, managerial behaviour and the organizational structure and it is HR which can do the most in these areas.

Most of the respondents are aware of the ever increasing role of such knowledge transfer-stimulating methods and tools like informatics, HR tools, coach-type leadership, new structural organizational forms, etc., at the same time, there does not seem to be a genuine breakthrough towards forming a real trust and knowledge based culture. On the contrary, researchers tend to make

the own knowledge hidden as much as researchers can from the public while paradoxically, researchers expect the opposite behaviour from others. Although, it is clearly seen that the organizations of the future look at knowledge, as a strategic resource, this vision is not translated into a conscious knowledge management strategy.

Of course, there are a number of positive examples as well: Researchers have seen good solutions and a pleasant atmosphere at some workplaces but these do not prevail. The aim of this study was not to introduce best practices in Hungary. Researchers rather wanted to draw the attention of organizations and businesses to the fact that it is not worth investing money and time into needless efforts, if any of the problems described earlier are present in their company. There is a need for leaders and managers with expert knowledge who will start building knowledge management systems systematically which are based on existing, real values. Researchers are aware of the fact that it will not take place in the short term, since it is difficult to change human attitudes; however it is definitely worth in the long run. Perhaps, the tone of this study is rather critical but the aim was to draw the attention to the following facts: There is a need for systematic and responsible decision making. The current situation in companies should be analyzed. Ethical norms should be respected and the currently hidden but available sources should be utilized. Researchers truly hope that the effort will bear fruit.

REFERENCES

- Alawneh, A.A., A. Abuali and T.Y. Almarabeh, 2009. The Role of knowledge management in enhancing the competitiveness of small and medium-sized enterprises (SMEs). *Commun. IBIMA*, 10: 98-109.
- Bencsik, A. and A. Solyom, 2011. Education and training practice strategies in small and medium sized enterprises. *Proceedings of the International Conference on Economics, Trade and Development*, April 1-3, 2011, Bali Island, Indonesia, pp: 65-70.
- Bencsik, A., V. Lore and M. Polyakne, 2009. Knowledge Transfer Among Young People. In: *The Capital of Intelligence-the Intelligence of Capital Alma Mater*, Noszkay, E. (Ed.). Foundation for Information Society, USA., pp: 149-167.
- Bencsik, A., 2011a. *Small and Silly?: Or the Hidden Pitfall for Small and Medium-Sized Enterprises*. LAP Lambert Academic Publishing, Germany, ISBN-13: 978-384652590, Pages: 136.
- Bencsik, A., 2011b. [Best Practice in Knowledge Management System Building]. Addison Wesley Longman Ltd., England, (In Hungarian).

- Bencsik, A., 2012. Change, Project, Knowledge: Symbiosis of Change and Project Management to Build a Knowledge Management System. LAP Lambert Academic Publishing, Germany, ISBN-13: 978-3659216589, Pages: 188.
- Berends, H., H. Bij, K. Debackere and M. Weggeman, 2006. Knowledge sharing mechanisms in industrial research. *R D Manage.*, 36: 85-95.
- Blom, B., L. Nygren, C. Nyman and C. Scheid, 2007. Social work students' use of knowledge in direct practice-reasons, strategies and effects. *Soc. Work Soc.*, 5: 46-61.
- Cai, M., J. Zheng, P. Shi and X. Li, 2009. Three-tier knowledge management system based on NET. *J. Software Eng. Applic.*, 2: 40-43.
- Chen, C.J. and J.W. Huang, 2009. Strategic human resource practices and innovation performance-The mediating role of knowledge management capacity. *J. Bus. Res.*, 62: 104-114.
- Chivu, J. and D. Popescu, 2008. Human resources management in the knowledge management. *Inform. Econ.*, 13: 54-60.
- Choochote, K., 2012. An analysis of knowledge management process for SMEs in developing countries: A case study of SMEs in India and Thailand. *Int. J. Inform. Educ. Technol.*, 2: 239-242.
- Chu, S.K.W., K.H. Chan, K.Y. Yu, H.T. Ng and W.K. Wong, 2011. An empirical study of the impact of intellectual capital on business performance. *J. Inform. Knowl. Manage.*, 10: 11-21.
- Dahiya, D., M. Gupta and P. Jain, 2012. Enterprise knowledge management system: A multi agent perspective. Proceedings of the 6th International Conference on Information Systems, Technology and Management, March 28-30, 2012, Grenoble, France, pp: 271-281.
- Daud, S. and W.F.W. Yusoff, 2010. Knowledge management and firm performance in SMEs: The role of social capital as a mediating variable. *Asian Acad. Manage. J.*, 15: 135-155.
- Davenport, T.H., 1996. The future of knowledge management. *CIO*, 9: 30-32.
- Davenport, T.H., D.W. De Long and M.C. Beers, 1998. Successful knowledge management projects. *Sloan Manage. Rev.*, 39: 43-57.
- De Vries, B.J. and A.C. Petersen, 2009. Conceptualizing sustainable development: An assessment methodology connecting values, knowledge, worldviews and scenarios. *Ecol. Econ.*, 68: 1006-1019.
- Eggs, C., 2012. Trust building in a virtual context: Case study of a community of practice. *Electron. J. Knowl. Manage.*, Vol. 10.
- Endres, M.L., S.P. Endres, S.K. Chowdhury and I. Alam, 2007. Tacit knowledge sharing, self-efficacy theory and application to the open source community. *J. Knowl. Manage.*, 11: 92-103.
- Erhardt, N., 2011. Is it all about teamwork? Understanding processes in team-based knowledge work. *Manage. Learn.*, 42: 87-112.
- Evangelista, P., E. Esposito, V. Lauro and M. Raffa, 2010. The adoption of knowledge management systems in small firms. *Electron. J. Knowl. Manage.*, 8: 33-42.
- Evers, H.D. and S. Gerke, 2013. Local knowledge and the digital divide: Focus on Southeast Asia. Working Papers, Institute of Asian Studies, University of Brunei Darussalam, Gadong.
- Fonseca, A.F., 2006. Organizational knowledge assessment methodology. The World Bank Institute, Washington, DC. <http://www.nti.ufpb.br/~evandro/oka/Organizational%20Knowledge.pdf>.
- Gaines, B.R., 2014. Organizational knowledge acquisition. <http://pages.cpsc.ucalgary.ca/~gaines/reports/KM/OKA/OKA.pdf>.
- Garbay, C., 2000. Knowledge Acquisition and Representation. In: *The Biomedical Engineering Handbook: 2nd Edn.* Bronzino, J.D. (Ed.). Springer Science and Business Media, New York, ISBN-13: 9783540668084.
- Ghobadi, S. and J. D'Ambra, 2011. Competitive knowledge sharing: An analytical review of literature electronic. *J. Knowl. Manage.*, 9: 307-317.
- Gholami, M.H., M.N. Asli, S. Nazari-Shirkouhi and A. Noruzi, 2013. Investigating the influence of knowledge management practices on organizational performance: An empirical study. *Acta Polytechnica Hungarica*, 10: 205-216.
- Gottschalk, P., 2005. Strategic Knowledge Management Technology. Idea Group Inc., Hershey, PA., USA., ISBN-13: 9781591403364, Pages: 293.
- Hafiza, A., D. Merduwati, J. Adnan and H. Saari, 2013. Challenge in sharing tacit knowledge. Proceedings of the European Conference on Information Management and Evaluation, September 12-13, 2013, Gdansk, Poland, pp: 337-348.
- Hamsioglu, B.A., 2011. The effect of knowledge management, technological capability and innovation on the enterprise performance: A comprehensive empirical study of the Turkish textile sector. *J. Inform. Knowl. Manage.*, 10: 1-10.
- Handzic, M. and I. Leader, 2006. Knowledge management in SMEs: Practical guidelines. *CACCI J.*, 1: 1-11.
- Hansen, M.T., N. Nohria and T. Tierney, 1999. What's your strategy for managing knowledge? *Harv. Bus. Rev.*, 77: 106-116, 187.

- Holder, L.B., Z. Markov and I. Russell, 2006. Advances in knowledge acquisition and representation. *Int. J. Artif. Intell. Tools*, 15: 867-874.
- Islam, Z.M., I. Hasan, S.U. Ahmed and S.M. Ahmed, 2011. Organizational culture and knowledge sharing: Empirical evidence from service organizations. *Afr. J. Bus. Manage.*, 5: 5900-5909.
- Jafari, M., J. Rezaeenour, M.M. Mazdeh and A. Hooshmandi, 2011. Development and evaluation of a knowledge risk management model for project-based organizations: A multi-stage study. *Manage. Decis.*, 49: 309-329.
- Janicot, C. and S. Mignon, 2012. Knowledge codification in audit and consulting firms: A conceptual and empirical approach. *Knowl. Manage. Res. Pract.*, 10: 4-15.
- Karreman, D., 2010. The power of knowledge: Learning from learning by knowledge-intensive firm. *J. Manage. Stud.*, 47: 1405-1416.
- Khoshshima, G., C. Lucas and A. Mohaghar, 2004. Assessing knowledge management with fuzzy logic. Proceedings of the 5th International Conference, PAKM 2004, December 2-3, 2004, Vienna, Austria, pp: 425-432.
- King, W.R., 2001. Strategies for creating a learning organization. *Inform. Syst. Manage.*, 18: 12-20.
- Kmiecik, R. and A. Michna, 2012. Relationship between knowledge management and market orientation in SMEs. Proceedings of the Management, Knowledge and Learning International Conference (MakeLearn) 2012 Knowledge and Learning: Global Empowerment, June 20-22, 2012, Celje, Slovenia, pp: 175-183.
- Konigova, M., H. Urbancova and J. Fejfar, 2012. Identification of managerial competencies in knowledge-based organizations. *J. Competitiveness*, 4: 129-142.
- Leal-Rodriguez, A., A. Leal-Millan, J.L. Roldan-Salgueiro and J. Ortega-Gutierrez, 2013. Knowledge management and the effectiveness of innovation outcomes: The role of cultural barriers. *Electron. J. Knowl. Manage.*, 11: 67-71.
- Lee, C.F., S.D. Tsai and M. Amjadi, 2011. The adaptive approach: Reflections on knowledge management models. *J. Manage. Inquiry*. 10.1177/1056492611411483
- Liebowitz, J., 2008. Knowledge Retention: Strategies and Solutions. Auerbach Publications, Boca Raton, London, ISBN-13: 978-0736099370, Pages: 144.
- Lin, H.F., 2007. Knowledge sharing and firm innovation capability: An empirical study. *Int. J. Manpower*, 28: 315-332.
- Ling, C.T.N., 2011. Culture and trust in fostering knowledge-sharing. *Electron. J. Knowledge Manage.*, 9: 328-339.
- Malhotra, Y., 2002. Why Knowledge Management Systems Fail? Enablers and Constraints of Knowledge Management in Human Enterprises. In: *Handbook on Knowledge Management*, Holsapple, C. (Ed.). Springer Verlag, Heidelberg, Germany, pp: 577-599.
- Malhotra, N.K., 2008. *Marketing Research: An Applied Orientation*, 5/E. Pearson Education India, India, ISBN-13: 9788131723173, Pages: 960.
- Mavodza, J. and P. Ngulube, 2012. Knowledge management practices at an institution of higher learning. *S. A. J. Inform. Manag.*, Vol. 14. 10.4102/sajim.v14i1.496
- Maxwell, J.A., 1996. *Qualitative Research Design: An Interactive Approach*. SAGE, Thousand Oaks, CA.
- Mazilescu, V., 2010. Fuzzy modelling in the emerging field of knowledge management systems. Proceedings of the 9th WSEAS International Conference on Artificial Intelligence, Knowledge Engineering and Data Bases, February 20, 2010, Cambridge, UK., pp: 254-259.
- Miles, M.B. and A.M. Huberman, 1994. *Qualitative Data Analysis*. 2nd Edn., Sage Publication, California, USA.
- Mintzberg, H., J. Lampel and B. Ahlstrand, 2005. *Strategy Safari: A Guided Tour Through the Wilds of Strategic Management*. The Free Press, New York, America.
- Newk-Fon, W., H. Tow, J. Venable and P. Dell, 2012. How organisations know what they know: A survey of knowledge identification methods among Australian organisations. Proceedings of the 23rd Australasian Conference on Information Systems How Organisations Know What They Know, December 3-5, 2012, Geelong.
- Nijenhuis, M., 2013. Identification of knowledge: A research to develop a tool to map the present and required knowledge of Eaton's employees. M.Sc. Thesis, University of Twente Student Theses.
- Noruzy, A., V.M. Dalfard, B. Azhdari, S. Nazari-Shirkouhi and A. Rezazadeh, 2012. Relations between transformational leadership, organizational learning, knowledge management, organizational innovation and organizational performance: An empirical investigation of manufacturing firms. *Int. J. Adv. Manuf. Technol.*, 64: 1073-1085.
- Noszkay, E., 2007. NVOs (Networked Virtual Organisations) and other forms of networks small and medium-sized enterprises in the Web of new cooperation forms. *Club Econ. Miskolc TMP*, 4: 61-66.

- Ogiwara, N. and R. Young, 2010. Practical Knowledge Management Guide for SME Owners and Managers. Asian Productivity Organization, Chiyoda-ku, Tokyo.
- Ohkubo, S., T.M. Sullivan, S.V. Harlan, B.T. Timmons and M. Strachan, 2013. Guide to monitoring and evaluating knowledge management in global health programs. Center for Communication Programs, Johns Hopkins Bloomberg School of Public Health, Baltimore, MD.
- Phipps, S.T.A. and C.L. Prieto, 2012. Knowledge is power? An inquiry into knowledge management, its effects on individual creativity and the moderating role of an entrepreneurial mindset. *Acad. Strat. Manage. J.*, Vol. 11.
- Pirkkalainen, H. and J.M. Pawlowski, 2012. The knowledge intervention integration process: A process-oriented view to enable global social knowledge management. *Int. J. Knowledge Soc. Res.*, 3: 45-57.
- Polanyi, M., 2009. *The Tacit Dimension*. University of Chicago Press, Chicago, ISBN-13: 978-0226672984, Pages: 128.
- Probst, G. and S. Raub and K. Romhardt, 2006. *Wissen Managen: Wie Unternehmen Ihre Wertvollste Ressource Optimal Nutzen*. Gabler Verlag, Wiesbaden, Germany, ISBN-13: 978-3834901170.
- Ragab, M.A.F. and A. Arisha, 2013. Knowledge management and measurement: A critical review. *J. Knowl. Manage.*, 17: 873-901.
- Ratten, V. and Y. Suseno, 2006. Knowledge development, social capital and alliance learning. *Int. J. Educ. Manage.*, 20: 60-72.
- Rohrer, D. and H. Pashler, 2007. Increasing retention without increasing study time. *Current Direct. Psychol. Sci.*, 16: 183-186.
- Ryan, G.W. and H.R. Bernard, 2003. Data Management and Analysis Methods. In: *Collecting and Interpreting Qualitative Materials*, Denzin, N.K. and Y.S. Lincoln (Eds.). 2nd Edn., SAGE Publications, Thousand Oaks, CA., ISBN-13: 9780761926870.
- Seidman, W. and M. McCauley, 2005. *Optimizing Knowledge Transfer and Use*. Cerebyte, Inc., Lake Oswego.
- Senge, P.M., 1990. *The Fifth Discipline: The Art and Practice of the Learning Organization*. Doubleday/Currency, New York, USA, ISBN-13: 9780385260947, Pages: 424.
- Shaari, R., A. Rajab and R. Yusoff, 2010. The organizational issues of knowledge sharing among academic staffs in the Malaysian Public Universities. *Int. J. Knowl. Culture Change Manage.*, 10: 133-148.
- Spender, J.C., 2011. *The Problems and Challenges of Researching Intellectual Capital*. Hershey Company, New York, USA.
- Strauss, A.L. and J.M. Corbin, 1990. *Basics of Qualitative Research: Grounded Theory Procedures and Techniques*. 17th Edn., Sage Publication, London, ISBN: 9780803932500, Pages: 270.
- Sveiby, K.E., 1997. *The New Organizational Wealth: Managing and Measuring Knowledge-Based Assets*. 1st Edn., Berrett-Koehler Publishers, San Francisco, CA., USA., ISBN-13: 9781576750148, Pages: 220.
- Swart, J., 2007. *HRM and Knowledge Workers*. Oxford University Press, New York, USA.
- Swart, J., N. Kinnie and J. Rabinowitz, 2007. *Managing Across Boundaries: Human Resource Management Beyond the Firm*. Chartered Institute of Personnel Development, London, UK., ISBN-13: 978-1843981916.
- Tai, J., 2005. A study for the connection of the corporate culture and knowledge management. Master's Thesis, National Chung Cheng University, Taiwan.
- Tjakraatmadja, J.H., L. Martini and Y. Anggoro, 2011. Knowledge sharing in small and medium enterprises: A case study of creative clothing industry in Bandung, West Java, Indonesia. *Tech. Monitor*, 28: 29-35.
- Turban, E., J.E. Aronson and T.P. Liang, 2005. *Decision Support Systems and Intelligent Systems*. 7th Edn., Pearson/Prentice Hall, USA., ISBN-13: 9780130461063, Pages: 936.
- Volkov, D. and T. Garanina, 2007. Intangible Assets: Importance in the knowledge-based economy and the role in value creation of a company. *Electron. J. Knowl. Manage.*, 5: 539-550.
- Walsh, J.N., 2014. The sharing and transfer of context specific knowledge in a product support environment. *Int. J. Knowl. Based Dev.*, 5: 80-97.
- Wang, S. and R.A. Noe, 2010. Knowledge sharing: A review and directions for future research. *Hum. Resour. Manage. Rev.*, 20: 115-131.
- Whelan, E., D.G. Collings and B. Donnellan, 2010. Managing talent in knowledge-intensive settings. *J. Knowl. Manage.*, 14: 486-504.
- Witherell, P., S. Krishnamurty and I.R. Grosse and J.C. Wileden, 2010. Improved knowledge management through first-order logic in engineering design ontologies. *J. Artif. Intell. Eng. Design Anal. Manuf.*, 24: 245-257.