

Human resource management practices stimulating knowledge sharing

Jana MATOŠKOVÁ

Tomas Bata University in Zlín, Zlín, Czech Republic matoskova@utb.cz

Petra SMĚŠNÁ

Tomas Bata University in Zlín, Zlín, Czech Republic

Abstract. The major goal of the paper was to develop a theoretical framework that conceptualizes the indirect impact on human resource management practice on knowledge sharing in the organization. In the current competitive environment, the ability to use knowledge assets and to continuously renovate it is required for organizational success. Therefore, the field of human resource management should dedicate great effort to understanding how to enhance the knowledge flows within the organization. Theoretical indications were provided about HRM practices that influence the quality and quantity of knowledge sharing within an organization. Further, a conceptual model of relations between HRM practices and factors influencing knowledge sharing within an organization was introduced. It is supposed that HRM practices have direct impacts on personality traits of employees, organizational culture, characteristics of managers, and instruments used for knowledge sharing. Subsequently, these factors have direct effects on the perceived intensity of knowledge sharing. The paper offers 12 testable propositions for the indirect relation between HRM practices and knowledge sharing in the organization. The suggested model could assist future research to examine the influence of HRM practices upon managing knowledge is a more complex way. Via a theoretical contribution to the debate on the influence on HRM practices upon managing knowledge, the study contributes to further research development in this field.

Keywords: HRM practices, knowledge sharing, organizational performance, knowledge management, personality traits of employees, organizational culture, managers.

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Introduction

Many studies discuss why knowledge is supposed to be one of the sources of organizational competitiveness. Simply, knowledge can be understood as a fluid mix of framed experience, values, contextual information, and expert insights that provides a framework for evaluating and incorporating new experiences and information (Davenport and Prusak, 1998 in Ipe, 2003). Given this, at least a part of one's knowledge is based upon judgement and experience, which is the main reason why the knowledge of employees can present an important way of gaining and maintaining a competitive advantage. It is worth to add that it is in the interest of an organization that employees do not keep their knowledge to themselves but that they share it with other members of the organization.

There are at least three reasons why it is appropriate to enhance knowledge sharing in the organization. First, sharing knowledge contributes to organizational innovativeness – it contributes to the ability to create new knowledge, insights, and ideas (Chen and Huang, 2009; Collins and Smith, 2006), to better problem-solving results (Yen-Ku Kuo et al., 2014), it leads to the arrival of new business opportunities (Li-An and Kuo, 2013), and to the development of better products that are brought to a target market faster (Riege, 2005). Second, knowledge sharing affects financial performance – it enhances profitability (Pfeffer, 1998 in Fong et al., 2011), reduces cost (Peet, 2012), as it reduces the need to train new employees by ensuring the use of certain knowledge repeatedly, thus avoiding making the same mistakes. Finally, knowledge sharing has an influence on the efficiency of human resource use because it contributes to better productivity and higher quality of an organization's performance (Law and Ngai, 2008; Tuan, 2012; Yen-Ku Kuo et al., 2014), reduces the risk of losing unique knowledge if a certain employee leaves the organization (Kubo et al., 2001), causes organization members to gather knowledge more conveniently and rapidly (Chiang et al., 2011), and so generate collective learning (Chen and Huang, 2009).

One way that sharing knowledge within an organization can be encouraged is by setting basic Human Resource Management (HRM) practices in a proper manner (Chen et al., 2012; Collins and Smith, 2006), which is a field on which this study focuses. This is a relatively novel research area and not many studies dealing with this topic have appeared (Kim and Ko, 2014). Additionally, an important part of such studies remains descriptive and does not explain in which ways and to what extent HRM practices facilitate knowledge sharing (e.g. Cabrera and Cabrera, 2005; Matošková, 2012). Furthermore, as Foss, Pedersen, Reinholt Fosgaard, and Stea (2015) point out, HRM practices have an influence jointly rather than in isolation, which only a few of studies take into account. Some questions have been already answered such as if HRM practices influence knowledge sharing or that firm social climate may encourage employees to focus on the larger community of the organization rather than on their own best interests. However, some challenging questions regarding the influence of HRM practices on knowledge sharing remain, such as which HRM practice can support knowledge sharing within an organization, and what a mediating effect on the relation between HRM practice and knowledge sharing has.

Goal and methods

The aim of this study is to develop a framework that conceptualizes HRM practices and their indirect influence on knowledge sharing in the organization. Although the knowledge management literature has recognized the importance of HRM issues for knowledge management initiatives, it still has to fully embrace and engage with HRM concepts and frameworks (Camelo-Ordaz et al., 2011; Chiang et al., 2011; Pastor et al., 2010). Consequently, there are still few research studies that discuss the relationship between HRM and knowledge sharing.

This paper considers the relationship between human resource management (HRM) and knowledge sharing. Specifically, it examines how the HRM practices that are supposed to impact employees' characteristics, managers' characteristics, organizational culture and instruments used for knowledge sharing, do so by enabling knowledge sharing within organizations. In comparison with similar studies, e.g.,

Edvardsson (2008), Fong, Ooi, Tan, Lee, and Chong (2011), Yahya and Goh (2002), this paper combines previous research findings and thus, can offer a more comprehensive approach to understanding the phenomenon. Additionally, this study supposes that the effect of HRM practices on knowledge sharing is not direct and offers a new model of the relations between HRM practices and knowledge sharing. Furthermore, testable propositions are suggested.

The conceptual framework developed in this article has drawn on literature from fields such as management theory, strategic management, organizational management, human resource management, information and decision sciences, organizational communication, organizational behaviour, psychology, and social psychology. These fields of study were identified through a search of scholarly literature available primarily through electronic databases, especially articles at Web of Science and Scopus. The initial review of literature began with an examination of publications that discussed knowledge sharing or HRM. References in these articles were further examined to locate more relevant papers.

Once relevant publications were identified, a method of reviewing and synthesizing previously published material about HRM practices that support knowledge sharing was used. The main goal of these steps was to identify major HRM practices which should be taken into account when attempts at boosting the quality and amount of knowledge sharing are made, as well as to define factors which could have a mediating effect between HRM practice and knowledge sharing. It is worth to note that the software ATLAS.ti was used for the document analysis and the IHMC CmapTools was applied in creating concept maps.

The remaining part of the article is organized as follows: it begins with the findings about knowledge sharing and the variables which are supposed to have a mediating effect between HRM practices and knowledge sharing (the first part of the conceptual model). Then, specific HRM practices suggested as indirectly affecting knowledge sharing are introduced (the second part of the conceptual model).

Knowledge sharing and factors that affect it directly

Bartol and Srivastava (2002 in Guo-bao, 2013) identified knowledge sharing as a process in which individuals share relevant organizational information, ideas, suggestions, and skills with one another. Concurrently, "to share" means "to make knowledge available to others within the organization by converting it into a form that can be understood, absorbed, and used by other individuals" (Ipe, 2003).

According to Haas and Hansen (2007), knowledge sharing could be direct (addressed to a given recipient, which requires contact between the provider and receiver of the knowledge – at meetings, by phone, through e-mail) or indirect (passed along through written documents or databases and not directed to a specific person, meaning the receiver of the document does not have to contact the provider directly but can use the document as a stand-alone resource). Therefore, these two ways of knowledge sharing are suggested as subcategories of knowledge sharing.

Figure 1 depicts the first part of the conceptual model – the factors which are supposed to have a mediating effect between knowledge sharing and HRM practices. It is supposed that the intensity of knowledge sharing in the organization is affected by four key issues: 1) employees, 2) organizational culture, 3) managers, and 4)

instruments used for knowledge sharing. These factors are discussed in the following subchapters.

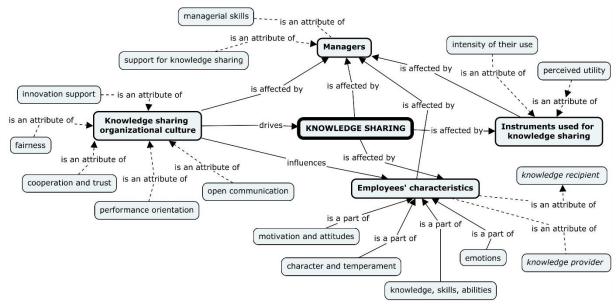


Figure 1. Variables influencing knowledge sharing directly

Source: Authors' own contribution.

Employees' characteristics

Regarding intra-organizational knowledge sharing, employee characteristics which are mentioned in studies may be divided into four categories: 1) motives and attitudes, 2) character and temperament, 3) knowledge, skills, abilities, 4) emotions. These are the supposed subcategories of this variable.

Regarding motives and attitudes, the motivation of knowledge providers is vital (see e.g. Currie and Kerrin, 2003; Hong and Cheng, 2014; Quigley et al., 2007; Yong Woon, 2014), because it influences not only the amount of shared knowledge but also its quality and utility (Gagné, 2009). In the case of a recipient of knowledge, his/her willingness to acquire knowledge from the given source is essential (Alavi and Leidner, 2001). Additionally, the willingness to use tools provided by an organization for sharing knowledge of both the provider and the recipient is necessary (Gagné, 2009). Other examples of important attitudes are commitment to the organization (Boateng et al., 2017; Camelo-Ordaz et al., 2011; Chiang et al., 2011; Hooff and Ridder, 2004), high self-efficacy (Cabrera et al., 2006; Cabrera and Cabrera, 2005; Lin, 2007), and viewing knowledge as a public good belonging to the whole organization (Ardichvili et al., 2003).

As for character and temper, openness to experience (Cabrera et al., 2006) and flexibility (Madsen and Ulhøi, 2005 in C.-J. Chen & Huang, 2009) are illustrations of such traits which may enhance knowledge sharing. Research in this field, however, is still limited.

With respect to knowledge, skills, and abilities, the first critical factor related to the knowledge provider is the capability to pass on knowledge (his/her communication skills and the ability to adjust form and speed when sharing knowledge and to link it to the particular recipient's previous knowledge). Regarding

the recipient of knowledge, his/her absorption capacity (the ability to take in and understand given knowledge) plays as significant a role. Moreover, as Gagné (2009) states, the skills to use tools provided by an organization for sharing knowledge of both the provider and the recipient is necessary. Other welcomed skills are teamwork skills (Cabrera and Cabrera, 2005).

Emotions and feelings that enhance knowledge sharing can be illustrated by feelings of safety (Cabrera and Cabrera, 2005) and perceived support (Ardichvili et al., 2003; Cabrera and Cabrera, 2005; Chen et al., 2012; Chiang et al., 2011). For example, Kim and Ko (2014) state that if employees receive favourable treatment from their organization or managers, they tend to feel obligated to reciprocate by adopting a more positive attitude toward them. Kubo et al. (2001) point out that job security connected with lifetime employment practice in the Michiko bank enhances knowledge sharing by providing the opportunity for employees to get to know each other over a long period of time and has the additional benefit of allowing its members to share the same experiences repeatedly.

Based on the findings the following hypothesis is set:

H1: There is a positive significant correlation between personality traits of the employees stated as enhancing knowledge sharing and the intensity of knowledge sharing in the organization.

Organizational culture

Generally, organizational culture can be understood as a set of norms, values, and beliefs that are shared by a significant portion of organization's members and taken for granted by them (Donate and Guadamillas, 2011; Pham et al., 2015; Yang, 2007). Organizational culture can affect employees' abilities, motivations, and opportunities to exchange and combine their knowledge (Collins and Smith, 2006; Foss et al., 2015; Pham et al., 2015).

In organizations with so-called knowledge sharing culture, competition between employees and knowledge hoarding is limited (Cabrera and Cabrera, 2005; Collins and Smith, 2006; Donate and Guadamillas, 2011; Foss et al., 2015; Gagné, 2009). In such a culture, employees share ideas and insights because they see it as natural. Salient aspects of such organizational culture could be, based on a synthesis of literature findings, as follows: 1) a climate of fairness and mutual trust (see e.g. Lee and Ahn, 2007; Bock et al., 2005; Kubo et al., 2001, Rahman et al., 2016); 2) a climate of open communication with free-flowing information (see e.g. Bock et al., 2005; Cabrera and Cabrera, 2005); 3) a climate of innovation which tolerates well-intentioned failures and considers changes to be a part of life (see e.g. Bock et al., 2005; Chen et al., 2012); 4) a pro-social climate (see e.g. Bock et al., 2005; Collins and Smith, 2006; Boateng et al., 2017) a performance climate where everyone takes responsibility for his or her work (see e.g. Á. Cabrera et al., 2006).

Regarding the findings, the following hypotheses are set:

H2: There is a positive significant correlation the intensity organizational culture facilitates knowledge sharing and personality traits of the employees stated as enhancing knowledge sharing.

H3: There is a positive significant correlation between the intensity organizational culture facilitates knowledge sharing and the intensity of knowledge sharing in the organization.

Managers' characteristics

Managers and their leadership styles have been identified as important influencers of effective knowledge sharing (Lin and Lee, 2004; Rahman et al., 2016; Seba et al., 2012; Yong Woon, 2014). First, it is worth to point out that managers control most of the other factors that shape knowledge sharing cultures and environments: time, opportunities for employee participation, and rewards (Naicker and Omer, 2015; Seba et al., 2012). Second, superior's managerial skills and his/her support for knowledge sharing have been reported to be vital for knowledge sharing enhancement.

In the case of managerial skills, the following examples could be mentioned: managers should show commitment and interest (Seba et al., 2012; Yang, 2007), explain what is expected of their team members (Seba et al., 2012), set clear goals, rules, and reminders (Urban, 2010), offer general support (Naicker and Omer, 2015; Seba et al., 2012) including continuous feedback (Gagné, 2009; Lin, 2007) and training opportunities (Cabrera and Cabrera, 2005; Chen and Huang, 2009), and give employees adequate power, authority, and responsibility to experiment and innovate (Singh, 2008).

Regarding managers' support for knowledge sharing, it is important to reiterate that employees consider their superiors to be their role models. Therefore, it does matter if the superior shares his/her own knowledge or not (Donate and Guadamillas, 2011; Hall, 2001; Husted and Michailova, 2002; Quigley et al., 2007; Seba et al., 2012; Singh, 2008). In addition, employees expect that managers create standards for the exchange of knowledge (Husted and Michailova, 2002). Furthermore, managers should enhance the perception of knowledge sharing importance (Donate and Guadamillas, 2011; Gagné, 2009; Lin, 2007). Alternately, they might support the implementation of specific HRM practices that stimulate knowledge sharing (Donate and Guadamillas, 2011). Management can also have an effect on organizational culture by creating and using rules and practices (Wong, 2005), as well as on instruments used for knowledge sharing (Pham et al., 2015; Riege, 2005). Similarly, managers can affect employees' attitudes, their motivation, and behaviour.

With regard to the findings, the following hypothesis is set:

H4: There is a positive significant correlation between managers' characteristics mentioned as enhancing knowledge sharing and the intensity of knowledge sharing in the organization.

H5: There is a positive significant correlation between managers' characteristics mentioned as enhancing knowledge sharing and the intensity organizational culture facilitates knowledge sharing.

H6: There is a positive significant correlation between managers' characteristics mentioned as enhancing knowledge sharing and instruments used for knowledge sharing.

H7: There is a positive significant correlation between managers' characteristics mentioned as enhancing knowledge sharing and personality traits of the employees stated as enhancing knowledge sharing.

Instruments for knowledge sharing

Generally, it is supposed that technologies and tools belong among variables which influence knowledge sharing (Hooff and Ridder, 2004). Interestingly, Haythornthwaite and Wellman (1998) found out that the more the staff communicate and exchange information, the more media are used. Therefore, it can be supposed that the first subcategory of the variable "instruments for knowledge sharing" might be availability and frequency of the use of instruments for knowledge sharing.

Cabrera and Cabrera (2005) argue that one of the best ways to enhance knowledge sharing is to have a well-designed, user-friendly technological tool that simplifies the task and reduces the time necessary for sharing one's ideas with others. Similarly, Kulkarni, Ravindran, and Freeze (2007, in Chen et al., 2012) point out that when an individual feels that the information and communication technologies offered for knowledge sharing are easy to use to meet his/her needs, they will be more likely to perceive the usefulness of knowledge sharing. Because of this, the second subcategory might be the perceived usefulness of the instruments offered for knowledge sharing.

Based on the findings the following hypothesis is set:

H8: There is a positive significant correlation between instruments used for knowledge sharing and the intensity of knowledge sharing in the organization.

HRM practices aimed at knowledge sharing support

Generally, HRM concerns the policies, practices, and systems that influence employees' behaviour, attitude, and performance (Pastor et al., 2010). Organizations can use some HRM practices as means to motivate employees' commitment, to get them involved in creative thinking and innovation, and to shape their skills, capabilities, attitudes, and behaviours to help achieve organizational goals (Chen and Huang, 2009; Jiang et al., 2012). Furthermore, HRM relates positively to employees' willingness to acquire, share and apply knowledge within organizations (Chen and Huang, 2009; Collins and Smith, 2006; Yong Woon, 2014).

According to studies of strategic HRM, the approach to HRM practices can be divided into "low cost" and "high commitment". Chiang et al. (2011) explain that low-cost HRM focuses on operation efficiency and cost reduction. Therefore, low-cost HRM adopts a formal control system and monitoring of employee behaviour. Employees have clear job descriptions including their tasks, duties, and responsibilities (Hayton, 2003). Employers are then expected to carefully recruit and select employees for these characteristics, monitor their performance, and pay them according to their ability to effectively perform their jobs (Hayton, 2003). Additionally, employees obtain limited training (Chiang et al., 2011). This approach is not wholly appropriate for promoting the creativity and autonomy needed for knowledge creation and innovation, as Camelo-Ordaz et al. (2011) point out.

Compared to low-cost systems, the basic principles of high-commitment HRM are to obtain talented employees and encourage them to reach innovative goals through long-term investments in employees (Camelo-Ordaz et al., 2011; Chiang et al., 2011). These practices explicitly recognize that it is not possible to specify all of the requirements of a job within a formal job description, nor is it possible to effectively monitor all of the contributions that employees may make to their organization

(Hayton, 2003). Additionally, comprehensive training and development are aimed at enhancing employee technological abilities and their professional abilities (Chiang et al., 2011). This approach leads to a greater sense of organizational attachment and membership, to the perception of company's support, and to trust (Camelo-Ordaz et al., 2011; Chiang et al., 2011). Additionally, high-commitment HRM practices encourage the kind of voluntary, helpful, and cooperative behaviour that encourages knowledge sharing (Hayton, 2003). Hayton (2003) adds that high-commitment HRM practices tend to be more expensive and are often less efficient, but they contribute to the establishment of a flexible, learning organization.

An important determinant of the effectiveness of HRM practices is internal consistency (Hayton, 2003), because HRM practices do not work separately, but rather in conjunction with one another (Laursen and Mahnke, 2001). This should be taken into consideration in research, as well as in practical implementations. Additionally, the findings of Camelo-Ordaz et al. (2011) indicate that HRM practices do not influence knowledge sharing in a direct way. Similarly, Pastor et al. (2010) argue that HRM practices affect knowledge sharing indirectly via three causal mechanisms: 1) employees' ability to understand and combine new knowledge, 2) employees' motivation to knowledge sharing, and 3) the design of work and relationships within the organization so that employees have the discretion and opportunity to share their knowledge. With the last one, cultivating organizational culture, offering media for knowledge sharing and influencing superior's attitude to knowledge sharing are connected.

Regarding the findings, the following hypotheses are set:

- H9: There is a positive significant correlation between high-commitment HRM practices and personality traits of the employees stated as enhancing knowledge sharing.
- H10: There is a positive significant correlation between high-commitment HRM practices and the intensity organizational culture facilitates knowledge sharing.
- H11: There is a positive significant correlation between high-commitment HRM practices and managers' characteristics mentioned as enhancing knowledge sharing.
- H12: There is a positive significant correlation between high-commitment HRM practices and instruments used for knowledge sharing.
- Fig. 2 introduces the second part of the conceptual model and depicts HRM practices that are suggested, based on a literature study, to be effective in encouraging knowledge sharing. The HRM practices are discussed in detail further.

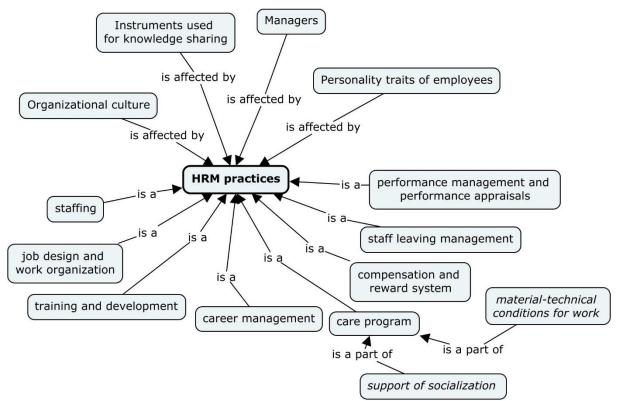


Figure 2. Relation between HRM practices and factors which have a mediating effect on knowledge sharing

Source: Authors' own contribution.

Staffing

Regarding staffing, it is important to choose individuals with the particular knowledge and skills as well as the appropriate cultural and linguistic backgrounds. The candidate must also be a good fit for the company, as noted by López et al. (2006), Collins and Smith (2006) or Chen and Huang (2009). Furthermore, Cabrera and Cabrera (2005) suggest including employees in the recruitment process, as the candidates recommended by existing employees are more likely to share a company's values.

Moreover, Thite (2004), Cabrera and Cabrera (2005), and Matošková (2012) point out that it is important to pay attention to managing the process of newcomer's adaptation in an organization. It is vital that a new employee adopts a positive attitude towards knowledge sharing and learns to work with the tools used in an organization for this purpose.

Job design and work organization

According to Gagné (2009), job design is likely to affect knowledge sharing behaviour through its effect on employee work motivation. In connection to supporting knowledge sharing, the following aspects linked to job design stand out: 1) teamwork, 2) job rotation, 3) employee autonomy, 4) communities of practice.

The more a job requires the employee to interact and share knowledge with others, the higher the probability of mutual trust (Collins and Smith, 2006) and the stronger the knowledge sharing behaviour (Pham et al., 2015). Additionally,

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interdisciplinary teams often integrate knowledge that hitherto existed separately and dispersed across function and therefore new knowledge development may be stimulated (Laursen and Mahnke, 2001).

Job rotation provides the opportunity for employees to work with others across various functions in the organization and keep the information network alive (Kubo et al., 2001). It can also help promote the flexibility of employees (Minbaeva et al., 2014; Soto-acosta et al., 2014). Laursen and Mahnke (2001), Pastor et al. (2010) and Kubo et al. (2001) find it effective in enhancing knowledge flow within the organization, as it helps members understand the business from a variety of perspectives and transmit what they already know, it helps in building an atmosphere of familiarity and common membership among employees and results in a shared language and closer interpersonal ties.

Autonomy refers to the extent to which a job provides the employee with freedom to decide when, where, and how to carry out specific tasks (Hackman and Oldham, 1976 in Foss et al., 2015). The more autonomy a job allows, the more responsible jobholders will feel for their work outcomes (Hackman and Oldham, 1976 in Á. Cabrera et al., 2006) and the more likely they will be to share their knowledge (Foss et al., 2015).

Communities of practice can be understood as flexible groups of professionals within an organization that share a commitment to particular work practices/organizational issues (Ardichvili et al., 2003; Cabrera and Cabrera, 2005; Carter and Scarbrough, 2001). They might interact, perhaps only virtually, to discuss topics related to these interests (Kankanhalli and Tan, 2004; Talisayon, 2003).

Managing employees' performance and performance appraisals

The final part of managing the work performance process, performance appraisals, coupled with the setting of evaluation criteria is often highlighted in relation to knowledge sharing (Salis and Williams, 2009; Yahya and Goh, 2002). Fong et al. (2011) explain that performance appraisal is defined as a formal system of review and evaluation of individual or team task performance. According to Collins and Smith (2006), performance appraisal should enable employee long-term growth and development, team-building, and build firm-specific knowledge. In addition, Kuvaas (2008 in Kim and Ko, 2014) argued that performance appraisal facilitates greater employee obligation toward the organization. That is why performance appraisals with a developmental focus increase the willingness to share ideas (Pastor et al., 2010).

Regarding performance evaluation criteria, Chow et al. (2000) specify that the design of a performance evaluation system should consider both process and outcomes to help increase employees' willingness to share knowledge. According to Camelo-Ordaz et al. (2011) appraisal systems should be based on team or organization performance. Further, one of performance evaluation criteria should be the willingness of an employee to share their knowledge (Chen and Huang, 2009; Fong et al., 2011; Husted and Michailova, 2002; Quigley et al., 2007). Other criteria should be, according to Chen and Huang (2009) and López et al. (2006): an employee's creativity and motivation to engage in innovative activities, assistance in helping a firm achieve favourable innovation results, risk-taking attitude, and problem

solving ability. On the other hand, Husted and Michailova (2002) claim that performance appraisal should punish lack of initiative and attempts to hide mistakes.

Setting a compensation and reward system

If firms want to elicit desired behaviours from employees, they must provide incentives that reinforce the desired behaviours (Collins and Clark, 2003 in Chen and Huang, 2009; Pastor et al., 2010). Therefore, the extent to which employees share their knowledge with others should be reflected by rewards and compensations received (Foss et al., 2015). It means individuals should be rewarded for proposing a new beneficial practice, for writing down their experience and putting it onto the company intranet, and for spending time contributing to problem solving in parts of the organization other than their own (Husted and Michailova, 2002). Additionally, the organization could stimulate members to reuse knowledge (Husted and Michailova, 2002). For such purposes, financial and non-financial rewards can be employed. As Gagné (2009) points out, some of the previous research comes to the conclusion that financial rewards (increased pay, bonuses in the forms of cash or stock options) are insufficient and could even be detrimental to the motivation to share. That is why non-financial rewards should be considered, e.g., professional development, career advancement, opportunity to work together with an important person, opportunity to travel abroad, access to certain data, information and knowledge, job security, recognition of one's contribution, enhanced reputation or simply personal satisfaction. However, Foss et al. (2015) claim that it is not the reward per se, but rather its value to the recipient which determines the reward's effects and the possibility to create knowledge sharing. Generally, people who perceive that their co-workers and supervisors value knowledge sharing feel more inclined to engage in such behaviour themselves (Cabrera et al., 2006; Gagné, 2009; Hall, 2001).

Rewards for knowledge sharing can not only be granted to individuals, but also to teams and groups (Cabrera and Cabrera, 2005; Collins and Smith, 2006; Fong et al., 2011; Ming-Chang et al., 2013; Quigley et al., 2007). Similarly, company results can be reflected in employees' rewards (Cabrera and Cabrera, 2005; Collins and Smith, 2006; Gagné, 2009; Salis and Williams, 2009). As individual rewards might lead to excessive competition amongst employees (Cabrera and Cabrera, 2005; Laursen and Mahnke, 2001) and reduce knowledge sharing in the organization (Fong et al., 2011; López et al., 2006), team compensations could focus employee motivation on group and organizational performance indicators (Camelo-Ordaz et al., 2011; Collins and Smith, 2006; Pastor et al., 2010).

Training and staff development

Chen and Huang (2009) mention that organizations need to offer internal and external training opportunities to develop and nurture required knowledge and expertise of employees because, as Ramirez and Li (2009) conclude, knowledge sharing occurs as employees are trained to use new equipment and, in turn, teach others. Training and staff development not only positively affect individual characteristics, knowledge, skills, and attitudes (e.g., openness to innovative ideas, perception of mistakes as important learning opportunities and willingness to learn, self-efficacy) but they can

also present both a formal and informal opportunity for knowledge sharing and have a positive and significant influence on knowledge sharing (Chen and Huang, 2009; Collins and Smith, 2006; Fong et al., 2011; Lin and Lee, 2004; Pham et al., 2015). Training, as well, can help to overcome some constraints on knowledge sharing, such as a learner's lack of motivation, low absorption capacity, or integration capability (Rhodes et al., 2008 in Fong et al., 2011). Moreover, it can increase the degree of understanding among employee groups (Collins and Smith, 2006; Pastor et al., 2010) and facilitate communication among employees by providing a common language and a shared vision (López et al., 2006). Furthermore, investment in training and development demonstrates a company's investment in employees, which then increases individual willingness to develop firm-specific skills (MacDuffie, 1995 in Collins & Smith, 2006). For example, Kubo et al. (2001) describes that the fact new employees are supervised by senior tutors gives the new starters the opportunity to acquire general knowledge about organizational activities and organizational culture by learning on-the-job.

Managing employees' career growth and managing staff leaving the employment

Employees' career management is linked to utilizing an internal recruitment process, as mentioned, for example, by Salis and Williams (2009). A correctly set system managing employees' career growth, but most of all putting in place a system for substitution and succession, can reduce the risk of losing knowledge while supporting the spread of knowledge within an organization (Cabrera and Cabrera, 2005). Additionally, according to Kuvaas (2008 in Kim and Ko, 2014), career development facilitates greater employee obligation toward the organization. Likewise, career growth opportunities in the organization can also develop employees' skills and abilities.

Career advancement should be tied to various factors, including the extent to which individuals either hoard or share their expertise by educating and helping coworkers (Cabrera and Cabrera, 2005; Hall, 2001; Pastor et al., 2010). Another good practice connected with employee promotion or his/her transfer to another position is that workers might be asked to write "a message to their successor" stating what is most important, from their point of view, for a worker to know when starting in their position (Hroník, 2010).

Generally, an effort to keep employees who overcome expectations should be made to avoid a risk of losing valuable knowledge. However, when employees fail to show enough initiative or to fulfil their goals, it might be necessary to terminate them (Husted and Michailova, 2002). Additionally, an employee might also leave the company voluntarily or by way of layoff. Exit interviews should be conducted with departing employees to retain their knowledge within the company or, at least, to have a better idea as to why they are leaving with the intention to stave off any further preventable dissatisfaction.

Employee care program

To enhance knowledge sharing, Pastor et al. (2010) argue that organizations should reduce the distance between people, both physically and in psychological terms. As interpersonal relations are vital for knowledge sharing (Yang, 2004), it is advisable to

organize events that support team-building (Camelo-Ordaz et al., 2011), such as jubilee celebrations and trips or team sports events (Cabrera and Cabrera, 2005), welcome parties for newcomers, or contest for existing employees and their families (Kubo et al., 2001). In addition to other influences, such events provide opportunities for informal (spontaneous and voluntary) knowledge sharing and exchanging of ideas, as well as for discussing current events and problem solving approaches (Matošková, 2012). According to Cabrera and Cabrera (2005), the opportunity to share is increased when individuals spend more time together, not only because increased interaction leads to more frequent communication, but also because communication is more effective and these interactions result in shared language and codes. Additionally, such events also promote the cultivation of a work environment and create norms about knowledge sharing as typical and constant activities (Armstrong, 2003).

Furthermore, knowledge sharing can be supported with the right office design (Currie and Kerrin, 2003; Ming-Chang et al., 2013). For example, members of a specific team might be located at one area of an open-space office. Designing areas for informal knowledge sharing, such as rest corners and kitchenettes or placing vending machines inside an office space also support knowledge sharing because they provide a space for informal interaction (Cabrera and Cabrera, 2005; Currie and Kerrin, 2003). Additionally, it is also advisable to provide employees with technical tools which facilitate managing information, knowledge sharing, and team work because information and communication technologies often can be an important facilitator of knowledge sharing (Seba et al., 2012; Wong, 2005).

Conclusions

The goal of this study is to develop a framework that conceptualizes HRM practices and their influence on knowledge sharing in the organization. The paper contributes to the existing knowledge in several ways. First, it does propose a theoretically-based model, which incorporates the various constructs of HRM and variables which might have a mediating effect on knowledge sharing and organizational performance. To suggest such a model, the paper has integrated disparate literatures as a preliminary step toward a better understanding of the connection between HRM and knowledge management. The model is presented in Appendix 1. It is supposed that the discussed HRM practices facilitate knowledge sharing by moulding personality traits of employees, cultivating organizational culture and organizational management, as well as influencing instruments used for knowledge sharing. Furthermore, the figure shows that the intensity of knowledge sharing in the organization has two basic dimensions, namely knowledge documentation and interactions. In total, 12 testable hypotheses were suggested.

Second, the paper enriches the concept of knowledge sharing by offering a contribution to the discussion of how it is affected by HRM practices and highlights, as well, the mechanisms by which HRM practices contribute to organizational performance. In this way, the presented approach incorporates the individuals' perspective into the analysis of knowledge management processes, which is an issue that has received little attention in the literature (Camelo-Ordaz et al., 2011). Finally,

from a practical perspective, the paper provides guidelines for HR employees as to what they should do to enhance knowledge sharing in the organization.

Future research should further discuss and examine the defined conceptual model, especially relations among concepts, and how bundling HRM practices into a system may address some drivers of knowledge sharing. As Foss et al. (2015) mention, investigating how and why certain HRM practices work as a configuration is important to the advancement of our understanding of how knowledge sharing among employees is fostered.

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References

- Alavi, M. and Leidner, D.E. (2001), "Review: Knowledge Management and Knowledge Management Systems: Conceptual Foundations and Research Issues", *MIS Quarterly*, Vol. 25, No. 1, pp. 107–136.
- Ardichvili, A., Page, V. and Wentling, T. (2003), "Motivation and barriers to participation in virtual knowledge-sharing communities of practice", *Journal of Knowledge Management*, Vol. 7, No. 1, pp. 64–77.
- Armstrong, M. (2003), A Handbook of Human Resource Management Practice, Kogan Page, London.
- Boateng, H., Okoe, A.F. and Mensah, T.D. (2017), "The relationship between human resource practices and knowledge sharing in service firms", *Business Information Review*, Vol. 34, No. 2, pp. 74–80.
- Bock, G.-W., Zmud, R.W., Kim, Y.-G. and Lee, J.-N. (2005), "Behavioral intention formation in knowledge sharing: Examining the roles of extrinsic motivators, social-psychological forces, and organizational climate", *MIS Quarterly*, Vol. 29, No. 1, pp. 87–111.
- Cabrera, Á., Collins, W.C. and Salgado, J.F. (2006), "Determinants of individual engagement in knowledge sharing", *The International Journal of Human Resource Management*, Vol. 17, No. 2, pp. 245–264.
- Cabrera, E.F. and Cabrera, A. (2005), "Fostering knowledge sharing through people management practices.", *International Journal of Human Resource Management*, Vol. 16, No. 5, pp. 720–735.
- Camelo-Ordaz, C., García-Cruz, J., Sousa-Ginel, E. and Valle-Cabrera, R. (2011), "The influence of human resource management on knowledge sharing and innovation in Spain: the mediating role of affective commitment.", *International Journal of Human Resource Management*, Vol. 22, No. 7, pp. 1442–1463.

- Carter, C. and Scarbrough, H. (2001), "Towards a second generation of KM? The people management challenge", *Education + Training*, Vol. 43, No. 4/5, pp. 215–224.
- Chen, C.-J. and Huang, J.-W. (2009), "Strategic human resource practices and innovation performance The mediating role of knowledge management capacity", *Journal of Business Research*, Vol. 62, No. 1, pp. 104–114.
- Chen, S.-S., Chuang, Y.-W. and Chen, P.-Y. (2012), "Behavioral intention formation in knowledge sharing: Examining the roles of KMS quality, KMS self-efficacy, and organizational climate", *Knowledge-Based Systems*, Vol. 31, pp. 106–118.
- Chiang, H.-H., Han, T.-S. and Ju-Sung, C. (2011), "The relationship between high-commitment HRM and knowledge-sharing behavior and its mediators", *International Journal of Manpower*, Vol. 32, No. 5/6, pp. 604–622.
- Chow, C.W., Deng, F.J. and Ho, J.L. (2000), "The openness of knowledge sharing within organizations: A comparative study in the United States and the People's Republic of China", *Journal of Management Accounting Research*, Vol. 12, pp. 65–95.
- Collins, C.J. and Smith, K.G. (2006), "Knowledge exchange and combination: The role of human resource practices in the performance of high-technology firms", *Academy of Management Journal*, Vol. 49, No. 3, pp. 544–560.
- Currie, G. and Kerrin, M. (2003), "Human resource management and knowledge management: enhancing knowledge sharing in a pharmaceutical company", *International Journal of Human Resource Management*, Vol. 14, No. 6, pp. 1027–1045.
- Donate, M.J. and Guadamillas, F. (2011), "Organizational factors to support knowledge management and innovation", *Journal of Knowledge Management*, Vol. 15, No. 6, pp. 890–914.
- Edvardsson, I.R. (2008), "HRM and knowledge management", *Employee Relations*, Vol. 30, No. 5, pp. 553–561.
- Fong, C., Ooi, K., Tan, B., Lee, V. and Chong, A.Y. (2011), "HRM practices and knowledge sharing: an empirical study", *International Journal of Manpower*, Vol. 32, No. 5/6, pp. 704–723.
- Foss, N.J., Pedersen, T., Reinholt Fosgaard, M. and Stea, D. (2015), "Why Complementary HRM Practices Impact Performance: The Case of Rewards, Job Design, and Work Climate in a Knowledge-Sharing Context", *Human Resource Management*, Vol. 54, No. 6, pp. 955–976.
- Gagné, M. (2009), "A model of knowledge-sharing motivation", *Human Resource Management*, Vol. 48, No. 4, pp. 571–589.
- Guo-bao, W. (2013), "Research on the measurement of knowledge sharing in Chinese Cultural context: Scale development and validity test", 2013 6th International Conference on Information Management, Innovation Management and Industrial Engineering, Vol. 1, presented at the 2013 6th International Conference on Information Management, Innovation Management and Industrial Engineering, pp. 371–375.
- Haas, M.R. and Hansen, M.T. (2007), "Different knowledge, different benefits: toward a productivity perspective on knowledge sharing in organizations", *Strategic Management Journal*, Vol. 28, No. 11, pp. 1133–1153.

- Hall, H. (2001), "Input-friendliness: motivating knowledge sharing across intranets", *Journal of Information Science*, Vol. 27, No. 3, pp. 139–146.
- Haythornthwaite, C. and Wellman, B. (1998), "Work, friendship, and media use for information exchange in a networked organization", *Journal of the American Society for Information Science*, Vol. 49, No. 12, pp. 1101–1114.
- Hayton, J.C. (2003), "Strategic human capital management in SMEs: An empirical study of entrepreneurial performance", *Human Resource Management; Hoboken*, Vol. 42. No. 4, pp. 375–391.
- Hong, F. and Cheng, K. (2014), "Teachers' high maintenance behaviour as perceived by university students in Taiwan, and their coping strategies", *Social Psychology of Education : An International Journal*, Vol. 17, No. 3, pp. 503–525.
- Hooff, B. van den and Ridder, J.A. de. (2004), "Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing", *Journal of Knowledge Management*, Vol. 8, No. 6, pp. 117–130.
- Hroník, F. (2010), "Metody KM", Presentation at conferencepresented at the HR Konference "Kdyby firmy věděly, co všechno ví aneb o knowledge managementu ze všech stran", Brno, 25 November.
- Husted, K. and Michailova, S. (2002), "Diagnosing and Fighting Knowledge-Sharing Hostility", *Organizational Dynamics*, Vol. 31, No. 1, pp. 60–73.
- Ipe, M. (2003), "Knowledge Sharing on Organizations: A Conceptual Framework", *Human Resource Development Review*, Vol. 2, No. 4, pp. 337–359.
- Jiang, K., Lepak, D.P., Hu, J. and Baer, J.C. (2012), "How Does human resource management influence organizational outcomes? A meta-analytic investigation of mediating mechanisms", *Academy of Management Journal*, Vol. 55, No. 6, pp. 1264–1294.
- Kankanhalli, A. and Tan, B.C. (2004), "A review of metrics for knowledge management systems and knowledge management initiatives", *System Sciences*, 2004. *Proceedings of the 37th Annual Hawaii International Conference*, IEEE, p. 8–17.
- Kim, Y.W. and Ko, J. (2014), "HR practices and knowledge sharing behavior: focusing on the moderating effect of trust in supervisor", *Public Personnel Management*, Vol. 43, No. 4, pp. 586–607.
- Kubo, I., Saka, A. and Pam, S.L. (2001), "Behind the scenes of knowledge sharing in a Japanese bank.", *Human Resource Development International*, Vol. 4, No. 4, pp. 465–485.
- Laursen, K. and Mahnke, V. (2001), "Knowledge strategies, firm types, and complementarity in human-resource practices", *Journal of Management and Governance*, Vol. 5, No. 1, pp. 1–27.
- Law, C.C. and Ngai, E.W. (2008), "An empirical study of the effects of knowledge sharing and learning behaviors on firm performance", *Expert Systems with Applications*, Vol. 34, No. 4, pp. 2342–2349.
- Lee, D.-J. and Ahn, J.-H. (2007), "Reward systems for intra-organizational knowledge sharing", *European Journal of Operational Research*, Vol. 180, No. 2, pp. 938–956.

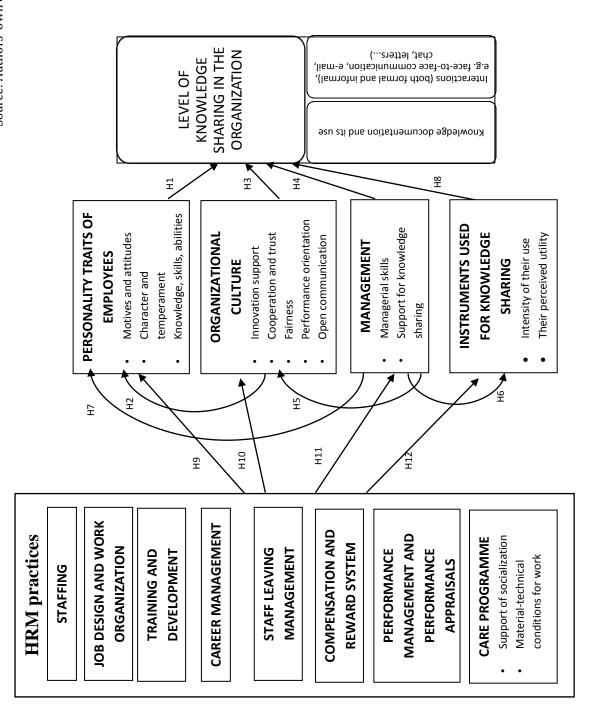
- Li-An, H. and Kuo, T.-H. (2013), "How system quality and incentive affect knowledge sharing", *Industrial Management + Data Systems*, Vol. 113, No. 7, pp. 1048–1063.
- Lin, H. and Lee, G. (2004), "Perceptions of senior managers toward knowledge-sharing behaviour", *Management Decision*, Vol. 42, No. 1, pp. 108–125.
- Lin, H.-F. (2007), "Effects of extrinsic and intrinsic motivation on employee knowledge sharing intentions", *Journal of Information Science*, Vol. 33, No. 2, pp. 135–149.
- López, S.P., Peón, J.M.M. and Ordás, C.J.V. (2006), "Human resource management as a determining factor in organizational learning", *Management Learning*, Vol. 37, No. 2, pp. 215–239.
- Matošková, J. (2012), "How to support knowledge management through human resource management activities", *International Journal of Knowledge, Culture and Change Management*, Vol. 11, No. 3, pp. 207–222.
- Minbaeva, D.B., Pedersen, T., Björkman, I. and Fey, C.F. (2014), "A retrospective on: MNC knowledge transfer, subsidiary absorptive capacity, and HRM", *Journal of International Business Studies*, Vol. 45, No. 1, pp. 52–62.
- Ming-Chang, H., Chiu, Y.-P. and Ting-Chun, L. (2013), "Knowledge governance mechanisms and repatriate's knowledge sharing: the mediating roles of motivation and opportunity", *Journal of Knowledge Management*, Vol. 17, No. 5, pp. 677–694.
- Naicker, V. and Omer, N. (2015), "Measurement and determining factors affecting the level of knowledge management", *The Electronic Journal of Information Systems in Developing Countries*, Vol. 68, available at: http://144.214.55.140/ojs2/index.php/ejisdc/article/view/1351 (accessed 30 May 2016).
- Pastor, I.M.P., Santana, M.P.P. and Sierra, C.M. (2010), "Managing knowledge through human resource practices: empirical examination on the Spanish automotive industry.", *International Journal of Human Resource Management*, Vol. 21, No. 13, pp. 2452–2467.
- Peet, M. (2012), "Leadership transitions, tacit knowledge sharing and organizational generativity", *Journal of Knowledge Management*, Vol. 16, No. 1, pp. 45–60.
- Pham, A.T., Nguyen, N.T. and Nguyen, D.M. (2015), "Influence of Organizational and Technological Aspects on the Knowledge Sharing Behaviour in the Vietnam's University Context", *Asian Social Science*, Vol. 11, No. 10, p. 139.
- Quigley, N.R., Tesluk, P.E., Locke, E.A. and Bartol, K.M. (2007), "A Multilevel Investigation of the Motivational Mechanisms Underlying Knowledge Sharing and Performance", *Organization Science*, Vol. 18, No. 1, pp. 71–88.
- Rahman, M.S., Osman-Gani, Aa.M., Momen, M.A. and Islam, N. (2016), "Testing knowledge sharing effectiveness: trust, motivation, leadership style, workplace spirituality and social network embedded model", *Management & Marketing*, Vol. 10, No. 4, pp. 284–303.
- Ramirez, M. and Li, X. (2009), "Learning and sharing in a Chinese high-technology cluster: a study of inter-firm and intra-firm knowledge flows between R&D employees", *New Technology, Work and Employment*, Vol. 24, No. 3, pp. 277–296.

- Riege, A. (2005), "Three-dozen knowledge-sharing barriers managers must consider", *Journal of Knowledge Management*, Vol. 9, No. 3, pp. 18–35.
- Salis, S. and Williams, A.M. (2009), "Knowledge sharing through face-to-face communication and labour productivity: evidence from British workplaces: face-to-face communication and productivity in Britain", *British Journal of Industrial Relations*, Vol. 48, No. 2, pp. 436–459.
- Seba, I., Rowley, J. and Lambert, S. (2012), "Factors affecting attitudes and intentions towards knowledge sharing in the Dubai Police Force", *International Journal of Information Management*, Vol. 32, No. 4, pp. 372–380.
- Singh, S.K. (2008), "Role of leadership in knowledge management: a study", *Journal of Knowledge Management*, Vol. 12, No. 4, pp. 3–15.
- Soto-acosta, P., Colomo-palacios, R. and Popa, S. (2014), "Web knowledge sharing and its effect on innovation: an empirical investigation in SMEs", *Knowledge Management Research & Practice*, Vol. 12. No. 1, pp. 103–113.
- Talisayon, S.D. (2003), "Knowledge and people", BusinessWorld, p. 1.
- Thite, M. (2004), "Strategic positioning of HRM in knowledge-based organizations", *The Learning Organization*, Vol. 11, No. 1, pp. 28–44.
- Tuan, L.T. (2012), "Behind knowledge transfer", *Management Decision*, Vol. 50, No. 3, pp. 459–478.
- Urban, J. (2010), "Předpokladem autority je důvěryhodnost", *Moderní řízení*, No. 5, available at: http://modernirizeni.ihned.cz/2-43871570-600000_detail-9e (accessed 18 February 2012).
- Wong, K.Y. (2005), "Critical success factors for implementing knowledge management in small and medium enterprises", *Industrial Management & Data Systems*, Vol. 105, No. 3, pp. 261–279.
- Yahya, S. and Goh, W.-K. (2002), "Managing human resources toward achieving knowledge management", *Journal of Knowledge Management*, Vol. 6, No. 5, pp. 457–468.
- Yang, J. (2004), "Job-related knowledge sharing: comparative case studies", *Journal of Knowledge Management*, Vol. 8, No. 3, pp. 118–126.
- Yang, J.-T. (2007), "Knowledge sharing: Investigating appropriate leadership roles and collaborative culture", *Tourism Management*, Vol. 28, No. 2, pp. 530–543.
- Yen-Ku, K., Tsung-Hsien, K. and Li-An, H. (2014), "Enabling innovative ability: knowledge sharing as a mediator", *Industrial Management & Data Systems*, Vol. 114, No. 5, pp. 696–710.
- Yong Woon, K. (2014), "HR Practices and Knowledge Sharing Behavior: Focusing on the Moderating Effect of Trust in Supervisor.", *Public Personnel Management*, Vol. 43, No. 4, pp. 586–607.

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Appendix 1. The impact of HRM practices on the basic factors influencing knowledge sharing within an organization

Source: Authors' own contribution.



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