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Knowledge Management Practice at a Bulgarian Bank: A Case Study

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ABSTRACT

This paper reports on knowledge management (KM) practices in the customer service and lending departments of one of Bulgaria's top retail banks and investigates how KM processes can be further improved. The Bank's KM activities have been studied using observations, interviews and informal discussions for data collection. Findings were compared and contrasted with existing literature in similar contexts. Although rudiments of knowledge sharing are evident from the KM activities in different departments of the bank, the limitations such as resistance to change of the implemented KM systems are impeding the effectiveness of the knowledge management process. More training and incentives are needed to increase knowledge creation and sharing. Moreover, a clearly articulated KM strategy along with success criteria and commitment and support from senior management is needed. There is a severe lack of knowledge management studies in Bulgarian context in general and Bulgarian banking sector in particular. The authors' findings will potentially help in improving knowledge sharing practice as well as provide a valuable insight into knowledge management related issues in the Bulgarian context. The findings from this research can be useful to companies from Eastern Europe and other regions in improving their knowledge sharing practice.

Keywords: *Banking, Bulgaria, Case Study Research, Emerging Markets, KM Practice, KM Processes, Knowledge Management, Knowledge Sharing*

1. INTRODUCTION

The main aim of this paper is to analyse the knowledge management (KM) practices in the customer service and lending departments of Bank A, Bulgaria (the real name of the bank has been kept confidential following request from the bank). The paper highlights the most significant characteristics to illustrate the bank's innovation and customer-focused strategy. The explanation of KM activities in the customer-service and lending departments includes description of the types of knowledge handled and analysis of the core KM prac-

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tices – knowledge generation, retention and transfer, considering environment, people and technology. The analysis of the management of knowledge in the chosen departments is based on Nonaka's (1991) four modes of knowledge conversion which constitutes the knowledge creation process and examines the extent to which knowledge sharing is embedded into the organizational culture:

The area of knowledge management began to attract the attention of business practitioners and academics during the 1990s and has been promoted as an important contributor towards innovation and competitive advantage (Guchait et al. 2011). Researchers make a distinction between knowledge and information, for example, Nonaka and Takeuchi (1995) define information as a stream of messages and knowledge as information (in context of the individual, organization, and society); based on which actions and decisions can be taken. More simply, Wang and Noe (2010, p.117) consider knowledge as "information processed by individuals." Thus, knowledge management is the creation, storage, dissemination and application of knowledge at individual or organizational level, depending on the context.

The focus of this paper is on the knowledge sharing aspect of KM. Knowledge sharing in organizations is perceived as "the behaviour by which an individual voluntarily provides other members of the organization with access to his or her knowledge and experiences" (Cyr & Choo, 2010). Knowledge is often referred to as 'tacit' and 'explicit'. Nonaka (1991) explains that tacit knowledge is highly personal and difficult to capture and communicate whereas explicit knowledge is formal, systematic and easy to share and communicate. Matzler et al. (2008) assert that knowledge, when shared, consists of both tacit and explicit dimensions. The management of both tacit and explicit knowledge entails improvement in the flow of information, as well as reducing bottlenecks and obstructions; hence ensuring that decision-makers will have access to information (Samoff & Stromquist, 2001). In this context, the sharing of knowledge becomes an important aspect of knowledge management. It is believed that knowledge sharing can positively affect organizational performance; and successful companies constantly generate, manage and utilize new and old knowledge for designing their products and services and improving their business processes in order to gain and sustain competitive advantage in their markets (Christensen, 2005).

Despite an abundance of literature on knowledge management, we found no study focussing on knowledge management in the Bulgarian banking and financial sector. The Bulgarian banking sector lies in a considerably different context from the developed world where knowledge management in the banking industry has been conducted more often than not. The findings of this paper will potentially help improve knowledge management and knowledge sharing practices in the Bulgarian banking industry. Moreover, the analysis of the KM practices in an organization from the emerging market of Eastern Europe can be useful to companies from Eastern Europe and other similar regions in improving their knowledge sharing practice. KM related literature so far has largely concentrated on developed countries with only a few examples from the developing world. This gap is more noticeable when it comes to the developing economies within Europe where organizational and cultural issues are not completely unique but nevertheless different from KM in banking research elsewhere. This paper will help bridge this gap.

2. LITERATURE REVIEW

Knowledge management refers to the storage and optimization of the knowledge by organizations to enhance their performance, help maximizing competitive advantage and to improve the efficiency of their business processes. Knowledge management involves the management of collective as well as individual knowledge held within the organizations (Pan & Scarbrough, 1999). According to Gopal &

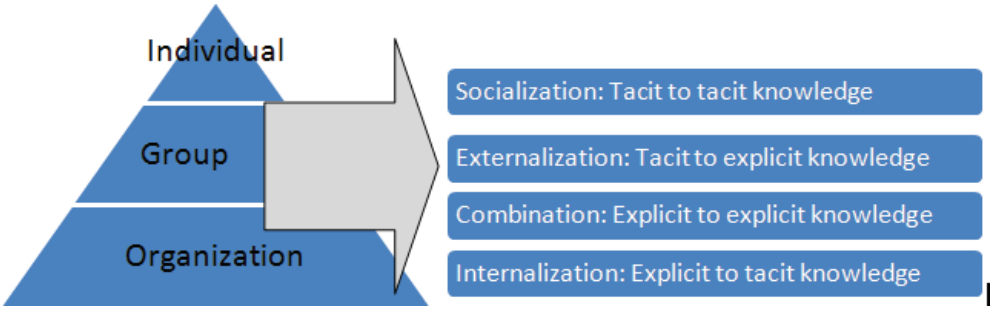
Gagnon (1995), knowledge is present in the minds of people and unlike physical goods, it is a cumbersome task to code and store it. Knowledge held in an individual mind decays with time and is thus lost very easily (Galagan, 1995). In order to store the knowledge held by individuals, organizations must develop ways to access, interpret, code and store so as to sort the useful information from useless.

Knowledge generation, retention and transfer are the core sub-processes of KM (Mishra & Bhaskar, 2011). Knowledge generation involves creation of new knowledge by the means of brainstorming, interaction, innovation and benchmarking (Sandhawalia & Dalcher, 2011). Research suggests that formal and informal mentoring, communities of practice, research and development, training, shared problem solving, concept mapping, corporate blogging, etc., are some of the best practices for knowledge creation (Karkoulian, Halawi, & McCarthy, 2008; Mizintseva & Gerbina, 2009). Knowledge retention consists of knowledge capture, codification and storage, and deals with the challenge of keeping the knowledge in the organizations when expert workers leave the organization (Levy, 2011; Mishra & Bhaskar, 2011). Codification of knowledge and its storage in an easily retrievable format plays a vital role in increased knowledge reuse (Hansen, Nohria, & Tierney, 1999). Knowledge transfer is important for the flow of information and ensures the smooth functioning of operations (Jastroch, 2010). Transfer of knowledge involves both tacit and explicit forms of knowledge, and if the process is hindered, knowledge can become "sticky" and impossible to be utilized (Szulanski, 2000).

Varlander (2008) suggests that in the banking context, which heavily relies on knowledge management for its quality of services, the knowledge is heavily derived through social interaction, both in virtual and face-to-face mode between employees and customers. Varlander argues that employees' local knowledge and networks play an important role in knowledge creation. Electronic communities of practice for knowledge sharing have emerged as an important phenomenon in the knowledge management practice. Since, in a real work environment, the codified knowledge available in document and databases sometimes may not be readily accessible, understandable, properly contextualized, or perhaps outdated; electronic communities of practice may provide a collective orientation towards problem solving, learning, understanding, and developing new ideas (Wasko & Faraj 2000, Wasko et al. 2007). Literature reports effective use of social networks, enterprise discussion boards and chat rooms and mIRC for electronic communities of practice for decision making and knowledge sharing (Di Gangi and Wasko 2009, Ardichvili et al. 2003).

Nonaka (1991) proposed four universal modes of knowledge creation, known as SECI (socialization, externalization, combination and internalization), based on the interaction between tacit and explicit knowledge as shown in Figure 1 (Takeuchi, 2006). In the socialization mode, tacit knowledge is created, shared and retained by the individual through formal and in-

Figure 1. Nonaka's SECI model of knowledge conversion at individual, group and organizational level



formal interaction during meetings, discussions and social gatherings etc. In externalization mode, tacit knowledge is communicated through formal reports, documents and processes; thus knowledge is retained and shared in explicit form and becomes a basis for creation of new knowledge. In combination mode, new knowledge is created by integrating different types of explicit knowledge from different sources and disseminating it across the organization. In the internalization mode, new knowledge is created from explicit knowledge sources and then socialized and externalized. These practices should be viewed on three levels – individual, group and organizational – in order to assess the effectiveness of knowledge management (Sabherwal & Becerra-Fernandez, 2003).

Hansen *et al* (1999) indicate that the KM strategy should be aligned with the competitive strategy of the company. They have identified two KM approaches which are mainly used by the service sector organizations. The first one is 'people to document' approach which is similar to Nonaka's *Externaizlation Mode*; it entails codification and storage knowledge in the form of documents and databases so that other employees can use and retrieve it. The second is 'person to person' approach, called personalization strategy; which is similar to Nonaka's *Socialization Mode*. Most firms use a hybrid of these two approaches for their knowledge management. (Percin, 2010; Sarawanawong et al., 2009). Banking, being a service industry, is extremely dependent on knowledge; since for services companies, knowledge is believed to be as significant as capital (Gratton & Goshal, 2003). In order to sustain competitive advantage, banks have to continuously strive for innovation in their product offerings. (Curado, 2008). Innovative organizations primarily depend on tacit knowledge held by the individuals; therefore, Hansen et.al., (1999) advise that companies should focus on channelling individual expertise for organizational benefit. Thus, knowledge sharing is of great importance for such organizations.

Kamara et al. (2002) has also introduced a framework to select the appropriate strategy for knowledge management in an organization. The first step of this framework is to define the overall knowledge management problem in the organization. This entails identifying and analysing as-is practices of knowledge management. The second stage highlights and focusses the future to-be position for knowledge management. The next step is to map out the migration path from as-is position to to-be position for each knowledge management area identified. The last step is to select the appropriate KM process to move along each migration path identified.

Beckett et al. (2000) suggest that KM strategy should consist of three categories, which includes knowledge acquisition, knowledge retention and knowledge exploitation. For knolwedge acquistion, organizations should develop ways to capture new knowledge from within and outside the organization. Internally, the knowledge can be acquired by research and development, formal and informal discussion and training etc. Externally, the knowledge can be acquired by hiring experts and consultants, purchasing technologies and companies. Knowledge retention entails maintaining a knowledge base of the organization in properly cataloged documents and databases for ease of access. Knowledge exploitation is vital for organizational performance. The knowledge within the company can be exploited internally via provision of service and externally by registering patents, offering consultancy and new products or services. The processes by which organizations bring knowledge into the market are very important for the future perfomance. That's why exploitation strategy includes both innovation and continous improvement.

Once the organization has effectively implemented the knowledge management strategy or if a company is focusing and following the KM philosophy, then its success or effectiveness needs to be determined. Turban et al. (2005) suggests that measuring KM success is important from three aspects; first, it provides the organization's valuation; second, it helps justifying investment in knowledge management activities and third, it helps man-

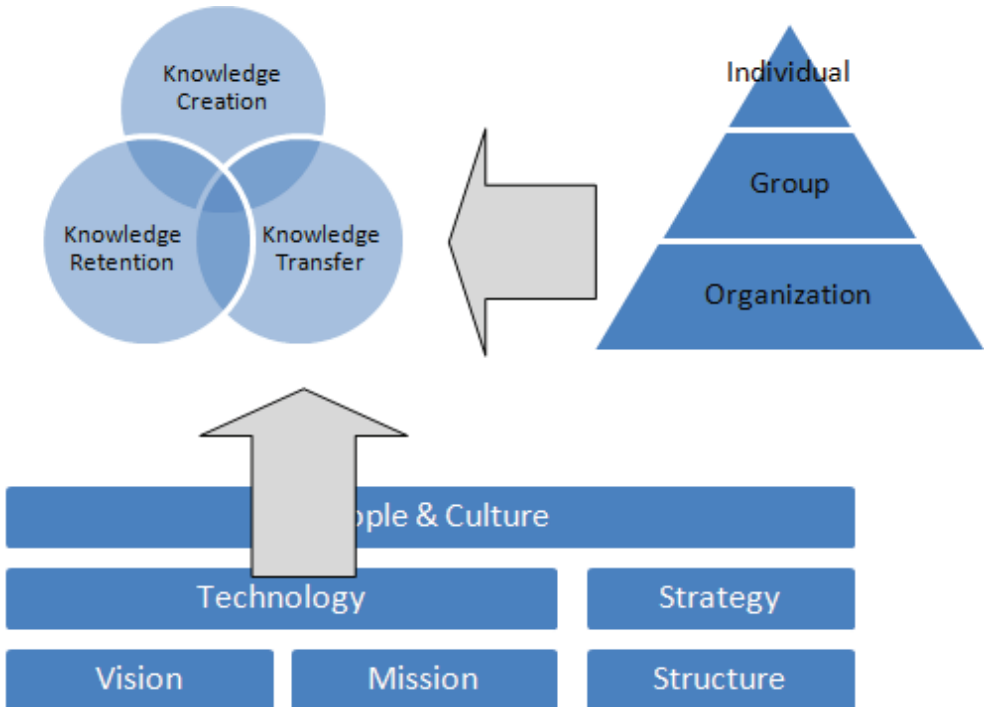
agement in concentrating on what is important for organizational performance.

Jennex and Olfman (2004) have proposed a KM success model. The model is based on the evaluation of improvement in organizational effectiveness. The model uses the system quality, knowledge quality, user satisfaction, perceived benefits and total impact to measure the KMS success. Similarly, Davenport et al. (1998) identify eight critical success factors in knowledge management projects. These factors are: senior management support, multiple channels for knowledge transfer, incentives for KM users, flexible knowledge culture and clearly communicated KM goals. Benbya & Belbaly (2005) classify the success factor for knowledge management into three categories; structural, cultural and managerial. The first one is the structural mechanisms which include all the functional elements of the organizations that facilitate knowledge management. The second is the organizational culture which shapes up the success of the Knowledge management. The third is the use of incentives to change behaviour and increase usage of KM.

Both managers and researchers strive for best practices and models facilitating the creation, retention and transfer of knowledge in their search for excellence. Drew (1999) asserts that technology, culture, strategy, people and organization are the basic building blocks of effective knowledge management across the organization as shown in the Figure 2.

Literature suggests that effective knowledge management depends on the extent to which knowledge sharing is embedded in the organizational culture. McDermott and O'Dell (2001) define two dimensions of organizational culture – visible and invisible. The visible dimension is what can be directly observed and includes a company's mission statement, philosophy, values, structure and even buildings and stories reflecting aspects of culture. The invisible dimension is the deeper level of

Figure 2. Relationship between KM processes, knowledge sharing and organizational culture



culture, consisting of unspoken sets of core values that guide people's reactions and perceptions of reactions. These two dimensions of organizational culture determine behaviour of organizational members.

Most research addressing knowledge management has been conducted in the developed world (Kubo, Saka, & Pam, 2001; Chatzoglou & Vraimaki, 2009; Oliver & Kandadi, 2006). Knowledge culture stems out of organizational life that drives people to create, share and utilise knowledge for the benefit and enduring success of the organization (Oliver & Kandadi, 2006). Only a few studies can be found in the Eastern European companies context, such as Burke's case study of Hungarian enterprises, aimed at introducing the concept of knowledge sharing and considering how sharing assists "emerging economies" (Burke, 2011).

Although the research in the knowledge management field is vast and diverse, there is a gap concerning financial organizations in emerging Eastern European economies. Researchers fail to provide enough insight into the knowledge management practices and their practical implementation and alignment to the organizational culture. This paper aims to fill this gap by analysing the knowledge management processes at Bank A and examining how knowledge sharing is embedded in its organizational culture.

3. RESEARCH METHODOLOGY

The study adopted an interpretive case study approach as the researchers wished to obtain a more in-depth understanding of the processes involved in knowledge management at Bank A. Yin (1994) defines the case study methodology as "an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident and in which multiple sources of evidence are used". The case study is well suited when 'how' and 'why' type questions are involved and it provides a level of depth and richness (Yin, 1993) which is unavailable via other methods, for example, surveys. Case study research has a long history and it is a common qualitative research method used in knowledge management research (Darke, et al. 1998). This method is said to be appropriate when the research topic requires a description of a series of actions over time in a given unit, an understanding how researcher's actions can change or improve some aspects of a system and an understanding of the process of change or improvement in order to learn from it.

This research was conducted using the case study process suggested by Yin (1994). One of the authors had been involved in the operations of the customer service and lending departments of Bank A; which allowed her to study the Bank's KM processes very closely. Data was collected through observation of the company's KM activities in the researched departments, interaction and discussions with colleagues (12 in total) and managers, reflection on personal involvement with the use of the bank's KM tools and an evaluation of company's procedures and documentation. Participants were selected on the basis of their involvement with knowledge management process or knowledge sharing. Observations and interactions with employees were made in formal settings during operational meetings as well as informally during the process of day-to-day work and activities. Detailed notes were kept by the researcher and data was analysed using qualitative data analysis method by Yin (1994): all relevant points are presented in the case study section below. The primary data was compared and contrasted with relevant literature to strengthen the theoretical aspects of this research to evaluate our findings.

4. KM IN BANK A'S CUSTOMER SERVICE AND LENDING DEPARTMENTS

4.1. Organization Background

Bank A, Bulgaria is a joint-stock company, specializing in retail and commercial banking,

and is a licensed primary dealer in government securities as well as a registered investment intermediary. Bank A has been recognized as an innovative, customer-oriented bank, offering a wide range of products and services. The bank has become a leader in the card business, international settlements and trade, and in deposits of individuals and households. Bank A is aiming to remain amongst the top ten Bulgarian banks, to develop a regional banking network and to continue being recognized as a fast growing customer-oriented bank, ensuring excellent careers and contributing to the community.

Although the bank is relatively young, its innovative products and transparent approach to customers has played a major role as order winners for the organization. The top management strives for continuous improvement in its business processes, new product development, technology adoption and customer services. This requires focus on the internal knowledge management processes in order to generate, retain, share and utilize organizational knowledge; which is necessary for sustaining competitive advantage. The implementation of the KM initiatives was predominantly aimed at improving internal communication, work effectiveness and efficiency, as well as equipping employees with knowledge sharing tools to boost customer service and performance.

4.2. Types of Professional Knowledge Handled

On the shop-floor level, the customer service and lending departments are represented respectively by the account managers, cashiers and credit officers who specialize in retail operations and loans. They work in a face-to-face customer service environment, handling different types of information and applying diverse knowledge in their activities. The professional knowledge handled in these departments can be categorised as expert knowledge, competitive intelligence and service knowledge: all three of these categories entail both tacit and explicit knowledge.

The most important types of expert knowledge at Bank A include customer relations, managing of portfolio of customers, risk management, financial analysis, processing of loan applications and the monitoring of a portfolio of loans. Expert knowledge is also used when managing customer accounts and money transfers.

Competitive intelligence involves information about competitors' activities and products in terms of levels of interest rates, types of loans, requirements, delivery speed and strategies, as well as the ability to emphasize on the relevant competitive advantages of Bank A's services and products.

At Bank A, service knowledge is related to customer service skills, such as the ability to deal with different types of personalities, problem solving, customer needs assessment and service delivery.

4.3. Knowledge Management Practices at the Bank

4.3.1. Knowledge Generation

Generation of knowledge is conducted in several ways, which includes R&D, formal and informal training & mentoring, shared problem solving methods and communities of practice:

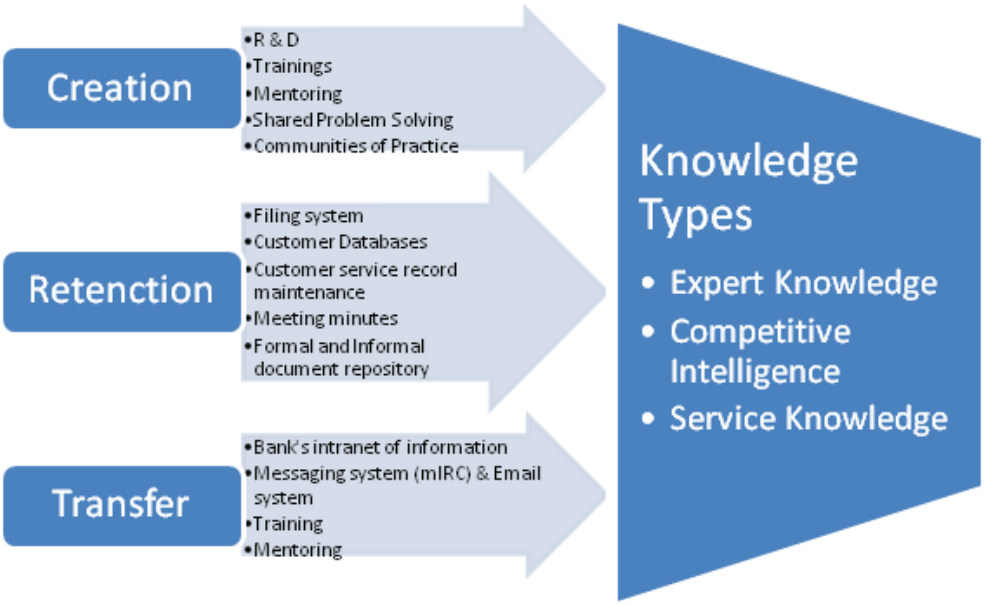
- **Research and development (R&D):** Serves as a primary tool for the collection of competitive intelligence. Employees are encouraged to gather information about competitors' products and services and apply it in cross-sales to highlight benefits of Bank A's products. Employees are advised to learn about political and social events, economic tendencies and changes in the relevant legal frameworks in order to generate expert knowledge. R&D is also amongst the core responsibilities of the Help Desk department which is responsible for the overall knowledge management practice at Bank A;
- **Training:** Conducted at departmental and organizational level, which is facilitated by external and internal consultants. The training is aimed at creating all types of

knowledge and is designed in accordance with the specific needs of a department. Examples of training include customer service, sales skills, financial analysis and technical skills. Training is provided mainly to new employees; however training is also designed for experienced staff especially when new products or procedures are being created. Employees are encouraged to communicate their training needs in order to become effective and efficient at their work;

- **Mentoring:** Common practice for the customer service and lending departments, allowing knowledgeable employees to share experience with new employees. It is used on every level in the organization and enables creation of both tacit and explicit knowledge. Formal mentors are assigned to new employees for a certain period (usually two to four weeks, depending on the experience of the new employee), and informal mentoring is encouraged at any time. Informal feedback on mentees is given on a regular basis: however, there is no formal feedback mechanism at branch level;
- **Shared problem solving:** Generate knowledge through a "fusion" of different approaches and background experiences is rather informal and facilitates knowledge sharing in the departments. It is utilized in department meetings at branch level to help solve a specific problem or create a new approach to existing situations for better efficiency. Meetings are encouraged to be held at least once a month within the customer service department and every two weeks within the lending department. Employees are encouraged to share their experience and expert knowledge both with peers and superiors. This way, knowledge is being generated vertically as well as horizontally between organizational members.

In 2008, Bank A introduced new IT systems at organizational level (see Figure 3). This new IT system also included an internal messaging system and a virtual *Communities of practice*

Figure 3. Knowledge creation, retention, and transfer at Bank A



MIRC communication platform: this allowed instant problem solving and better communication between colleagues. This helped employees to find immediate solutions to complicated and unexpected situations. The idea was well embraced by employees at all levels. During the training of employees for the use of the new IT system, the MIRC communication was crucial for the synchronization of training activities. The messages sent by the head office were being received by everybody simultaneously in real time which allowed prompt reactions in the case of sudden changes in the system behaviour. After the official launch of the system, a number of system failures occurred and the utilization of MIRC proved helpful as it provided opportunities for better customer service during failure times by allowing employees to shift bulks of work to non-affected branches.

As mentioned previously, at organizational level, the Help Desk department is responsible for the creation, retention and transfer of knowledge across departments in Bank A. The front-office employees and the credit officers are highly dependent on the information available through the Help Desk department. Knowledge acquisition is realised mainly through the recruitment of highly skilled professionals with preference on previous experience in the banking sector and essential background education in economics or finance.

Codification and storage of knowledge is carried out at branch, departmental and organizational level. In the branches, employees are required to collect information about the customers on a daily basis. The information is then translated into explicit knowledge, such as customer databases, and utilized in the daily routines. Knowledge is being codified and stored in formal and informal documents and transferred accordingly. An example of a knowledge codification and storage system is the debt collection IT system, designed especially for the purposes of credit control services. Every time an employee contacts a customer, the event is recorded in the debt collection system, creating a record which is then utilized by the next employee in charge of the debt collection. The record contains both tacit, such as how to approach a customer and any personal experiences or tactics, and explicit knowledge.

4.3.2. Knowledge Transfer

Knowledge transfer in the customer service and lending departments is realized through a number of sharing tools, such as the Intranet, the internal telephone and e-mail system and the previously mentioned MIRC system. The Intranet is utilized as a tool for the transfer of explicit knowledge and the other two forms of communication to allow transfer of both tacit and explicit knowledge. The information on the Intranet is posted solely by the Help Desk department and the system is non-interactive. Employees are strongly advised to use the MIRC and the e-mail systems in order to receive information and knowledge in a written format and to store it for a long period of time.

Other commonly used methods for knowledge transfer are training sessions and both formal and informal mentoring as described previously. Sharing best practice is one of the preferred forms of knowledge transfer, realized mainly in the training sessions.

5. DISCUSSION AND RECOMMENDATIONS

Bank A's KM practices can be analysed in a coherent way using the four modes of knowledge conversion: *internalization, externalization, socialization* and *combination*. Table 1 shows the knowledge management practices at 'Bank A' mapped to Nonaka SECI model of knowledge creation. Table 1 maps the current KM practices and also summarises suggested KM practices in each mode of knowledge conversion at Bank A'

The *internalization* and *externalization* processes are expressed in Bank A's knowledge generation and retention activities. Employees are able to absorb explicit knowledge and translate it into tacit by means of observation, learning-by-doing, on-the-job training, communities of practice and meetings, widely used in the customer service and lending de-

Table 1. Knowledge management practices at Bank A

Knowledge Conversion Mode	Knowledge Management Practice Involved
Internalization	**Knowledge Generation**
Current	R&D, observation, learning-by-doing, on-the-job training, communities of practice and meetings enable internalization
Suggested	Allocate time for activities to acquire new knowledge, e.g. shadowing, personal development programmes, secondments, etc.; training should be structured and occur on a regular basis
Externalization	**Knowledge Retention**
Current	Codification and capture of knowledge is conducted on personal, departmental and organizational level
Suggested	Allocate internal trainers / experts responsible for local training and updating of manuals; implement interactive system tools for data storage
Socialization	**Knowledge Retention and Knowledge Transfer**
Current	Mentoring, training, shared problem solving, communities of practice and employee rotation across areas facilitate socialization
Suggested	Create incentives reflecting performance in relation to knowledge sharing; allow escalating of matters to facilitate resolving and applying best the solution
Combination	**Knowledge Transfer**
Current	Sharing best practices; use of the real time communication system; capacity of intranet is not fully utilized
Suggested	Need to develop interactive KM tools; performance appraisal addressing knowledge sharing behaviour would decrease "stickiness" of knowledge

partments (Sabherwal & Becerra-Fernandez, 2003). This knowledge is then converted into comprehensible forms of explicit knowledge through codification and capture, which is done on branch and departmental level. The externalization process involves creation of internal manuals for common usage, as well as data and information input into an interactive intranet system. These activities are mostly voluntary, except for the data collection system where information input is compulsory for the lending department. Because of the voluntary nature of internal document creation on branch level, information and knowledge is often insufficient when dealing with specific issues. As mentioned previously, training is not conducted on a regular basis within these departments and this could be pointed out as a disadvantage of the KM system. The organizational absorptive capacity depends on the absorptive capacity of its people, although it is not a sum function (Cohen & Levinthal, 1990). If there is lack of training, which is the case in the two departments, the employees are less likely to absorb and share knowledge. Although mentoring is a well-established practice at Bank A and allows observation, which is crucial for creation of tacit knowledge, regular training is necessary as it is viewed as one of the highly important enablers of knowledge management (Yeh, Lai, & Ho, 2006).

Research and development is considered an essential tool for the creation of knowledge (Caloghirou, Kastelli, & Tsakanikas, 2004). The encouragement of employees to gather relevant information through research and convert it into both tacit and explicit knowledge is promoting *internalization* and is a step towards creating a learning organization, however the lack of time and facilities does not allow more regular

research. Allocation of time is said to be essential for the learning activities of employees and one of the key factors for the deviations in their knowledge habits (Oliver & Kandadi, 2006).

Although codification is a main function of the Help Desk department, it is vital for the customer service and lending departments to capture and store knowledge on a branch level, as sometimes, situations occur accidentally and it is not always possible for the Help Desk department to predict all possible events and to suggest adequate solutions. This process could be facilitated by implementing a KM tool, such as an interactive storage system, which will allow more efficient *externalization* of knowledge, as technology is one of the key enablers of the KM process (Yeh, Lai, & Ho, 2006; Neches, et al., 1991).

Socialization and *combination* modes of knowledge conversion are related to the codification and transfer of knowledge (Takeuchi, 2006). At Bank A, *socialization* is enabled by some of the tools of knowledge creation, such as mentoring, training, shared problem solving, communities of practice and employee rotation across areas, wherein knowledge is being shared and transferred within and between the two units. By these means, the transition of tacit knowledge from individual to group level is enabled (Sabherwal & Becerra-Fernandez, 2003). *Socialization* is also explained by the principle of escalation (Klamma & Jarke, 1998) and is said to be the main tool for failure management and exchange of knowledge between different levels of competence, which is important for the shop-floor departments given the tight relations to the customers and the need for prompt adequate reaction.

Combination is realized mainly through technological means and allows the conversion of explicit knowledge into other multifarious sets of explicit knowledge, aiding the knowledge codification and transfer process (Sabherwal & Becerra-Fernandez, 2003; Klamma & Jarke, 1998; Choi & Lee, 2002). The Intranet and the communication technologies at Bank A are amongst the most important enablers of *combination*. The capacity of the Intranet is not fully utilized, which hinders the collaboration between and across units and is a precondition for creation of stickiness in knowledge transfer as it could cause lack of motivation for knowledge sharing amongst employees (Szulanski, 2000; Jensen & Szulanski, 2004). It is recommended for the bank to implement interactive Intranet-based KM tools that will allow employees to store and share both explicit and tacit knowledge and will assist *socialization* and *combination* in the knowledge creation process. Another possible eliminator of stickiness is the incorporation of knowledge share lines in the performance appraisal practices (McDermott & O'Dell, 2001). Bank A conducts performance appraisals twice a year but the evaluation cards do not contain sections for knowledge sharing assessment. It is recommended that the HR department considers recognition of contribution to knowledge creation in order to increase motivation for knowledge sharing.

Knowledge sharing is viewed as one of the core processes in KM (Chatzoglou & Vraimaki, 2009). Bank A's corporate culture has built-in values for knowledge sharing but there are a number of barriers for the effectiveness of the process, the most influential one of which is the lack of time as well as low efficiency and effectiveness of the implemented IT system due to lack of interaction, absence of knowledge sharing related aspects in the performance appraisals and lack of training, etc.

The rudiments of the knowledge sharing culture in the bank, and especially in the customer service and lending departments, can be found in the established formal and informal mentoring practices applied in the training of the new employees. A study within the Lebanese banking sector has found a strong correlation between informal mentoring and knowledge sharing – the more employees are willingly involved in mentoring, the more knowledge will be shared and retained in organizations (Karkoulian, Halawi, & McCarthy, 2008). The accepted practice in Bank A suggests that employees are encouraged to share knowledge and to convey the same organizational culture values to the newly hired employees. Despite

the evidence that Bank A's management has made an effort to embody knowledge sharing values in the company's organizational culture, the extent to which those values are adopted by the bank officers and the overall effectiveness of the KM process affecting the departments examined herein is to be estimated after a thorough analysis of the KM activities.

Anand et al. (2005) who led a knowledge management initiative at the Reserve Bank of New Zealand, conclude that knowledge management should not be considered a one off project or a problem that needs to be fixed, rather it is an approach of work that has to be embedded in individual work practice, organizational structure and culture. Technology and business processes are key enablers for knowledge management but cannot be used in exclusion with people and culture. The analysis of the KM practices at Bank A's customer service and lending departments has revealed that knowledge sharing is embedded to a significant extent in the bank's organizational culture but the limitations of the implemented KM systems, such as the low level of interaction in the intranet system, the absence of knowledge sharing related incentives, etc., are hindering the knowledge management progress and impeding its effectiveness. There is a need for more investment in the R&D facilities, as well as in the knowledge capture and transfer facilities. The bank is emphasizing on internalization and externalization of knowledge on an individual level but not on departmental and organizational levels. The socialization and combination modes of knowledge conversion are not being developed to their full potential because the activities involved are not yet unified and facilitated by Bank A's management. If Bank A is to remain competitive in innovation and expert knowledge, the management should consider allocating time for knowledge creation and learning, as well as increase the number of knowledge sources in its IT facilities.

Although many important knowledge management activities are observable in Bank A's culture and work practices, Bank A lacks a clearly articulated strategy or well defined framework for knowledge management. Most of the activities KM adopted are informal and implicit. Knowledge management literature suggests that in order to reap the benefits of KM, it is paramount to define a KM strategy, which should encompass a roadmap to its implementation and evaluation/success criteria (Jennex 2012). Anand et al. (2005) suggest that knowledge management initiatives requires explicitly articulated strategy and goals and concerted efforts from cross functional team assembled to accomplish the initiative. Bank A's management needs to define its knowledge management strategy and align it to the company's business strategy in order to derive benefits of knowledge management.

Any knowledge management initiative may not be of much value if it fails to measure the tangible and intangible benefits of such initiatives i.e. success criteria. Jennex (2012) suggests that a knowledge management strategy must articulate how it will be accomplished and how its success will be measured. Based on a synthesis of 31 studies and 78 KM projects, Jennex and Olfman (2005) propose a set of key success factors for KM initiatives; which include a KM strategy, clear goals and purpose, motivation and commitment of users, integrated technical infrastructure, support of organizational culture and structure, senior management support, success criteria and work processes designed to facilitate knowledge capture and use. Jennex and Olfman (2006)'s KM success model suggests that KM success is measured by the net benefits derived from the KM initiative. These net benefits are derived from system quality, knowledge/information quality and service quality. Where system quality refers to the storage and retrieval of information in a knowledge management system, knowledge quality refers to the accuracy and contextualization of information and service quality refers to the measuring the support and commitment for KM initiative. KM's perceived benefits and user satisfaction ultimately translates into net benefits. At Bank A, KM was perceived to be

successful by most participants of this research who were satisfied with it but there was no formal assessment of the net benefits it delivered.

Although a number of KM activities are being done at Bank A, based on the discussion, it is suggested that Bank A should initiate a comprehensive knowledge management program with clearly articulated goals and strategy with full support of senior management and commitment and motivation of staff. Moreover, it is also important that success criteria be established in order to evaluate the benefits of KM activities. As a knowledge based organization, the bank is dependent on the level and quality of knowledge sharing and new knowledge acquisition. Adapting its processes to encourage knowledge sharing culture within the organization will create opportunity for gaining competitive advantage and facilitate flexibility in times of change.

6. CONCLUSION

This study illustrates how knowledge management practices affect knowledge sharing and its embedding within the values of the organizational culture. Practitioners can utilize the model of Bank A in designing a knowledge management strategy and incorporate facilitating activities, however it is advised that management takes care when implementing such activities and adapts them to the company's values and overall strategy. For the successful sharing of knowledge, it is important that all four modes of knowledge conversion are taking place within the organization and that knowledge is regarded as an essential asset.

The findings of this paper will potentially help improve knowledge management and knowledge sharing practices in the Bulgarian banking industry. Moreover, the analysis of the KM practices in an organization from the emerging market of Eastern Europe can be useful to companies from Eastern Europe and other similar regions in improving their knowledge sharing practice. This research also helps bridge a gap which existed due to lack of literature available in a developing economy of Europe which is quite different from developed economies or developing economies of Asia. It has also opens up a new venue of KM research and the next paragraph suggests how this research could be extended.

There are a few limitations identified in this paper that need to be addressed in future research – the focus is on one particular organization within the financial industry and research is primarily based on the researcher's personal experience and observations. A more in-depth study is needed to investigate what activities are considered as best practices and which of them would be suitable for the Bulgarian / Eastern European context. It is also recommended that a comparative case study methodology be applied to delineate the differences and similarities with organizations from developed markets and to allow both academics and practitioners to develop a diverse pool of knowledge. In order to test the generalizability of the findings of this paper, a multi-industry research could be conducted within other knowledge-based companies. Quantitative analysis would also be applicable to investigate the implications of a devised KM strategy on the company's performance.

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