

Understanding the Relation between HR Practices and Pull Approach to Knowledge Sharing: Case Study*

Aleksandra Rudawska, Katarzyna Gadomska-Lila**

Abstract

The aim of this study is to identify the relationship between human resource (HR) practices, knowledge seeking and knowledge giving by applying the lenses of the motivation-opportunities-abilities framework in the context of the multinational enterprise subsidiary located in Central Europe. The article presents the research results using qualitative methodology, mainly based on semi-structured interviews among employees of a quality assurance department. As a result of this research, the situations when employees seek knowledge and give knowledge in response to a request were identified together with motivations, abilities and opportunities related to those behaviours. We then identified HR practices and determined which of these practices enhance or develop conditions related to pull knowledge sharing. These results extend the knowledge on knowledge seeking and giving behaviour by introducing antecedences not studied earlier.

Keywords: knowledge sharing, knowledge seeking, pull approach, HR practices, MOA framework

JEL Codes: M12, M50

1. Introduction

Knowledge flow is a very important process in organisations (e.g. Ahmad/Karim 2019) not only in terms of organisational innovation (Sung/Choi 2018), development of competitive advantage but also project performance (Milošević/Tošković/Rakočević 2019), reducing organisational costs or efficient functioning of established processes (Chión/Charles/Morales 2019). The vast majority of valuable knowledge resides within employees that needs to be shared and applied to give expected group and organisational outputs (Huysman/de Wit 2004). The process of knowledge sharing makes the individually embedded knowledge accessible to others. In the studies on the antecedents of knowledge sharing between individuals, researchers mostly look only at one part of the knowledge-sharing process – providing or receiving – neglecting the factors initiating the knowledge sharing.

* Received: 16.12.2020, accepted: 16.04.2022, 1 revision.

** Rudawska Aleksandra, PhD, Assistant professor, University of Szczecin, Institute of Management, Department of Organisation and Management. Email: aleksandra.rudawska@usz.edu.pl. Main research interests: knowledge sharing, knowledge management, organisational learning, organisational behaviour, human resource management.

Gadomska-Lila Katarzyna (Corresponding author), PhD, DSc, Associate professor, University of Szczecin, Institute of Management, Department of Organisation and Management. Email: katarzyna.gadomska-lila@usz.edu.pl. Main research interests: organisational culture, organisational behaviour, human resource management.

Looking at the whole picture of the knowledge exchange based on the information-processing theory (Schulz 2001), a pull and push approach to knowledge sharing can be proposed. They differ in the way that the sharing process is initiated. The pull approach reflects sharing upon the expressed demand for a specific knowledge (a request, an expressed need initiates the process), and the push approach reflects sharing knowledge proactively, without prior request. The value of the general concept of the pull approach in management (also called demand-driven) is emphasised in various fields, starting with marketing or supply chain management but also knowledge management, innovation (e.g. Davenport/Prusak 1998) and organisational behaviour (e.g. Yáñez Morales/Pan/Alí 2020). However, in the literature on knowledge-sharing behaviour, the concept of pulling knowledge is distinguishable to a limited extent, and the studies were concentrated mainly on the knowledge provider (e.g. Teng/Song 2011; Zhang/Jiang 2015). Few studies consider knowledge seeking, but most of them concentrate on seeking in knowledge repositories or virtual communities rather (e.g. Bock/Kankanhalli/Sharma 2006; Veeravalli/Venkatraman/Hariharan 2019) than knowledge seeking from co-workers. Additionally, these two behaviours related to sharing, knowledge seeking and knowledge providing are distinctive (David/Brennecke/Rank 2020). This results in the fact that research on antecedents and conditions enhancing the pulled knowledge sharing is scattered, while to make knowledge sharing effective, both knowledge seeking and giving are important.

In the presented work, we look holistically at the pull approach to knowledge sharing by exploring the knowledge-seeking and knowledge-giving behaviour through the lenses of employees' motivations, their abilities and opportunities (motivation-opportunities-abilities – MOA framework) to seek and give knowledge. Next, we explore which people management practices enhance or develop conditions (motivation, opportunities and abilities) related to knowledge sharing. With this, we study the role of human resource (HR) practices in the concept of the pull approach to knowledge sharing between individuals.

We concentrate on HR practices because they greatly impact an individual's behaviour and knowledge sharing specifically (Hislop et al., 2018). Moreover, knowledge exchange is based on the behaviour of employees, and it is usually a feature of the responsibilities of HR departments to create and maintain an environment supporting and enhancing desirable employee attitudes and behaviours by applying diverse HR practices (Jiang/Lepak/Han/Hong/Kim/Winkler 2012). Our argument is that in order to support the flow of knowledge between employees based on the pull approach, there is a need to understand which HR practices enable the creation of such an environment.

Therefore, the main research question is:

What is the role of HR practices in enhancing the pull approach to knowledge sharing, taking into consideration motivation, opportunities and abilities of the knowledge seeking and knowledge giving behaviour of employees?

Thus, the main aim of the article is to identify the relationships between HR practices and knowledge seeking and knowledge giving by applying the lenses of the MOA framework in the context of a subsidiary located in Central Europe.

Using a qualitative approach in the quality assurance department of the manufacturing subsidiary of the multinational enterprise (MNE) located in Poland, we explored how HR practices build the context for the pull approach to knowledge sharing within the MNE subsidiary. The production subsidiaries pay attention to using and modifying the MNEs knowledge related to products, processes, and markets while applying and developing the manufacturing competencies. It is caused by efficiency seeking, which is the main motivation driving direct foreign investments in manufacturing, especially in Poland (e.g. Gorynia/Nowak/Wolniak 2007). MNEs, while deciding about investment in a subsidiary located abroad (especially in the processing industry, pharmaceutical production and business services), besides looking at the level of labour costs they pay attention to the required skills and competencies. After transferring the knowledge and processes, they rely upon and expect that subsidiaries will efficiently use them to execute the process. Subsidiaries develop their firm-specific knowledge built upon knowledge from numerous sources (other subsidiaries, local organisations) (Asmussen/Foss/Pedersen 2013). Intra Subsidiary knowledge exchange in this context is directed towards knowledge exploitation to identify the problematic situations, development and application of the procedural solution crafted to specific situations, and effective performance of the process. Most studies on knowledge sharing in the MNE context concentrate on the knowledge flow among subsidiaries or subsidiaries and headquarters (e.g. Michailova/Mustaffa 2012; Haas/Cummings 2015). With the still growing number of foreign direct investments in Central and Eastern Europe it seems important to examine how, through the HR practices, knowledge flow within the subsidiary can be supported as there is a gap in the research in this area.

The current study contributes to existing literature and practices in several ways. First, it brings the approach of pulling knowledge to the individual level and analyses it holistically by considering knowledge-seeking and knowledge-giving upon the request of employees. Although the pull approach to sharing knowledge among individuals is a taken for granted process in the literature on knowledge sharing (e.g. Rhee/Choi 2017), it is unresearched. By analysing knowledge-seeking and giving situations among employees, we picture more comprehensively the knowledge exchange process in an organisation and its antecedences.

Second, the study deepens the understanding of the relationships between HR practices and knowledge-sharing behaviours of employees by applying a qualitative study, which enables exploration of what motivations, opportunities and abilities are related to knowledge seeking and giving upon request. Unlike previous research, we have not categorised *a priori* HR practices into three dimensions according to the motivation-opportunity-ability framework (e.g. Jiang/Lepak/Hu/Baer 2012). Our starting point was exploring what motivations, opportunities and abilities are related to knowledge seeking and giving behaviours and then matching them with HR practices, taking employees' perceptions. By this, we contribute to the nascent stream of microfoundations of knowledge sharing within organisations (Foss/Husted/Michailova 2010).

Third, with applying the qualitative study, we answer the call for more qualitative studies in knowledge sharing, which is needed (e.g. Ahmad/Karim 2019) as knowledge-sharing behaviours turn out to be more complex and diversified, especially in terms of the sharing outcomes (e.g. Zhao/Jiang/Peng/Hing 2021). Finally, our contribution refers to the context of the study, which is the production subsidiary of MNE located in Poland. The research on knowledge exchange between employees in the Central European context and within a subsidiary is limited.

2. Knowledge sharing – the pull approach

Knowledge sharing is discretionary, situational and interactional behaviour which takes place between two or more individuals (Foss/Minbaeva/Pedersen/Reinholt 2009), aiming to exchange some chunks of their knowledge through the act of communication. Knowledge sharing depends on the knowledge sharer's decisions considering whether to share knowledge or not. This decision is related to numerous individual and contextual factors (Sergeeva/Andreeva 2016) and also to the perceived success of knowledge sharing, defined as "the degree to which knowledge is recreated in the recipient" (Cummings/Teng 2006:2) and applied. The goal of sharing knowledge within an organisation is to exploit existing knowledge by transferring it to and applying it by others, teaching others new skills or adding some knowledge (Holdt Christensen 2007). Studies on knowledge sharing consider two aspects of the exchange – the sender and receiver (e.g. Reinholt/Pedersen/Foss 2011). The emphasis was mainly placed on understanding the antecedents of providing different types of knowledge by employees while rather neglecting the knowledge-seeking behaviour.

Previous research shows that the knowledge-sharing process is initiated in numerous ways. Referring to the studies of Berends et al. (2006) or Anand and Walsh (2020), the first stage of knowledge sharing called "initiation" differentiates two approaches to knowledge sharing – push and pull. The distinction between the push and pull approach was primarily used in the information

processing literature (e.g. Alavi/Leidner 2001), but in the knowledge-sharing research, those approaches are not specified yet. Even if push and pull approaches are mentioned, they are mostly addressed at the organisational level (inter units' exchange; Gupta/Govindarajan 2000).

From the organisational perspective, Schulz (2001) writes about 'push' and 'pull' forces as two types that stimulate outflows of knowledge from the sub-units' knowledge domains. While pushing knowledge is related to broadcasting solutions developed by the knowledgeable domain of the subunit, pulling knowledge is related to answering the expressed demand for knowledge from the potential recipients. In relation to the pulling of knowledge, Monteiro, with co-authors, writes about a demand-driven model of knowledge flow, arguing that requesting and receiving knowledge from other units is initiated by problematic search (Monteiro et al., 2008).

In the literature on the individual level, knowledge pulling appears as two behaviours studied separately – knowledge seeking and knowledge providing upon request. Knowledge-seeking relates to both searching for knowledge in the non-human repositories (e.g. Lai/Chen/Chang 2014) and, in limited studies, requesting knowledge from individuals in the organisation (e.g. Haas/Cummings 2015; Gubbins/Dooley 2021). Also, a relatively small amount of research distinguishes knowledge providing upon request and names that behaviour with different terms, for example 'knowledge sharing on-demand' (Bonti et al. 2017), 'solicited knowledge sharing' (Teng/Song 2011), 'responsive knowledge sharing' (Zhang/Jiang 2015). In terms of creating an organisational environment which supports knowledge exchange, taking the perspective of knowledge seeking and giving concurrently allows a better understanding of which organisational contexts employees will be more open to retrieving knowledge from their co-workers, and co-workers will be more willing to respond to the knowledge requests.

In the *pull approach* to knowledge sharing, the potential receiver directs demand for the specific knowledge toward a selected person or group, and the giver is supposed to answer to that request (Zhang/Jiang 2015; Rudawska 2020). Here, the greater effort is on the knowledge seeker's side (potential receiver), who has to diagnose the knowledge needs, select and find a person who can help and from the request properly. For the knowledge provider, knowledge sharing is rather episodic in nature as it is hard to plan for a sharer when sharing will occur because it is triggered by the action of the knowledge seeker. When presented with a request, the sharer needs to decide whether and how to answer the request by sharing knowledge (Zhang/Jiang 2015). The pull approach to knowledge exchange is cost-effective for the organisation because an individual's time and effort in providing knowledge considers the declared knowledge needs of a receiver and makes the greater probability that shared knowledge would be used

(e.g. Newell/Bresnen/Edelman/Scarborough/Swan 2006). There are only a limited number of studies that show the positive impact of giving knowledge upon request from co-workers on organisational outcomes (Lin 2007; Kamaşak/Bulutlar 2010; Giustiniano/Lombardi/Cavaliere 2016). Although the approach of pulling knowledge in an organisation is acknowledged, it is under-researched.

For the purpose of this study, we concentrate on the knowledge seeking behaviour (requesting knowledge, suggestions or information from other organisational members or repositories) and knowledge giving upon request behaviour (providing knowledge as an answer to a specific knowledge demand). To understand the antecedents of these behaviours, we apply the motivation-opportunities-abilities framework.

3. Motivation-Opportunities-Abilities as the framework of knowledge sharing antecedences

The MOA framework was first introduced by Blumberg and Pringle (1982) to explain factors predicting the individual performance of employees, and since then, MOA has been applied in numerous research aiming to understand the performance and behaviour of employees (e.g. Morales-Sánchez/Pasamar 2019). In the MOA framework, motivation refers to the individual willingness to engage in a specific behaviour. Opportunity is understood as environmental factors beyond the control of an individual that enable or constrain a specific individual behaviour. Finally, the ability or capacity to behave is all the knowledge, skills and abilities needed to behave in a specific way or carry out a specific task.

In knowledge-sharing literature, the MOA framework is applied by researchers because it covers both personal and contextual (to behaviour) factors. Most of the studies that use the MOA lenses to understand knowledge sharing were quantitative, and they use the framework in two ways. The first group of research identifies specific motivations (e.g. intrinsic or extrinsic motivation, career advancement, personal challenge), opportunities (e.g. time availability, type of interaction opportunities, network position) and abilities (e.g. self-efficacy, ability to share, language skills, experience) (e.g. Reinholt et al. 2011; Schuster/Holtbrügge/Engelhard 2019). At the same time, the other group of studies apply MOA to link HR practices with knowledge-sharing behaviours. In this approach, the HR practices are assigned to one of three groups: motivation-enhancing practices, opportunity-enhancing practices and ability-enhancing practices (e.g. Ma/Long/Zhang/Zhang/Lam 2017; Bhatti/Zakariya/Vrontis/Santoro/Christofi 2021). In this line of research, while motivation- and ability-enhancing HR practices were directly related to knowledge sharing, the opportunity-enhancing practices were playing a conditional role for them.

In the current study, we relate the above two ways of MOA framework application as a mediator between HR practices and knowledge exchange behaviours. Based on the previous studies on knowledge seeking and giving upon request, we list specific motivators, opportunities and abilities related to those sharing behaviours, presented in Table 1.

Table 1. Antecedences of knowledge seeking and giving upon request – literature review

	Knowledge seeking	Knowledge giving upon request
Motivation	<ul style="list-style-type: none">■ willingness to accomplish tasks more efficiently■ knowledge■ reciprocity (negative)■ job satisfaction	<ul style="list-style-type: none">■ helping others■ reciprocity■ a knowledge requester’s learning attitude
Opportunities	<ul style="list-style-type: none">■ trust■ collaborative norms■ proximity■ quality of system and knowledge■ facilitating conditions■ interdependence of employees■ informal relations■ shared vision	<ul style="list-style-type: none">■ communication climate■ top management support■ use of ICT■ trust■ task routineness■ informal relations
Abilities & skills	<ul style="list-style-type: none">■ ability to get knowledge from the system■ knowledge self-efficacy	<ul style="list-style-type: none">■ knowledge self-efficacy
Authors	Seeking in the systems: Bock et al. 2006; He et al. 2009; Lai et al. 2014; Veeravalli et al. 2019. Seeking among co-workers: Chen/Hung 2010; Haas/Cummings 2015; Mohammed/Kamalanabhan 2019.	van den Hooff/de Leeuw van Weenen 2004; van den Hooff/de Ridder 2004; Teng/Song 2011; Cavaliere/Lombardi 2015; Zhang/Jiang 2015; Hussein/Singh/Farouk/Sohal 2016.

4. HR practices and knowledge sharing

One important factor that at the organisational level can encourage employees to share knowledge are HR practices. They assist managers in shaping attitudes and behaviours that encourage knowledge management initiatives (Hislop et al. 2018). This relationship is included in several empirical studies which analyse either how systems of HR practices or specific HR practices (e.g. Buch/Dysvik/Kuvaas/Nerstad 2015) influence knowledge initiatives among employees (mostly taking the organisational level perspective). Among them, in the previous studies, there are selection criteria (e.g. Fong/Ooi/Tan/Lee/Chong 2011) or reward criteria, but the relation with knowledge sharing is ambiguous (e.g. Foss et al. 2009, Nguyen/Nham/Froese/Malik 2019). Studies also mention

performance appraisal systems that measure and evaluate employees' contributions (e.g. Camelo-Ordaz/García-Cruz/Sousa-Ginel/Valle-Cabrera 2011) and create positive pressure on employees to develop towards better performance (e.g. Jimenez-Jimenez/Sanz-Valle 2013). Training, workshops or conferences are opportunities for employees to develop skills and knowledge and to exchange information and ideas (e.g. Kaše/Paauwe/Zupan 2009), which also positively influences employees' identification within their work group and builds interpersonal trust important for sharing (e.g. Lewicka/Krot 2015; Pervaiz/Imran/Arshad/Haq/Kamran 2016). The work design, which ensures that work is interesting, varied and challenging as well as enhances collaboration with others, facilitates teamwork (Kaše et al. 2009) and also influences engagement and motivation to share knowledge (e.g. Chen/Zhang/Vogel 2011; Foss/Pedersen/Reinholt/Stea 2015).

These practices may increase individual motivation to share knowledge either by increasing the perceived benefits of sharing knowledge or by increasing the belief in sharing knowledge, as well as developing specific employee competencies to share knowledge, or creating the conditions under which such behaviour will occur. Hence, some authors such as Minbaeva (2013) or Andreeva and Sergeeva (2016) have attempted to study how HR practices can influence employees' ability, motivation and opportunity to engage in knowledge sharing. However, they adopt a perspective that a-priori assigns HR practices to one of the three dimensions of MOA as motivation-enhancing practices, abilities-enhancing practices and opportunities-enhancing practices (e.g. Jiang et al. 2012). Although the nascent group of studies concentrates on explaining HR-knowledge sharing behaviour relations, they usually concentrate on knowledge giving while knowledge seeking is neglected. Moreover, the above-described researches were more oriented towards verifying the influence of HR on knowledge sharing (quantitative studies with different mediators like motivation, trust, and commitment), not exploring how HR might enhance sharing behaviour.

5. Methods

In order to explore the pull approach to knowledge sharing and identify the role of HR practices in enhancing knowledge seeking and knowledge giving, qualitative research in a single organisational setting was undertaken. The three following questions that arose from the main research question and literature review were directing the data collection and analysis process:

Question 1: What are the situations of pull knowledge sharing in which employees ask for knowledge and give their knowledge upon request?

Question 2: What are the motivations, opportunities and abilities related to the situations of knowledge seeking and giving upon request?

Question 3: What are HR practices (perceived by employees) related to motivations, opportunities and abilities of knowledge seeking and giving upon request?

5.1 Setting and sample

The present study was designed as an exploratory single case study (Yin, 2014), aiming to explore the knowledge sharing between employees preceded by request for knowledge (pull approach to knowledge sharing) and how the HR practices relate to this type of exchange. We aimed to select an organisation with a high level of studied phenomena such as highly developed HR practices and performing in a knowledge-intensive industry where knowledge exchange is one of the key processes. Moreover, as the specific interest is the pull approach to knowledge sharing, we were more interested in the exploitative knowledge context where the key interest is in “refinement, choice, production, efficiency, selection, implementation, execution” (March 1991:71). According to Berends et al. (2006) and Schulz (2001), these are the contexts where knowledge is rather shared upon the specific request for it, as the knowledge base is known. Therefore, the pull approach to knowledge exchange is expected to be based on repeated processes with high standardisation in the organisations. We aimed to select an organisation where we could have an “opportunity to shed empirical light” on the knowledge pulling within the organisation (Yin 2014:40).

*Alpha Poland*¹ is a Polish subsidiary of the MNE with headquarters in Denmark, a leading international company in the healthcare industry. The relevant MNE invested in Poland in 2007 by buying a factory of components for medical devices from another MNE. Since then, Alpha Poland has been growing through the transfer of processes from other European manufacturing subsidiaries of the MNE, and at the time of data collection (2014), it had about 1800 employees with about 400 non-production employees. The Polish subsidiary produces medical devices for individual clients (mass production and individualised production) and provides shared services for the MNE. With these numbers, Alpha Poland was the main factory for the MNE, and some production lines were evaluated as the best among other global production sites of the MNE. The employment growth was related to the extension and the range of process transfers from other MNE’s international locations and an indication of achieving expected efficacy in the transferred processes. Alpha Poland functions based on the product instructions and processes developed in the headquarters or other subsidiaries concentrating on the production and timely fulfilling of global purchase orders while keeping high-quality standards and efficiency². It shows that

1 Fiction company name.

2 The efficiency in the operations was also highlighted during the interviews with managers as one of the priorities on the managerial level of the subsidiary.

the subsidiary concentrates on exploiting and refining the knowledge obtained through process transferers. Moreover, as a part of MNE, Alpha Poland has developed HR systems and practices. With all these factors taken into consideration, it will allow us to argue that the selected company is an appropriate context to explore the pull approach to knowledge sharing and relation to HR.

Purposive sampling was used for the study as we concentrated only on employees in one functional area – The Quality Assurance Department (Glinka/Czakon 2021). The work in this department is knowledge-intensive with a dominant emphasis on knowledge exploitation (assuring the application of the tacit and explicit knowledge embedded in the organisation) with little needed knowledge refinement called an improvement process. The role of employees of the quality department is to assure that the processes and final products of those processes will be consistent with specifications fulfilling the expectations of external and internal customers, the inconsistencies will be detected, and preventative solutions will be put in place to ensure processes continue to meet high-quality standards and reduce the number of used resources (Hellsten/Klefsjö 2000). Their work is interdependent with others in their department or the company. Therefore, we consider that the quality assurance department is an appropriate setting to study knowledge sharing among co-workers both from the perspective of knowledge seeking and giving.

At the time of data collection, there were 32 employees in the Quality Assurance Department. They worked in several subunits, which covered stages of the value-added chain in the organisation – incoming inspection, production processes, distribution, analysis of consumer complaints and quality management system support. Within the subunits, employees performing similar tasks were located in relative physical proximity to each other and proximity to the processes they support. The individuals for the study were selected purposely based on consultation with the quality manager, aiming to gather information from representatives of every area in the department and employees with different tenure (Table 2).

Table 2. Overview of interviewees’ characteristics.

Interviewees’ characteristics		Number of participants
Gender	Female	4
	Male	11
Position	Inspector	3
	Quality engineer	8
	Quality engineer/group leader	2
	Department manager	2

Organisational tenure	0–2	2
	2–4	2
	4–6	6
	6–7	5
QA Subunits	Quality engineers related to production processes	6 (43 %)
	Incoming inspection	2 (25 %)
	Quality complaints	4 (50 %)
	Quality management system	1 (50 %)

5.2 Data collection procedure

We used three methods of data collection: semi-structured interviews (with quality engineers and inspectors, their team leaders and the HR manager and Quality manager), direct observations (of the working area of interviewees, common and social areas in the subsidiary) and HR documents analysis (selection procedures and selection forms; adaptation procedure for new employees; instructions, manuals and forms of developmental appraisal; forms of quarterly feedback conversations and company’s bulletin). The first author conducted all of the interviews and visited work sites. The author had no relation either with the company or the interviewees (“outsider researcher”). Therefore, the interviews with managers, direct observations and HR documents analysis provided us with a broader perspective and helped us understand the information gathered from employees. Moreover, those data sources enabled us to validate the trustworthiness of the data gathered during the interviews. The interview with the HR manager and analysis of HR documents were informative about the HR practices applied in the company. The interview with the quality manager and observation in the working areas allowed understanding of the specificity of the work in the department. Notes from workplace observations were recorded, and HR documents were analysed and coded. In the data analysis process, we were referring to that data to understand the informants better.

The interviews with employees (Table 2) were the key data related to answering the research questions. The study’s aim, which was the “identification of knowledge exchange mechanisms and their enablers” was introduced to all employees in the department during a general meeting with the researcher. The interviews were conducted in Polish (the native language of the interviewees) individually, at the company site during working hours, and in enclosed meeting rooms to ensure privacy. The researcher conducted up to two interviews per day in the company. Each employee was informed that the participation was voluntary and was assured about keeping the anonymity of their statements. The interviews were recorded (after receiving consent from individuals) and then transcribed.

The interviews' length was about 60–90 minutes for employees and about 120 minutes for group leaders.

The interviews were the guided open-interviews type, known as semi-structured (Easterby-Smith/Thorpe/Jackson 2008). The interview scenario for employees was structured in three sections: 1) introductory – with general questions about the interviewee background in the company and their perception of HR practices; 2) understanding of knowledge and knowledge sharing; 3) knowledge exchange situations and behaviours and perceived organisational support for sharing.

The role of the first section was to ease the conversation and gain a perception of the working context. The questions in the second section were aimed at gaining interviewees' understanding of the knowledge and knowledge exchange concepts. Finally, employees were asked about the examples of situations (incidents) in which they shared knowledge with co-workers ("Could you recall and describe to me typical situations when you have given your knowledge to your co-workers?"). In addition, we separately asked the same question concerning seeking knowledge ("Could you recall and describe to me typical situations when you have sought the knowledge you needed?"). This approach was based on the critical incident technique to focus interviewees' attention on knowledge giving and seeking related to their everyday work (Flanagan 1954). If interviewees did not elaborate in-depth on the knowledge exchange situations, they were asked to explain their engagement in the exchange (why), and describe the situation, cause, and way of sharing.

5.3 Data analysis

We used the ATLAS.ti software, which facilitated the content analysis of the gathered data. The coding process was performed by both authors. It was conducted in several rounds, and we repeatedly returned to data to check the interpretation of data and to discuss doubts. For the trustworthiness of the coding process, we divided the documents (each interview was in one document) among two authors, and then we cross-checked the accuracy of the coding made by us, followed by discussion and suitable comments. After familiarising the data by reading the interviews thoroughly and familiarising others with the gathered data, the initial codes were generated. The coding of knowledge exchange situations and HR practices were performed in separate stages.

Table 3. Selected fragments of the data structure for knowledge behaviours and HR practices

Exemplary citation	Subthemes	Themes
Knowledge seeking		
SITUATION (WHEN)		
<i>“When I have to work with new instructions, when I don’t understand something, I ask about it”</i>	Novel circumstances	Task at hand (n=6)
<i>“To prepare to audit, I need to know processes (...), so a lot of questions arise that I need to ask”</i>	Current task	
<i>“If there is something new we refer to technical documentation or get insight from other areas”</i>	Novel issue	
MOTIVATIONS		
<i>“I want just to do my job right”</i>	Fulfilling the work tasks	Doing a good job (n=12)
<i>“I don’t always have time to dig into the system, read the instruction and see if I understand it”</i>	Asking others is quicker	
<i>“(…) then all my concerns are allied”</i>	Assurance of getting help	
ABILITIES		
<i>“I just know who is good”; “In the beginning I didn’t know everyone, and it was a problem”</i>	Knowing experts from experience	“knowing who” (n=8)
<i>“I know who is an expert based on the everyday talks, situations, knowing each other”;</i>	Knowing experts from observation	
OPPORTUNITIES		
<i>“I see that others understand the need of meeting and explaining me some issues”</i>	Perceived willingness to support	Climate of trust and cooperation (n=6)
<i>“we can talk openly [about my problem] during our meeting”</i>	Openness	
<i>“we base on trust because we can not verify everything”</i>	Trust in the abilities of others	
<i>“I knew one of my colleagues from another department, so in the beginning, I directed most of my questions to him”</i>	Interpersonal relations	
HR PRACTICES		
<i>“After a quarter, we meet and evaluate how the quarter passes, look at goals’ achievement and feedback from SMD supervisors”</i>	Quarterly appraisal reviews	Regular feedback information (n=8)
<i>„Later, my supervisor came and told me that the group was satisfied with the cooperation with me – it went with feedback”</i>	Giving feedback information	

*n= no. of interviewees

In the first round of coding, we applied deductive coding and focused on identifying descriptions of knowledge exchange situations. In total, employees gave 80 descriptions of situations and actions connected with different types of knowledge exchange. In this round, one of our aims was to code descriptions of situations (sentences and groups of sentences) reflecting the pull approach to

knowledge sharing, and consequently, with the theoretical section to distinguish knowledge seeking and knowledge giving upon request. The descriptions that were not corresponding with the characteristics mentioned above were coded as “other knowledge exchange”. In the following coding round, we looked at the descriptions of pull-knowledge exchange (seeking and giving separately) and coded them by looking at sentences referring to the working context of the seeking-giving situation (when) and motivations, abilities and opportunities related to those situations. In the third round, we developed sub-themes for the codes of knowledge exchange situations separately for knowledge seeking and giving. Table 3 shows an overview of data structure related to pull knowledge sharing.

Next, we coded openly the interviewees’ expressions related to the HR practices (data structure example in Table 3), followed by grouping them in the bunches of practices. We separately coded the interviews of two managers and formal documents received from the HR department. That data gave us a greater understanding of the practices mentioned by employees and was the base for the code’s adequacy cheques.

Based on the identified components of motivation, opportunities and abilities of employees engaged in pull knowledge sharing and HR practices specified by employees to answer the last question, we conceptually propose which HR practices relate to motivations, opportunities and abilities.

6. Findings

6.1 Research question 1: Situations of pulling knowledge

As a starting point, our aim was to understand the context of pull knowledge sharing between employees and look at when the exchange took place. From the description of knowledge sharing situations given by employees the pull of knowledge sharing took place most frequently when employees were facing work-problems (“*I ask the nearest co-workers, my colleagues if they had a problem similar to mine*” [PP9]). Interviewees also reported that they looked for or gave additional information and consulted with experts while performing their regular tasks or tasks in a novel situation (new circumstances, novel issue). They also shared knowledge while working on a project when a project leader asked for it during meetings. Additionally, employees stated that they also sought knowledge and information to learn when they needed to develop new knowledge, gain a better understanding when considering methods, products, processes or gather knowledge for the project (that an employee was involved in).

6.2 Research question 2: Motivations, opportunities and abilities related to pull knowledge sharing

The analysis of expressed reasons, opportunities and abilities related to requesting and giving knowledge shows differences between those two behaviours (see Figure 1).

Figure 1. Pull knowledge sharing – situation, motivations, opportunities and abilities

Situations of pull knowledge sharing:		
problemistic situation	task at hand	project
learning		
<div><p>Motivations:</p><ul style="list-style-type: none">• fulfilling duties:<ul style="list-style-type: none">- doing good job (<i>seeker</i>)*- sense of responsibility (<i>giver</i>)- meeting expectations (<i>giver</i>)• exploiting organizational knowledge• future outcomes (<i>giver</i>)• development (self and group) (<i>seeker</i>)• willingness to help (<i>giver</i>)• reciprocity (<i>giver</i>)</div>	<div><p>Opportunities:</p><ul style="list-style-type: none">• goal/task orientation• climate of trust, cooperation and safety• task and time pressure/availability (<i>seeker/giver</i>)• common knowledge base (<i>giver</i>)• expressed knowledge needs (<i>giver</i>)• meetings• proximity (<i>seeker</i>)• ICT solutions• sharing space (<i>giver</i>)</div>	<div><p>Abilities:</p><ul style="list-style-type: none">• communication skills• knowledge self-efficacy (<i>giver</i>)• knowledge sharing abilities: (<i>giver</i>)<ul style="list-style-type: none">- ability to select knowledge- knowing receiver• knowledge seeking abilities: (<i>seeker</i>)<ul style="list-style-type: none">- defining knowledge gap- knowing "who" to ask- knowing "how" to ask• database and software fluency (<i>seeker</i>)</div>

*If "seeker" or "giver" is noted the factor refers only to knowledge seeking or knowledge giving. Otherwise it refers to both behaviours.

6.2.1 Motivations

Willingness to fulfil duties was the general key motivation why employees were willing to engage in pull knowledge sharing. Within this motive, knowledge seekers recalled the care for their own current performance and their tasks at hand. They indicated that asking others for insight or information is needed to do their work and could give faster results than searching databases or trying out individually: *"It took me a lot of time to gain knowledge and do my duties, at the same time. It meant that I had to overcome my reluctance and be more direct and ask if I didn't know."* [PP11].

The knowledge givers, on the other hand, were motivated to share their knowledge by having a sense of responsibility for the success of a task, group or production area, explaining that they shared their ideas, suggestions, experience or information to solve the problem or push the issue forward. *"We [quality engineers] as a team, we are a little like a close unit. If one expresses a*

problem somehow familiar to others, we share our experiences (...). Even if our solutions are not accurate, they are a good starting point” [PP5]. For some interviewees, giving others their knowledge was perceived as an obligation (a part of their position or something that experts should do), or they felt that they were expected to do so.

Individuals that asked for knowledge were also aiming to learn, develop, and establish their individual or group competences and knowledge which they perceived as important for future work situations and tasks. Quality engineers and inspectors acknowledged the knowledge embedded in the organisational repositories and embodied in the experience of employees. Therefore, their motivation for seeking knowledge derived also from their willingness of exploiting organisational knowledge.

Another reason why employees shared their knowledge when requested was the perceived outcomes of sharing related with the knowledge receiver, like limiting the number of requests for help or other distractions from the receiver in the future (*“She will remember how to do it next time” [PP1]*). There were also more relational reasons for giving knowledge, like willing to help a specific person and reciprocity between the requester and giver.

6.2.2 Opportunities

For pulling knowledge from co-workers, employees expressed that the close location to co-workers or other experts allowed them to request information, opinion or knowledge confirmation more easily. The proximity enabled knowledge seekers to evaluate the most suitable time for approaching an expert (*“If I see that he is tied-up, he didn’t even have a lunch break, and I would come with another problem, I wait or look for another solution” [PP6]*). Moreover, observing and listening to others at work helped employees to phrase questions in a constructive way. Additionally, the goal and task orientation in the departments and organisation helped them to engage the prospective knowledge givers in the exchange. Employees understood their interdependencies in the organisational processes or project tasks and were aware of organisational priorities (*“In such a big company where different departments cooperate with each other, are compatible that it is hard for one to work without the other; people are very open, even if they don’t know each other” [PP10]*). The task orientation also encouraged knowledge seekers to ask others for knowledge, especially when under time pressure. The obligation to fulfil tasks was greater than the concern related to knowledge seeking. Interviewees also expressed that trust and cooperation in their teams and departments helped them to address requests.

From the knowledge giving perspective, the opportunities that encouraged or could inhibit knowledge sharing were related to defining common aims and priorities for knowledge seeker and giver (like assigned projects), time availability

of an expert and also common knowledge ground for both sides (*"Some have a little knowledge in a field and others have greater knowledge. It is easier to provide insight to someone whose knowledge is settled. Otherwise, I need to start from the beginning, it takes more time (...), and always there is uncertainty if all that was needed has been shared"* [PP4]).

Organising regular meetings (status updates, problem-solving, unit, project) was mentioned as a good opportunity for pull knowledge sharing in a broader context than one-on-one. Meetings helped employees exchange their knowledge in the dedicated time and space among specialists with common goals or priorities. However, especially short-tenured employees expressed their need to prepare before sharing and raised an issue of feeling safe (preferred one-on-one exchange in a location with limited transparency or small group meetings). Employees also revealed that having clearly expressed knowledge needs of an individual or group creates an expected opportunity for sharing.

6.2.3 Abilities

Employees, to form their knowledge requests effectively, need to be able to define and express the knowledge gap. This ability correlates with the awareness that specific information or knowledge is needed, which results from an understanding of the tasks they are performing and interdependencies between those tasks and other activities or processes. It also requires admitting that there is some knowledge gap or information need.

The next ability that arises from the interviews considers knowing an expert who is the most eligible to fulfil the request. Such "knowing who" employees develop through their experience in an organisation, holding different positions or through everyday observation of employees in their work routine. Employees also indicated the need for communication skills together with the ability to adapt the form of communication to a specific person. All these relate to an ability to engage the prospective source of knowledge in an exchange by recognising the suitable time and ability to frame requests in a way that would be perceived as important.

On the other side of the exchange relationship, interviewees expressed the need of knowledge self-efficacy, especially awareness that one possesses the needed knowledge and is confident with its quality (*"uncertainty if my answer is good"* [PP8]). Next, interviewers expressed that to share knowledge with success, the knowledge giver should know the knowledge receiver, their knowledge background and understand knowledge needs. This should enable them to select the chunks of knowledge that are both needed and understandable for the receiver (*"I try to share the most of knowledge I can, having in mind his needs, as I assume that not everything is needed to solve the problem."* [PP4]).

6.3 Research question 3: The bundles of HR practices related with motivations, opportunities and abilities to pull knowledge sharing

The HR practices perceived by employees are presented in table 4. As previously stated, the HR practices described by employees were complemented by the information gathered from managers and other organisational documents.

Table 4. HR practices in employee perceptions

HR practice group	HR practice	Number of employees
1. Selection & induction	Specifying selection criteria (skills, cooperation, fit to a group)	10
	Onboarding practices (onboarding procedure, assigning mentor, adaptation training)	7
2. Compensation & rewards	Goal-related bonuses (individual and group)	7
3. Performance evaluation	Specifying responsibilities, priorities and behavioural expectations	13
	Specifying goals (individual and group/departmental)	8
	Regular feedback information (quarterly appraisal review, discretionary feedback of supervisor)	8
4. Individual development practices	Training	6
	Employee development within the firm (rotation, internal promotion, developmental reviews, developmental plans)	11
	Promoting supportive leadership	9
5. Job design	Job design supporting development (enriching, extending, assigning to projects)	11
	Job design supporting intraorganisational cooperation (co-location, relating with processes and value streams)	8
	Autonomy (job and communication)	8
6. Communication & integration	Providing access to information about subsidiary (bulletin, informational meeting, access to repositories)	5
	Supporting communication through meetings (creating spaces for meetings, proposing norms for effective meetings)	9
	Setting up spaces supporting informal interaction	11
	Offering integration activities (intradepartmental)	3
	Supporting departmental initiatives for integration	7

Table 5. HR practices facilitating motivation, opportunities and abilities

	Motivation	Opportunities	Abilities & skills
Selection & induction		<ul style="list-style-type: none"> ■ Selection criteria – minimal needed knowledge base in a specific area (<i>k. giver</i>) ■ Selection criteria – candidate-team fit ■ Assigning ‘mentor’ for newcomer (<i>k.seeker</i>) 	<ul style="list-style-type: none"> ■ Onboarding practices (introductory training; assigning ‘mentor’ for newcomers; meeting experts and representatives). (<i>k. seeker</i>)
Compensation & rewards	<ul style="list-style-type: none"> ■ Bonuses for achievement of individual goals (<i>k. seeker</i>) ■ Bonuses for achievement group/departmental goals. (<i>k. giver</i>) 	<ul style="list-style-type: none"> ■ Goal-related bonuses 	
Performance evaluation practices	<ul style="list-style-type: none"> ■ Clear goals and expectations (individual/group) ■ Regular feedback on individual and group/departmental performance 	<ul style="list-style-type: none"> ■ Clear goals, priorities and responsibilities ■ Regular feedback on individual and group performance 	<ul style="list-style-type: none"> ■ Regular feedback from supervisor
Individual development practices	<ul style="list-style-type: none"> ■ Opportunities for development in an organisation based on competences ■ Supportive leadership 	<ul style="list-style-type: none"> ■ Transferring employees between sections and departments (<i>k. seeker</i>). ■ Supportive leadership 	<ul style="list-style-type: none"> ■ Training ■ Rotation and internal promotion “building better knowledge on company, processes, experts” ■ Supportive leadership
Job design	<ul style="list-style-type: none"> ■ Autonomy of the position ■ Interdependencies designed into tasks ■ Assigning to problem-solving and project teams 	<ul style="list-style-type: none"> ■ Assigning to project or special tasks teams ■ Co-location of related (functional or process) positions 	<ul style="list-style-type: none"> ■ Assigning to project or special tasks inter-departmental teams
Communication & integration	<ul style="list-style-type: none"> ■ Integrating practices for group and organisational identification 	<ul style="list-style-type: none"> ■ Supporting meetings through norms and spaces ■ Diversity of communication forms ■ Legitimization and autonomy of use of common social areas ■ Integration events 	<ul style="list-style-type: none"> ■ Access to information about the company (<i>k. seeker</i>)

As the third question in this research covers the relationship between HR practices and pull approach to knowledge sharing based on the information gathered from employees, we relate identified HR practices in the organisation to motivations, opportunities and abilities described in the previous section (question 2). This co-occurrence in one organisational and departmental context of HR practices and motivations, opportunities and abilities of knowledge seeking and giving sheds a light on possible relations between HR practices as antecedents of pull knowledge sharing, which are presented in Table 5.

Practices from the *selection & induction* group allow for the creation of conditions that foster cooperation and informal relationships, and start building a climate of trust between newcomers and other employees. The selection criteria facilitating the selection of candidates with adequate knowledge and competences, and who fit in with the team/organisation allow for the development of better understanding between employees and ease of communication among them. An extensive onboarding process, including the provision of care by an experienced employee (mentor) facilitates "entering the organisation" by developing initial interpersonal relationships, and helps in understanding organisational context and specific organisational language. For the newcomer and the mentor, it is a formalised opportunity to exchange knowledge in a safe context.

In the group of *compensation & rewards* practices, individual and team bonuses linked to the achievement of goals were found to be particularly relevant for developing motivation to pull knowledge sharing. Individual bonuses motivate employees to search for knowledge helpful in realising assigned tasks, while bonuses based on group/departmental-goals motivate knowledge providers to share, as they result from cooperation. Bonuses for performing group goals were instrumental in facilitating employees to realise that they need to inquire and ask for knowledge to develop better solutions to problems that arise, and at the same time, they need to share their knowledge, expertise and experience. In this sense, *"knowledge is a tool"* [GL1]. *"Well, there are all these things that we have in common, i.e. we set for the whole department the scrape goal in general...To meet this scrape goal, an individual on his own would not be able to do it and has to work with practically the whole group. If you can't go any further with your own [scrap], then we look for another place where someone can simply save something, rework something, and so on. It seems to me that these are the main guidelines. Working in a group with the whole department, the ability to cooperate"*. [PP3]. The goal-oriented management system creates good opportunities and mobilises employees to share knowledge. Clear goals and defined priorities motivate and constitute an important criterion of work assessment. The motivational dimension is particularly important here – while a knowledge seeker is motivated to acquire knowledge because they want to do their job better (individual goals), a knowledge sharer is motivated by

behavioural (e.g. cooperation) and departmental goals. The more these goals are common, the more likely it is that knowledge will be shared effectively.

Employees receive regular feedback on the level of goal achievement. It is a very important and frequent practice in Alfa Poland in the area of *performance evaluation*. Feedback is provided during quarterly (performance) or annual (behavioural and developmental) appraisal interviews in a formalised setting, based on instruction bases. The discretionary feedback of the direct superior is also very important, which concerns work results, the progress made, the required level of competence or taking corrective actions: *"This is the so-called feedback, given on an ongoing basis. In production, it was probably more developed, although here, between employees on inspection, this feedback is actually working... If one of us makes a mistake, it is solved on an ongoing basis..."* [PP7]. These practices influence motivation and knowledge sharing abilities. They enable employees to develop consciously and are important for the development of their self-efficacy. They are also an important source of information about the company, its values, work standards, implemented processes and company interdependencies. Feedback informs also about the results, attitudes and behaviours expected from employees. It turns out that the more employees understand how their work affects organisational processes (meaningfulness), the more they are willing to seek knowledge and become more involved in solving problems.

Individual development practices seem to constitute at Alfa Poland the most important group of HR practices strengthening MOA, both of employees who seek knowledge and those who give it in response to a question. Many employees' statements indicated that the company offers numerous development opportunities, such as training, promotion, and job rotation, which increase skills and motivation. As a result of these practices, employees are not only able to communicate better but also have a sense of self-efficacy and also organisation commitment and identification, which translates into a greater willingness to share knowledge and greater awareness in asking questions and identifying sources of answers. At the same time, employees who share knowledge and help others are given expert status, which may also motivate such behaviour.

The support of direct supervisors was also found as an important facilitator of knowledge seeking and giving. Supportive leadership builds self-efficacy and creates a climate of cooperation and trust. These circumstances encourage greater responsibility for the implementation of the entrusted duties, as well as for helping others. The role of supervisors and the style in which they work with their teams is very important in Alfa Poland, which is embodied with trainings for supervisors in conducting the developmental interviews and providing effective feedback to subordinates. Interviewees expressed that supportive and open attitudes of supervisors affected their willingness to talk about problems during meetings, ask for knowledge or share.

In Alfa Poland, *job design* practices also facilitate the MOA of employees. Especially important are the practices related to the assignment of employees to projects and special tasks. Despite the fact that it is a challenge as it means the necessity to face new responsibilities or to build new relations in configured teams, it facilitates mutual understanding and cooperation, encourages the reporting of needs related to knowledge sharing, increases readiness to provide it, as well as builds a common knowledge base: *"We have a lot of projects which require the presence of not only the quality department but also someone from the production department, technical department or IT department. And then there are about five meetings in two months, maybe even more, so naturally we also get to know each other and get to know what the expectations of the other party are."* [PP5]. Alfa Poland places attention also on the physical space and location of employees. Physical proximity, open spaces and process links create favourable conditions for knowledge sharing. They facilitate tie development and communication frequency.

Communication & integration practices, such as using a wide range of communication forms and channels, creating an environment supporting meetings to exchange information (norms, places), and building group and organisational identification through various forms of integration (departmental, interdepartmental, company), enable employees to get to know each other and build a better understanding of each other, as well as building lasting interpersonal relationships. This, in turn, creates opportunities to seek knowledge, ask directly or formulate requests for help, which is particularly important in a pull approach. The role of HR practitioners is, therefore, to initiate actions and introduce solutions which will foster relations between employees, such as creating a culture of cooperation, a climate of openness, kindness and mutual support, etc.

7. Discussion and conclusions

Our explorative study in the Central European context showed that knowledge seeking and giving behaviours within an organisation differ in terms of their motivations, opportunities and abilities. Below we describe our contributions in terms of questions posed for the research.

The contribution of the current research refers to identifying situations of pull knowledge sharing and antecedents (motivations, opportunities and abilities) of the behaviours of knowledge seeking and giving upon request. The situations of knowledge seeking and giving found in the case study can be clustered into two groups. The first one refers to pulling knowledge to perform the current activity of an employee – i.e. the task at hand, a problem situation and a project. It means that an individual consults an expert to obtain pieces of existing organisational knowledge when it is needed to perform in the position. This finding is similar to the results of the field study of Berends et al. (2006). We also found

that learning was the second type of situation when pull knowledge sharing took place. Knowledge seekers pointed out that they were asking for knowledge when they needed to learn something important and necessary for their everyday work (but not necessarily at the specific moment). This finding is in line with the recent research on proactive learning by Crans et al. (2021) and suggests that the pull approach to knowledge sharing not only enables organisations to work effectively but also might help organisations to respond to external changes and to adapt by profiting from the employees learning proactively.

Our explorative study enabled us to identify a list of factors influencing knowledge seeking and knowledge giving behaviours. To identify them, we have applied the MOA framework and defined factors related to the individuals (motivations and abilities) and the context of their sharing behaviours (opportunities). Contributing to previous studies, we found that fulfilling duties is not only a motive for knowledge seeking but also for knowledge giving. Our interviewees revealed that an expert is triggered to share knowledge when they perceive the interdependencies between their own job obligations and the knowledge seeker's problem (especially). Moreover, we also found that employees perceived other values of sharing and effectiveness of knowledge exchange as the motivators of their behaviours – like future benefits of developing others' knowledge and benefits of exploiting knowledge embedded in the organisation (Zhang/Jiang 2015). These motives are in line with the identified motivation for sharing knowledge according to the self-determination theory (Stenius/Haukkala/Hankonen/Ravaja 2017). They show that the utility and meaning of knowledge exchange perceived and internalised by employees are important motivators. This gives some suggestion that maybe not direct rewards for sharing but showing worthiness and outcomes of sharing might play an important role in motivating the knowledge sharing behaviours in a specific context.

In terms of abilities related to pull knowledge sharing, besides the knowledge self-efficacy of a knowledge seeker and knowledge giver, interviewees specified other abilities and knowledge. For the knowledge seeker there was an ability to identify the relevant knowledge gap which is related to strong self-awareness and self-critique of their possessed knowledge. Moreover, our data revealed the importance of the knowledge of 'whom to ask' and 'how to ask' as well as knowing how to explain knowledge and what chunks of knowledge are needed for the specific recipient. This type of knowledge is created through the development of interpersonal ties. The previous studies on knowledge sharing found that strong ties influence knowledge transfer through trust (Levin/Cross 2004) and are especially needed if knowledge is complex and not codified (Hansen 1999; Siemsen/Roth/Balasubramanian/Anand 2009). However, we haven't found studies on the role of awareness about recipient's competences in knowledge sharing intentions.

In terms of opportunities for pull knowledge sharing, we found, along with the previous studies, the role of trust, cooperation, safety and proximity. Additionally, interviewees showed that time pressure plays a different role in knowledge seeking and giving. While time pressure makes individuals more willing to ask for knowledge, for knowledge givers, time pressure would be rather restrictive when sharing (especially complex knowledge) (e.g. Crans et al. 2021). Furthermore, we also found that goal orientation is a positive opportunity for knowledge sharing. However, while for knowledge seekers, the individual goals enhance asking for knowledge, for knowledge givers, the group goals are of more importance. The latter is in line with the results of Quigley et al. (2007), who showed that the perspective of group goals together with a cooperative climate results in greater knowledge sharing. The last opportunities of pull knowledge sharing identified in the previous research to a limited extent are the availability of spaces for group work (Eismann/Pakos/Rücker/Meinel/Maier/Voigt 2022) and regular meetings (Gray/Meister, 2006). For our interlocutors, the meeting spaces gave them a perception of privacy, enabled interactions and open conversations while the organised regular meetings (work groups, projects, departmental ones) where the dedicated time “space” when they could freely share their problems and request for possible solutions.

The next contribution of the paper refers to the proposed relations between HR practices and antecedents of knowledge seeking and giving. In this specific setting, we found HR practices important for pull knowledge sharing that were present in previous knowledge sharing research (leadership, autonomy, incentives related to goals, intraorganisational development, co-location) and some that haven't been studied previously. We describe the last ones below. Firstly, we found the role of regular and discretionary feedback in supporting knowledge exchange by influencing motivation (e.g. straightening the willingness to fulfil duties), abilities (individual self-efficacy and understanding knowledge gaps) and opportunities (goal orientations) to seek and give knowledge. Secondly, we found that onboard practices are important for enhancing pull knowledge sharing between newcomers and incumbent employees as they build opportunities for both knowledge seeker and giver (time for exchange, enhance relations development and trust) and newcomer's abilities to seek knowledge (understanding the business, knowing first people to direct request to). Next, the employees also mentioned that apart from their regular obligations, they were assigned to project teams aiming to solve interdepartmental problems. Giving employees temporal, new task challenges that involve cooperation with others from different areas supports motivation, abilities and opportunities for pull knowledge sharing during the project but also afterwards, mainly by strengthening the abilities of an employee (Schürmann/Beausaert 2016). Although previous studies reflected on the knowledge sharing within project teams, the role of assigning employees to project teams as a part of job enrichment in enhancing employees'

openness to seek knowledge and share seems worthy of further study. Finally, we have found the importance of HR practices directed towards building integration and open communication among employees. Those practices build a climate of cooperation and trust, stronger identification with an organisation and group, and help employees to learn how to communicate with each other in an informal context (Fayard/Weeks 2007).

Our research also suggests that assigning bundles of practices to the group of motivation-enhancing, ability-enhancing, or opportunity-enhancing might be too far a generalisation. For example, formal evaluation mechanisms are usually assigned to the group of motivation-enhancing HR practices (Minbaeva 2013), but feedback (which is a part of that mechanism) also enhances the abilities of an employee as it is one of the passive learning mechanisms (Crans et al. 2021). It is worth testing how the bundles of practices influence specific motivation, opportunism and abilities and better understand the interplays among them (Foss et al. 2015).

Our research gives some practical implications for both the direct supervisor and HR specialists for supporting knowledge sharing among employees. The direct supervisors can support employees to ask for and share expertise, knowledge and experience firstly by giving them regular and effective feedback referring to their current tasks and behaviour. Secondly, supervisors can create an opportunity for helping each other and sharing knowledge by organising regular group meetings that concentrate on developing common knowledge and sharing experience. The practical implications for HR specialists refer to developing onboarding procedures because new employees initially show the openness of an organisation to share and exploit the embedded knowledge. Moreover, applying practices that develop ties among employees and build their identification with their group and organisation would enhance motivation and abilities to share knowledge.

Our research has several limitations. Firstly, referring to the single context, namely a quality assurance department in a fast-growing manufacturing subsidiary. Having this in mind, the future research could explore antecedents of pull knowledge sharing in different functional areas and different sectors (e.g. healthcare). Secondly, we have not applied the dyadic perspective on the pull knowledge exchange, and it could contribute to the study effective and ineffective demand driven knowledge exchange between dyads of employees. Such research could show the interplay between factors influencing knowledge seeker and knowledge giver (e.g. Zhao/Detlor/Connelly 2016), the role of relational models in the pull knowledge sharing (Boer et al. 2011) and the role of generational differences between a knowledge seeker and giver (Gadomska-Lila 2020). Finally, our understanding of relations between motivations, opportunities and abilities to share knowledge and HR practices was based on their co-occurrence

in a single organisational setting. Further long-term quantitative study is needed to test our observations.

Acknowledgements

The authors gratefully acknowledge support from the National Science Centre (Poland), research grant no. 2018/29/B/HS4/01085. Authors also thank the anonymous reviewers for their constructive comments and suggestions that helped to improve this manuscript.

References

- Ahmad, F./Karim, M. (2019): Impacts of knowledge sharing: a review and directions for future research, in: *Journal of Workplace Learning*, 31, 3, 207–230.
- Alavi, M./Leidner, D.E. (2001): Review: Knowledge management and knowledge management systems: Conceptu, in: *MIS Quarterly*, 25, 1, 107–136.
- Anand, A./Walsh, I. (2020): The four stages of the knowledge sharing process in SMEs, in: *International Journal of Entrepreneurship and Innovation Management*, 24, 6, 413–442.
- Andreeva, T./Sergeeva, A. (2016): The more the better ... or is it? The contradictory effects of HR practices on knowledge-sharing motivation and behaviour, in: *Human Resource Management Journal*, 26, 2, 151–171.
- Asmussen, C.G./Foss, N. J./Pedersen, T. (2013): Knowledge Transfer and Accommodation Effects in Multinational Corporations, in: *Journal of Management*, 39, 6, 1397–1429.
- Berends, H./Van Der Bij, H./Debackere, K./Weggeman, M. (2006): Knowledge sharing mechanisms in industrial research, in: *R and D Management*, 36, 1, 85–95.
- Bhatti, S.H./Zakariya, R./Vrontis, D./Santoro, G./Christofi, M. (2021): High-performance work systems, innovation and knowledge sharing: An empirical analysis in the context of project-based organizations, in: *Employee Relations*, 43, 2, 438–458.
- Blumberg, M./Pringle, C.D. (1982): The Missing Opportunity in Organizational Research: Some Implications for a Theory of Work Performance, in: *Academy of Management Review*, 7, 4, 560–569.
- Bock, G.-W./Kankanhalli, A./Sharma, S. (2006): Are norms enough? the role of collaborative norms in promoting organizational knowledge seeking, in: *European Journal of Information Systems*, 15, 4, 357–367.
- Boer, N.I./Berends, H./Van Baalen, P. (2011): Relational models for knowledge sharing behavior, in: *European Management Journal*, 29, 2, 85–97.
- Bonti, M./Cavaliere, V./Lombardi, S. (2017): Not everything that glitters is gold: the dark side of leadership and rewards, in: Stachowicz-Stanusch, A./Mangia, G./Caldarelli, A./Wolfgang, A. (eds.): *Organizational social irresponsibility: tools and theoretical insight*, Charlotte: Information Age Publishing, 55–96.
- Buch, R./Dysvik, A./Kuvaas, B./Nerstad, C.G.L. (2015): It takes three to tango: Exploring the interplay among training intensity, job autonomy, and supervisor support in predicting knowledge sharing, in: *Human Resource Management*, 54, 4, 623–635.

- Camelo-Ordaz, C./García-Cruz, J./Sousa-Ginel, E./Valle-Cabrera, R. (2011): The influence of human resource management on knowledge sharing and innovation in Spain: the mediating role of affective commitment, in: *The International Journal of Human Resource Management*, 22, 7, 1442–1463.
- Cavaliere, V./Lombardi, S. (2015): Exploring different cultural configurations: How do they affect subsidiaries' knowledge sharing behaviors? in: *Journal of Knowledge Management*, 19, 2, 141–163.
- Chen, C.J./Hung, S.W. (2010): To give or to receive? Factors influencing members' knowledge sharing and community promotion in professional virtual communities, in: *Information and Management*, 47, 4, 226–236.
- Chen, Z./Zhang X./Vogel, D. (2011). Exploring the Underlying Processes between Conflict and Knowledge Sharing: A Work-Engagement Perspective, in: *Journal of Applied Social Psychology*, 45, 5, 1005–1033.
- Chión, S.J./Charles, V./Morales, J. (2019): The impact of organisational culture, organisational structure and technological infrastructure on process improvement through knowledge sharing, in: *Business Process Management Journal*, 26, 6, 1443–1472.
- Crans, S./Bude, V./Beusaert, S./Segers, M. (2021): Social informal learning and the role of learning climate: Toward a better understanding of the social side of learning among consultants, in: *Human Resource Development Quarterly*, 34, 4, 507–535.
- Cummings, J. L./Teng, B.-S. (2006): The Keys to Successful Knowledge-Sharing, in: *Journal of General Management*, 31, 4, 1–18.
- Davenport, T.H./Prusak, L. (1998): *Working Knowledge: How organizations manage what they know*. Boston: Harvard Business School Press.
- David, N./Brennecke, J./Rank, O. (2020): Extrinsic motivation as a determinant of knowledge exchange in sales teams: A social network approach, in: *Human Resource Management*, 59, 4, 339–358.
- Easterby-Smith, M./Thorpe, R./Jackson, P. R. (2008): *Management research* (3rd ed.). Sage.
- Eismann, T.T./Pakos, O./Rücker, M./Meinel, M./Maier, L./Voigt, K.-I. (2022): Understanding the mechanisms of activity-based workspaces: A case study, in: *Environment and Behavior*, 54, 1, 170–210.
- Fayard, A.L./Weeks, J. (2007): Photocopiers and water-coolers: The affordances of informal interaction, in: *Organization Studies*, 28, 5, 605–632.
- Flanagan, J.C. (1954): The critical incident technique, in: *Psychological Bulletin*, 51, 4, 327–358.
- Fong, Ch.-Y./Ooi, K.-B./Tan, B.-I./Lee, V.-H./Chong, A.Y.-L. (2011): HRM practices and Knowledge Sharing: an Empirical Study, in: *International Journal of Manpower*, 32, 5, 6, 704–723.
- Foss, N.J./Husted, K./Michailova, S. (2010): Governing knowledge sharing in organizations: Levels of analysis, governance mechanisms, and research directions, in: *Journal of Management Studies*, 47, 3, 455–482.
- Foss, N.J./Minbaeva, D.B./Pedersen, T./Reinholt, M. (2009): Encouraging knowledge sharing among employees: How job design matters, in: *Human Resource Management*, 48, 6, 871–893.

- Foss, N.J./Pedersen, T./Reinholt Fosgaard, M./Stea, D. (2015): Why complementary HRM practices impact performance: the case of rewards, job design, and work climate in a knowledge-sharing context, in: *Human Resource Management*, 54, 6, 955–976.
- Gadomska-Lila, K. (2020): Value systems of various generations, in: *Zarządzanie Zasobami Ludzkimi*, 133, 2, 27–40.
- Giustiniano, L./Lombardi, S./Cavaliere, V. (2016): How knowledge collecting fosters organizational creativity, in: *Management Decision*, 54, 6, 1464–1496.
- Glinka, B./Czakon, W. (2021): *Podstawy badań jakościowych*. Warszawa: Polskie Wydawnictwo Ekonomiczne
- Gorynia, M./Nowak, J./Wolniak, R. (2007): Motives and modes of FDI in Poland: An exploratory qualitative study, in: *Journal of East European Management Studies*, 12, 2, 132–151.
- Gray, P.H./Meister, D.B. (2006): Knowledge sourcing methods. *Information and Management*, in: 43, 2, 142–156.
- Gubbins, C./Dooley, L. (2021): Delineating the tacit knowledge-seeking phase of knowledge sharing: The influence of relational social capital components, in: *Human Resource Development Quarterly*, 32, 3, 319–348.
- Gupta, A.K./Govindarajan, V. (2000): Knowledge flows within multinational corporations, in: *Strategic Management Journal*, 21, 4, 473–496.
- Haas, M.R./Cummings, J.N. (2015). Barriers to knowledge seeking within MNC teams: Which differences matter most, in: *Journal of International Business Studies*, 46, 1, 36–62.
- Hansen, M.T. (1999): The search-transfer problem: The role of weak ties in sharing knowledge across organization subunits, in: *Administrative Science Quarterly*, 44, 1, 82–111.
- He, W./Fang, Y./Wei, K.K. (2009): The role of trust in promoting organizational knowledge seeking using knowledge management systems: An empirical investigation, in: *Journal of the American Society for Information Science and Technology*, 60, 3, 526–537.
- Hellsten, U./Klefsjö, B. (2000): TQM as a management system consisting of values, techniques and tools, in: *TQM Magazine*, 12, 4, 238–244.
- Hislop, D./Bosua, R./Helms, R. (2018): *Knowledge management organizations: A critical introduction*. Oxford: Oxford University Press.
- Holdt Christensen, P. (2007): Knowledge sharing: moving away from the obsession with best practices, in: *Journal of Knowledge Management*, 11, 1, 36–47.
- Hussein, A.S.T.T./Singh, S.K./Farouk, S./Sohal, A.S. (2016): Knowledge sharing enablers, processes and firm innovation capability, in: *Journal of Workplace Learning*, 28, 8, 484–495.
- Huysman, M./de Wit, D. (2004): Practices of managing knowledge sharing: Towards a second wave of knowledge management, in: *Knowledge and Process Management*, 11, 2, 81–92.
- Jiang, K./Lepak, D.P., Hu, J./Baer, J.C. (2012): How Does Human Resource Management Influence Organizational Outcomes? A Meta-analytic Investigation of Mediating Mechanisms, in: *Academy of Management Journal*, 55, 6, 1264–1294.
- Jiang, K./Lepak, D.P./Han, K./Hong, Y./Kim, A./Winkler, A. (2012): Clarifying the construct of human resource systems: Relating human resource management to employee performance, in: *Human Resource Management Review*, 22, 2, 73–85.

- Jimenez-Jimenez, D./Sanz-Valle, R. (2013): Studying the effect of HRM practices on the knowledge management process, in: *Personnel Review*, 42, 1, 28–49.
- Kamaşak, R./Bulutlar, F. (2010): The influence of knowledge sharing on innovation, in: *European Business Review*, 22, 3, 306–317.
- Kaše, R./Paauwe, J./Zupan, N. (2009): HR Practices, Interpersonal Relations, and Intrafirm Knowledge Transfer in Knowledge-Intensive Firms, A Social Network Perspective, in: *Human Resource Management*, 48, 4, 615–639.
- Lai, H.M./Chen, C.P./Chang, Y.F. (2014): Determinants of knowledge seeking in professional virtual communities, in: *Behaviour and Information Technology*, 33, 5, 522–535.
- Levin, D.Z./Cross, R. (2004): The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer, in: *Management Science*, 50, 11, 1477–1490.
- Lewicka, D./Krot K. (2015): The model of HRM-trust-commitment relationships, in: *Industrial Management & Data Systems*, 115, 8, 1457–1480.
- Lin, H.F. (2007): Knowledge sharing and firm innovation capability: An empirical study, in: *International Journal of Manpower*, 28, 3–4, 315–332.
- Ma, Z./Long, L./Zhang, Y./Zhang, J./Lam, C.K. (2017): Why do high-performance human resource practices matter for team creativity? The mediating role of collective efficacy and knowledge sharing, in: *Asia Pacific Journal of Management*, 34, 3, 565–586.
- March, J.G. (1991): Exploration and Exploitation in Organizational Learning, in: *Organization Science*, 2, 1, 71–87.
- Michailova, S./Mustaffa, Z. (2012): Subsidiary knowledge flows in multinational corporations: Research accomplishments, gaps, and opportunities, in: *Journal of World Business*, 47, 3, 383–396.
- Milošević, N./Tošković, O./Rakočević, S.B. (2019): Does perceived top management involvement and knowledge sharing affect perceived project performance? Evidence from the banking sector, in: *Journal of East European Management Studies*, 24, 2, 259–279.
- Minbaeva, D.B. (2013): Strategic HRM in building micro-foundations of organizational knowledge-based performance, in: *Human Resource Management Review*, 23, 4, 378–390.
- Mohammed, N./Kamalanabhan, T.J. (2019): Tacit knowledge seeking from teammates: unravelling the role of social capital, in: *International Journal of Organizational Analysis*, 28, 3, 765–790.
- Monteiro, L.F./Arvidsson, N./Birkinshaw, J. (2008): Knowledge flows within multinational corporations: Explaining subsidiary isolation and its performance implications, in: *Organization Science*, 19, 1, 90–107.
- Morales-Sánchez, R./Pasamar, S. (2019): How to improve organisational citizenship behaviour by combining ability, motivation and opportunity, in: *Employee Relations: The International Journal*, 42, 2, 398–416.
- Newell, S./Bresnen, M./Edelman, L./Scarbrough, H./Swan, J. (2006): Sharing knowledge across projects: Limits to ICT-led project review practices, in: *Management Learning*, 37, 2, 167–185.
- Nguyen, T.-M./Nham, T.P./Froese, F.J./Malik, A. (2019): Motivation and knowledge sharing: a meta-analysis of main and moderating effects, in: *Journal of Knowledge Management*, 23, 5, 998–1016.

- Pervaiz, U./Imran, M./Arshad, Q./Haq, R./Kamran Khan, M. (2016): Human resource practices and knowledge sharing: The moderating role of trust, in: *International Journal of Organizational Leadership*, 5, 1, 15–23.
- Quigley, N.R./Tesluk, P.E./Locke, E.A./Bartol, K.M. (2007): A multilevel investigation of the motivational mechanisms underlying knowledge sharing and performance, in: *Organization Science*, 18, 1, 71–88.
- Reinholt, M./Pedersen, T./Foss, N.J. (2011): Why a central network position isn't enough: The role of motivation and ability for knowledge sharing in employee networks, in: *Academy of Management Journal*, 54, 6, 1277–1297.
- Rhee, Y.W./Choi, J.N. (2017): Knowledge management behavior and individual creativity: Goal orientations as antecedents and in-group social status as moderating contingency, in: *Journal of Organizational Behavior*, 38, 6, 813–832.
- Rudawska, A. (2020): Knowledge sharing and creativity: individual and organisational perspective, in: Zakrzewska-Bielawska, A./Staniec, I (eds.): *Contemporary Challenges in Co-operation and Coopetition in the Age of Industry 4.0*. Cham: Springer Proceedings in Business and Economics, 107–121.
- Schulz, M. (2001): The uncertain relevance of newness: Organizational learning and knowledge flows, in: *Academy of Management Journal*, 44, 4, 661–681.
- Schürmann, E./Beausaert, S. (2016): What are drivers for informal learning?, in: *European Journal of Training and Development*, 40, 3, 130–154.
- Schuster, T./Holtbrügge, D./Engelhard, F. (2019): Knowledge sharing of inpatriates: Empirical evidence from an ability-motivation-opportunity perspective, in: *Employee Relations*, 41, 5, 971–996.
- Sergeeva, A./Andreeva, T. (2016): Knowledge Sharing Research: Bringing Context Back In, in: *Journal of Management Inquiry*, 25, 3, 240–261.
- Siemsen, E./Roth, A.V./Balasubramanian, S./Anand, G. (2009): The influence of psychological safety and confidence in knowledge on employee knowledge sharing, in: *Manufacturing and Service Operations Management*, 11, 3, 429–447.
- Stenius, M./Haukkala, A./Hankonen, N./Ravaja, N. (2017): What motivates experts to share? A prospective test of the model of knowledge-sharing motivation, in: *Human Resource Management*, 56, 6, 871–885.
- Sung, S.Y./Choi, J.N. (2018): Building knowledge stock and facilitating knowledge flow through human resource management practices toward firm innovation, in: *Human Resource Management*, 57, 6, 1429–1442.
- Teng, J. T C./Song, S. (2011): An exploratory examination of knowledge- sharing behaviors: Solicited and voluntary, in: *Journal of Knowledge Management*, 15, 1, 104–117.
- van den Hooff, B./de Leeuw van Weenen, F. (2004): Committed to share: commitment and CMC use as antecedents of knowledge sharing, in: *Knowledge and Process Management*, 11, 1, 13–24.
- van den Hooff, B./de Ridder, J. A. (2004): Knowledge sharing in context: the influence of organizational commitment, communication climate and CMC use on knowledge sharing, in: *Journal of Knowledge Management*, 8, 6, 117–130.
- Veeravalli, S./Venkatraman, V./Hariharan, M. (2019): Why do people seek knowledge? Tracing factors that affect knowledge seeking intention, in: *VINE Journal of Information and Knowledge Management Systems*, 50, 2, 271–290.

- Yáñez Morales, V.P./Pan, A./Ali, U. (2020): How helping behaviours at work stimulate innovation in the organization: evidence from a moderated-mediation model, in: *Innovation*, 22, 1, 71–90.
- Yin, R.K. (2014): *Case study research design and methods*. Thousand Oaks: Sage Publications.
- Zhang, X./Jiang, J.Y. (2015): With whom shall I share my knowledge? A recipient perspective of knowledge sharing, in: *Journal of Knowledge Management*, 19, 2, 277–295.
- Zhao, L./Detlor, B./Connelly, C.E. (2016): Sharing knowledge in social Q&A sites: The unintended consequences of extrinsic motivation, in: *Journal of Management Information Systems*, 33, 1, 70–100.
- Zhao, S./Jiang, Y./Peng, X./Hong, J. (2021): Knowledge sharing direction and innovation performance in organizations, in: *European Journal of Innovation Management*, 24, 2, 371–394.