

HR practices enhancing employee knowledge to foster Employee-Driven Innovation

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ABSTRACT

Purpose – The increasing awareness by management and large organizations that the operational employee can be seen as a source for organizational innovation in form of knowledge creation and transfer leaves HR managers to strive for ways to enhance this process of Employee Driven Innovation (EDI) by placing the right HR practices. To find out what opportunities and limitations there are in the environment of a hospital is the purpose of this research and how it is possible with simple forms like selection, teamwork, training and reward systems to empower the operational care personal towards EDI.

Research Design/Methodology/ Approach – Data was obtained from four semi-structured interviews from a clinic in western Germany. The interview covers all vertical level of the operational care personnel: head of care personal, head of a department, two operational care employees. They were analyzed by linking the interviews to the different HR practices and to be able to conclude in form of propositions about the possibility of EDI in a hospital.

Findings – The data clearly showed that some teamwork and training are definitely a possible way to enhance EDI, but also revealed high limitations when it comes to selection and reward systems, with the influence of the bureaucratic and formalized environment.

Practical Implications – Selection is not possible, until the personnel shortage is solved. Reward systems are not possible by the Germany healthcare system, so they need to find other ways besides these HR practices, to enhance EDI.

Theoretical Implications - This study examines the field of EDI, which is relatively unexplored and adds the hospital as an environment which is new to the concept of EDI, especially in form of knowledge.

Value – The research conducted definitely introduces the concept in a new environment, the healthcare environment. It is exposing the limitations there are, especially the German system, and therefore contributing by recommendations on where to further develop EDI based on selection and reward systems in a hospital.

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Keywords

Employee-driven innovation, knowledge management, healthcare, HR practices, Employee development, employee knowledge, individual innovation, , training, selection, teams and reward systems.

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1. INTRODUCTION

The healthcare sector, especially hospitals, can be described as a complex, bureaucratic environment, where the complexity stems from high number of regulations, many involved stakeholder, limited resources as well as fast technological changes (Wihlman, Hoppe, Wihlman, & Sandmark, 2014). A hospital can be compared to a professional bureaucracy according to Mintzbergs' professional bureaucracy, with its limiting factors to innovation through formalization and standardization (Lunenburg, 2012). Yet, there is only few research conducted in the field of Employee-driven innovation (EDI) and even less about EDI in the bureaucratic environment of a healthcare organization. In order to stay competitive in this environment, healthcare organizations constantly need to come up with new innovations to compensate the limited resources.

In this bureaucratic environment, a top-down, management to employee, approach is more often used, because not much autonomy is given to the operational employees. Wihlman et al. (2014) state that the individual affects the organization, what makes the traditional top-down approach no longer suitable, because it does not involve the ordinary operational employee. Furthermore, they argue that the necessity of a bottom-up approach is increasingly understood, whereas the "bottom" is where the employee actually meets the public. It would be a waste of opportunity not to consider the operational employees, because they have significant knowledge in the form of experience, up-to-date information and they have outside relationships with colleagues and clients. They are in the middle of the information flow, what makes them an important source for innovative ideas, as Wihlman et al. (2014) argue.

Innovations with high involvement of ordinary employees are named employee-driven innovation, where new organizational forms, service concepts, modes of operations supported by ideas, knowledge and creativity are developed and implemented (Wihlman et al., 2014). Generally, employee-driven innovation can be seen as a bottom-up approach and occurs besides the formal job description (Birkinshaw & Duke, 2013). Høyrup (2010) sees creativity, ideas, competence and problem-solving abilities as the main drivers of employee-driven innovation.

Lin (2015) argues that innovation is a knowledge intensive activity and a significant portion of knowledge is embedded in human's head, whereas the management of organization's human resources is expected to have an impact on innovation. Wang and Noe (2010) argue here, that managers' support can influence the knowledge shared in terms of level and quality. But in order to extend innovation and implement it on an organizational level, innovation on the team-level as well as the individual-level is needed as a basis. Therefore, to limit the scope of this paper, one will further elaborate on the individual-innovation of employees, to get to the core of employee-driven innovation. De Jong and Den Hartog (2007) state, that employees' innovative behavior is the first step to improved performance by generating novel and innovative ideas. Emphasizing the employee-driven innovation, here will be the focus on knowledge and especially knowledge management and how it can be supported by Human Resource (HR) practices.

In order for the employees to use their knowledge to the full extent, Shipton, West, Dawson, Birdi, and Patterson (2006) see the importance here for HR practitioners to provide a framework that exploits their current knowledge to foster innovation as well as to perform effectively. They see an importance for employees to engage with external parties but

also with parties within the organization. This brings the effect, that they more often review their own point of view and examine their own mental models. Shipton et al. (2006) give the example that when employee engage with customers, it can lead to questioning their own models of acting and thus evoke in change. When operational employees engage with their fellow employees internally, as they further argue, it can facilitate an inner transfer of knowledge and enrich every individual with challenges faced by others.

They see on the one hand that different practices are needed to guide and motivate their employees, but that it is the combined set of practices that enhances employees' performance towards innovation. The following HR practices from Shipton et al. (2006) provide the key concepts under investigation in this paper.

HRM has a key role by facilitating the contribution of talented employees to an organization (Yang & Lin, 2009). Donate, Peña, and Sánchez de Pablo (2015) found that it is important to address innovative behavior already in the hiring phase. A good basis of employees by selective procedures in the hiring process is a requirement to develop and establish an innovative work behavior and knowledgeable employees.

"Team working will promote organizational performance and innovation to the extent that members are engaged in intrinsically motivating tasks within a supportive organizational context" (West, Hirst, Richter, & Shipton, 2004). Furthermore, teams provide an environment with diverse skills and knowledge and every employee can contribute his diverse knowledge and expertise (Dahlin, Weingart, & Hinds, 2005). If this is effectively used it can achieve higher levels of innovation than everyone operating individualistically. De Spiegelare, Van Gyes, and Hootegem (2012) add to this that especially homogenous teams, those compiled of the workforce with the same focus, work the most effective.

Shipton et al. (2006) found a positive relation between training and the development of knowledge, to foster innovation. They prioritized highly planned and organized training to promote certain skills and behavior. Especially the training of communication and social skills are of essence for the purpose of EDI (McCulloch, Rathbone, & Catchpole, 2011).

According to Shipton et al. (2006) as well as to Donate et al. (2015) reward systems can be designed in the first place to attract and motivate highly skilled employees. Nevertheless, Shipton et al. (2006) clearly indicate that they have to be designed not to displace attention from the tasks towards the reward, but to encourage creativity and innovative behavior. This brings me to my research question and core of my thesis:

"HOW DO HR PRACTICES ENHANCE EMPLOYEE KNOWLEDGE TO FOSTER EMPLOYEE-DRIVEN INNOVATION ON THE INDIVIDUAL LEVEL IN A HOSPITAL?"

To outline the theory and reach a basic understanding of the relation between EDI and HR practices, I will describe the most important literature. Here I will outline which HR practices exist in Healthcare organizations and how they influence on the knowledge of employees. Furthermore, I will analyze how it is used to create individual innovation on the basis of individual knowledge extension and transfer. When doing this it should clarify the connection how employee knowledge is enhanced to achieve the outcome EDI in form of individual innovation.

This paper will add insights to the existing literature because a lot of attention is paid to studies conducted in different fields of industry, but not the healthcare sector (Harley, Sargent, & Allen, 2010). Further, a lot of research is done in Northern countries like Norway and Sweden (Wihlman et al., 2014) and less research can be found about studies from Germany, where a completely different healthcare system is applied. This article from Wihlman et al. (2014) also does not take explicitly HR practices into account, describing EDI more by a more general approach. This study has a clear focus, with respect to the formal bureaucratic environment. Furthermore, there can be a reasonable amount of literature found about EDI in various organizations (Donate et al., 2015; Gupta, Iyer, & Aronson, 2000; Lin, 2015), except for bureaucratic, formalized and standardized organizations such as a hospital. To conduct research about innovation in the field of healthcare organizations, it forms an interesting setting. On the one hand, this context is highly externally regulated and has a high degree of standardization and on the other hand, all treatments have to be tailored for every patient (Harley et al., 2010). Especially in patient care, the individual is very important for the job and has to perform a lot of different activities, what brings a lot of diverse experience. Trying to find ways, that uses this experience and knowledge and to individually come up with innovations makes it interesting to study. As already described beforehand, the healthcare sector is characterized as a bureaucratic and standardized environment, what is another incorporated, delightful aspect.

In the next section, a more profound view regarding the existing literature about EDI and the relation to HR practices is examined to obtain a better understanding of the state of research.

2. LITERATURE REVIEW

2.1 *Employee-Driven Innovation*

Innovation is a multidimensional concept, which can be looked at from different point of views. To achieve overall organizational level innovation, that is: “novel set of behaviors, routines, and ways of working that are directed at improving health outcomes, administrative efficiency, cost effectiveness, or users’ experience and that are implemented by planned and coordinated actions”, Greenhalgh, Robert, Macfarlane, Bate, and Kyriakidou (2004, p. 582), a certain basis is needed for that. This also clarifies, what forms EDI could take in a hospital. Individual and team level innovation form the basis for overall innovation (Lin, 2015). Lin (2015) defines individual innovation as the knowledge and actions like behavior and creativity of individuals in an organization. For this, it is important to consider employee-driven innovation, which is a new approach to come up with innovations at the operational level. I will focus on high-involvement innovation as Høystrup (2010) formulates it, where employees are the core of the innovation process, and not R&D or technological innovation. Innovation can take part in different levels of the organization as mentioned and can be radical as well as incremental (Høystrup, 2010, p. 148; Patterson et al., 2010). It can also be differentiated between “inner-directed” and “outer-directed”, where the previous one is focused on organizational values, people management and the way how the work is organized. The “outer-directed” perspective is more about overall organizational success and competitiveness in the market (Høystrup, 2010, p. 145). Whereas the “inner-directed” perspective is a better fit for EDI because the management of people is stressed here.

Employee-driven innovation (EDI) includes a wide range of content, mainly new knowledge, reconstruction of routines and organizational innovation (Høystrup, 2010, p. 148). EDI occurs outside the job description but is taking time, where employees are officially paid to perform their job. It means that EDI occurs during their work hours where the key aspects of EDI are not part of their work routine. Birkinshaw and Duke (2013) describe the essential part of EDI that the innovation process is led and initiated by the operational employee and not by the top management. In the context of EDI, the top-down approach from management to operational employee is no longer in focus, but the bottom-up approach from the employee to the management is even more important. Not using the capabilities and knowledge of operational employees would be a waste of an opportunity to achieve innovations. An increasing number of organizations understood the potential of the collective knowledge to achieve innovative competitive advantage (Soliman & Spooner, 2000). The main components to obtain innovative ideas is creativity and innovative behavior (Lin, 2015; Scott & Bruce, 1994). They contribute to the development of new knowledge, which is the basis for innovation. In the healthcare sector, EDI means the development and implementation of new organizational forms, new modes of operation, service concepts as well as service processes. All these developments and new organizational forms take employees ideas, knowledge, time and creativity into account (Wihlman et al., 2014). Relating back to limited resources and personnel shortage in the hospitals, this can be a cost-effective way to come up with improvements that result i.e. in cost savings. The literature highlights the fact that individual and employee-driven innovation is based on knowledge and for this creativity as one of the fundamental concepts is needed. Nevertheless, innovations tend to happen serendipitously among the operational employees. There is more than just knowledge needed: a positive attitude towards their work in order to develop an internal climate where innovations are more favorable to happen is needed (Smith, Uhløi, & Kesting, 2012; Wang & Noe, 2010). Many organizations understood that they have to enhance knowledge and find a platform to share it internally. They invest in knowledge management, which is important for knowledge transfer, but miss the understanding of individual and interpersonal context (Wang & Noe, 2010).

This emphasizes the difficulties among knowledge transfer and the development of employee-driven innovation. It just is not enough to provide training and selection, but the climate created by management is essential for EDI (Wang & Noe, 2010).

2.2 *HR Practices; Relationship with EDI*

Now a linkage between HR practices and the concept of EDI is made and highlighted what it means for each HR practice to enhance EDI. If this climate as Smith et al. (2012) name it is apparent, the next barrier to successful innovation is that most of the ideas the employees come up with never get out of their minds and get erased by the formal procedure (Birkinshaw & Duke, 2013). This calls for a way to manage effectively this knowledge and information, which should become an innovation. For successful innovations to be developed, management support is essential. In that sense, successful human resource management improves efficiency through a supportive climate. That allows the staff to develop and share the organization's objectives’ (Patterson et al., 2010). Sharing knowledge and develop one’s own capabilities is positively related to support from managers and supervisors. Developing own capabilities not only affects the level of innovation but also

the quality (Wang & Noe, 2010). Therefore, HRM has to address the issue of how to enhance employees creativity and how to motivate them to speak out and apply their ideas to the development of new work processes, thus innovations (Donate et al., 2015). This makes clear, that in order to obtain EDI that is based on knowledge, a framework of HR practices is needed. Donate et al. (2015) further address the problem of lacking climate and platform needed for the innovation to evolve. A company's investment in key HRM activities may enhance an organizations innovation capabilities by using training, selection, rewards and teamwork as tools and practices to develop these and the HR practitioners have to design the framework to fully utilize and facilitate employees knowledge (Shipton et al., 2006). Especially in the healthcare sector, it is proven that HRM activities can improve the quality of patient care as it can decrease the patient mortality rate by i.e. teamwork, training (Cooke & Bartram, 2015). Therefore, it is necessary to investigate the above-named HR practices to illustrate their influence on EDI and in thus, the operational employees.

2.2.1 Selection

HRM has a key role by facilitating the contribution of talented employees in an environment with increasing competition from the knowledge economy (Yang & Lin, 2009). Selective staffing refers to Selection, is characterized by rigorous selection procedures through extensive and intensive research which are built upon the organizations' values (Donate et al., 2015). This as well includes tests, which should encompass content that helps to find an adequate employee. By focusing on the selection of the needed capabilities of the employee, it is possible for an organization to select the right knowledge and skills in favor of hiring (Currie, Burgess, & Hayton, 2015). To cover the aspect of exchanging knowledge internally, Currie et al. (2015) found that selection can contribute to the ability, motivation and opportunity to take part in formations or relationships, where knowledge is exchanged. If highly motivated and skilled workforce is hired, they have knowledge and skills to be shared and they bring new knowledge which could enrich others knowledge.

2.2.2 Teams

The existing knowledge within an organization needs to be communicated and shared. A good possibility to enhance sharing knowledge is to form teams. Team building is found to enhance collaborative knowledge exchange, by providing a platform for employees to gather and exchange knowledge (Cabrera & Cabrera, 2005; Currie et al., 2015). To make better use of the local knowledge that exists next to each other, but is not communicated, Laursen and Foss (2003) found that establishing work teams is a possible solution. To go more in depth to the formation of teams, Wang and Noe (2010) argue that especially the characteristics of a team have an influence on the quality and the knowledge sharing among employees. "The longer a team exists and the higher their cooperation is, the more likely is that they share knowledge which is of higher quality. Providing a framework of support for change, it is less challenging from an emotional point of view to communicate ideas and knowledge." (Wang & Noe, 2010, p. 119). Furthermore, more mature colleagues are open to sharing tacit knowledge with less experienced ones, which is the most important one, when aiming at innovating on the individual level (I. Nonaka, 2007; Shipton et al., 2006). Shipton et al. (2006) further stress the diversity of teams, which is needed to obtain a broader scope of knowledge and to increase the probability of innovation.

2.2.3 Training

For knowledge to be shared in teams and enhanced, it needs to be developed and trained (MacNeil, 2003). Patterson et al. (2010) make an important contribution by finding that some HR practices do not apply with positive advantages in the healthcare sector, but with training to enhance employee performance they were throughout positive. Currie et al. (2015); as well as Swart and Kinnie (2003) additionally state that teams enhance innovation that it can be further supported by the development of human capital. Here, again Shipton et al. (2006) give a good definition for training and background information by stating that it facilitates the development of employees capabilities, as well as ensuring a certain level of basic skills and knowledge to perform effectively. McCulloch et al. (2011) state that especially the effective training of teamwork and communication is of the essence to improve exchange between employees and patient care. In a study about the effectiveness of training workshops for physicians and clinicians, the participants reported to still benefit from it years later and showed increased performance afterward (Baer et al., 2004; Miller, Yahne, Moyers, Martinez, & Pirritano, 2004). It is not only the motivation to offer operational employees training to develop skills and knowledge but also to give them the profound knowledge to evaluate and assess themselves properly. Otherwise, they would be stuck in managing to perform their everyday work, but have no capabilities to reflect on it. In the healthcare sector, it is important to innovate processes. Indeed, Laursen and Foss (2003) found out that employees that obtained training have a higher rate of process improvements as well as more rights that get delegated to them for the purpose of problem-solving.

2.2.4 Reward Systems

As mentioned beforehand, reward systems are another HR practice, enhancing EDI. Performance related pay, merit pay or gain-sharing pay define rewards systems according to Patterson et al. (2010). They did studies in the healthcare sector with reward systems as a part of it that supports the fact that reward systems can be motivation. Currie et al. (2015) state that in combination with other practices, performance-based pay can be indeed a significant driver of motivation, as long as it is perceived as meaningful. This must always go along with a certain level of monitoring or recording of employees' outcomes. In a longitudinal study in the healthcare sector of the UK, it was found that indeed bonuses can help improve patient care and physicians' and nurses' motivation (Patterson et al., 2010). Giving rewards to operational employees for taking part in innovation suggestions, is organization independent likely to enhance their willingness to take part and come up with incremental innovations (Laursen & Foss, 2003). Reward systems can be rather seen as a way to achieve innovative behavior and the motivation to take part in innovative events within the organization (work teams, training, etc.) (McCulloch et al., 2011).

2.3 The effect of HR practices on EDI: a knowledge management perspective

Knowledge management is about using knowledge in a way to benefit the organization by exploiting the current collective knowledge (Alavi & Leidner, 2001). To go more into detail, it is about capturing the right knowledge, getting the right knowledge to the right user/patient, and using it to overall achieve improved organizational performance (Ahmad, Madhoushi, & Yusof, 2011). They further elaborate on the

tasks of managers, to encourage their ability and willingness to participate in knowledge sharing and acquisition (Ahmad et al., 2011). Especially for the public sector, Ahmad et al. (2011); Gupta et al. (2000) state that the success increasingly depends on effective knowledge sharing on all levels. The process of acquiring new knowledge starts with socialization in the form of seminars, workshops, where knowledge is shared. The employee then converts the learned tacit knowledge into explicit form, named capture. The employee experiences this knowledge by repetitive performing the newly learned skill. The further copying and distribution of knowledge are called dissemination. And the last, deepening step, is about experiencing new knowledge through an explicit source (workshop book) called the internalization (Gupta et al., 2000).

Lin (2015) sees innovation as a knowledge intensive activity as well, whereas the management is responsible for ensuring this knowledge is used and further developed. Knowledge and its sharing is positively related to firm innovation, creating competitive advantage, etc. (Chen, Zhang, & Fey, 2011; Wang & Noe, 2010). Knowledge itself can be either tacit or explicit (E. A. Smith, 2001). "Tacit knowledge is personal, context-specific, and therefore hard to formalize and communicate. Explicit knowledge, on the other hand, refers to knowledge that is transmittable in formal, systematic language." (Ikujiro Nonaka & Takeuchi, 1995). Desouza (2003); and Liu (2013) state that especially the exchange of knowledge and ideas between the employees and colleagues can be the basis for innovation. This exchange of knowledge and basis can further be developed by maintaining the relationships among the employees. Here it is important for the managers to actively empower the employees to seek diverse networks and partners to exchange with, which should acquire new and diversified knowledge. The importance to acquire diversified knowledge can not only be contributed to by a broad field of contacts but by training which is fostering the knowledge. This covers especially the HR practice of teams in combination with training, which should enhance the process of knowledge sharing and exchange among employees. Teamwork can be trained and increases team performance related to innovation (McCulloch et al., 2011; Shapiro et al., 2004). Smith et al. (2012) explain that employees can, besides their team behavior, contribute their networks and contacts they have in their everyday work, creativity, and exclusive information. This further enhances the creation of diverse knowledge. To become innovative and contribute ones' own knowledge, reward systems can have an effect on knowledge sharing. Extrinsic incentives can have a negative impact on the intrinsic motivation of an employee to behave in a certain way. Nevertheless, in certain circumstances, these extrinsic incentives can have a positive aspect by signaling competence to an employee (Bartol & Srivastava, 2002). The quantity of knowledge shared is likely to increase, but the quality may decrease once a reward system is implemented (Bollinger & Smith, 2001). There has to be a good mixture of extrinsic and intrinsic reward, to not have a negative effect on the intrinsic motivation itself, which is vital for knowledge sharing (Malhotra, 2004).

To conclude, the literature highlights that sharing knowledge is essential in managing knowledge. Knowledge management (KM) is supported by the aforementioned HR framework of selected practices and to develop and adjust these to the current situation and needs in the healthcare organization. In the four steps of knowledge internalization by Gupta et al. (2000), it once again is made clear that training in the form of seminars or workshops, is essential for generating and sharing new knowledge. This, as stated before, does increase the

contribution of innovative ideas as well as the quality of patient care.

3. METHODOLOGY

3.1 Research Design

Further, I examined the method on how to empirically study this relation between EDI and HR practices in a clinic in western Germany.

I choose the research design of a case study in the form of semi-structured interviews. Ghauri (2004); & Leonard-Barton (1990) both state that indeed personal interviews are a valid data collection method for the purpose of a case study. Patton (2005) goes even more into detail and sees open-ended interviews as a reasonable method to study a real-world setting, like interviews in a hospital. Yin (1999) states that by a case study, the topic is directly targeted and focused as well as it can provide insightful inferences. In order to structure and have study related questions, I developed a set of questions covering the HR practices in relation to employee-driven innovation from my earlier literature review as well as questions covering the knowledge management aspect. These will be discussed in the concepts and development part of the Methodology.

Empirical evidence was sampled to compare the reality with the theory analyzed, whereby it is possible to obtain a more sophisticated understanding of experiences and current behavior of employees (e.g. nurses, therapists). I choose this approach of interviewing to be able to compare between different kind of employees about their perception of the current EDI activities. The method of a qualitative case study is favorable here in the form of semi-structured interviews because different employees have the ability to answer the questions to their perception. For the development of the questions, I operationalized the aforementioned concepts (s. Appendix, Table 2). The questions have been rephrased if an employee did not get the core of the question to ensure, that he understood the exact meaning of the question and the concept analyzed. Siggelkow (2007) argues that qualitative case studies will not lose their validity by choosing a specific organization, but it has to be taken into account that it is more difficult to draw generalizable conclusions from this.

3.2 Participants

This study is researching the ways for operational employees to come up with innovations by the influence of special HR practices. It focuses on the HR practices used by the management in a hospital and how the operational employees fulfill them by being innovative. For this case study, a clinic in western Germany was approached, which was willing to take part in the interview for my thesis. In their strategy "Leitbild" it was made clear that they already work in professional teams as well as constantly develop and train their employees. Further, they say that employees transfer their knowledge, which they obtained during training and workshops. I interviewed at least one employee of every level in their hierarchy of operational employees. The mentioned hierarchy with one general manager at the top, each department with a care employee as manager and all others below on the lowest level of hierarchy, made it important not to just interview one level of employees, but more vertical levels. For questions regarding HR practices the manager of the nursing staff, as well as the manager of a specific department was chosen because these employees are in the position to give valuable information about current practices being used. To the two managing position, the head of care personal and the head of one

department, I asked eight questions. Further, I interviewed two operational employees of the nursing staff of the same department about their current actions towards EDI and the specific HR practices being used which totaled in six questions.

All the respondents worked for five years or longer in their position. In consideration of anonymity, I cannot name the clinic nor the department of the participating hospital.

The interviews and the related answers of the participants are confidential and were only handed to my supervisors. Some answers have not been directly asked, because the respondents answered these within previous questions, as they were very elaborative. For the results section of this thesis, some citations were made and translated into English for this purpose. All participants signed a letter of agreement, where it allows me to use their input anonymized for the purpose of my bachelor thesis.

<i>Participant</i>	<i>Position</i>	<i>Interview duration (min.)</i>	<i>Questions asked</i>
HRM 1	Head of care personal	60 min.	8
HRM 2	Head of specific department	35 min.	8
HRM 3	Operational care personal	15 min.	6
HRM 4	Operational care personal	15 min.	6

Table 1. Interviews

3.3 Concepts and development of questions

To have results and findings, that can be compared and evaluated, I formulated the questions based on concepts presented in the literature review and the following is going to outline these.

Questions regarding HR Practices are based on Currie et al. (2015); & Donate et al. (2015) for the selection of employees that makes it possible by adequate questioning and focusing on the rights skills and behavior, to enrich an organization. The main focus in the question is based on their findings what attitudes and behaviors are favorable for EDI. Further, for the questions regarding their teamwork, the concepts of I. Nonaka (2007); Shipton et al. (2006); & Wang and Noe (2010) are of essence, describing that the characteristics like a compilation, duration, and diversity of work teams are important. For the training of employees and related questions, the concepts of Laursen and Foss (2003); McCulloch et al. (2011); Patterson et al. (2010); & Swart and Kinnie (2003) are considered. They contribute that especially the training in communication and teamwork, as well as reflective capabilities, are important traits that have to be developed. These were content of questions, to get to know if they apply to this clinic. For the last HR Practice, the reward systems, again Currie et al. (2015); Laursen and Foss (2003); & Patterson et al. (2010) define the main concepts. They argue that rewards can increase the motivation of

employees to share knowledge, take part in innovation processes and also improve the level of patient care. There was formulated based on their findings if work is constantly reviewed and based on what rewards are justified and approved. For question regarding the role of operational employees in the generation and implementation of innovation (EDI) Birkinshaw and Duke (2013); Smith et al. (2012); & Wang and Noe (2010) defined concepts concerning employees' attitude, work environment, and creativity enhancement. This is needed according to them to provide a solid basis for the existence of EDI. The last concept which needs to be measured during the interviews is knowledge management. Here is the focus on Ahmad et al. (2011); Alavi and Leidner (2001); & Gupta et al. (2000), who describe what initiatives are needed from managers as well as the importance of knowledge sharing activities, the right usage of knowledge and if there is distribution of knowledge to parts in the organization where it is needed. As I choose the deductive approach, the theory can be supported or disproved by this kind of data collection. Additional Siggelkow (2007) states that a qualitative case study can be a good addition and support for the theory analyzed beforehand.

3.4 Reliability and Validity

3.4.1 Construct Validity

In order to have a valuable subject of study that can provide information concerning my topic of EDI, I approached a clinic after reviewing their vision and "Leitbild", if they are familiar with certain work practices. In order to have valid and correct data, I shortly introduced my field of study to decrease informant biases (Brink, 1993). Moreover, the interviewees were told that all data is handled anonymously and every participant signed a letter of agreement.

3.4.2 Internal and External Validity

To achieve transferability in terms of external validity an operationalization was made as well as predetermined questions for the interview, to guide the interview as well as make them repeatable and transferable. Afterward, the obtained data was generally analyzed in Atlas t.i. based on the concepts of EDI, HR practices as well as KM, keywords can be found in the operationalization. This sections and citations marked in the interviews have been exported to Excel to have an overview and to be able to structure the findings. This made it also possible to have cross-checks in terms of internal validity if the actual HR practices placed by the management are also perceived this way by the operational employees (Riege, 2003). In this way, the internal coherence could be checked. This study used a triangulation by observing the topic of EDI from more than just one perspective as well as interviewing different levels in the clinic, to improve the reliability of the study (Kimchi, Polivka, & Stevenson, 1991). This makes this research also comparable with other studies in this field. Adding to this, my research and findings were constantly reviewed by my professors Drs. A.C. Nehles and Maarten Renkema as well as fellow students.

3.4.3 Reliability

All questions were fully built upon the literature review and that is where all the expertise in these topics came from, they are all named in the References part of this study. Furthermore, I checked congruence of the EDI & KM by giving explicit sources where a connection between the topics has been made.

In terms of completeness of the study I recorded the interview and took notes during all four interviews. They have been transcribed to be able to derive a comparison with the findings in the literature. By analyzing the data and visualizing the findings, parallelism of the findings could be achieved (Riege, 2003).

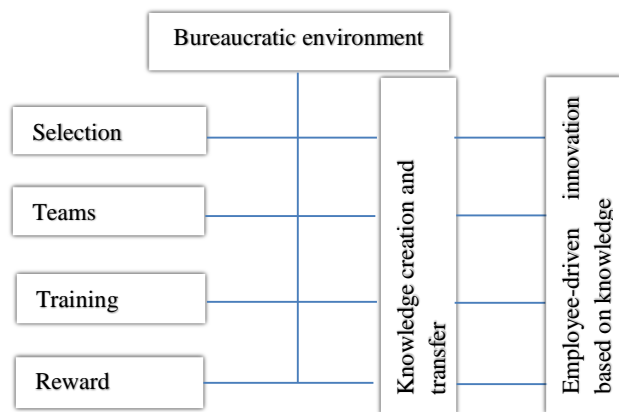


Figure 1. Research Model

4. RESULTS

For evaluating my interview and be able to formulate propositions for HR practices with influence on EDI, I will state my findings in the interview and support them with citations.

4.1 Employee-driven innovation

The clinic I approached was aware of the topic but not familiar with all the forms and values it consists of. The impulse for innovativeness comes from the management, there was no impulse coming from employees in the first place as I got to know during my interview.

A lot of innovative behavior comes from the management and are given to the employees to further develop them. There is more coming from the general care management instead of department management or even care personal. First, the head of departments have to be approached and together they search for topics, where employee can get actively involved in. They have certain projects throughout the year where this is done.

“To decide what project to go for that still is up to the head of care personal or the heads of the departments, that are middle managers so to say, sister in charge as we call it.” (HRM 1)

Many head of departments do not have the ability and capability yet to come up with innovations as I was told. They obtain training from coaches to implement forms (team coaching, personal development and communication), that help to achieve EDI in the future. They have different forms of working together in these departments. Nevertheless, where the coaches have trained in departments, groups are formed to optimize work routines. That is more of an exception than the general workflow.

A basis for EDI, that is provided, is new knowledge. There are several opportunities to obtain new knowledge from various forms of training but also from colleagues. They have especially in one department days, where employees who obtained training recently can give their knowledge to their fellow colleagues.

“We started three/four years ago, that people who specialized in a topic, that they say: “I would like to have four to five hours in a month, where I can give my knowledge to colleagues.” That means, they take a specialization training as a trigger to give obtained knowledge to others from their team.” (HRM 3)

There clearly knowledge is transferred and created, but it is not put in the context of being innovative. Most of the time it is more about small problem-solving, than really becoming innovative.

Proposition 1: EDI in terms of innovative behavior of employees and bottom-up ideas, it is not the case in this clinic. There is a lot of decisions top- down and initial triggers for projects or improvements still come from the management. There is a need for the employees to get more rights to delegate problems and projects and use their knowledge in the context of innovation.

4.2 Human Resource Practices (HR Practices)

Next to the general findings regarding EDI in the clinic, now my findings regarding the four HR practices selection, teamwork, training and reward systems is presented.

4.2.1 Selection

Selection is a very limited process and a different approach is present in the clinic. I found that in current times, there is less space for HRM to focus on special capabilities and to set certain guidelines for Selection.

“Well, it is kind of a split, nowadays it is not possible to focus on certain aspects of patient care, we have an extreme shortage.” (HRM 1)

They do not have any test procedure, nor do they have upfront a regulated set of values each applicant has to possess. It is more the other way around, that the clinic is checked for certain values and opportunities by the applicant and they have the bargaining power in the job interviews.

“Job interviews mostly start by me applying as the hospital to the prospective.” (HRM 1)

“expertise is not in the focus anymore [...] the willingness to personally develop and carry others with him/her during this process has more priority in my job interviews.” (HRM 1)

There is no special selection procedure applied. There is nothing checked concerning expertise which could enrich a hospital like specialist knowledge. Only the motivation to further development, their ability to work in teams or the trait of a motivated personality is important. Thus that are all very general observations that are done during an interview and not according to a develop system.

“It was about if am I able to work in teams because in my department is a lot emphasis on teams.” (HRM 3)

“It was more concerning our social and personal competences, rather than expertise. There you still have to learn a lot in the following years.” (HRM 4)

During the interview, it seemed as well as if the head of care personal is applying to me and showing off what they do offer as a clinic and not explaining their selection scheme. He made a reference back to the past and that the patient care in Germany still has to go a long way to be a more sophisticated job. There are still not that many applicants that have followed a study, just a basic vocational training.

Another fact regarding the selection of new employees is, that even if the head of care personal would like to hire new

employees or to develop a new job, he sometimes cannot, because they have a strict per-head-budget, which is not a monetary amount but a set number of employees, he is allowed to have.

Proposition 2: EDI is not enhanced in this clinic by selecting employees according to favorable attitudes or certain expertise, there are only very limited checks for certain traits and attitudes without any specialized hiring scheme. It is a reverse process, that the clinic is chosen by the applicant based on their development offers. No focus on expertise, rather social capabilities.

4.2.2 Teamwork

Teamwork definitely is a more widely accepted HR practice. They have team development coaches where specialized groups have been formed.

“in 2009, we did a team development program in our department, which resulted in three specialized groups: incorporation of new employees, feedback and co-operative counseling -between employees and “what can we improve in our department in the future?”” (HRM 2)

They further have diverse teams, which consist of employees from different departments, which are not solely focused on analyzing problems but also on simplifying the workflow between different departments. They exchange knowledge to improve their work efficiency. The teams are also used as a trigger for change. They do obtain a lot of on-the job training as well as other training and development and try to not limit this knowledge to the trained employees. There are sessions planned, where employees tell their colleagues what they learned from the training and what can be done differently in the future.

“[...] then we have interdisciplinary teams with other departments, where we ask ourselves: “What happened? Did something happen? Are there difficulties in our collaboration?” (HRM 3)

“There are a lot of employees, that are promoted to take part in our in-house education, [...], after that fellow employees are invited to listen to speeches by employees regarding these training. There is knowledge transferred from on colleague to another” (HRM 3).

Then there are actions, where again teamwork is the basis of the performed work. They have six days in a month, where three employees are discharged from their formal job description and are available for all other employees who want to obtain new knowledge or want to fill a knowledge gap. That is beside their other activities a very resourceful and highly accepted work, as I learned. Nevertheless, that is not the case throughout the whole clinic, that employees team up and work together. The impulse to create projects and teams is still top-down, as presented beforehand. Furthermore, the teamwork and the knowledge exchanged in there, is most of the time not focused on innovating, rather on problem-solving.

“There are still some departments where you cannot feel the teamwork as in others, where it is always a pleasure to come into the team and see how they work together.” (HRM 1)

“employees’ intrinsic motivation and idealization is the determining factor for teamwork.” (HRM 4)

Proposition 3: EDI is slightly enhanced by teamwork and the formation of different work groups. They exchange newly obtained knowledge and support change in their teams.

Nevertheless, that is not applicable for the whole clinic, which is a limiting factor for EDI to generalize it for this clinic.

4.2.3 Training

I found a lot of supportive indications, that EDI might be enhanced by Training.

It was indicated during my interviews, from everyone I spoke to, that the clinic offers different training and development programs. Also special capabilities, like communication, effective team development and -work is exercised.

“That is something, that is really important to us, especially here in the upper management level.” (HRM 1)

They have the opportunity to take part in in-house education, professional development programs, and even the possibility to achieve a bachelor of Critical Care in cooperation with the PMU Salzburg. Especially the last should foster the development of a more studied personnel accompanied with knowledge creation. Additional to that they have since ten years two coaches who do different staff development programs.

“We started a few years ago, that when employees are interested in special training or education programs, that they say: I am interested in a certain education and want to have certain hours to take part in it and afterward to give the knowledge to my fellow employees. There is also taken care of in the roster, that they can attend such meetings.” (HRM 3).

“Since a few years we also have the education network, where we interact with our own school of patient care, it is about tutor interaction.” (HRM 1)

Given these various training programs, it was made clear to the staff that by training they achieve a more sophisticated understanding concerning problems and patient care. They have the motivation to take part in the training program and are not forced to it, which can be seen as innovative behavior towards EDI. Additionally, they have a semi-annual educational calendar, where every employee has the ability to see what is offered and where they can take part in. There is made a lot for the development of employees, their communication skills, teamwork and also their professional competence.

“You feel more confident I think when you have the knowledge about certain things.” (HRM 4)

A clear barrier and thus option to further stipulate development is that there are no guidelines yet in the German system that regulates the further qualifications of operational employees in a hospital, similar regulations only exist for physicians.

Proposition 4: EDI is influenced by training, especially when focusing on communication and teamwork skills besides on the job training. Here the management is a supporting factor, which is needed as a basis for effective training besides the behavior and motivation to learn which the employees showed in this case.

4.2.4 Reward system

There is nearly nothing to be found in that hospital regarding a working reward system. They do not have a system where based on their extra work or effort to contribute to the clinic's innovativeness they can receive a reward.

“We have an improvement system, where you can receive a 50€ gift card for a local bookstore. But you receive this, independent from whether your idea for improvement was

accepted or not. That is nothing to motivate the employees and it is not used frequently.” (HRM 1)

The rather have a system, where you can get a gift card, if you have an idea, regardless of the quality or acceptance of the idea.

The other care personal complained about that as well, as they say, that this is really a barrier for the employees to take initiative and be willing to give it a thought to put in some extra effort. They do not see this as a motivating or rewarding system, it is rather causing more frustration by having this system, than motivating.

“Sometimes I am about to cry, when I see, that if my girlfriend who is working in the local town hall, if she does attend in-house training or goes to workshops, she gets paid higher and me getting a 50€ gift card, what makes it plus minus zero for me.” (HRM 3)

“Some state: “Why should I do something extra, obtain new knowledge when I earn the same money at the end of the day?”” (HRM 2)

They criticize themselves as they see, they do lack a set of certain performance guidelines. The same problem occurs when individually evaluating an employee’s performance and behavior throughout the year, that not all have the same bullet points on which the evaluate an employee. There is no detailed set of criteria communicated throughout the clinic to evaluate all employees. The motivation stems more from an employees’ own idealism yet. There is no working reward system, trying to increase the motivation of the employees.

“when I hold an appraisal interview or my colleague does, I try to make sure that we have the same criteria.” (HRM 2)

“That is a hard, tiring job, you have to have a certain idealism and the willingness to promote change and to personally develop.” (HRM 1)

What the hospital does is that they take two percent of their annual business volume and equally share it with every employee. This money should normally be used to promote innovation but is yet just given to every employee, regardless of his/her effort they put into work.

Proposition 5: There are several examples showing that there is no reward system in place, that actually does motivate or reward employees, who put in extra effort and do something besides their job description. In this study, there was no connection to be found between EDI and reward systems. Nevertheless, in other healthcare systems, this might be an interesting point to study.

4.2.5 Bureaucratic environment

The first and overall bureaucratic and standardized fact is, that the clinic is bound to a pay scale, which does not only influence the money the employee receive but also what the clinic can spend on maintenance and new technical gadgets. It is an external pressure for formalization that the clinic has to follow. There is no room in the German healthcare system for such a reward system besides the normal pay scale. That is, on the one hand a clear objection to the assumption that reward systems can motivate employee, but on the other hand a hint that the practice of a reward system can not really be assessed. There is not a direct reward system as described in the literature.

“We are bound to the pay scale, it breaks my heart, which says, someone who is motivated, should earn more than others, but where do you want to start to set the standard for that?” (HRM 2)

To go into more depth about the environment having a negative influence on EDI, the employees reported about structural problems in the hospital, which continuously interrupt the workflow in their daily job, just because of their tight budget and the reliability on the state and their funds. The specific department I studied, has to be restructured and expanded in order to fit all the medical-technological features and beds in, but simply cannot be maintained, because there is a very limited amount of maintenance budget. Their high formal and standardization requirements come from the request from health insurances to document as detailed as possible every case they treat. They are depending on their money and in reverse they have to prove, that the treatment used is appropriate. This narrows done the room tremendously for improvements. That also limits the development of new forms of treatments to a large extent. Besides this, to create a new job in the hospital it takes a very long time, which slows down the innovation process regardless of the budget and external pressures.

“It can take up to five years from the idea to the implementation, which is a way to long process.” (HRM 1)

One positive aspect to be mentioned, which is more about the environment created is, that the head of care personal was highlighting that they really have an emphasis on teamwork and training. Further, they support any action if employees want to experience another hospital and/or their work routines and climate, what should result in new insights.

“I offer everyone, [...], that if someone says that he/she wants to see another hospital. [...] Than they have the opportunity to go there and experience it.” (HRM 2)

So, they offer the possibility that they can do something like a short term internship.

Proposition 6: The formalized and bureaucratic environment does have a great impact on EDI and knowledge creation and transfer in this clinic. The pay-scale can be seen as the greatest impact, which is directly connected with the personnel shortage. It is not attractive to work in this job, whereas the motivation of employees working there is cannot be enhanced by extrinsic rewards. It must be studied how other ways can make this job attractive again, then innovations might have a chance to evolve.

4.3 The effect of HR practices on EDI: a knowledge management perspective

There was no system where knowledge is managed, it was more that it is only communicated by teams (formal) and informal conversations. Formal meetings to exchange knowledge and transfer it is done on all level in the organization. There are some patterns of knowledge management, for example that when employees learned something new they are encouraged to transfer this new knowledge. Furthermore, the days where some employees are out of their normal job and help others interpret their work the right way, is a way where knowledge is transferred. The knowledge that is created or transferred is more explicit by giving workshops that relate to the right execution of tasks than implicit, which is more about knowledge that helps to evaluate or to get a more sophisticated understanding. Days where younger colleagues can learn from the more mature and experienced ones, is a good example for obtaining tacit knowledge which stems from observations.

Diverse teams help to obtain knowledge from different perspective of the organization, which is definitely achieved by their interdisciplinary teams as well as giving them the opportunity to be a guest student in another hospital or clinic.

The fact that there is no functioning reward system implemented, it also did not come up to further elaborate on knowledge factors that might be influenced by it. It can only be stated that there is a certain level of intrinsic motivation created by their idealism and feedback of colleagues.

Proposition 7: Knowledge is not specially treated as an entity in this clinic. There is done a lot to create new knowledge and also to transfer it, but no following steps are taken to further observe how it changes processes and if the employees really do internalize it. Moreover, not in all departments, the exchange of knowledge might be as smooth as in the one studied. The four steps presented by Gupta et al. (2000) need to be observed more specific due to their importance of using knowledge the right way.

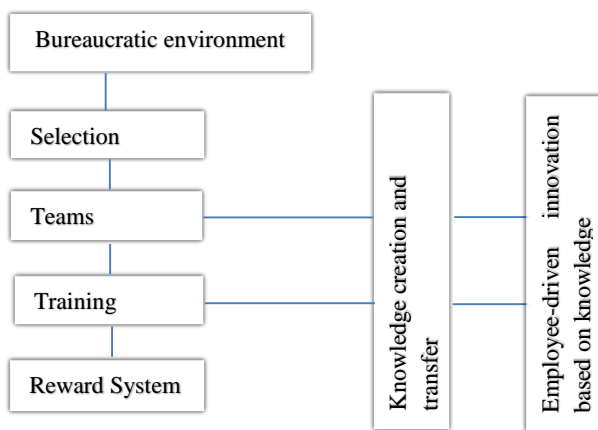


Figure 3. Revised Research Model

5. DISCUSSION

The findings were definitely very different from the findings in the literature. There are a lot of contradictions and some aspects were not to find at all.

For Selection, the first discussed, it is a complete objection to the findings. There were no special aspects or attitudes checked in order to enhance EDI, whereas Currie et al. (2015) see this as a very important aspect to be considered when hiring. Caused by a lack of care personnel, the hospital is forced to praise their institution and the job offered to the prospective and not the other way around, the applicant has bargaining power. Further, they only have limited possibilities to check for favorable attitudes and capabilities. There are no special assessments made towards their motivation and if they can contribute to teams or other organizational forms, where the operational employees exchange and create knowledge.

In terms of teamwork for this clinic the employees operate quite well in the studied department. There are different situations, the employees created themselves, where they interchange knowledge as well as creating new knowledge for colleagues. This covers the aspect of knowledge creation and subsequent transfer of it. This is one of the most important factors regarding teams concerning EDI (Cabrera & Cabrera, 2005; Currie et al., 2015). The fact, that they can manage themselves, how the structure of their department should look like to smoothen processes is a clear indicator that here options for EDI are created. Moreover, they have diversity by their interdisciplinary teams, which is covering another aspect of what is found to be important by (Shipton et al., 2006; Wang &

Noe, 2010). This was communicated from all interviewees' what makes it possible to conclude for this hospital, that they are currently enhancing their EDI by teamwork. Given the fact, that not only young people work in the teams, there are also more mature colleagues in their teams to enhance the communication and sharing of tacit knowledge, what makes the point, which (Wang & Noe, 2010) highlight. The fact that the impulse for teams and projects is still top-down can be viewed positive as well as negative. According to Patterson et al. (2010) management support is needed, to enhance the process of innovation. That means the level of teamwork is still reliant on the departments and their management. That the management gives it attention is the right move and supports the building of teams and development of the employees. There is a certain congruence between the literature and reality. Nevertheless, their reliance on input from management and their specifications is more an aspect of top-down innovation and not bottom-up. Concluding it can be said, there are a number of events, with the focus on improvements and innovation which are performed by teams, but the impulse is not coming only from the employees.

The next HR practice regarding the influence of EDI is training and development of employees. There is a lot for teamwork done to constantly develop their employees. They have various forms and levels of personnel development and even a bachelor program, where they are an exception in Germany. Moreover, they hired external coaches to train team development, to form groups and communication skills, who ensure that knowledge between colleagues is transferred. That is a direct reference to McCulloch et al. (2011) who state that training of communication and teamwork abilities are vital to have a well-functioning team. During the interview, the all referred to the fact, that patient care is evolving more and more towards an academic nature, in order to get to eye level with other jobs. That is a knowledge intense process and it is even more about knowledge creation. Moreover, I had the impression that also motivation to learn something in order to be self-critic was existing, for which (Shipton et al., 2006) saw the importance.

On behalf of Reward System as a HR practice to influence EDI, I can clearly state, that is not the case for the hospital in western Germany. That there is no functioning reward system is clearly dependent on the fact, that they are reliant on a pay scale. There is no room for the employees to earn more money based on their behavior towards innovative activities and their willingness to obtain new knowledge and to share it with colleagues. They do have something like an in-house suggestion scheme, but there you get a small gift card reward even though your suggestion was not helpful at all or well implemented. All respondents see that as a clear gap in the system. The motivational aspect of a reward system, what it should be, is not present. They obtain their motivation from the idealism regarding the care of patients of a hospital. That is a clear contradiction to what Currie et al. (2015) argue, that performance-based pay can increase the employees' motivation. Also, Laursen and Foss (2003) that employees are more likely to come up with incremental innovation of processes cannot be assessed based on this

It can be stated, that bureaucratic environment and the high external regulation does have an influence on the employee-driven innovation by clearly making aspects like a reward system not possible. The low pay and the missing career possibilities make patient care less attractive which results in a lack of staff, which in the reverse eliminates options in the hiring and selection of employees. This fact can also be generalized for other commune hospitals because they have to stick to the pay scheme. To go more into detail about the formal

and standardization requirements and how the hospitals receive their money would be out of the scope of this study, nevertheless, it is a bureaucratic and limiting factor.

In terms of my Research question: How do HR practices enhance employee knowledge, in order to foster Employee-driven on the individual level in a hospital? It is indeed possible to enhance EDI by HR practices and the in the literature mentioned HR practices do fit a certain extent to foster this innovative process, nevertheless, it is not only the HR practices which directly have an influence on the individual innovation, but also the environment and formal circumstances in a hospital.

The knowledge management is in its infancy. There is no focus that can be detected, the actions concerning KM they do are not consciously done to improve their KM. The patterns of Gupta et al. (2000) can only be detected to the socialization phase as well as the dissemination phase. That the knowledge is captured and internalized is not checked or stressed. No motivation is given to the employees as an extrinsic reward to motivate innovative behavior and show respect to their competence as Bartol and Srivastava (2002) sees this as important. There is no mixture of intrinsic and extrinsic motivation provided, whereas Malhotra (2004) sees this as an important way to enhance employee motivation.

All in all, I come to the conclusion, that there is employee-driven innovation and also the generation of new knowledge, but to a limited extent. Teamwork and training prove the fact, that hospitals have certain capabilities to innovate processes and the patient care, but are limited by rules and regulations, tight budgets and the reliance on external parties. So, that the bureaucratic environment has a major influence on this West-German hospital beside the other HR practices to influence EDI.

6. MANAGERIAL IMPLICATIONS

With the results from my research I can provide some implications from a managerial standpoint. Especially regarding HR practices and their influence on EDI in a hospital. The study as it was a case study conducted in a hospital, iwe should be careful generalizing it, but some do apply for more than just this specific one, based on the system in Germany. These implications will provide an insight to the importance and characteristics of HR practices, which are found to be EDI enhancing.

Shipton et al. (2006) discusses that the HR practitioners are the ones to develop a framework, where the knowledge and the potential of the employees' is exploited for innovative use. Based in this study, I found that there are indeed some HR practices in place that work and enhance the EDI, but there are also i.e. the practice selection and reward system, which do not function well. Due to an accurate selection and a defined hiring process, the hospital can ensure to hire motivated people, who are willing to go beyond their job description and enrich an existing team. Hiring new employees' by applying as an organization will completely erase this option and will not contribute, it might even worsen the situation. The next implication is, that by the pay-scheme all employees are bound to a pay-scale and there is no option for them to earn more based on their performance. In order to get to the same level as other jobs, as the head of care personal wants it, they need to develop performance-based pay like in other fields of industry. They have to find a way besides their strictly calculated budget to increase the employees' motivation by extrinsic rewards, as I found out, the motivation does not solely come from the intrinsic motivation and idealism itself.

What can be said in general to the environment is that the area in which this hospital is located has no "Pflegekammer" yet, who sets rules and guidelines for continuous development and training of employees. Such an institution could foster the process of developing the workforce and bring them towards more innovative and knowledge capabilities.

7. THEORETICAL IMPLICATIONS

This research incorporates (Shipton et al., 2006) framework built by researchers of the HRM field, Lin (2015) and her research on organizational innovation as well as (Høyrup, 2010) the way of "inner-directed" people management. The results combine these efforts and contribute to the existing literature. This study confirmed fulfilled findings in the literature but also showed gaps and room for further research (Donate et al., 2015; Shipton et al., 2006). In the literature they found that indeed certain HR practices have an influence on the knowledge creation and transfer between employees'. This study also showed no evidence that they are only very limited possible in this environment. Nevertheless, what was described regarding the practices that have been found, the results were similar to the ones described.

In terms of Lin (2015) and her argumentation towards organizational innovation being based on individual innovation a clear statement cannot be derived. The start on the individual level by obtaining training and knowledge, which they transfer to the team-based level by giving presentations and providing training from and for the employee. The next step is, that processes and patient care gets overall improved by spreading this knowledge in their department over and over and thus, receive so-called organizational innovation. This may just apply for some of their innovations, as I learned beforehand that a lot is still top-down.

To the statement of (Høyrup, 2010) that especially knowledge and people management is the key to EDI, that can be confirmed as well by my findings from the research. There is indeed the focus on knowledge to understand certain processes better or to receive knowledge regarding team characteristics. Training this, as it is done in the clinic, it can enhance the employees' knowledge which is reached by effective people management.

8. LIMITATIONS

This study has some relevant limitations, that have to be addressed. First, as it is a bachelor thesis in the field of business administration, it was conducted with limited resources, especially in terms of time and contacts to interview. As I used the design of a case study, it is possible that by the semi-structured interview some aspects were lost due to inaccurate questioning (Yin, 1999). For this data collection, it was not possible to spend a certain time in the environment, further no relationship was built to the interviewees', because of the limited time available. As already mentioned beforehand, it is not possible to derive generalizable conclusions from a single case study, whereas we cannot speak from typical observations. Another limitation is that it only takes a German clinic into consideration with its specific system. Here the study could be expanded to compare in between hospitals in Germany, to obtain a more profound view. Furthermore, it is hard to present all the complex sampled data from the interview and simply present them (Hodkinson & Hodkinson, 2001; Siggelkow, 2007; Yin, 1999). The sample used here, was a very small one and lets results regarding the physicians working in a hospital open. With a bigger timeframe, it would be possible to have more departments questioned, to derive a more sophisticated

view of internal variations of EDI. Moreover, it would be interesting to have a comparison to the abilities to innovate of a privately held hospital and/or other commune hospitals in Germany, to be able to derive a more generalizable conclusion regarding EDI. There also might be huge differences in how personnel is managed in other hospitals in Germany and this might just be a quite well functioning example. The study entails certain main HR aspects but does not take the job design of the care personal into account, if there is a way to enhance it by a different design. In times of tight budgets and limited resources, additional aspects could be the job complexity and workload. These might have a noticeable impact as a similar study in this field was conducted by Philipp Weilinghoff, which can be seen as a complementary study.

9. CONCLUSION

This study focused on HR practices and their effect on the knowledge transfer and creation to foster employee-driven innovation. The four examined HR practices: selection, teamwork, training and reward system have been characterized and proposed in statements to measure the effect they have based on qualitative, semi-structured interviews. Moreover, the influence of the bureaucratic environment and the context of a hospital in Germany was taken into account, where there is clearly a lack in the system which showed that the pay scheme is limiting and the rules and regulations do have a certain impact on EDI. This research showed that there have to be very general changes be done to the healthcare system, which would allow a reward system, it also highlights the personnel shortage which is often discussed in Germany and which is a major barrier to EDI enhancing factor selection. Referring back to my research question from the beginning, I can state that with the approach of knowledge creation and transfer on the individual level, EDI can only be enhanced in a very limited way. A lot of innovative impulses and capabilities come from the management and just not from the operational employees. The HR framework around the employees is not directed towards EDI and thus this clinic shows only two HR practices that have an influence on EDI.

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12. APPENDIX

HR Construct	Definition	Main Concepts	Measure/Keywords
Selection	Selective staffing refers to Selection, is characterized by rigorous selection procedures through extensive and intensive research which are built upon the organizations' values (Donate et al., 2015)	selection procedures	Selection
		checking for favorable attitudes	Tests
		Personality traits	attitudes
			Social capabilities
Teamwork	The best way possible to enhance sharing knowledge is to form teams. Team building is found to be enhancing collaborative knowledge exchange (Cabrera & Cabrera, 2005; Currie et al., 2015)	Life-cycle	Duration of teams
		Composition/diversity	Composition of teams
		Support for change	Trust in teams
			Usage of teams
Training	"It facilitates the development of employees' capabilities, as well as ensuring a certain level of basic skills and knowledge to perform effectively." (Shipton et al., 2006)	Teamwork training	Training/ development options
		Communication training	Focus of training
		Reflective capabilities development	Importance of training
		Problem-solving	Achieved abilities
Reward System	in combination with other practices performance- based pay is a significant driver of motivation, as long as it is perceived as meaningful. (Currie et al., 2015)	Performance-based pay	Pay-schemes
		Monitoring work and effort	Evaluation of performance
			Justification of rewards
Employee-driven innovation	novel set of behaviors, routines, and ways of working that are directed at improving health outcomes, administrative efficiency, cost effectiveness, or users' experience and that are implemented by planned and coordinated actions", Greenhalgh et al. (2004, p. 582)	innovative behavior	Personality traits
		inner-directed innovation	People management
		reconstruction of routines	Problem-solving rights delegated
		Knowledge aspect of innovation	Innovation achieved by special knowledge
		creativity	
Knowledge management	Knowledge management is about using knowledge in a way to benefit the organization by exploiting the current collective knowledge (Alavi & Leidner, 2001); capturing the right knowledge, getting the right knowledge to the right user/patient, and using it to overall achieve improved organizational performance (Ahmad et al., 2011).	Creating/ achieving knowledge	Knowledge creation of employees
		Using and manage knowledge	Usage of new created knowledge
		Distributing knowledge	Knowledge transfer between employees
			Internalization of new knowledge

Table 2. Operationalization