MSc Human Resource Management and Organizational Psychology

Risks in human resources and their relation to organizational risk management

Mitigating the HR risk of knowledge-loss, using knowledge management systems

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Declaration of Research Work Integrity

This work has not previously been accepted in substance for any degree and is not being concurrently submitted in candidature of any degree. This thesis is the result of my own investigations, except where otherwise stated. Other sources are acknowledged by giving explicit references. A bibliography is appended.

By signing the present document I confirm and agree that I have read RU's ethics code of conduct and fully understand the consequences of violating these rules in regards of my thesis.

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Abstract

Allegedly, there is a positive relationship between HRM practices and the effectiveness and sustainable success of an organization. This relationship can only be positive when the employees, working for an organization, and the additional resources they bring to the operation are properly managed. Many organizations have human resource departments and most have risk management systems. It is important for organizations to manage all possible risks which might cause a halt in their operation, including the risks in relation to the human resources or so called HR risks. The purpose of the research is to see how medium-sized and larger knowledge-based organizations in Iceland are addressing and managing risks in human resources. This research puts a focus on the HR risk knowledge and aims to figure out if HR managers put enough value on knowledge, in knowledge-based organizations, to regard it as an HR risk and if they are systematically using knowledge management systems to try and mitigate the risk which could occur should they lose the knowledge. The research also raises the question whether HR risks should be included in organizations risk management system but such practices have become increasingly more common in other countries. The results indicate that HR managers are aware of risks in relation to human resources without being familiar with the term HR risks. They do realize that knowledge is an important component in their operation and are using various informal and formal practices to ensure the knowledge within doesn't get lost. It is vital for organizations to realize which components are the major risk factors within to systematically work on mitigating them. If risk factors, such as knowledge-loss, are not systematically mitigated, organizations might lose their competitive advantage as well as their success in the market might decrease indefinitely.

Keywords: Risk management, HR risks, knowledge management, competitive advantage, sustainable success.

Útdráttur

Sagt er að jákvætt samband sé milli þess að nota aðferðir mannauðsfræða og þess að ná fram skilvirkni og sjálfbærum árangri innan fyrirtækja. Þetta samband getur aðeins verið jákvætt þegar starfsmenn innan fyrirtækja og þær auðlindir sem þeim fylgir er stjórnað. Mannauðsdeildir eru innan flestra fyrirtækja en mörg þeirra hafa einnig yfir að ráða kerfum til áhættstýringar. Það er mikilvægt fyrir fyrirtæki að stýra öllum þeim áhættuþáttum er gætu valdið hindrunum í rekstri fyrirtækja en þeirra á meðal eru áhættur er tengjast mannauði, svokallaðar mannauðs áhættur. Tilgangur þessarar rannsóknar er að kanna hvernig miðlungs-stór og stærri fyrirtæki á Íslandi takast á við og stýra áhættum í mannauði. Rannsókn þessi einblínir að því að kanna hversu mikla áherslu mannauðsstjórar í þekkingarfyrirtækjum leggja á þá áhættu er tengist þekkingu og hvort sú áhersla sé næg til að þeir telji þekkingu vera hluta af mannauðs áhættum innan þeirra fyrirtækja. Einnig er verið að kanna hvort þeir séu markvisst að nýta sér þekkingarstjórnun til að minnka áhættu er gæti orðið við missi ákveðinnar þekkingar. Rannsókn þessi spyr einnig hvort mannauðs áhættur ættu að vera hluti af áhættustýringu fyrirtækja en slík vinnubrögð eru að verða algengari í nágrannalöndum. Niðurstöður benda til þess að mannauðsstjórar eru meðvitaðir um áhættur í tengslum við mannauðinn án þess að þekkja hugtakið mannauðs áhættur. Viðmælendurnir átta sig á að þekking er mikilvægur hluti af þeirra rekstri og nýta sér ýmsar óformlegar og formlegar leiðir til að tryggja það að sú þekking sem er til staðar glatist ekki. Það er mikilvægt fyrir fyrirtæki að átta sig á því hvaða þættir geta valdið sem mestum áhættum og markvisst vinna að því að draga úr þeim áhættum. Ef ekki er dregið markvisst úr áhættuþáttum líkt og tapi þekkingar, þá gætu fyrirtækin átt á hættu að glata samkeppnisforskoti sínu sem og að árangur þeirra á markaði gæti minnkað umtalsvert.

Prologue

This thesis is a 30-ECTS research project conducted for a MSc degree in Human Resource Management and Organizational Psychology within the School of Business at the University of Reykjavík. The research process begun in September 2016 and concluded in May 2017 when the researcher handed in the final draft. This research addresses the possible HR risks within knowledge-based organizations in Iceland, with particular focus on knowledge and the usage of knowledge management systems. This thesis was conducted under the supervision and support of Hallur Þór Sigurðarson and I thank him for his valuable input throughout the process. I would also like to thank the HR managers interviewed for their positive response and enthusiasm. Last but not least, I would like to thank my family and friends for their endless support throughout my stay here at the University of Reykjavík, it means more to me than they will ever know.

Table of contents

Table of figures

Table of tables

Introduction

The knowledge each employee holds has become increasingly more valuable for organizations, particularly knowledge-based organizations who rely heavily on their employees' knowledge to gain competitive advantage in the market. It has, however, not been as discussed if such organizations actively monitor knowledge-loss, using knowledge management systems, or other human related risks. That raises the question whether HR risks should be put into organizational risk management systems to constantly keep those risks under surveillance. A research on the relation between human resources and risk management has not been conducted in Iceland but this practice is becoming increasingly more common in other countries. The contribution of this research is thus to connect the two different fields of human resources and risks to allow organizations to look at these two as a whole, HR risks.

This study uses a qualitative method to answer the question of *what selective medium-sized and large knowledge-based organizations in Iceland are doing to address and manage risks in human resources*. The researchers aim is therefore to inquire what the situation is within each organization interviewed. The researcher aims to see if HR managers in such organizations understand what the concepts of HR risks and knowledge management entail, if these human resource managers are aware of the concepts in general and what experience they have in using practices to mitigate relevant organizational HR risks.

Nine semi-structured interviews were conducted with HR managers in medium-sized and large knowledge-based organizations in Iceland. The interviews were conducted with HR managers to get an idea of how much emphasis they put in validating HR risks, to see if they realize the importance and value in using knowledge management systems to mitigate the human resource risk knowledge-loss and how they are using such a system.

As jobs are becoming more complex and the work environment is becoming increasingly more competitive, it is vital for organizations to monitor the aspects of work which might bring them sustainable competitive advantage. This research is therefore important but the aim is to inquire what the situation is now, regarding the organizational operation and its relationship with the organizational human resources, and what could be improved. By realizing the importance and value of monitoring organizational HR risks, to systematically work on mitigating them and to keep good knowledge

management system within to maintain the knowledge and to lessen the impact of various HR risks which might occur as a result of not using the system, organizations should be able to maintain a sustainable competitive advantage.

This thesis contains six chapters. The first chapter discusses risks in relation to human resources and knowledge with the aim of giving an example of what has been written about these fields before. The first chapter is thus a literature review on these aspects. As mentioned, the research on risks in relation to human resources has not been vastly studied but this thesis contributes to the Icelandic market by aiming to combine the two fields of human resources and risk and explain why Icelandic knowledge-based organizations might benefit from viewing those two fields in relation to one another. The chapter explains the main business risks and goes deeper into explaining HR risks and how HRM practices can systematically mitigate them. An international perspective will be given, focusing on Germany, how they have incorporated their organizational human resources into its risk management systems as well as the importance of knowledge management and adopting such a system will be stated. The second chapter explains the methodology used in this research, further elaborating on why this study is conducted, why it is important and how the results were analysed. In the third chapter findings will be presented but discussions on the findings will be put forth in chapter four. The fifth chapter concludes this study with organizational improvement and ideas for further research mentioned in sub-chapters.

1. Risks in relation to human resources and knowledge: literature review

There is a reason some organizations are referred to as knowledge-based organizations. Such organizations have highly educated employees or knowledge workers and they maintain their competitive advantage by retaining these employees (Sveiby, 1997). It is therefore vital for them to realize that the knowledge within is their greatest strength and it can be a great risk factor should the knowledge disappear. This chapter will focus on the definition of HR risks and knowledge management and it will seek to explain why it is important for organizations to be aware of both factors.

This chapter will focus on the more theoretical part of the thesis. Various ideas will be presented in the sup-chapters below, giving a broader view on the topic of human resources within organizations and why certain aspects of HR should be regarded as a possible risk factor which has to be systematically mitigated as to not put a halt to the organizational operation. This chapter will elaborate on what the main risk factors are within organizations. Human resource management and its main practices will be explained as well as the concept HR risks and what it entails will also be explained. The human resources and their relation to risk will also be addressed in an international context where the focus will be on Germany. Knowledge management and its aim will be explained as well as the two components related to knowledge, explicit and tacit knowledge, will be further elaborated on. The adoption of knowledge management will be discussed and finally the ways of how organizations can adopt knowledge management and how change management can contribute to the successful adoption of such a system will be addressed.

1.1. Organizational risks

There is no single definition for the term risk (Hagigi & Sivakumar, 2009). Risk can however be thought of as the likelihood of something happening which will then have a direct impact on organizational business objectives (Burkholder, Golas & Shapiro, 2007). Holton (2004) suggests that for risk to exist two components must be present, exposure and uncertainty. Exposure exists if there is a personal interest for a desirable outcome but uncertainty exists if there is a possibility that a desirable outcome will not be secured. Risk management is becoming increasingly more important as a business activity especially since the business environment and uncertainties within such an environment continues to grow (Elahi, 2013). According to Regda (2007), risk is all the uncertainty which concerns itself with the occurrence of loss. Uncertainty, in this concept, is thus an

organizational lack of information about what might occur in the future meaning that decision makers will have trouble describing future outcomes due to their limited knowledge (Carbonara & Caiazza, 2010). Ratcliffe (2006) states that all aspects of modern society are continuously changing and transforming making it difficult for decision makers in organizations to imagine what the future may hold. Managing risk is thus vital for organizations to lessen the loss caused by uncertainty (Regda, 2007). In the traditional view, organizations mainly tended to look at risks within operations as an extra cost which had to be dealt with (Elahi, 2013). Nowadays, however, there is a new trend which shows how organizations have begun to look at risk from a different perspective. Risk is now something which can be managed in order to reduce the cost followed by unexpected events. Risk is not a new trend but the fact that it can and should be managed, in all aspects of an organizational operation, is receiving increasingly more attention. Very few organizations, however, are systematically using the risk management to gain competitive advantage. According to Dionne (2013), the modern risk management view is to manage all risks and uncertainties organizations might face.

All management decisions can result in good or bad outcomes meaning that all management decisions contain certain risk factors (Sadgrove, 2016). Risk is a future event and a consequence of all decisions made and actions taken. Therefore, evaluation of possible consequences should be made as well as organizations must actively aim to prevent all possible risks which could endanger their operation. Risks can affect organizations differently but entrepreneurs are often described as innovators or risk takers whilst decision makers in more established firms are less likely to take risks which could cause either bad or good results for the organization (Busenitz & Barney, 1997). It is the willingness to take risks which sets organizations apart but risks are not always bad, especially if they lead to more effective ways to conduct organizational operation. However, as organizations continue to grow and as they seek to maximize their corporate value the need for ongoing and effective risk management has increased (Burkholder et. al., 2007). Risk management should therefore be found at all levels in organizations, it not only allows for proper supervision over organizational operations but an effective risk management may most likely be the source of its competitive advantage (Elahi, 2013).

Sadgrove (2016) points out that some risks are more obvious than others. Organizations cannot, however, forget the unexpected risks factors. Unexpected risks are events that are hard to plan for, consequently it is hard for organizations to prevent those events. Examples of predictable and obvious risks are for example workplace accidents

whilst unpredictable risks can be new competitors in the same work field. Then there are some risks which can be both predictable and unexpected for example the loss of key employees.

Organizational risks can be external and internal (Sadgrove, 2016). Risks in external context entail that organizations view the environment in which the operation is, otherwise some risks might be overlooked. Risks in internal context entail that employees view the business itself and consider all relevant factors which make the operation function.

Sadgrove (2016) identifies six types of risks within organizations that span both categories, external and internal.
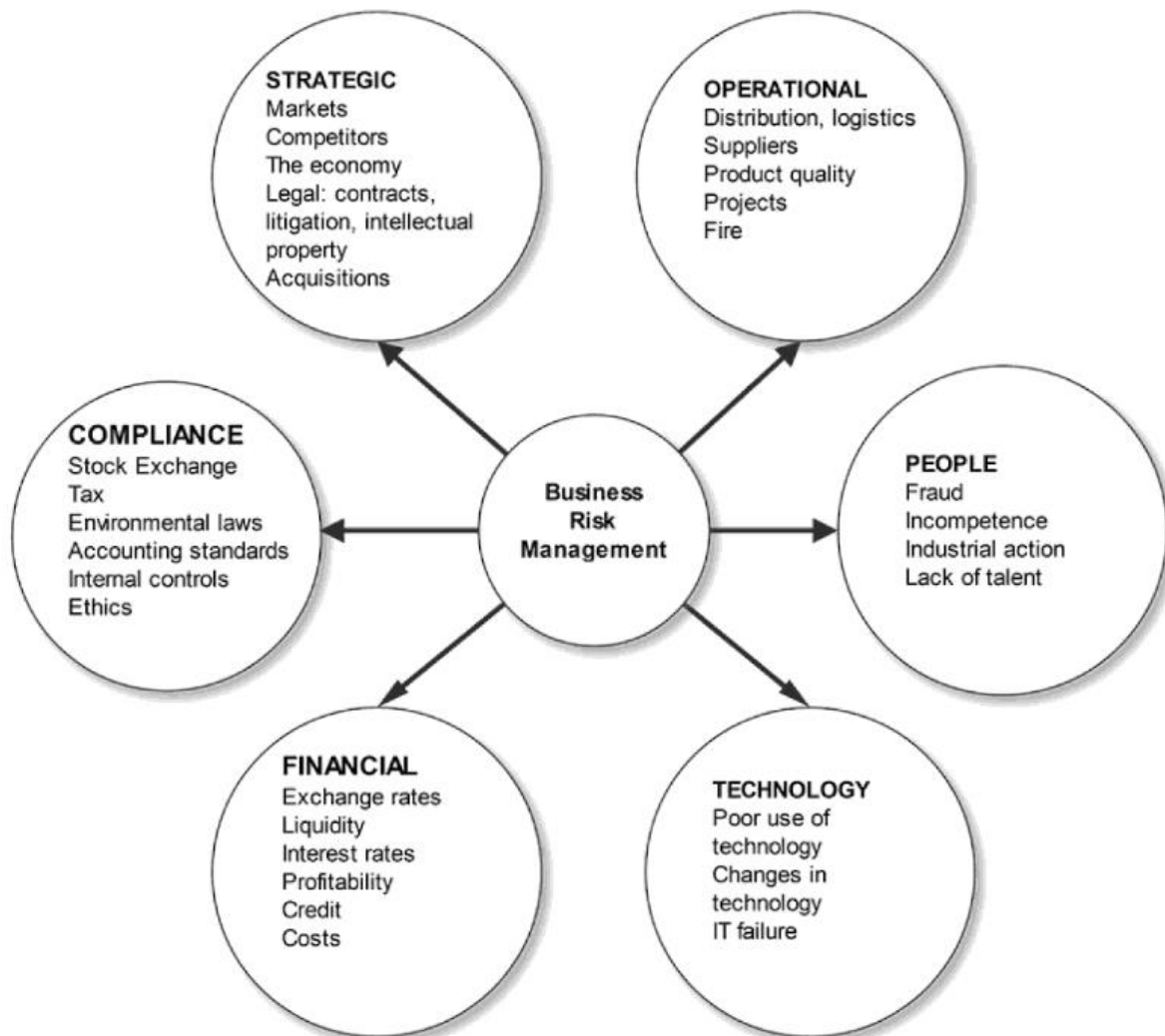

Figure 1 The six types of risk (Sadgrove, 2016, p. 27).

Sadgrove (2016) states the first risk as being strategic risk, usually overseen by the CEO. It requires strategic planning and forces organizations to think on a grand scale. Customers and their changing attitudes, new technology with all the threats and opportunities they bring and all hiccups in the reputation of an organization can be thought of as parts of strategic risks. Strategic risks therefore include all risks which could have an impact on the growth of an organization (Burkholder et. al., 2007).

The second risk would be operational risk (Sadgrove, 2016). It includes factors related to operation of an organization, be it systems and processes within, technology or employees or employee errors (Burkholder et. al., 2007; Dionne, 2013). Operational risk occurs when the production comes to halt. Maintenance of operation must therefore be active and ongoing in order to prevent operational risks.

The third risk factor is compliance risk which Sadgrove (2016) says is becoming increasingly more important as a regulator for organizations to keep count on their operational or financial risks. Compliance risk, or legal and regulatory risk as Burkholder et.al. (2007) chooses to call it, allows organizations to keep track on their operation to see whether it is in line with laws. It reminds organizations to view legal factors and to monitor if their operation considers the environment and if it is ethical (Sadgrove, 2016).

The fourth risk is financial risk (Sadgrove, 2016). Financial problems usually occur because of strategic problems or failed strategic planning. It can also be the result of business risks created by employees or managers in other departments than the financial department. Financial risks occur when organizations fail to raise its capital, fail to maintain its access to capital and contracting issues (Burkholder et. al., 2007). According to Sadgrove (2016), financial risks are also risks such as credit risks and market risks. Credit risks are concerned with the possibility of customers failing to pay back their loans. Financial risks can also be market risks which tend to focus their concern on the movement of the stock market. The risk itself is when the stock market moves in the opposite way of what was expected. Finally, financial risks can also be operational risks which would include all financial risks who don't fall under the category of being either credit or market risks.

The fifth risk is technology risk but if organizations fail to use IT properly it would put the operation at risk (Sadgrove, 2016). Technology risk ranges from small computer issues, such as power outage at work, to not having the right corporate system which could halt the operation or cause an organization to drag behind their competitors.

The sixth and final business risk is people risk or human capital risk which is risk caused by employees of an organization (Sadgrove, 2016; Burkholder et. al., 2007). Most risks occur due to human weakness and more often than not it is the employees which are the reason for business risks (Sadgrove, 2016). All individuals involved in organizational operation can cause business problems in one way or another an no one is exempted. Some of the risks they might cause can be reduced or managed with better recruitment process, more training or better motivation. Other human capital risks unfortunately occur due to employees' lack of integrity but those are cases such as fraud where people deliberately try to cheat the system. Human capital risks also include turnover, absenteeism, worker compensation, unionization, workplace violence, harassment at workplace, strikes and discrimination, safety and security (Burkholder et. al., 2007). Sadgrove (2016) states that organizational management has often been accused of not focusing enough on employee issues and thus forgetting possible risk factors containing human error. It is essential that whilst managing risk, all risks which might occur due to the people should be taken into account to lessen possible losses which might otherwise occur.

This chapter explains risk as a future event, more often than not a result of management decisions. Risks can be both unexpected and predictable with risks, such as loss of key employees, falling right in between the two categories. There are six types of risks which are strategic risk, operational risk, compliance risk, financial risk, technology risk and human capital risk. Management in organizations doesn't always focus enough on employee issues. This ignorance might lead to risks occurring due to human error being overlooked.

1.2.   Human resource management

The function of human resource management (HRM) within organizations begun in personnel departments in the 1930s and 1940s (Burkholder et. al., 2007). The concept of HRM, however, is relatively new and the field in which it operates is still being formed (Hendry, 2012). Burkholder et.al. (2007) describe the function of HRM from the 1930s to this day. In the beginning, it's main purpose was documentation but the department was to manage and create all employees' paperwork. As times changed, HRM took on different roles, more diverse tasks and more responsibility. As a result, today's human resource functions cover management in relation to recruitment, staffing and training, leadership development and retention. HRM thus manages all issues related to

employees. Despite the various roles of HRM, it is possible to place it within an organizational operation where its main role is to match an organizations business strategy and its personnel management (Hendry, 2012).

Various understanding on what HRM entails has caused many ideas to surface ever since the concept first appeared but according to Hendry (2012) there are three main expressions and ideas on HRM. The first idea, as Hendry (2012) argues, is that many have acknowledged the idea of human resources being organizations most important asset. This acceptance marks a great change in the view on HRM but in the past employees were not considered as a resource of an organization but as a necessary cost (Burkholder et.al, 2007).

Another idea on HRM is that its main role is to coordinate employment practices with the organizational strategy (Hendry, 2012). In order to coordinate those two factors, HRM should act as a personnel planning tool for organizations where the decisions made and actions taken from it will benefit their employees. These systems should guide the organization in various aspects, help to create a healthy culture within and allow for a speculation on which employees should get trained and why, to be able to see which is the best way to motivate the employees and to decide on who should receive reward for their work and why.

Hendry (2012) states that the third idea of the usage of HRM within organizations is that HRM should secure employee commitment to the operations. HRM should focus on increasing employees' motivation and contribute to the good relationship between them and the organization by allowing for a high-trust relationship between the two. If an organization suffers a human resources loss it can have a great impact on its ability to maintain and deliver the business strategy (Nickson, 2001). Human resource managers can thus be thought of as middlemen between employees and organizations where they seek to improve its business and performance by providing all human resource deliverables needed (Burkholder et. al., 2007). These HR deliverables address the human capital issues within organizations and play the key role in executing the business strategy. HR deliverables are therefore great contributors to organization's success.

There are two widely accepted and adopted HRM models, the soft and the hard version (Truss, Gratton, Hope-Hailey, McGovern & Stiles, 1997). These models are based on the view that human nature varies and within each organization, there is a different managerial control strategy. The soft HRM model implies that employees are an

organizational resource and worthy of training and further development. The hard HRM model, however, implies that employees are a cost which organizations should try and minimize. Both models are relevant in today's human resource management control strategy.

Models have been created to try and explain the idea of what HRM entails (Truss et.al., 1997). Despite these models, it is hard to pin-point the definition of HRM but Boxall (1996) believes it is definitional and self-evident that HRM involves giving organizations competitive advantage and for generating an organisational strategic capability. HRM focuses on organizational resources and is responsible for emphasizing the key human resources which then become the source of an organizations competitive advantage. It is the human capital and the employees' know-how which gives value to the relationship between an organization and its employees and human resource management addresses that.

As presented above, HRM practices as they are known within organizations today, have changed greatly over the last few years. The tasks have become more diverse and contain more responsibility. The main focus of HR managers in modern organizations is to manage issues related to employees. The main purpose of HRM is to match the personnel management with an organizations business strategy, where the human resources are an organizations most important asset. HRM practices should also focus on securing employee commitment to the organizational operation. Despite models failing to give a proper explanation of what HRM entails, it is evident that with a proper management of HRM practises, organizations should have its key human resources constantly monitored and analysed to evidently gain competitive advantage.

1.3. Human resource risks

The term HR risks has yet to be defined but no clear and precise definition exists (Kobi, 2004). Human resources and risk management within organizations are usually not affiliated with one another (Sadgrove, 2016). Hinton (2003) points out that the key risk within any business is the human capital. The belief that human resources focus on soft issues while risk management focuses on the hard issues still exists. However, globally that view has changed and what's more important, people have begun to notice possible risk factors related to human resources. These possible risk factors are called HR risks.

Most literature on HRM and its activities address the positive impact HRM has on human resource systems and practices (Becker & Smidt, 2016). Despite this positive

impact, risks due to ineffective, absent or inappropriate HRM practices should also be considered. Even if people have noticed possible risk factors in relation to human resources, no extensive researches have been made on the topic as well as the literature hardly mentions human resources in relation to risk. The literature usually discusses risk factors and how HRM practices could mitigate the risk. There are, however, few articles which combine the two and take an integrative view in the field of both risk management and HRM. Those articles discuss how risk management and HRM can be integrated in an organizational work as systems instead of continuing being individual practices.
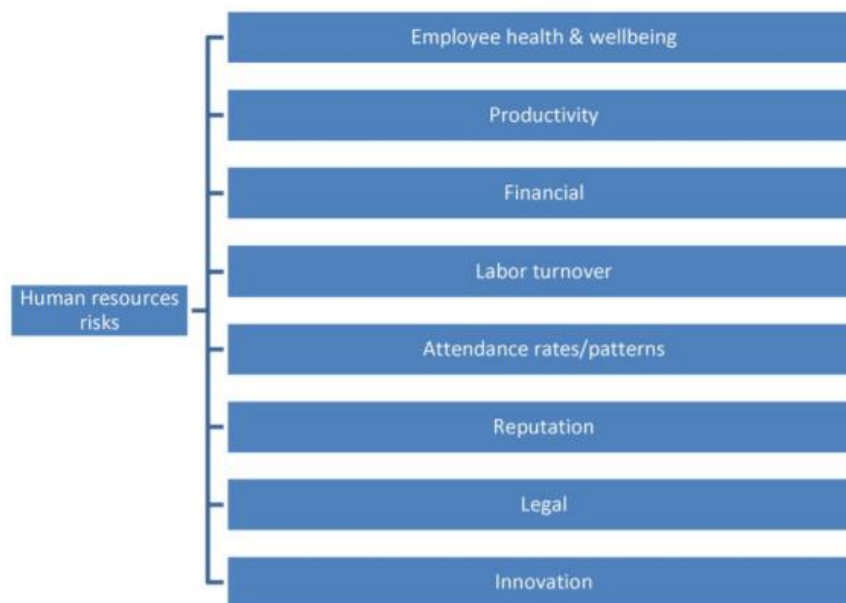
Figure 2 Human resource risks (Becker & Smidt, 2016, p. 153).

Figure 2 shows risk factors which are related to human resources, so called HR risks. These eight HR risks factors are easy to mitigate if proper HRM practices are used (Becker & Smidt, 2016). The first HR risk factor is employees' health and well-being. With human resources being one of organizations greatest asset, it seems reasonable they focus on potential risk factors which could halt operation (Hendry, 2012; Becker & Smidt, 2016). The health and safety of employees has been a key focus point for organizations for many years (Becker & Smidt, 2016). Recently though, with organizations acknowledging the existence of HR risks, a broader view has been taken on possible risk factors which could have an effect on the human resources. True HRM systems do not only exist to monitor the safety and well-being of employees, they consider other risks human resources present in organizations.

The second HR risk factor is productivity (Becker & Smidt, 2016). Some believe that risks to productivity are directly linked to human resources of an organization.

Productivity is usually linked to other HR risks but it is the interaction between the two which results in an organizational risk. There is for example the risk of presenteeism, when employees come to work despite being ill, which would result in reduction in production level (Demerouti, Le Blanc, Bakker, Schaufeli & Hox, 2009). According to Brotheridge (2003), employee turnover, employee health and well-being as well as ineffective organizational changes can also have negative effect on productivity. Other production risks would be ineffective project management practices or the absence of it (Lai, Liu & Ling, 2011). Therefore, ineffective human resources within organizations have an effect on productivity which could become a hindrance for its operation and even result in an organizational failure.

The third HR risk factor is financial risks (Becker & Smidt, 2016). The main reasons for financial failures are the human factors and their non-technical skills (Leaver & Reader, 2016). Edmans (2012), however, believes that specific issues related to employees and their job satisfaction have a direct impact on an organizations financial performance. It is questionable why there is such limited research on human factors and their contribution to financial performance since both finance and human resources are possible risk factors meant to bring as much value to organizational operations.

The fourth HR risk factor is the labour turnover (Becker & Smidt, 2016). Labour turnover is a possible risk which can have a negative impact on the stability and development of an organization (Wang, Wang, Zhang & Cao, 2011). There are a few factors which can affect a turnover for example an individual's organizational commitment or work-life conflicts (Clausen & Borg, 2010; Messersmith, 2007). Katsikea, Theodosiou and Morgan (2015) also name few other factors which can cause a labour turnover. Those factors include psychological, supervisory and structural reasons. The risk of turnover is twofold, it is related to the employees who have already left and those who intend to leave (Clausen & Borg, 2010; Katsikea et. al., 2015). Boockmann and Steffes (2010) mention that when employees feel the lack of opportunities within organizations, especially in regard to training and growth, they are more likely to leave. Labour turnover is thus a considerable risk factor because if employees leave it might cause a halt in the organizational operation. The employees own know-how might also get lost at the same time, causing organizations to lose their competitive advantage (Boxall, 1996).

The fifth HR risk factor is attendance rates/patterns (Becker & Smidt, 2016). This HR risk suggests that by viewing the attendance pattern of employees, it is possible to detect potential organizational risks. Battisti and Vallanti (2013) state that absenteeism and temporary employment may lead to negative impacts in organizational productivity. Presenteeism, when employees should be absent when ill but turn up for work, can also have a negative impact on an organizational productivity (Demerouti et. al., 2009). Both absenteeism and presenteeism present a risk caused by employees and have an effect on organizational operations.

The sixth HR risk is reputation (Becker & Smidt, 2016). Reputation can have a positive or negative impact on an organization but a reputation is how shareholders, customers and others in society perceive it. Reputational risks can be ethical risks but according to Beatty, Ewing and Tharp (2003) reward systems and compensations to employees are the greatest ethical risk factors. Negative reputation, due to the ethics of an organization or its profession or legal standpoint, could have a bad impact on the operation within. To reduce reputational risk, effective performance management and communication systems are most effective, mitigating the negative impact of the unethical behaviour of an organization. Reducing the risk of unethical behaviour results in lower risk of reputational damage.

The seventh HR risk is legal risk (Becker & Smidt, 2016). For an organization to function properly and in accordance with law it must have some legal requirements which apply to the management of the human resources. Sexual harassment, for example, is an issue an organization must deal with, both in accordance with the law and the severity of the harassment (Elkins & Velez-Castrillon, 2008). How an organization handles such issues can affect its liability, the consequence being a decreased job satisfaction amongst the employees resulting in a step back in organizational operations and its financial performance (Elkins & Velez-Castrillon, 2008; Edmans, 2012). HR risks are thus all linked but Roehling and Wright (2006) emphasize that organizations cannot only focus on legal risks when making HRM decisions, the decisions must be balanced and fair.

The eighth and last HR risk mentioned by Becker and Smidt (2016) is innovation. Human resources have an impact on the innovative capacity of an organization but innovation is very important if it is to continually reinvent itself. The development of innovation relies heavily on both strategic HRM and market attractiveness (Ottenbacher & Harrington, 2010). In the same way, it is suggested that the increased workforce

mobility has a negative impact on organizations innovations and puts them at risk (Ballinger, Craig, Cross & Gray, 2011). The innovation would be at risk due to the instability of employees' networks and knowledge (Ballinger et. al., 2011; Boxall, 1996). It is therefore safe to argue that the HR risks of labour turnover and lack of innovation might be linked.

These eight HR risk are not the only risk factors organizations should keep in mind. According to Sadgrove (2016), figure 3 lists up the main HR risk factors and inevitable consequences should they not be mitigated.
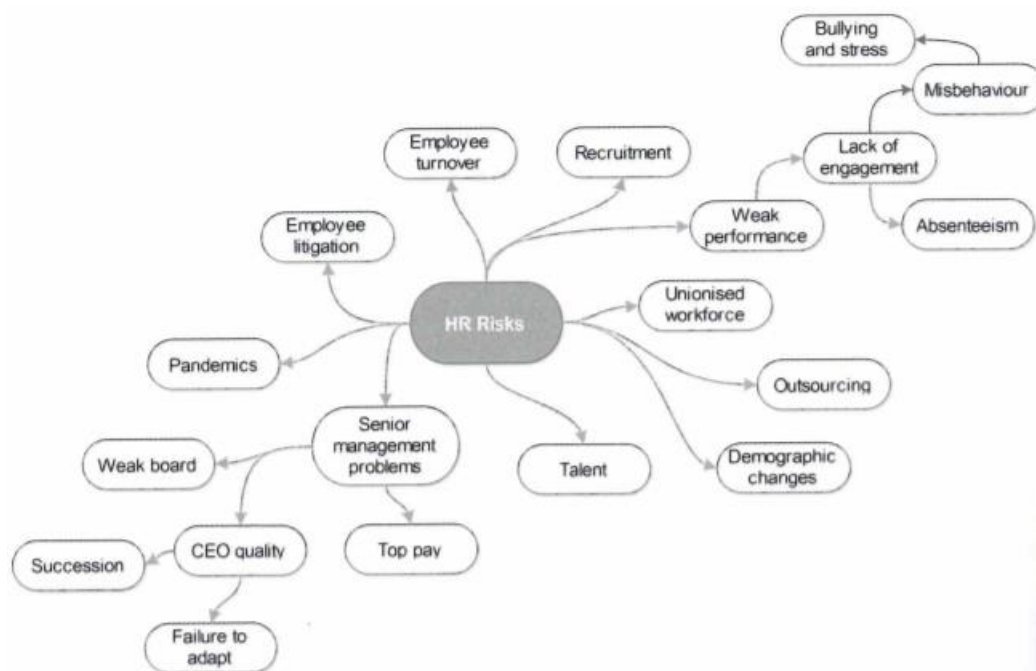
Figure 3 HR risks (Sadgrove, 2016, p. 350).

Sadgrove (2016) believes that HR risks are caused due to lack of good management. By viewing the different ideas of Becker & Smidt (2016) and Sadgrove (2016) on HR risks, it is possible to see how HR risks are similar yet different. As Becker and Smidt (2016) focus more on the results of not managing human resources with Sadgrove (2016) mentioning the consequences of certain HR risks, they all agree that there are various human related errors which might cause damage to an operation if not managed properly. The main difference of such risks lies in the organizational aspect of what HR risks they believe to be important to define and review based on its operation. HR risks, therefore, differ and vary between organizations and different operations.

HR risks are all risk factors related to human resources. There is, however, no clear or precise definition of the term itself although the most basic idea of the concept itself would entail all risks which might cause a halt in organizational operation as a result

of insufficient management of human resoursces. The key risk within every organization is the human resources but an organizational risk management and its human resources are usually not associated with one another. HRM practices have a positive impact on human resources but a lack of them could result in HR risks. Proper HRM practices might also mitigate risks. It depends on each organizational operation what their main HR risks are, ranging from health risks or turnover to the lack of critical skill due to loss of key employees.

1.4.   HR risks and risk management internationally with a focus on Germany

According to Sadgrove (2016) the risk management and human resources are usually not affiliated with one another in organizations. Icelandic organizations might do well taking steps to include HR risks in their risk management systems as organizations in Germany have begun to do (Paul & Mitlacher, 2008). Including human resource risks in the organizational risk management system allows for better overview of risks, related to human error, which might cause a halt in the operation within. By systematically mitigating such risks, an organizations business strategy would be better supported since those risks would be less likely to be the cause of operational halt. Including HR risks in the risk management system is thus vital for the sustainable success of an organization.

In Germany, new regulations require organizations to include all possible HR risks in their risk management systems (Paul et. al., 2008). The idea of today's HR department is that it should be strategically-oriented and it should serve as organizations business partner. Organizations in Germany are aware of how their performance should improve if all HR practices reinforce the organizational business strategy. The same idea applies for the implementation of HR risk management into the organizational risk management system, it should benefit the business strategy. Strategic human resource management is therefore a decisive factor when it comes to the success of organizations, with the HR strategy being the choice in labour management but shortage of skilled labour tends to be one of the biggest HR risk organizations face (Boxall & Purcell, 2011; Brewster, 1995; Paul et. al., 2008). Lack of management systems to reduce risk could thus have a sever effect on an organization (Paul et. al., 2008).

As Paul and Mitlacher (2008) point out in their article, some organizations in Germany, particularly the banks, follow regulations which require them to include all operational risks in their risk management systems. In this context, Fischer and Mittorp (2002) state that there has been an increased focus on managing operational risks in recent

years. Operational risks, according to the risk policy of the Deutsche Bank, is defined as the potential loss due to unmanageable events such as failed internal processes, business disruptions, system failures in relation to employees, technology, assets or customers (Fischer et. al., 2002). Operational risks are important to manage to prevent an organizational operation from coming to halt and HR risks are an independent category in operational risks which indicates the need for HR risks to be a viewed as a part of an organizations risk management system (Backhaus, 2004).

According to Kobi (2004) a proper definition for the term HR risks has yet to be defined. Organizations are therefore responsible for designing HR risk management systems, specifically developed with their own operation in mind (Paul et. al., 2008). Having no clear definition of the term itself results in organizations having difficulties in designing their own HR risk management system (Kobi, 2004). Organizations can, however, use the strategic human resource management approach which Tichy, Fombrum and Devanna (1982) created. The approach involves three core elements, mission and strategy, organizational structure and human resource management. Organizations should be able to create their own HR risk system by keeping these three elements in mind. They should focus on preventing any risks which could hinder them in achieving their mission, the strategy has to allow for financial usage of material, information and employees as well as the structure of an HR management system can't hinder employees in carrying out necessary tasks. The system should also aim to actively try to avoid risks which could hinder proper recruitment or employee performance. These elements are necessary strategic approaches if organizations are to function effectively and successfully. HR risks can occur in all stages of the three elements making it especially hard for organizations to keep their strategy, structure and human resources direct aligned. HR risk management must therefore be designed with the aim of aligning these elements with HR practices (Paul et. al., 2008).

When designing a management system for HR risks, it must be strategic and consist of organizational functions such as selection, performance measurement and appraisal, rewards and development (Paul et.al., 2008). HR risks might occur in any of these functions. If a selection process within an organization is lacking or not strategic enough, the result might be a shortage of qualified employees. If the performance measurement or appraisal is inadequate they won't follow an organizations strategic goal, having negative impact on employees and their motivation at work. A bad reward system is a central risk but it is largely dependent on employees understanding of equality and

fairness, the result might be problems within an organization. Finally, development is a long-term process dependant on how willing employees are to participate in such processes. If they are willing to work with an organization to reach a long-term strategic goal, there will be a decreased operational risk, benefiting the organization in the long run. If employees are not willing, they won't work with an organization to reach the strategic goal resulting in an operational risk occurring.
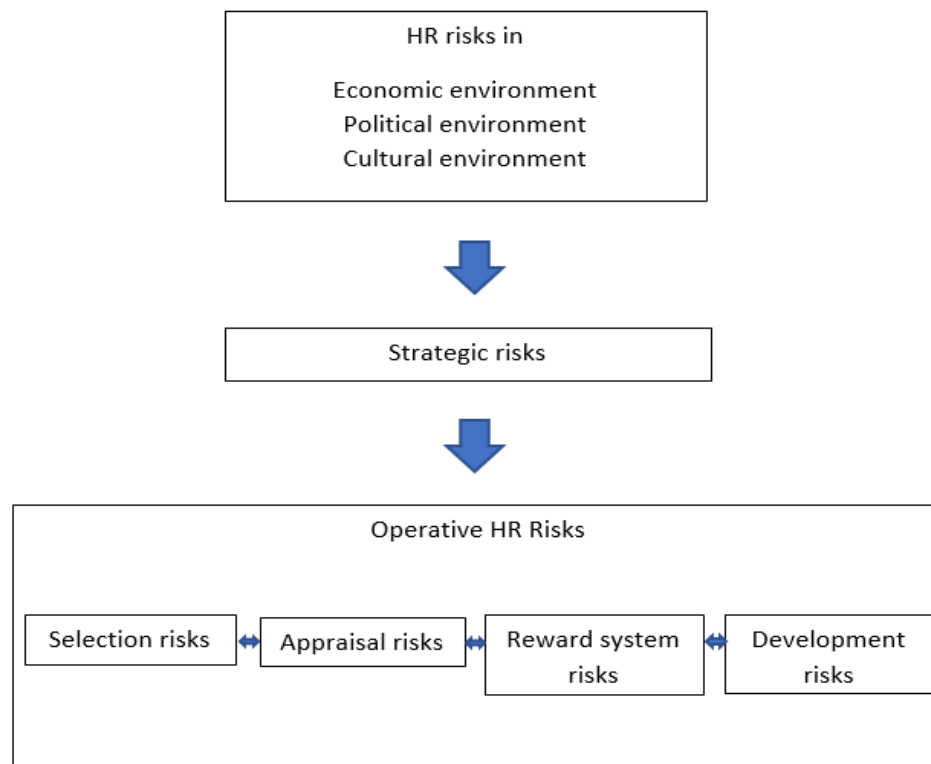
Figure 4 Designing an HR risk management system (Paul et. al, 2008, p. 28).

Despite what methods organizations use to design their HR management system one thing is quite clear, relevant HR risks must somehow be analysed and kept under constant control. Paul et. al. (2008) discuss their empirical study performed on large, medium-sized and small German saving banks and their relation to HR risk management systems. According to their study, those savings banks who are rich in assets have already installed a HR risk management system. The larger banks are aware of how the labour market changes and run recruitment programs for students straight out of university. They also aim to manage external economic risks which could harm their human resources as well as the banks operation. When an employee has reached a certain age, a succession planning program will automatically start, sharing the knowledge from the older employee to a younger one. The HR risks are managed by an HR department.

In the medium-sized saving banks, according to Paul et. al. (2008), not much focus is put on identifying operational risks within the risk management system. More focus is put on risks which are the result of implementation of performance measures meant to govern the HR development programs. Medium-sized savings banks, however, put heavy emphasis on employees and conduct employee surveys to reduce the risk of demotivation, absenteeism or employee dissatisfaction at work. Some of the banks are in the process of installing a separate HR system as a risk management practise to assess risk, especially in regard to lack of human resources.

The small savings banks don't put as much emphasis on assessing HR risks in the same manner as the large savings banks or the medium-sized banks do (Paul et. al., 2008). They only abide by legal requirements to the minimum when it comes to designing an HR risk management system. These savings banks are more concerned with the general management process. Some of the smaller savings banks have risk teams to deal with general risk management but those involved in this team must have HR expertise. According to the members of the risk teams, the smaller savings banks lack resources and expertise to implement a HR risk management system. Despite that, they believe that such systems would be useful for the banks. The smaller and medium-sized savings banks have had difficulties in implementing a comprehensive strategy-oriented HR risk management system but what is needed for organizations to put on HR risk management system is support from associations and the willingness of the workforce.

According to Paul et. al. (2008) the value of employees' changes based on the organizational environment. Aging workforce is perhaps the biggest impending HR risk organizations might have begun to face or will face in a few years with the older generation in the labour market retiring. Shortage of skilled labour might also threaten the performance of a company or result in organizations having difficulties recruiting skilled labour. Consequently, it must be ensured that the knowledge of the older employees is shared with those who are younger. That is a central stage of the knowledge management system and would make sure that knowledge, vital to the survival of an organization, doesn't get lost. In that way, HR risk management systems require organizations to know their employees. As organizational complexity, size and the knowledge within it increases, so do the HR risks associated with its business practices. This might be an indication that larger and more complex organizations should implement an HR management systems.

Paul et. al. (2008) raise the question of human resource management but the fact is that HR risk management systems are not very common, therefore they question the entity of human resource management and their overall standing within organizations. It is vital to realize the importance of HR before deciding on creating a HR risk management system but such management system would eventually lead to a more professional strategic HR management within organizations.

Regulations in Germany require organizations to put possible HR risks in their risk management system. This is done to reinforce an organizations business strategy but a strategic HR management is a decisive factor in achieving organizational success. Not managing risks in human resources could, therefore, have a severe effect on their operation. Organizations can form HR risk management systems by involving three core elements. The elements being mission and strategy of a company, its structure and the HR management. These three elements must be aligned to the organizations HR practices to design a proper HR risk system. Employees' participation is the key to success and such a system can only flourish if everyone is willing to be involved and support it. In Germany, larger organizations are more likely to have already added a HR risk management system to their risk management system, raising the question if medium-sized and small organizations are not putting enough emphasis on HR systems in general or if they don't have enough resources to do so.

1.5.   Knowledge management

Knowledge management can be considered as an organizations' repeated process of managing all kinds of knowledge (Demarest, 1997). The concept of knowledge management is from the early 1990's but it is only in recent years that managers and executives have begun to realize that knowledge is a valuable organizational resource which has to be systematically managed (Daft & Marcic, 2006).

Many definitions of knowledge management exist, such as the definition by Davenport and Prusak which states that knowledge management is an attempt to do something useful with the already existing knowledge, to accomplish an organizational objective through the structuring of people, knowledge content and technology (Hlupic, Pouloudi & Rzevski, 2002). Others such as Huysman and de Wit believed that knowledge management was about the support of sharing the knowledge and Petrash said the knowledge management meant acquiring the right knowledge and giving it to the right people, at the right time for them to make the best organizational decisions (Hlupic et. al.,

2002). Daft and Marcic (2006), however, combine many of the knowledge aspects mentioned above in their definition which states that knowledge management is an accumulation of four knowledge factors. Knowledge management is therefore an organizations systematic effort to find knowledge, to organize it and to share it between employees. Knowledge should be systematically analysed to realize which knowledge must be found. Following these steps, organizations should be able to create an environment of constant learning and sharing which they can then base their activities on.

The aim of knowledge management is to improve organizations operating results (Ingi Rúnar Eðvarsson, 2004). Knowledge is the key to an organizations superior performance, thus leading to an increased competitive advantage (Lubit, 2001). In modern society, organizations acquire new knowledge rapidly but that is not enough if they seek to create or maintain competitive advantage. They can only sustain competitive advantage when outsiders can't copy their knowledge. For an organization to gain a sustainable competitive advantage, knowledge must be shared within. Having such private knowledge means that an organization is the sole owner of a rare and valuable knowledge (Ingi Rúnar Eðvarsson, 2004). If knowledge is not shared within an organization, there will be a limited impact on its ability to create value (Lubit, 2001). However, knowledge should be shared in a careful manner for an organization to gain a competitive advantage. If knowledge is spread across its boundaries and to other organizations in the same field it can backfire by becoming public knowledge. Instead of becoming an organizations sustainable competitive advantage, it will become the industry best practice.

1.5.1. Explicit and tacit knowledge

Explicit knowledge can be considered as formal and systematic knowledge (Nonaka, 2007). It is information which can be standardized, documented and shared through instructions, books, databases or documents (Ingi Rúnar Eðvarsson, 2004; Bukowitz & Williams, 2000). Tacit knowledge, however, is very personal in a sense that this kind of knowledge is hard to formalize and thus it is difficult to share the information with others (Nonaka, 2007). It is very informal and can be understood as an individual know-how. Tacit knowledge is a specialized knowledge gained through education or through work experience (Jóhanna Gunnlaugsdóttir, 2004). Tacit knowledge can be considered a certain risk factor, especially for organizations which rely heavily on specific knowledge. If organizations fail to document the tacit knowledge it will disappear when the possessor

decides to leave the company or retire. Despite being so different, explicit and tacit knowledge are closely related and hard to differentiate (Ingi Rúnar Eðvarsson, 2004). If organizations manage to combine both types of knowledge in their work it should result in more knowledge creation and more effective operations (Nonaka, 2007; Nonaka, Toyama & Konno, 2000).

To preserve both explicit and tacit knowledge within an organization it must be documented and kept available (Ingi Rúnar Eðvarsson, 2004). This must be done if an organization seeks to maintain its competitive advantage. The explicit knowledge, as mentioned before, is relatively easy to organize and document but the process is more complicated when documenting the tacit knowledge and involves transferring tacit knowledge into explicit knowledge. If an organization seeks to document the tacit knowledge it has to approach the individuals who possess it, convince them to share it and then document it. This process is called the knowledge conversion (Nonaka et. al., 2000).

Knowledge conversion, or the SECI process, involves four modes of knowledge conversion in an evolving spiral movement (Nonaka et. al., 2000). These four movements are socialization, externalization, combination and internalization. By using the SECI process it is possible to see how explicit and tacit knowledge interacts but the spiralling motion can trigger new knowledge creation. Thus, it explains the dynamic and never-ending knowledge process.
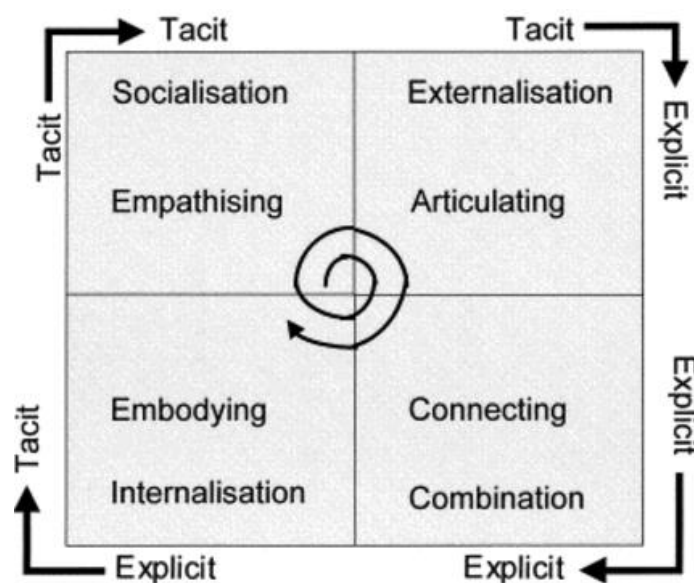
Figure 5 The SECI Process (Nonaka et. al., 2000, p. 12).

Socialization is a process where tacit knowledge is shared through mutual experience (Ingi Rúnar Eðvarsson, 2004). People learn from one another, by sharing same space and by watching others. The idea of socialisation is that knowledge transfer occurs between individuals who work together, they share their knowledge and thus tacit knowledge becomes explicit knowledge.

Externalization involves a transfer from tacit knowledge to explicit knowledge (Ingi Rúnar Eðvarsson, 2004). The explicit knowledge can be shared and has the possibility of becoming the base for new knowledge.

Combination occurs when explicit knowledge has been documented and has become quite extensive (Ingi Rúnar Eðvarsson, 2004). The documented explicit knowledge must on this stage be gathered and combined or intertwined in a systematic manner for it to become less extensive. It will then be easier to share the knowledge with employees.

Internalization transfers explicit knowledge into tacit knowledge and is the only movement in the SECI process to do so (Ingi Rúnar Eðvarsson, 2004). As employees conduct their work in line with organizations norms and training, they gain experience which transfers into their own know-how and becomes tacit knowledge. It is the tacit knowledge which allows employees to perform on a higher level and it is important for the cycle to start from there (Lubit, 2001). From this stage, the cycle continues.

The SECI process is a spiral process meaning that the knowledge created can trigger a new knowledge creation (Nonaka et. al., 2000). When that happens, the spiral of knowledge will start again from transforming tacit knowledge to explicit knowledge but this time it will be on higher level (Nonaka, 2007). As the cycle continues to reach higher levels, the process will also aid organizations in reaching higher levels. If organizations keep this process in mind and take note of how valuable documenting knowledge is, they should become capable of creating more knowledge. This should result in more effective work within as they will have managed to combine and document both explicit and tacit knowledge.

As this chapter explains, knowledge management is a repeated process, within organizations, where its main function is to manage all the existing knowledge. It is a systematic effort of analysing which knowledge has to be found, to find it, organize and document it and finally to share it amongst employees. The aim of this system is to

improve organizations operation results, giving it the competitive advantage needed. Explicit knowledge is a formal and systematic knowledge whilst tacit knowledge is harder to share due to its personalization. Tacit knowledge is thus an individual's know-how. Managing both types should result in more knowledge creation leading to more effective organizational operation. The SECI process is about transferring tacit knowledge and turn it into explicit knowledge, using the four steps of socialization, externalization, combination and internalization. This spiral process explains how knowledge created can evolve, triggering new knowledge creation vital for an organizational success.

1.6.   Adopting knowledge management

The labour market is ever changing and developing with many of the jobs which existed in the past now being extinct due to automation and new technology (Burkholder et.al., 2007). These changes in jobs have changed the economy into a knowledge economy where knowledge work is replacing physical labour. With this shift, the human capital has become vital for the survival of knowledge-based organizations and it is important to keep information and knowledge well documented. Knowledge has thus become the main component in an organizations success (Kluge, Stein & Licht, 2001). Knowledge management, a synonym of tools which aims to form and document, save and share knowledge within organizations, is therefore vital if their aim is to become leading in the knowledge-based labour market (Ingi Rúnar Eðvarsson, 2004).

According to studies made in smaller and medium-sized organizations in Iceland, a thorough and careful adoption of a knowledge management system results in more organizational success (Ingi Rúnar Eðvarsson, 2006). This success particularly lies in the improvement of operation, better management and improved financial status. According to Kluge et. al. (2001), understanding where the knowledge within organization lies will not only allow for a success in their optimization but it will also bring more market opportunities. These opportunities can be observed and participated in as well as new opportunities help with organizational innovation.

With good human resource management within organizations it is possible to retain the key knowledge of employees (Kluge et. al., 2001). However, such managerial practice is not comprehensive enough to keep sustainable success within organizations. An adoption of the knowledge management system is essential to keep the sustainable success within organizations. A key question to the adoption of knowledge management is how should knowledge be managed to make it work for the organization, how should

the existing knowledge be applied and distributed within and how should new knowledge be acquired and cultivated. As stated above, knowledge can be hard to pinpoint, resulting in some organizations settling for using information management holding the information of facts and figures as opposed to the knowledge itself. The knowledge should be the understanding of the facts and figures presented, meaning that adoption of knowledge management system would help an organizational operation and improve its success by using the existing understanding to analyse the relationship between the two.

1.6.1. Two ways of adopting knowledge management

Organizations who implement knowledge management usually have two ways of documenting and sharing existing knowledge (Hansen, Nohria & Tierney, 1999). The first way is called codification strategy and implies that organizations document and share explicit knowledge via investing in high-tech IT systems to allow their employees to connect with the reusable codified knowledge. Knowledge, valuable for organization, is thus documented and categorized in IT systems such as in file management systems where employees can look up and use already documented knowledge without having to look for the individual who originally developed the knowledge factor. Organizations who are in the manufacturing business or their organizational operation is based on doing similar tasks each day would most likely benefit from using the codification strategy.

The second way to adapt knowledge management is by using personalization strategy where tacit knowledge is transferred (Hansen et. al., 1999). This system is an information system which allows for personal communication between employees by using multimedia technology and is based on sharing knowledge but not necessarily to document or save it. The main function of such systems is to provide information of certain tasks or topics and point towards specialists who can than provide an individual with further information. The way to transfer this tacit knowledge is via meetings, networking, conferences and videos. Organizations who benefit from using such methods are for example those whose tasks are everchanging and their problems vary.

According to Hansen et. al. (1999) organizations should not combine both methods but choose one of the two based on their strategy. Organizations can however use the 80-20 method where codification strategy is used up to 80% of the time, allowing for personalization strategy to be used the other 20% of the time. Hansen et. al. advises organizations not to use these two ways of knowledge management evenly since the result would most likely be extra cost as well as conflicts might occur between different groups

of employees. For knowledge-based organizations where the work tends to be similar it would be beneficial to document the explicit knowledge. Such documentation would not only save time and work but also allow organizations to lower the cost of having to look for and communicate with the original developers of a knowledge. By adopting, thoroughly and carefully, either of these methods or to use them in the system of 80-20, organizations should be able to increase their productivity by working on more projects as well as the cost per unit should decrease.

1.6.2. Change management contributes to successful adoption of knowledge management

A knowledge management system can only be adopted when supervisors, within an organization, are able to change the views and values of their employees and to get them actively involved (Williams, 2005). Adopting a knowledge management system could therefore be thought of as an element of change management where all employees must be allowed to see the value in adopting the system for an organizational success. Adopting such a broad system, which is meant for the organization as a whole, takes employees out of their everyday comfort zone which could result in uneasiness amongst employees and ultimately in a hindrance where employees refuse to take part in the system. If employees don't see the value in using the system, refuse to change their work methods or refuse to use the system meant to increase the organizational operation, the system would lose its purpose and no improvements will occur, neither in the productivity of an organization nor in its financial status.

Increasing employees' awareness is the key to adopt knowledge management systems thoroughly and carefully but according to Kotter (1996) there are a few steps in the change process which could hinder the adoption of knowledge management system if not carefully planned. The first would be to create the urgency for it but if employees can't see the need for changes than they will not seek to change. The second step states that changes can only occur if superiors are active supporters, guiding the employees with their new vision. The third step involves the vision but employees must see the vision to directly try and align themselves with it. The fourth step states that major changes can only occur within organizations if all employees are willing to help. Failing to share the importance of their assistance and the vision of an organization would result in a failure of the system. The fifth step occurs when obstacles, which could hinder the vision from coming true, are not removed. This step emphasises that despite the support of employees,

if there is a hindrance which could prevent changes from occurring than their support won't be enough to allow for the adoption of a system. The sixth step involves short-term wins. Adopting a knowledge management system is a long-term process but if an organization, in the adoption process, doesn't celebrate the short-term wins, it might mitigate employees' motivation, resulting in failure. The seventh step occurs when victory is declared to soon. It takes time before an adoption of a system is complete but celebrating when the job is almost done is a mistake. Victory is only achieved when a change has sunk deep into the organizational culture or the practices have become its norm as it would be with the adoption of a knowledge management system. The eighth and final step is when organizations forget to make sure the changes are sinking into the culture or becoming the norm within. When a practice has not become a norm, it is easy to remove and the results of the long-term adoption process would be failure.

Knowledge has become a main component for an organizational success, being its best way of gaining competitive advantage in the increased knowledge labour market. An adoption of knowledge management system is thus essential to keep the sustainable success within organizations. There are two ways to document and share the existing knowledge within organizations, codification strategy and personalization strategy. The former strategy involves documentation of knowledge whilst the latter focuses on receiving information via consulting those more knowledgeable. It is recommended that organizations use the 80-20 system. They would then use both codification- and personalization strategy but put more emphasis on the codification. As stated above, the adoption process of knowledge management within organization is a long-term process which has to be carefully conducted should it not result in failure. To adopt such a system and to make it the norm of an organizational operation does not lie solely in the hands of superiors but also in the hands of all the employees. The employees are the ones who will use the system in their everyday work, it is therefore vital to involve them in the process.

With all things considered, risks in relation to human resources and knowledge should not be ignored by organizations. Knowledge is the greatest strength of knowledge-based organizations, providing them with sustainable success and competitive advantage when properly managed. For such organizations, losing knowledge or the individuals who possess particular knowledge is a great human resource risk. It is thus vital for knowledge-based organizations to realize the value in defining the main HR risks within, by concluding them in the risk management system, and to systematically aim to mitigate such risks by using proper HRM methods to manage these risks. If knowledge-based

organizations are aware of the HR risks within and recognize the valuable input of knowledge management for their operation, such risks are likely to be mitigated ensuring their competitive advantage and sustainable success.

2. Methodology

The aim of this chapter is to explain the research methods used in this study. The research preparation and research method will also be accounted for. There will be an introduction on the chosen participants and the data gathering will be presented. Finally, this chapter will discuss the value, ethical considerations, limitations and various issues related to the research.

2.1.   Cause and aim of research

The idea behind this research was born when the researcher was an intern at a knowledge-based organization in 2016. The idea went from researching how knowledge management was being used in other organizations to researching knowledge management in relation to an organizations risk management system. The researcher was unable to find any prior research on similar topic in Icelandic organizations and was therefore forced to change the original idea. Knowledge-based organizations possess various resources with knowledge being the number one resource. Loosing employees who possess that particular knowledge can result in various risks for an operation, especially when their knowledge is hard to replace and gives an organization the extra advantage needed to succeed in its field of business. Such loss might even cause an operational halt, unless something has been done to ensure that the impact is lessened. Therefore, the researcher wanted to see if HR managers in knowledge based organizations had realized the danger and were actively using methods to try and make sure such risks, as a result of knowledge-loss, would not occur as well as knowing if they were using any methods to prevent or lessen the impact of such a loss.

The aim of the research is thus not to see how knowledge management was being used in other knowledge-based organizations in relation to their risk management system. The aim of the research is to understand how organizations perceive risk with regards to its human resources. The aim is therefore to inquire into the status within knowledge-based organization and to see if human resource managers within such companies are familiar with the concepts "HR risks" and "knowledge management", if they are using those concepts in their daily work and how. Finally, the research will aim to answer if organizations HR risks are viewed as a part of their risk management systems or not or if HR managers believe such a practice should be conducted to consistently monitor the HR risks within.

2.2.   Research statement

The researcher aims to answer what medium-sized and larger knowledge-based organizations in Iceland are doing to address and manage risks in human resources.

This question will be answered by analysing how aware human resource managers in specific organizations are of the concepts of HR risks and knowledge management and their understanding of the two. To answer the research question, the researcher will look into employees' awareness of organizational risk factors, specifically in regard to HR risks, and if HR managers perceive HR risks as an important factor which should be included in the main risk management system. The researcher will also consider how knowledge management is being used within each organization.

2.3.   The importance of research

Risks can affect the business of an organization but HR risks can, in the same manner as other risks, have just as much of an effect on its business. It is therefore important to see if medium-sized or larger organizations in Iceland are paying any attention to HR risks and if they regard HR risks in the same way as they do other organizational risks.

In knowledge-based organizations knowledge is the main competitive advantage and in order not to lose that advantage they must analyse what knowledge is missing, acquire the missing knowledge, document the existing knowledge and share the knowledge between employees. The researcher is not aware of other similar researches on this topic conducted in Iceland before. Therefore, researcher thinks it is important to get the perspective of human resource managers and to inquire into the situation within each of the knowledge-based organization interviewed because they have perhaps not realized how important knowledge is for their operation or realized the value of systematically monitoring it.

This research could therefore serve as an eye-opener for the HR managers and other employees within the organizations. By conducting this research, it will hopefully garner managers' attention and urge them to push the topic on HR risks and knowledge management forward and to think of them in a systematic manner, resulting in a desire to improve their organizations operation even further.

2.4.   Preparation

The preparation begun in the fall semester of 2016 when the researcher had to hand in a research proposal. This proposal included an idea of a research topic as well as literature

review. In November, the researcher was assigned an instructor and in the beginning of January a final research proposal was handed in. At the end of January, the researcher prepared a questionnaire and in the final week of January and the first two weeks of February, interviews were conducted with human resource managers in medium-sized and larger knowledge-based organizations in Iceland.

2.5.   Research method

The main method used in this study was qualitative research. Qualitative data was gathered by conducting semi-structured interviews with interviewees being chosen from a convenience sample. The researcher created the questionnaire using the literature as a guideline. Interviews were analysed and themes detected in order to answer the research questions.

2.6.   Qualitative research

The research method used is qualitative, explorative and is based on semi-structured interviews. Data was gathered by interviewing nine human resource managers from medium-sized and large Icelandic knowledge-based organizations. In one interview there were two interviewees, the human resource manager and a specialist in the human resource department who was there to add more to the answers of the human resource manager if needed.

The purpose of qualitative method is to try and understand peoples' perspective on certain factors. In this research, qualitative method is used to try and understand what is on the human resource managers' minds in order to get an idea about their perspective on risk (Aaker, Kumar, Leone & Day, 2013). Qualitative data is therefore gathered to gain knowledge on things which cannot be observed directly or measured. These things include the human resource managers' thoughts on HR risks and knowledge management, how they perceive the topic discussed and how they have conducted their work within organizations in relation to HR risks and knowledge management, prior to this study.

According to Aaker et. al. (2013) all qualitative researches are exploratory since the researcher explores the situation to see the status within knowledge-based organization, if the concepts "HR risks" and "knowledge management" are known and how they are being used. The researcher is thus trying to gain knowledge of how HR managers within such organizations address and manage risks in human resources, or if they don't regard such actions as being relevant for the organizational operation, without

putting forth a statement regarding the topic. The study is therefore an empirical observation of human resource managers experience, view and actions as well as being exploratory since no prior research has been made on the same topic in Icelandic knowledge-based organizations. The result of this research should be new knowledge on the topic discussed. The researcher will know how HR risks are perceived within selective knowledge-based organizations as well as knowing how much emphasis is put on mitigating such risks, for example knowledge-loss, and if any systems are being used to monitor the risks. The researcher will gain knowledge of whether HR managers find such risks important enough and will know if they realize the value of systematically mitigating such risks.

The researcher did not want the interviews to be too structured but in order to maintain the control of the interview by guiding it forward, yet allowing interviewees to have the freedom needed to express themselves, semi-structured interviews were chosen (Yin, 2009). Semi-structured interviews involve interviewers attempt to cover a list of topics and the interviewee has little freedom to venture beyond the actual topic (Aaker et. al., 2013). What characterises semi-structured interviews is the formal interview conducted (Cohen & Crabtree, 2006). Despite the interview being formal, interviewer does have the opportunity to get interviewees to elaborate further on certain questions should interviewer deem so necessary for the research. This study was conducted in the same manner, interviewer had put together a questionnaire but when further explanation was needed interviewer had the opportunity to ask interviewees to elaborate even further on given answers. The main challenge of semi-structured interviews is to find individuals willing to be interviewees (Aaker et.al., 2013). This main challenge was not a real obstacle for this research but controlling the interview and not allowing interviewees to stray too far from the original topic proved to be more challenging.

2.7.   Analysis of qualitative data

All the nine interviews were conducted in the workplace of an interviewee. The researcher received a permission to record all interviews to transcribe afterwards. After transcribing, all the interviews were pre-read by using one of the idea from grounded theory (Charmaz, 2014) which indicates that the analysis of qualitative data involves a constant reviewing and comparison of the literature review and the qualitative data gathered. Based on this idea, all questions in questionnaires were reviewed and coded by comparing the answers received to the same questions. The researcher used inductive method because the study

was begun by collecting qualitative data from HR managers in knowledge-based organizations, this data was then read and answers compared. The inductive method allows for ideas on the topic to be formed after collecting and reviewing the data instead of the researcher having to form a theory prior to conducting the interviews. By using this method, researcher could analyse the interviews using inductive methods but words and sentences which were often repeated in the interviews presented the researcher with a general rule of the topic. By using the idea of continuous comparison to code, the research data should lead to certain themes (Glaser & Strauss, 2009).

Data from each organization was gathered and coded. By using the idea of comparison, as stated in the grounded theory, themes and key words were detected. The researcher also took note of repetition of certain words and sentences. The researcher decided to use the three steps of hermeneutical approach, based on the idea of Gustavsson (1996), as a foundation to build the thesis work on once all qualitative data had been collected. The first step is to analyse the data into themes or codes by gathering information relevant to the questions in the questionnaire. The second step is to use the data and interpret the answers received. The third step is to authenticate the interpretation, using examples from the data to prove its value and relevance. This process was repeated throughout the study by constantly comparing and reviewing the data collected.

The interviews were conducted in Icelandic, the researcher therefore translated quotes into English, correcting all grammar and leaving out extra fill in words. The quotes are relevant and the researcher is careful that they don't lose their meaning when being translated. In longer sentences, where the whole sentence is not needed to get the meaning across, the irrelevant parts will be removed but market with dots.

2.8.   Choosing interviewees

Interviewees were chosen via convenience sample meaning that interviewer had to choose individuals that would fit special requirements and thus gather a specific sample of interviewees. The researcher needed to interview human resource managers in medium and larger sized knowledge-based organizations in Iceland. The sample was therefore chosen due to convenience. Interviewees' were selected based on organizations and due to their position within.

The researcher begun by sending e-mail to 10 eligible interviewees, nine of which responded positively whilst one candidate did not reply. The e-mail stated the researchers desire to study the topic of HR risks and knowledge management within organizations, especially in relation with risk management. The e-mail was sent directly to the human resource managers of specific knowledge-based organizations with the aim of getting their permission to interview them.

Nine organizations agreed to participate in the research. The organizations range from being medium-sized, having 50 to 250 employees, to larger where employees counted over 250 people (Davíð S. Davíðsson, Finnur Oddson, Frosti Ólafsson & Haraldur I. Birgisson, 2009). Two organizations are in the IT business, three of the organizations are in the field of finance and the other four are in the engineering field. From now on the organizations will be referred to by using the letters from A to I to prevent them from being recognized. In the same way, the human resource managers within the organizations will not be mentioned by name. From now on they shall be referred to by using numbers ranging from 1 to 9. In one interview, there were two interviewees.

Table 1 shows relevant information about the human resource managers interviewed. The table gives information about each interviewee, if they have a degree in human resource management, how long they have been working with human resource issues, how long they have been working as human resource managers, their period of employment within their organization and if they are members of the executive committee within. HR managers are considered as members of executive committee if they take part in all executive meetings, thus being involved in all major decision making related to the organizational business.

Interviewees	Organization	HRM education	Work experience in the HR field	Work experience as an HRM manager	Period of employment	Member of the executive committee
1	A	Yes	17 years	3 years	3 years	Yes
2	B	Yes	9 years	Few months	9 years	Yes
3	C	No	16 years	16 years	3 years	No
4	D	Yes	10 years	7 years	7 years	No
5	E	No	16 years	16 years	16 years	No
6	F	No	1 year	1 year	16 years	No
7	G	No	20 years	13 years	11 years	No
8	H	Yes	10 years	9 years	1 year	Yes
9	I	No	14 years	4 years	4 years	Yes

Table 1. Interviewees background

The researcher is aware that HR risks vary between organization but the human resource managers interviewed are all working in medium to large sized knowledge-based organizations. The knowledge-based organizations have one thing in common, employees who possess great knowledge which is not easily replaceable. The knowledge-based organizations chosen are from three fields, the financial field, IT field and engineering field. One of the organizations in the IT field might be classified as a universal IT organization whilst the other one provides specific software services. The organizations in the engineering field are four but their operations vary. One is a large universal organization producing specialized products for its customers. Another is a universal advisory organization providing extensive consultation. The last two provide comprehensive services in all areas related to engineering. The organizations within the financial field can be classified as large, domestic financial institutions, each providing various financial services and possessing a large client base.

2.9. Value, ethical considerations, limitations and various issues

Risks affect organizational businesses in various ways but so do HR risks. The value of this research lies in the status of risks, HR related, too see if medium-sized or larger knowledge-based organizations are aware of their own risk factors. It would be valuable if the research can draw an attention to the importance of knowing the HR risks which could hinder an organizational operation as well as drawing an attention to how important it is to be constantly aware of where the knowledge lies within knowledge-organizations.

There are some ethical considerations and limitations to the research. The researcher had an idea on what the result might be prior to beginning the actual research. The researcher has limited experience in conducting interviews which could affect the study. The researcher also had to be careful to conduct the interviews in a neutral manner, not influencing the subject in any way and to be objective when conducting the interviews, thus avoiding possible biases. The main biases the researcher had to be careful of was the familiarity with few of the interviewees.

The main limitation of the research would mostly be the homogeneity of the answers, meaning that researcher only receives the answers from human resource managers and is thus not getting the perspective of other employees working in an organization. Interviewing other employees might have resulted in different answers regarding the organizations main risk factors. It would have been possible to see how other employees perceive HR risks or if they are aware of such risks and if they realize the value of knowledge within their own organizations. It would benefit the research even further to get a different perspective and to view the organizational operation from a different viewpoint. Another limitation is the questionnaire used but it was created by the researcher himself. Not using a standard list could cause the researcher to forget important questions or questions being badly formed, resulting in the answers received not being comprehensive enough or interviewees not understanding the questions itself. The researcher does not have much experience in conducting interviews and it wasn't until in his fourth interview which he started to feel confident. This might result in later interviews being more precise than the former ones.

Before conducting each interview, the researcher asked interviewees to sign an informed consent. The informed consent described the study and explained the researchers aim. With their signature, the researcher was given the permission to record the interviews. The researcher also agreed to delete all interviews immediately upon concluding the writing of the research. Conducting this study, the researcher was not obliged to inform the Icelandic Data Protection Authority.

By processing the qualitative data, three themes were detected. These themes will be elaborated on in chapter three on the findings of the research.

3. Findings

This chapter will report on the findings from the interviews conducted with the nine human resource managers in medium-sized to large knowledge-based organizations in Iceland. The research was conducted to inquire what the status is within Icelandic organizations to answer the question of what these specific organizations are doing to address and manage risks in human resources. The chapter will identify and describe the three themes detected in addition to them being elaborated on.

When analysing the interviews, human resource managers were given the identity of numbers from 1 to 9 as well as their organizations being named from A to I. This identification would ensure personal secrecy but also allow for the researcher to identify between different HR managers and organizations.

In the interviews, the human resource managers discussed their views on both risks in human resources and knowledge management. Analysing the interviews, certain words and sentences described their attitude towards the subjects in question and three themes were subsequently detected. The three themes are as follows, awareness, understanding and practices. The results of the interview, presented with the themes, deepen the understanding of what the selected organizations are doing to address and manage risks in human resources and thus answer the research question put forth in this study.

3.1. Awareness

The first theme, awareness, best describes if human resource managers in specific knowledge-based organizations in Iceland have thought of risks in relation to human resources. It is important to be aware of the fact that risks can occur, hindering an organizational operation but according to the HR managers interviewed, operational risk was believed to be the main risk within. In relation to that it would be valuable for organizations to recognize the risks posed by human resources but they are closely related to operational risks and could put a halt on all operations within. Human resource risks are a part of organizational risks but none of the interviewees reckoned it specifically as such. The human resource managers interviewed were, however, aware of the fact that human resources can cause a halt in operation but the idea of connecting the term risk with human resources was not familiar to many of them.

"...there have been no proper tools or systems to manage and monitor risks so I think people have not systematically thought of human resources as a risk".

(Interviewee 1 – IT field)

All the HR managers, participating in the interview, agreed that the idea of human resource risk did not concern their supervisors as much as it maybe should do as well as the process of viewing human resources in relation to risk factors had not been systematically done.

"No, we have not done so systematically…we don't conduct formal interviews regarding these risks, it is more of an informal chat between us with maybe one executive member present".

(Interviewee 5 – Engineering field)

Operational risks are the biggest risk factors within all the knowledge-based organizations interviewed. The emphasis, which human resource managers and supervisors should put in systematically analysing all risks which could cause a halt in operation, could be more systematic and formal. Awareness of all employees, including managers and supervisors, is the key to success. HR risks can therefore only be mitigated when risks in human resources have been defined within each organization and all employees systematically work on mitigating them. The HR risks will only be analysed when supervisors realize the importance in mitigating the risks but a change in their mindset is vital for an organization to change. A change in mindset of employees, allowing them to systematically work on mitigating HR risks, is therefore only possible if their supervisors have changed their mindset, leading their employees by example. When the human resource managers were asked if their supervisors had thought about risks in relation to the human resources or if they had met to discuss the topic, the response was mostly negative.

"On day to day basis I don't think they think much about this".

(Interviewee 1 – IT field)

Supervisors within the organizations interviewed had not put much emphasis on HR risks and as a result, their employees were not putting emphasis on HR risks. When asked of the employees' awareness it was evident that HR risks were not something they

thought about on day to day basis as well as the term itself not being familiar to them. An awakening must be amongst employees at all levels within organizations if they are to systematically mitigate HR risks. The HR managers interviewed all pointed towards a feedback form they had on their web. This feedback form is there for employees to send in tips and suggestions about various human related issues. The HR managers stated that the feedback which they got tended to be about how they could improve their work or about the work facility. The feedback system is, however, seldom used as if the employees don't realize the importance of it.

"No one ever uses it".

(Interviewee 1- IT field)

The term HR risks might not be well known but despite that, it is vital for organizations to know what the greatest risk in their human capital is. Some of the HR managers interviewed have thought of various human resource factors which might cause a halt in operation but in addition to failing to recognize risks in human resources as an operational risk, they all mention how unfamiliar they are with the wording. To address human resources and risks in the same sentence is therefore not a common practice within these specific Icelandic knowledge-based organizations.

"I am not sure we have used this wording…risks in human resources".

(Interviewee 2 – Engineering field)

For some organizations, however, awareness has been raised due to the information security management system ISO27001 which specifies that HR risks, as well as all other possible risk factors, should be taken into account when identifying organizational risks. Thus, there are some organizations who systematically analyse HR risks.

"What is relevant to the human resources security is very well defined in the ISO certification…it's a part of our information security management system to go through risk assessment each year…HR risks are defined in our security management system handbook…"

(Interviewee 9 – IT field)

Allegedly, it is the human resources which make the operation function but for knowledge-based organizations it is important to have employees at work whom possess

the relevant knowledge, skills and abilities. It might therefore be important for such organizations to realize the effect certain HR risks would have on the operation should they ever occur. Some of the HR managers interviewed did not put primary focus on systematically analysing their organizational HR risks, even if they were constantly analysing other risk factors, nor did they put much effort in systematically mitigating such risks.

> *"…I think we are just doing it in our daily work. We are always sizing up various risk factors…we often learn from experience but we also try to be pro-active and prevent mistakes".*

> (Interviewee 6 – Financial field)

> *"There is nothing that prevents us from tackling risks in relation to human resources if we detect any".*

> (Interviewee 4 – Financial field)

HR management is a profession directly focused on human resources. It is therefore understandable that employees within other fields of an organization do not focus as much on human capital issues as the employees of an HR field. This little awareness of other employees raises the question if other employees don't realize that human resources pose equally as much threat to an organizational operation as other risk factors. The HR managers interviewed agreed that if other employees were to recognize human resources as a possible risk factor, a change in how these issues were addressed was necessary.

> *"I think that by starting to discuss human resources in relation to risks, using this wording, people would realize the importance of it".*

> (Interviewee 1 – IT field)

Prevention is usually easier if more people are aware of factors which could cause errors and thus it is important for organizations to get employees at all levels involved by introducing to them what they view as possible risk factors or having it written in the organizational policy. This cooperation would be much more affective because more people would be aware of what could happen if human resource risks are not mitigated as well as they might be more willing to report on any human related issue when noticing or hearing of it. As the awareness increases, it might be easier for an HR department, and

the organization as a whole, to be pro-active. It would therefore be less likely that HR risks would be the cause of an operational halt.

"I think that by having human resource risks mentioned in the organizational policy it would increase peoples' awareness…and I think it might increase peoples' respect for…all the HR risk factors…it might change their mindset".

(Interviewee 1 – IT field)

Many agreed that to successfully mitigate risks in relation to human resources, more people must be involved. They also agreed that having human resources directly linked to risks in the organizational policy might prove to be an effective way to get employees to be more aware.

"…we would be more aware so it would be easier for us to be pro-active in relation to human resource issues".

(Interviewee 8 – Engineering field)

"…I would say we are completely dependent on cooperation with others, no matter what the risk factor it is".

(Interviewee 4 – Financial field)

As stated above, HR risks are risks which might cause an operational halt should they not be systematically mitigated. As all the HR managers mention, operational risk is one of the greatest risk within an organization. Since they can result in operational halt, HR risks should be taken into consideration in organizational risk management systems. HR risks can be severe so it might not be enough to deal with them when they appear but systematically try to mitigate them in the long-run. Few of the managers interviewed were using the information security management system ISO27001, which includes HR risks in the general risk management system, and were thus paying attention to all possible risk factors within their organization. The other HR managers, in organizations who had not implemented the ISO27001 certification, were asked if they believed that their organizational risk management system should include HR risks.

"I think it might be of benefit for us…it might result in a low cost in the long-run…to discuss HR risks, or risks in general in the organizational operation

would be a good thing…the problem is that due to the extra cost, people try to prolong it for as long as they can".

(Interviewee 1 – IT field)

"All risks, regarding the employees, projects or the work facility, would be good to view as a whole".

(Interviewee 2 – Engineering field)

"Yes, I think so…when we start looking at HR risks it broadens our vision, initiating thinking which is not usual in the typical HR-thinking so yes, I think it's definitely beneficial to view things from a different viewpoint".

(Interviewee 4 – Financial field)

"All risks are about people".

(Interviewee 6 – Financial field)

"The human resources, the organizational operation and the organizational policy should be as one…and should connect with everything else…it is sometimes forgotten that organizations are like a body. There is the brain, the hart, the hands and lungs and all work together…if you only view the cardiogram every month but don't check the cholesterol or blood sugar levels than you might not be getting the right results".

(Interviewee 8 – Engineering field)

Few of the HR managers interviewed were, however, not so sure that HR risks belonged in the actual risk management system of their organization.

"I don't think it's absolutely necessary".

(Interviewee 5 – Engineering field)

"You create values with your human resources. If you put them in the risk management you start to view it as a part of the operation and you start to view the person as a risk, not a maker of capital goods".

(Interviewee 7 – Financial field)

It is important to note that the term of HR risk is a relatively new and unknown concept whilst the term of knowledge management has been around since the 1990's with

the idea of the management of knowledge being around even longer. This might explain the vast difference between the knowledge of HR managers but they seem to be more familiar with the knowledge management concept whilst some of them are aware of risks in relation to human resources without knowing the exact term HR risks.

Knowledge management is a process where all knowledge within an organization is managed but that was the idea most HR managers had in mind when discussing the topic. They also believed it could be a useful tool to prevent all HR risks, regarding lack of knowledge within knowledge-based organizations, which are directly related to the HR risk of losing key employees. In relation to knowledge management, many of the HR managers underlined the importance of offering proper training for employees and keeping processes documented.

"We keep documented processes of knowledge…we use this…and there is no doubt that a well-defined knowledge is a process and a way to minimize risks in human resources".

(Interviewee 7 – Financial field)

"We put emphasis on documenting employee's knowledge down to each unit…and if the knowledge does not exist, then we train people systematically to ensure the knowledge will exist…with increased knowledge comes increased self-confidence and with increased self-confidence comes an increased sense of well-being whilst at work which I think will help us to decrease HR risks".

(Interviewee 6 – Financial field)

According to the concept of knowledge management, it is vital to analyse what knowledge is missing, acquire it, document the existing knowledge and share it between employees. Usually this task falls in the hands of the HR personnel within an organization. HR managers are to provide proper training programs for employees, but the interviewees mentioned that employees should be more aware of the importance of maintaining knowledge, especially when acknowledging that this knowledge is the key component in an organizational competitive advantage.

"What's lacking is peoples' willingness to seek information by itself because they are so used to being fed and have difficulties in taking the initiative to seek relevant information".

(Interviewee 8 – Engineering field)

The HR manager's interviewed are aware that risks in relation to organizations human resources can occur without knowing the exact term of HR risks. They also believe that if they are to systematically mitigate HR risks, a change in the mindset of supervisors and other employees is imperative. When more people are involved it would be easier for them to mitigate HR risks but as of now, employees are not as aware as they should be. To increase others awareness, they need to start using the concept of HR risks and begin to use the wording of risks in relation to human resources. The adoption of ISO27001 has aided HR managers in increasing awareness of risks regarding human resources but due to cost, not everyone might be willing to adopt such a system. Few of the HR managers interviewed disagreed and believed that tackling HR risks as soon as they occurred would be efficient enough instead of focusing on mitigating them in the long-run.

HR managers were much more aware of the concept of knowledge management and what it entails. They reckoned knowledge management system as a possible method to reduce HR risks of losing knowledge as well as admitting that the usage of such system would help them to put emphasis on the importance of documenting processes and offering training to employees to fill in the knowledge gaps. Employees are, however, not as aware as they make little to no attempts to seek information or knowledge themselves.

3.2.   Understanding

The second theme detected, understanding, best describes the understanding each of the human resource manager interviewed has on the topic of risks in human resources. The practice of connecting the term risk with human resources, HR risks, was not familiar to many of the HR managers interviewed. However, when asked, they all had an idea or an understanding of what was entailed in HR risks. The HR risks in the knowledge-based organizations vary but they all had a common ground. When the HR managers defined their organizational HR risks, those working within in the same field usually mentioned similar risk factors but they were also connected between different fields.

> *"It is of course the knowledge and then this human nature...the human nature is a big risk factor"*.

(Interviewee 1 – IT field)

"It is everything related to this human weakness…we need to make sure each and every employee has a clean record and can work here with integrity…a part of human risk is also the knowledge, we have employees here who are immensely valuable for our organization and possess great knowledge which would be hard to replace…".

(Interviewee 9 – IT field)

The HR managers within the IT field both regard knowledge and human integrity as their main HR risk factors. Their organizations offer services to other companies and it is imperative they don't employee people who might cause a risk to others and thus harming their own organization and reputation. With these organizations being so specified, the knowledge of each employee is vital for their success and loosing key employees who possess this knowledge might cause a halt in their operation.

"…risks which are directly related to human resources…concerning the work protection act, concerning, equal rights affairs, concerning the training of knowledge, knowledge management, the safety of employees within a workplace, concerning social factors such as well-being in a workplace. There can be unimaginable factors which apply as human resource risks".

(Interviewee 8 – Engineering field)

"…the risk related to people and the organizational operation, where might problems, related to the organizational human resources, result in an organizational hiccup".

(Interviewee 5 – Engineering field)

The HR managers in the engineering field understand HR risks as all risks directly related to the people within an organization. In that regard, they especially reckon safety of workers as a main risk factor. They also emphasise that human error can be the cause of failed projects which might damage their reputation, therefore their need to employee people with vast and specific knowledge is very high.

"…the risk of key employees leaving…wage drift…that managers are not understanding their role as managers…employees tend to leave due to having a bad manager rather than something else."

(Interviewee 4 – Financial field)

"...paying wages on time...following processes regarding human related factors such as recruitment...employees' breach of contract...it is an overall risk related to employees".

(Interviewee 7 – Financial field)

The HR managers within the financial field were more concerned with equal wages when asked of their understanding of HR risks. They emphasised the importance of not losing key employees but in order to do that they needed to focus on maintaining competitive salary. They also mentioned, as HR managers in the IT field did, that they ask hiring candidates to prove they have never committed any criminal offence by allowing them to view their criminal record as well as they state that employing people who have been known to bend or break the rules might result in an operational damage.

Few of the HR managers spoken to had put much work in defining what the exact risks were which the human capital of an organization could pose. Despite them having an idea of what it might be, systematically working towards mitigate the HR risks might prove to be beneficial for the organizations which are so heavily dependent on their human resources.

As many of the HR managers mentioned, knowledge-loss is a high-risk factor when it comes to the human resources within knowledge-based organizations. It was thus interesting to view their understanding of the tool, knowledge management, which is to allow organizations to better manage the knowledge within. As mentioned before, the knowledge management entails the four steps of analysing where knowledge is missing, to acquire relevant knowledge, document the existing knowledge and share it between employees. When asked of their understanding of the definition of knowledge management, most of them had an idea of what it entailed.

"...knowledge management is a way to manage the existing knowledge within an organization and to make sure that the relevant knowledge exists and that it is always available for all".

(Interviewee 3 – Engineering field)

"My understanding is that knowledge has to be systematically documented...you can never document everything but you can document procedures and processes...".

(Interviewee 9 – IT field)

Many believed that with the proper usage of knowledge management it might increase employees' awareness of risks related to knowledge factors, resulting in mitigated risk. Employees understanding of what HR risks entail and their awareness of the underlying factor might thus be the key to mitigating organizational risks and thus leading to a decreased risk of operational risks.

Proper usage of HRM tools and methods should result in a positive impact on human resource practices and systems, reducing organizational risks. The human resource managers also mentioned HR risks which they believed could be mitigated with a proper use of the tool knowledge management. Their understanding of which HR risks the knowledge management could be used on to prevent them from occurring differs, but they all agree that it is important to use it.

> *"...one of the challenges we face are the older people about to retire but we must now start looking at how to approach this problem but it is a risk for us, we can't lose them before we manage to share their knowledge".*

(Interviewee 2 – Engineering field)

> *"...we need to mitigate the risk of only one individual possessing a particular knowledge, which he could take out of the company at any given time".*

(Interviewee 5 – Engineering field)

> *"If we didn't document processes...people might not be doing things in a similar manner...if this is not done then people will be working by different rules, their own rules or old norms, which is always a risk".*

(Interviewee 9 – IT field)

Few of the HR managers had defined the HR risks but each of them had their own understanding of what the term entailed. The ideas were similar within the same fields but some HR risks were also mentioned by HR managers in other fields. At one point, all the HR managers mentioned knowledge of employees as a possible HR risk factor and all of them agreed that knowledge management systems should be used within a knowledge-based organization such as theirs. Each of the HR managers interviewed had an understanding of what knowledge management entailed, with most of them mentioning the functions of sharing and documenting knowledge within organizations.

3.3. Practices

Each HR manager interviewed had an idea of which risks, related to the human resources, were relevant for their organization. However, how much was being done to mitigate the risks in relation to human resources varied between organizations. The practices used within each organization reflected the ideas of the HR managers on HR risks but were not systematically done. One of the main human resource risk HR managers mentioned was the risk of losing key employees and many of them actively tried to prevent such a loss.

> *"When we were concerned about job insecurity we had managers approach their key employees in order to make it clear to them that they were important and that managers would not want to lose them…to strengthen the bond".*

> (Interviewee 4 – Financial field)

> *"…we have a very good framework around our employees. We put much emphasis on having a good working environment, good working conditions…we systematically try and make sure that there is gender equality…and ensure equal wage for equal work".*

> (Interviewee 6 – Financial field)

Many of the HR managers in knowledge-based organizations are, however, not only focusing on keeping key employees but also using the tool knowledge management to prevent the loss of knowledge within organizations. By using the knowledge management method of analysing where the knowledge is lacking, acquiring it, documenting and sharing it, they believe that the danger of losing key employees won't have as much impact as it might otherwise be.

> *"…we have something called professionalization group, it is a knowledge management tool because there we allow people in the same field to meet, discuss, teach and even study or present assignments and more. We are creating what we need to have in a knowledge-based organization such as this one".*

> (Interviewee 2 – Engineering field)

> *"…we manage people's knowledge, we have so called skill matrixes. There is a specific knowledge which should be presented in each department and the manager has an excel file where all these knowledge factors are documented.*

He can then mark who knows what and thus graphically be on the lookout…this ensures we don't forget an essential knowledge factor".

(Interviewee 5 – Engineering field)

"…it is useful for us to document the knowledge which has to be present, to see the knowledge gaps which often have to be filled in…it might even be important to make sure there is a succession plan…".

(Interviewee 6 – Financial field)

"We have a special tool here called confluence which is a key system in our lives. There we document all records of meetings, all processes, there is the safety handbook and there, all procedures are documented. There we also document all sorts of do's and don'ts…this is basically about sharing knowledge".

(Interviewee 9 – IT field)

By using proper HRM methods, organizations are likely to be able to mitigate various HR risks to have a better overview of what is lacking within and to make an attempt in increasing its productivity and operation. The research mainly focuses on the practice of knowledge management but many HR managers believe that the productivity of an organization will increase by systematically using this system.

"Documentation of processes is a key component in ensuring efficiency. It is done so you won't need to figure something out which someone else has already figured out".

(Interviewee 9 – IT field)

"You have an employee ready to take another employees place".

(Interviewee 6 – Financial field)

The practices used within the organizations reflected the ideas and understanding each HR manager had on what HR risks entail. These practices were not always systematically done and in some cases, they were quite informal. Many of the HR managers interviewed were using knowledge management systems as a tool to lessen the impact of losing particular knowledge. The HR managers also believed that by using knowledge management systems, the organizational productivity could be improved.

3.4.   Summary

Majority of the HR managers in medium-sized and larger knowledge-based organizations interviewed were aware that human resources could result in a risk despite not using the term HR risks to systematically define the relevant risk factors. The HR managers were, however, more aware of the term knowledge management. They realized it could be a valuable management tool to decrease certain risks in human resources but mention that other employees are not as aware of how valuable this system is for their work and if awareness of both of these topics is to increase it is vital to get supervisors on board.

When it comes to the term HR risk, majority of the interviewees were aware of risks in human resources. Even if they did not use the term HR risks in their daily work, they all had a certain understanding of what it might entail. The understanding tended to be similar within the same fields whereas some possible HR risk factors were mentioned within more than one field. Despite the concept of knowledge management being so spread and most of the HR managers having an awareness of it, the understanding differed. Most of the human resource managers could mentioned one or two out of four knowledge management steps, where sharing and documenting knowledge was the most common answer.

Many of the practices used by organizations were not always systematic but they did reflect the understanding each HR managers had on the HR risks within. The HR managers interviewed agreed that to lessen the impact of losing important knowledge the usage of knowledge management system would be good as well as agreeing that a usage of such system might improve the productivity of their organizations resulting in more efficiency and better service.

4. Discussion

In this research, the researcher seeks to provide the reader with an answer to the question of what medium-sized and larger knowledge-based organizations in Iceland are doing to address and manage risks in human resources. This question was to be answered by viewing how aware HR managers in specific knowledge-based organizations in Iceland were about the topic of HR risks and knowledge management, what their understanding was of the concepts and what practices they were using to address and manage the human resources.

The researcher chose the theme awareness because he did not know if human resource managers in Iceland knew of the concept, thus inquiring into the status within specific knowledge-based organizations. The results did not come as a surprise with HR risk being a relatively new concept and as Sadgrove (2016) points out, it is rare to see human resources and risk management in organizations affiliated with one another.

This view of Sadgrove (2016) was proven as HR managers were aware of risks which could occur in relation to human resources but not the term itself. HR risks tend to be different depending on the operation of an organization and it was evident that HR managers in knowledge-based organizations did value similar aspects more than others. Despite this similar understanding and ideas of what HR risks include, the organizations and their values differed by the fields in which they operate. Those similar HR risks mentioned were knowledge-loss, human integrity and the loss of key employees. While all the HR managers in the fields of finance, engineering and IT mentioned the HR risks above, they also placed an emphasis on other human related risks which they believed to be of an importance for their own organizational operation. The financial field put more focus on wages, recruiting, the work environment, having good managers and getting back loans whilst engineering organizations put focus on employee safety and the IT field mentioned retaining the right employees.

Human resources are one of the keys leading to an organizational competitive advantage, it might thus be more advantageous for organizations to pay more attention to human related matters. If an organization is to put an emphasis on human related matters, especially in terms of risks and their relation to the existing human resources, the awareness of HR risks has to be raised. To raise the awareness would be in the hand of HR personnel but it should also be in the hands of supervisors and executives while a cooperation between the two might be beneficial for this purpose. It is clear that the

organizations in this study must actively work on raising awareness further as failing to mitigate the risks in human resources could lead to a halt in their operation which happens to be the main organizational risk, according to the human resource managers interviewed. This raises the question of why HR risks are not a part of the risk management system within most of the knowledge-based organizations interviewed. Is it because HR managers don't put enough emphasis on the results should HR risks occur, is it because the HR managers don't see the need in referring to risks as a part of human resources, is it because other employees, supervisors and executives don't believe HR risks to be relevant or are they simply not aware of such risks existing and, if so, why are they not aware?

Table 1 (p. 40) contains background information about the human resource managers interviewed. It is interesting that despite majority of them not having a HRM education it does not foretell their understanding of the concepts of HR risks and knowledge management, neither does their experience in the field of human resources. The HR managers lack knowledge of the term HR risks which could be due to the term itself being relatively new and thus it might not be familiar to many of the interviewees. It is, however, possible to conclude from the interviews how highly ranked human related risks and knowledge risks are within organizations but that rank is based on the interest and ideas HR managers have on the topic. It depends on what they believe to be important for an organization to address in relations to human resources. As previously stated, most of the HR managers were aware of risks that had to be addressed but were not necessarily focusing on mitigating or eliminating those risk factors. Most human resource managers, however, seem to be aware that there are risks which their human resources must face on a daily basis and that knowledge is one of their most valuable assets.

It is of course impossible to generalize the findings of this research on all medium-sized and larger knowledge-based organizations in Iceland. Some of the organizations interviewed had human resources included in their risk management system whilst most of them did not. Maybe it would be wise for Iceland to start looking towards practices in other countries, for example Germany, where the practice of including HR risks in an organizational risk management system is a part of the countries regulations and legislations (Paul et. al., 2008). The researcher doesn't think it is right to force organizations to include HR risks in their risk management system since operations vary. However, in knowledge-based organizations it would be wise to focus more on HR risks by including them in a risk management system. Such actions would likely increase the

awareness, raise the importance and allow for better cooperation between all employees to systematically work on mitigating HR risks.

The connection between the two themes of understanding and awareness might be the key to mitigating organizational risks. By training employees and educating them of possible risk factors, particularly HR risks, their awareness should increase. This increased awareness might lead to more efficiency in employees' work as well as allowing them to realize their own value in their workplace, leading to a decreased operational risk. The practice of systematically mitigating human resource risks is not a high priority within the organizations interviewed. However, they mention the risk of losing key employees as a main risk factor which they have tried to prevent using various unsystematic methods. Despite the poor emphasis put on HR risks within these knowledge-based organizations, they do make a point of using a knowledge management system to mitigate the impact of key employees leaving. The system of knowledge management is also valuable in other ways, for example to increase an organizations productivity and the human resource managers interviewed realize that.

Becker and Smidt (2016) talk about how HRM can have a positive impact on various human resource systems and practices. They also point out how inappropriate, ineffective or absent HR practices can lead to risks within organizations. This thought has evidently not occurred to many of the HR managers interviewed as they are neither systematically analysing HR risks in order to mitigate them nor including possible HR risk factors in the risk management system. The information security management system, ISO27001, is a good example of a system and a practice which has brought a positive impact on the organizations interviewed. The HR managers who have adopted the ISO certificate have put more effort into defining all risks which could put a halt to an operation. This system allowed for a broader view of the topic and gave them the reason or the urgency needed to start to mitigate those risks. ISO27001 is also an example of an absent HR practice within many of the organizations interviewed. Not having this system might lead to the possibility of HR risks occurring later on in the organizations due to lack of monitoring, resulting in a halt in operation.

As mentioned before, HR risks might cause a halt in operation should they not be systematically mitigated. The methods and practices most HR managers interviewed used to mitigate the risks were unformal and inconsistent. The practises used are for example one-on-one interviews to inform employees of their value within an organization, to

systematically analyse who the key employees are, offering training programs for employees to increase their knowledge and having workshops for employees where they have the opportunity to share their experience and knowledge with other employees in the same field. Some of these practises were also only used when a halt in operation was imminent, not leaving much time for organizations to react. The researcher wanders why organizations don't work on mitigating their HR risks in the long-run since the risk of doing nothing might result in permanent halt in operation. This thought is shared with both Hendry (2012) and Becker and Smidt (2106) who state that human resources is an organizations greatest asset, emphasising the importance of focusing on potential human related risks factors.

In general, the human resource managers were very aware of the knowledge management system. There was however a difference in their understanding of the concept as well as in how they were using it in practice. As Ingi Rúnar Eðvarsson (2004) mentions, the aim of knowledge management is primarily to improve organizational operating results. This can of course only be completed successfully when all of the four steps of knowledge management are being utilized to the fullest. Organizations should analyse what knowledge is missing, seek to acquire it, document and share it. Few of the HR managers spoken to knew of all the four steps. Those who didn't know the steps but were still using a version of the knowledge management system mentioned documenting or sharing knowledge as an important part of the system. The researcher found it evident that the human resource managers knew the value of keeping such a system but he was surprised by the poor awareness of other employees. Having everyone understanding the importance would not only help with better procedures where everyone actively works on seeking knowledge, documenting and sharing it but it would also lessen the impact of HR risks concerning knowledge factors which might occur.

As mentioned, the HR managers put more emphasis on documenting and sharing knowledge, not realising the value of having the four steps in full operation. This different understanding of knowledge management could be due to the HR managers in the medium-sized and larger organizations not knowing the definition and thus not knowing that there are two more steps which need to be followed. It might also be because HR managers believed it was enough to only share and document the knowledge to maintain the operation within or it could be because they put a different weight on and different meaning into the HR risks within their organizations which are directly connected to knowledge.

The researcher is surprised that so many HR managers failed to mention the importance of analysing where knowledge is missing and having to acquire it by offering employees extensive training, especially due to the fact that they are the human resource managers in knowledge-based organizations which heavily rely on their employees' knowledge. Not realizing the importance of utilizing all four steps in the knowledge management is peculiar given the competitive environment of the organizations focused on in this research. As Lubit (2001) so distinctly states, knowledge is the key component to organizational superior performance. Therefore, these knowledge-based organizations might increase their competitive advantage if all four stages are systematically monitored and followed up on. The knowledge management systems used within these organizations are not ineffective, despite only focusing or one or two steps out of the four, but they could be more effective and thus mitigate the HR risks involving knowledge-loss even further. They could lessen the impact the loss of key employees might otherwise have on an organizational operation, as a result they would become much more productive and efficient which eventually would lead to a sustainable success.

The researcher found it quite paradoxical when many of the interviewees mentioned how they believed that with proper use of the tool knowledge management, employees awareness on the importance of knowledge factors might rise. It raises the question if employees are not receiving enough training on how to use the tool or if they are not told why and how it could benefit their organization. If they are not receiving this information they will most likely not understand what the system entails. Their awareness of the system and the possible risk factor of knowledge-loss is also less likely to increase when the training does not convey this information. The HR managers interviewed believed that by using knowledge management systems properly they could raise the employee's awareness which might lead to a mitigated risk, yet they did not mention any plans to do so in the near future. Organizations will achieve the greatest competitive advantage when they are the sole owner of a particular knowledge (Ingi Rúnar Eðvarsson, 2004). This goes hand in hand with explicit knowledge becoming a tacit knowledge and vice versa but for organizations to acquire all the new knowledge which might form in that way, all four steps of knowledge management are necessary. Therefore, the researcher believes that the main focus organizations have on documenting and sharing should shift a bit, allowing for more analysis of which knowledge is lacking and acquiring it. A balanced combination of the four knowledge management steps would result in more

values for an organization allowing for superior performance and competitive advantage in the environment of knowledge-based organizations.

Most HR managers interviewed do address risks in human resources up to a certain extent without managing them formally. It is, however, quite odd that HR managers within these knowledge-based organizations don't put more emphasis on these two topics and put more focus on trying to systematically mitigate the risks in the long-run. They use few aspects of the knowledge management system which could allow them to improve the operation of an organization even further should they use all four steps. The HR managers must realize the value of monitoring and managing both HR risks and knowledge management formally. At the same time, it would be wise for them to state the value to other supervisors and together they could work on raising employees' awareness. How to keep the organizational operation ongoing and constantly improving is thus not the work of one but many.

5. Conclusion

The medium-sized and large knowledge-based organizations in this research could improve in relation to both HR risks and knowledge management. If an organization is to fully address and manage the risks human resources could be the cause of, they must begin to define what the main HR risks are within and how they could mitigate such risks in the long-run. HR managers are aware but other employees are not, which only goes to show the importance of getting everyone involved if an organization is to systematically start making changes and working on mitigating risk factors. The organizations interviewed have a long way to go if they want to decrease their operational risk, starting with changing everyone's mindset. The contribution of this study is to connect the two fields of risks and human resources, showing that it is important to view these fields individually but there is also the option of viewing them together. To view these two fields together, as an HR risk, is a practice which is as necessary for organizations as it is useful. By defining what the risks are in relation to human resources, actively focusing on mitigating them in the long-run and thus reducing the risk of putting a halt on their operation might prove to be beneficial for organizations, allowing for sustainable success. The organizations interviewed, and other organizations, should thus do much more to address and manage risks in human resources.

5.1. Improvement

Organizations need to put more emphasis on making their employees aware. They should put more emphasis on making employees realise that HR risks can cause a halt in operation. By raising the awareness, it would be less likely some aspects of the work which might prove to be risky is forgotten.

HR managers should raise the awareness amongst the executives that HR risks can lead to operational halt. They need to convince them that HR risks can cause operational risks and should therefore be included in the official risk management system of an organization to be constantly monitored.

It might prove beneficial for organizations to implement the information security management system ISO27001 to help them define what the internal risks are, not leaving out HR risks.

HR managers should seek to familiarize themselves with knowledge management systems, increasing their understanding. By knowing the system, it is more likely they

will be able to convince other employees of how important it is for an organization to document processes, procedures and employee's knowledge.

Organizations should put more emphasis on using formal practices to monitor risks, documenting, sharing, acquiring knowledge and realizing where it is missing. But they should also use more formal methods to try and lessen the impact of what could happen.

5.2.   Further research and limitations

As a continuation of this study, a more comprehensive study might be conducted on the same topic, including more knowledge-based organizations. It might also be interesting to take this study further to see how other organizations besides the knowledge-based ones are mitigating HR risks and if they have managed to implement HR risks into their risk management system. It might also be beneficial to get a different perspective on the same topic and conduct a research where the supervisors, executives and other employees are interviewed. It would be interesting to hear from their standpoint how valuable they believe it would be to integrate all human resource risks of an organization with its risk management system. It would allow the researcher to analyse if their experience is the same as the HR managers interviewed and maybe they might add something more to the study than has already been achieved.

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Appendix A

Questionnaire - Icelandic

1. Hver er skilningur þinn á hugtakinu mannauðsáhættur (HR risks)?

2. Hafið þið, þá sérstaklega í samráði yfirmenn á öðrum sviðum, spáð í áhættu í tengslum við mannauðinn í fyrirtækinu?
   a. JÁ
      i. Hvernig kom það til?
      ii. Forvarnarstarfsemi (proactive) eða bregðast við vegna reynslu (reactive)
   b. Hafa yfirmenn í fyrirtækinu gert eitthvað til að sporna við þeim áhættum?
      i. Hvernig?

3. Hefur þú, og þitt fólk á þínu sviði, skilgreint hverjar mannauðs áhætturnar eru innan ykkar fyrirtækis?
   a. Hverjar eru áhætturnar (upplifun þín af áhættunni og greining)?
   b. Hvers vegna teljið þið að þetta séu mestu áhætturnar í tengslum við mannauðinn?
   c. Hafa einhverjir aðrir innan fyrirtækisins, s.s. starfsmenn, reynt að skilgreina mannauðs áhættur?
   d. Hafa ykkur borist ábendingar frá yfirmönnum og starfsfólki að bregðast þurfi við ákveðnum áhættum í tengslum við mannauðinn?

4. Hafið þið, á þínu sviði, reynt að sporna við mannauðs áhættum í ykkar fyrirtæki, ef einhverjar eru?
   a. JÁ
      i. Í hverju felast þær áhættur?
      ii. Hvernig hafið þið reynt að sporna við þeim?
   b. NEI
      i. Í fljótu bragði, hverjar myndir þú telja vera helstu mannauðs áhætturnar í þínu fyrirtæki (ef að þau hafa s.s. hvorki skilgreint þær áður né reynt að sporna við þeim)?

5. Í tenglsum við áhættur **almennt**, hver er talinn vera mesti áhættuþátturinn í ykkar fyrirtæki?
   a. Hvernig er þær áhættur metnar?
   b. Hvað metur þú sem mesta áhættuþáttinn í fyrirtækinu?

       i. Getur þú nefnt dæmi hvers vegna þú telur þetta vera mesta áhættuþáttinn frekar en eitthvað annað?

   c. Hvernig telur þú að starfsmenn og aðrir yfirmenn innan fyrirtækisins myndu svara þessari sömu spurningu?

6. Mannauðssvið styðja oftar en ekki við stefnur og stefnumótanir fyrirtækja, er eitthvað í stefnu þíns fyrirtækis sem að fyrirbyggir mannauðs áhættur?

   a. JÁ

       i. Ef að stefnan fyrirbyggir mannauðs áhættur hefur það breytt einhverju í innri starfsemi fyrirtækisins

          1. T.d. varðandi vinnu starfsfólks, móralinn í fyrirtækinu, kúltúrinn innan fyrirtækisins eða jafnvel áhrifum þess út á við (orðin skilvirkari (effective) og gengur betur en áður (successful))

       ii. Hvers vegna heldur þú að starfsemi fyrirtækisins hafi breyst með aukinni vitneskju og skilningi ykkar á mannauðs áhættum?

          1. Eru þessar breytingar almennt jákvæðar eða neikvæðar fyrir starfsfólk og fyrirtækið í heild sinni?

   b. NEI

       i. Ef að stefnan myndi styðja við það að fyrirbyggja mannauðs áhættur, telur þú að það myndi breyta einhverju í starfsemi fyrirtækisins?

          1. Hverju?

7. Hver er skilningur þinn á hugtakinu þekkingarstjórnun (knowledge management)?

8. Telur þú að með notkun þekkingarstjórnunar innan fyrirtækisins sé hægt að sporna við mannauðs áhættum?

   a. Hvaða mannauðs áhættum gæti þekkingarstjórnun einna helst spornað við?

   b. Hvernig?

9. Hefur þú, og þitt fólk á þínu sviði, notast við þekkingarstjórnun til að viðhalda kunnáttu, hæfni og getu starfsfólks sem að hjá ykkur starfar

   a. JÁ

       i. Hvernig eruð þið að nýta ykkur þekkingarstjórnun? (Dæmi)

        ii. Hefur sú vinna, í tengslum við þekkingarstjórnun, aðstoðað ykkur við að viðhalda kunnáttu, hæfni og getu starfsfólksins innan fyrirtækisins?

    b. NEI

        i. Myndirðu vilja nýta þér þekkingarstjórnun til að viðhalda kunnáttu, hæfni og getu starfsfólks sem að hjá ykkur starfar?

           1. Hvernig myndirðu vilja nýta þekkingarstjórnun?

10. Hafið þið í fyrirtækinu notað þekkingarstjórnun til að sporna við því að missa út hæft starfsfólk?

    a. Hvernig hafið þið notað þekkingarstjórnun til að sporna við missi á góðu starfsfólki? (dæmi)

11. Hafa yfirmenn nefnt að einhver ávinningur gæti hlotist af því að samþætta mannauðs áhættur við áhættustýringu innan fyrirtækisins?

    a. Telur þú að það sé í hag fyrirtækisins að tengja mannauðs áhættur betur við áhættustýringuna?

    b. Hvers vegna?

Er eitthvað að lokum sem að þú vilt segja sem þú vilt að komi fram?

Getur þú sagt mér aðeins frá þínum bakgrunni?

- Menntun, hvar þú vannst áður, starfsaldur hjá fyrirtækinu, starfsaldur í mannauðsstjórastarfinu?

Getur þú sagt mér frá mannauðssviðinu hjá fyrirtækinu?

- Hversu margir vinna á mannauðssviði, hvernig vinnið þið, hvert er ykkar ábyrgðarsvið og hverju er verið að sinna (afhverju eru hlutir unnir eins og þau eru að vinna þá)?
- Hvað eru margir sem að vinna hjá fyrirtækinu?

Telur þú að mannauðssviðið sé metið að verðleikum innan fyrirtækisins

- Eru yfirmenn að taka mark á mannauðssviðinu eða er það meira „nice to have" í stað þess að vera „need to have"?

Situr þú, sem mannauðsstjóri fyrirtækisins, í framkvæmdarstjórn fyrirtækisins?

- Ert þú höfð/hafður með í mikilvægum ákvarðanatökum?

Appendix B

Questionnaire - English

1. What is your understanding of the concept human resource risks (HR risks)?
2. Have you, along with supervisors in other departments, thought of risks in relation to the human resources within the organization?
   a. YES
      i. How did that happen?
      ii. Proactive vs. responding to an experience (reactive)
   b. Have supervisors within the organization done anything to hinder these risks?
      i. What?
3. Have you, or others within your department, defined which are the human resource risks within your organization?
   a. Which are the risks (Your experience of the risk and analysis)
   b. Why do you think these are the biggest risk factors in relation to the human resources?
   c. Has anyone else within the organization, for example other employees, tried to define human resource risks?
   d. Have you received tips from supervisors and employees that there are certain risks, in relation to the human resources, which must be responded to?
4. Have you, and your department, tried to hinder human resource risks within your organization, if there are any?
   a. Yes
      i. What do those risks entail?
      ii. How have you tried to hinder them?
   b. NO
      i. What do you believe to be the main human resource risks within your organization (if they have not defined them nor tried to hinder them before)?
5. In relation to risks **<u>in general</u>**, what is considered the main risk factor within your organization?
   a. How are these risks valuated?
   b. What do you think is the main risk factor within the organization?

    c. Can you name an example as to why you think this is the main risk factor rather than something else?

6. HR departments usually support organizational policies, is there something in your organizations policy which systematically precludes human resource risks?

    a. YES

        i. If the policy precludes human resource risks, has it changed anything in the inner operation of the organization?

            1. For example, in relation to employee's work, the moral within an organization, the organizational culture or the organizations effectiveness and success)?

        ii. Why do you think the organizational operation has changed with increased awareness and understanding of human resource risks?

            1. Are these changes usually positive or negative for the employee's and the organization as a whole?

    b. NO

        i. If the policy would better support the precluding of human resource risks, do you think it would change anything in the organizational operation?

            1. What?

7. What is your understanding of the concept knowledge management?

8. Do you think that by using knowledge management within your organization, human resource risks can be hindered?

    a. What human resource risks could knowledge management mainly hinder?

    b. How?

9. Have you, and the people in your department, used knowledge management to retain employee's knowledge, skills and abilities within the organization?

    a. YES

        i. How are you using knowledge management (example)?

        ii. Has that work, conducted in relation to knowledge management, helped you to retain employee's knowledge, skills and abilities within the organization?

    b. NO

        i. Would you like to use knowledge management to retain employee's knowledge, skills and abilities?

1. How would you like to use knowledge management?

10. Have you, within the organization, used knowledge management to prevent the loss of capable employees'?

    a. How have you used knowledge management to prevent the loss of capable employees (example)?

11. Have superiors ever mentioned that it could be beneficial for the organization to integrate its human resources with the organizational risk management system?

    a. Do you think it might be beneficial for the organization to intertwine human resources to the organizational risk management system?

    b. Why?

Is there anything else you would like to add?

Can you tell me about your background?

-   Education, prior work, period of employment within the organization, period of employment as a HR manager?

Can you tell me about the human resource department within the organization?

-   How many employees, how do you conduct your work, what is your main area of responsibility and what are you working on (why are things done as they are being done)?

-   How many employees work within the organization

Do you believe that the human resource department is recognized and appreciated within the organization?

-   Do supervisors take note of the human resource department or is it more of a "nice to have" department as opposed to "need to have"?

Do you, as the HR manager of an organization, sit in its executive committee?

-   Are you included in all major decision making?