



TAKING CARE OF INNOVATION

An explorative research on HRM-related Innovation in
Dutch general hospitals



August 2016



UNIVERSITY OF TWENTE.

Taking Care of Innovation

An explorative research on HRM-related Innovations
in Dutch General Hospitals

Master Thesis

University of Twente
MSc Business Administration, Human Resource Management

1st supervisor: Prof. dr. T. Bondarouk

2nd supervisor: Dr. J. G. Meijerink

26.07.2016

Summary

The impact of innovation on businesses has been in the focus of researchers and economists for decades. In 2011 Dahlgaard, Pettersen and Dahlgaard-Park have pointed out the problematic situation of the global quality of health care, which forms a major part of the public sector. According to the researchers “the steadily aging demography, the pressure on the healthcare sector is increasing and will be subjects to hard trials in the years to come” (p. 673). Besides, the health care sector is challenged by the triple aim of providing care, enhancing health and maintaining low cost. One possibility to face these challenges could be the enhancement of the innovative capacity of the sector. Research in the private sector has shown that, Human Resource Management practices, such as increased decentralisation, discovery and utilisation of knowledge, teamwork, have the potential to positively influence the innovation performance of a business.

The purpose of this research is to identify the status quo of HRM-related innovations in Dutch general hospitals and to broaden the knowledge about the contextual elements influencing the process of innovation in HRM by determining best practices, success and risk factors. This research also aims at characterising the type of innovations within the sector in order to establish a more holistic report of the status quo and future implications. The central research question of this research is *“Which types of HRM-related innovations exist in Dutch general hospitals and by which context-characteristics are they possibly affected?”*

This research found, that there is a relatively high amount of HRM-related innovations present in Dutch general hospitals. Most innovations are related to the digitalisation of HRM-processes or the enhancement of sustainable employment, flexibility and self-responsibility. Work innovations, such as employee empowerment and job-design are used to increase flexibility and autonomy. Other innovations mainly focus on communication and training in order to increase knowledge, creativity and changes occurring from fusions, technological developments and organisational changes. Also possible triggers for innovation have been analysed. Especially a high degree of communication and knowledge sharing through internal and external networks stimulate the occurrence and acceptance of innovation in general hospitals. The openness for innovations is positively influenced by communication and training as both encourage knowledge sharing and the awareness of the benefits of innovations.

Table of Contents

1. Introduction	6
1.1 Context of Research: Situation and Complication	6
1.2 Research Goal and Central Research Question	8
1.3 Expected Academic and Practical Contribution	8
2. Theoretical Framework: Conceptualisation of Key Topics	10
2.1 The Health Care Sector	10
2.3 Human Resource Management	13
2.4 Private vs. Public Sector	17
2.5 Research Model	18
3. Methodology	19
3.1 Research Methodology and Design	19
3.2 Sample selection	20
3.3 Measurement	21
3.4 Data collection	23
3.5 Data analysis	24
3.5 Reaching Validity	24
4. Results: HRM Innovations/ Single Case Analysis	26
4.1 Single Case Analysis of Hospital A	26
4.2 Single Case Analysis of Hospital B	28
4.3 Single Case Analysis of Hospital C	30
4.4 Single Case Analysis of Hospital D	31
4.5 Single Case Analysis of Hospital E	33
4.6 Summary of findings	34
5. Cross-Case Analysis	36
5.1 Possible Influencer of Innovations: Institutional Arrangements	36
5.2 Possible Influencer of Innovations: Technological and Organisational Capabilities	37
5.3 Possible Influencer of Innovations: Organisational Learning	37
5.4 Possible Influencer of Innovations: Entrepreneurial or Risk Taking Behaviour	38
5.5 Possible Influencer of Innovation: Individual Intention	39
6. Discussion	40
7. Conclusion	41
8. Contribution of Research	42
8.1 Academic Contribution	42
8.2 Practical Contribution	42

9. Limitations and Future Research.....	43
9.1 Limitations	43
9.2 Future research.....	43
References.....	44
Appendix A.....	48
Appendix B.....	51
Table 1 Number of Hospitals per Category in the Netherlands in 2013.....	12
Table 2 Differentiation of HRM-related Innovations in three Categories	16
Table 3: HRM-related Innovations derived from Literature Review	22
Figure 1 Research Model: The Relation between HRM-related Innovations influenced by the Context	18
Figure 2 Map of participating Hospitals	20

1. Introduction

1.1 Context of Research: Situation and Complication

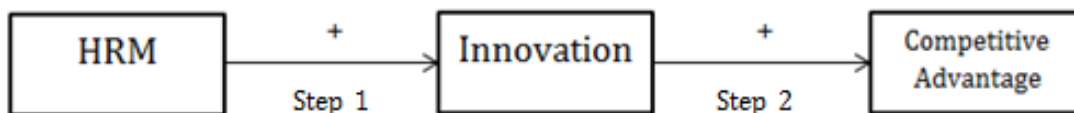
The impact of innovation on businesses has been in the focus of researchers and economists for decades. Innovation can be defined in several ways and from different point of views. Because of this numerous definitions can be found in literature, which are all correct in their specific contexts. In this thesis innovation is defined in accordance to Rogers' (2003) formulation. Innovation is "an idea, practice, or object that is perceived as new by an individual or other unit of adoption" (p. 126). A great amount of knowledge has already been generated by researching a wide range of different types of innovations and their impact on a diversity of sector-specific private business-contexts. Especially the advantages of innovation lies in the focus of researchers and managers, as research has proven that being innovative can help organisations, operating in the private sector, discover opportunities, anticipate on (future) trends, increase effectiveness, productivity and profitability (Hashi & Stojčić, 2013). Also can different types of innovations (incremental, radical or a combination of both) help achieving not only major business changes, but for example can also help focussing on existing business processes and practices, cutting down waste and attracting/retaining staff members (Why business innovation is important, 2015). One of the significant differences between the private and public sector in economically developed countries is noticeable in the state of scientific and technological research within the sectors (Global private and public R&D funding, 2013). Whereas the private sector in general contributes a significant percentage towards a countries total GDP (Gross Domestic Product), in the United Kingdom 83,65% and in the US 89,46%. Two third of the GDP spent by the government for Research and Development is invested back in the private sector. This leaves only one third of invested money for the public sector, what not only shows the priority of governmental decisions but also creates an under researched public sector with a lot of potential for research. (The Difference Between the Private and Public Sector, 2015) (Global private and public R&D funding, 2013).

In 2011 Dahlgaard, Pettersen and Dahlgaard-Park have pointed out the problematic situation of the global quality of health care, which forms a major part of the public sector. According to the researchers "the steadily aging demography, the pressure on the healthcare sector is increasing and will be subjects to hard trials in the years to come" (p. 673). Besides, the health care sector is challenged by the triple aim of providing care, enhancing health and maintaining low cost. Although health care is specific and difficult to compare with other businesses, the authors argue that the sector can benefit from studying and adapting theories, principles and methods which "have proved to be useful in other industries" (Dahlgaard, Pettersen, & Dahlgaard-Park, 2011, p. 674). In addition to this, the research institute Alan Turing Institute Almere (ATIA), which is specialised in the analysis of medical data in the Netherlands, has investigated the major problems in the Dutch health care sector in 2012. ATIA found, major developments in medical technology, too much administrative work, staff shortage, decreasing staff training, political regulations, shortage of innovation and time pressure as being the most challenging issues at the moment (Problemen in de zorg, 2012). Thus, besides the obvious fast developing medical technologies and processes also organisational components are of concern within the Dutch health care sector. In which way can the Dutch health care sector face these urgent problems and future challenges?

One possibility could be the enhancement of the innovative capacity of the sector. As mentioned before, can innovation help increase effectiveness, productivity and profitability of organisations (Hashi & Stojčić, 2013). Together with the call of Dahlgard et al. (2011) to let the health care sector benefit from principles and methods from other industries this is a plausible initial point to answer the question. Research in the private sector has shown that, Human Resource Management (in the following: HRM) practices, such as increased decentralisation, discovery and utilisation of knowledge, teamwork, have the potential to positively influence the innovation performance of a business (Laursen & Foss, 2003). Additionally Townsend and Wilkinson (2010) state, that HRM is also of crucial importance for the performance of health care organisations. HRM can be defined as “involving all management decisions related to policies and practices that together shape the employment relationship and are aimed at achieving individual, organizational and/or societal goals” (Boselie, 2010). In the past the field of HRM has become a widely studied research field, yet there are research areas that “are in need of investigation” (Van den Broek, 2014, p. 9).

In summary, the individual findings of previous research on the importance of innovation for businesses in terms of competitive advantage, the influence HRM can have on innovativeness and the challenges of Dutch health care sector, in this thesis are connected with each other and researched as one focus-domain.

Simplified model of connection and influence of individual research findings:



Step 1: Research has shown that HRM, when implemented appropriately, can increase the level of innovativeness of a business in its entirety as well as the individual innovativeness of employees.

Step 2: Innovation was found being an influencing factor of competitive advantage of businesses. A high(er) level of innovation is expected to result in an increased competitive advantage and better position in the market.

Van den Broek (2014) has researched the characteristics of the diffusion, adoption and implementation of HRM innovations in Dutch health care organisations and the organisations’ influence on the innovation process in order to downsize the HRM and Dutch Health care sector knowledge gap. Van den Broek (2014) presents examples of HRM-related innovations in Dutch hospitals, which include processes, underlying causes, influencers and risk factors. Concluding the findings, Van den Broek calls for future investigation on the understanding of the “complexity of the institutional environment (Van den Broek, 2014, p.107). The assumption of the author is, that institutional environment has great influence on the innovation process.

This research follows-up this request, by determining the status quo of existing HRM-related innovation in Dutch general hospitals. This is done by pointing out which types of innovations exist and by investigating the context, such as environmental elements, risk factors and conditions.

1.2 Research Goal and Central Research Question

The purpose of this research is to identify the status quo of HRM-related innovations in Dutch general hospitals and to broaden the knowledge about the contextual elements influencing the process of innovation in HRM by determining best practices, success and risk factors. The presentation of contextual elements and considerations should give indications on the presence of these innovations as well as possible future aspects that need to be considered and adapted into the management of human resources in the Dutch health care sector. This research also aims at characterising the type of innovations within the sector in order to establish a more holistic report of the status quo and future implications.

Consequently the central research question of this research is *“Which types of HRM-related innovations exist in Dutch general hospitals and by which context-characteristics are they possibly affected?”*

Note: The research question is based on preliminary literature research in order to develop a research framework. However, this research is fully explorative. Furthermore, this research is part of a larger research, conducted by a team of three junior researchers. Each individual research examines the same research topic and data collection method. An overlap in choice of cases, literature and methodology can occur even though the analysis and interpretation of collected information is performed individually.

1.3 Expected Academic and Practical Contribution

The following elaborates on the expected academic and practical contribution of this research. The actual contribution of the findings will be discussed in *Chapter 8: Contribution of Research*.

Expected Academic Contribution

Limited knowledge about HRM-related innovations in Dutch general hospitals is available, as the Dutch health care sector in general is not greatly researched (Van den Broek, 2014). Scholars have called for more research into this issue (a.o Van den Broek (2014); Townsend & Wilkinson (2010). As a response to that, this research is expected to generate new insights in the research fields of the Dutch health care sector and HRM-related innovations, as both enjoy great attention of researchers, however, are under-researched when combined into one field of interest.

Furthermore, the research is expected to complement and test the generalizability of the current theoretical state of knowledge concerning HRM and innovation. The specific context of this research will present relevant information for researchers in the public as well as in the private sector, for example whether HRM-related innovations are as important for the health sector as they are for private businesses. Consequently, the research is expected to contribute to theory and give new directions for future research.

Expected Practical Contribution

Relevant practical insights are expected from this study. More insights into the status quo of HRM-related innovations in Dutch general hospitals are needed to understand the sector specific factors regarding innovation in HRM, as well as processes, (dis)advantages and success/risk factors. It is expected that the enhancement of knowledge on this topic will contribute to the improvement and consistent performance of processes in practice in the future.

Furthermore, it is expected that the research findings will enable (HRM)managers of organisations, persisting in similar environmental circumstances, to find inspiration and practical guidelines for facing current challenges and to maintain competitive advantage. Also, the insights can provide new insights and the necessary understanding of the possibilities to be able to e.g. increase staff turnover and the overall management of human resources. The knowledge generated by this research is not only beneficial for the health care sector but also for related sectors (e.g. technology, insurance, pharma), who all are dependent on resources from the labour market.

Outline

This chapter presented the underlying situational complication as well as the research goal and representative research questions. In order to reach the research goal and to answer the research questions a literature review on the European and Dutch health care sector as well as innovations in Human Resource Management is performed. The relevant information on the topics and their relationship are outlined in chapter two *Theoretical Framework*. Chapter three *Methodology* elaborates on the selected research method (cross case analysis) as well as the sample selection, measurement instrument(s), data collection and data analysis concerning this research. The last part of the thesis includes the findings of the data collection in chapter four *Results* and a discussion on these findings and conclusion in chapter five and six. Completing the thesis limitations and implications for further research are presented.

2. Theoretical Framework: Conceptualisation of Key Topics

In the following chapter the existing literature on the key topics of this research *human resource management, innovation and the current situation of the Dutch health care sector* are defined and elaborated. Additionally, for a better general understanding of the context of this research information about the private and public sector is given.

2.1 The Health Care Sector

Health Care in General – The European Health Care Sector

As mentioned before, innovation and HRM are not exclusively important for the private sector, yet they are just as crucial to the private sector in terms of its large workforce and responsibilities. In order to be able to understand and interpret the contextual characteristics of this research setting it is important to understand the sector, firstly the Dutch health care sector in general and more specific the current situation of Dutch general hospitals. Furthermore, also governmental and transnational regulations can have influence on the Dutch health care sector. Therefore also the European health sector will be investigated in the following.

The health care sector in general is part of the economic system in countries and has the overall goal to provide goods and services to treat patients with curative, preventive, rehabilitative, and palliative care (Health Care Initiatives, Employment & Training Administration (ETA), 2015).

European health care systems increasingly face the challenge of workforce shortages and misdistribution of skills. According to World Health Organization (WHO, 2013) “the world will be short of 12.9 million health care workers by 2035” what will have serious implications for the health of billions of people if not addressed now. Several key causes were identified and include an ageing health workforce with staff retiring or leaving for better paid jobs without being replaced, not enough young people entering the profession or being adequately trained and increasing demands from a growing and increasing elderly population. WHO Assistant Director-General for Health Systems and Innovations, Dr. Marie-Paule Kieny says, “(...) we must rethink and improve how we teach, train, deploy and pay health workers so their impact can widen” (World Health Organization, 2013).

Simultaneously a second challenge occurs. Because of developments related to technology, organisations and professionals health systems in many countries have “experienced a considerable transformation, requiring their workforce to hone new skills for new technologies, and adopt new behaviours in the market economy that has established new relationships with employers and clients” (Dubois, McKee, & Nolte, 2006, p. 22).

Both challenges together with the European integration (cross-border mobility and migration between member states) in many countries have led to public sector reforms and legal adjustments. Most health sector reforms contain the ambiguity of aiming at rewarding performance and empower staff whilst implementing downsizing and redundancy based on “substantial overcapacities and an inadequate human resource skill mix” (Dubois, McKee, & Nolte, 2006, p. 23). Through this the use of downsizing becomes an approach of achieving financial savings rather than being an administrative necessity, what results in a rapidly evolving work-environment in which doctors, nurses and managers need to have the capacity to

carry out their responsibilities in a fast and flexible way. Noticeable is the controversy of workforce shortage and downsizing due to financial matters.

The National Health Service (NHS) in the UK has selected the improvement of productivity as a strategy to address the funding shortfall projected for the NHS for 2011- 2017. Yet, more health care sectors in Europe face the need of delivering high-quality care within economically constrained environments. Consequently this means, improvement in how resources are used to deliver effective high-quality healthcare is needed. Resources can have a technological, administrative or human resource nature (Ranmuthugala, et al., 2011).

The Dutch Health Care Sector

In 2006 a major health care reform was introduced after almost two decades of preparation, which has brought completely new regulatory mechanisms and structures to the Dutch health care system. A single compulsory insurance scheme in which private health insurers compete for insured persons is the simplified principle of the reform. Health insurers are expected to negotiate with health care providers on price, volume and quality, and are allowed to make profit and pay dividends to shareholders. Furthermore they are obliged to accept new applicants and are not allowed to differentiate their premiums according to the risk profile of the applicants. Before the health care system in the Netherlands was a predominantly government run system which was transferred into an insurance market system that aims at being patient focused and competitive.

The government still acts as regulator and monitors quality, accessibility and affordability of health care, but does not manage the majority of funds and control of volumes, prices or productive capacity. Yet, responsibilities have been transferred to insurers, providers and patients. Instead of central command by the government, especially patient demand is expected to drive quality of care based on the principles of durability, solidarity and efficiency within the system. Reasons for the reform were problems with the former two tier system (private vs. state coverage health care), inefficient and complex bureaucracy, long waiting lists and a lack of patient focus.

Furthermore, professional associations are responsible for re-registrations schemes and are involved also involved in quality improvement, for instance by developing professional guidelines. Additionally the Dutch health care sector relies on an extensive infrastructure for research and development what includes medical research, health technology assessment and health services research (Schäfer, et al., 2010).

The Dutch health care system consists of three compartments:

1. Long-term care for chronic conditions
2. Basic and essential medical care from GP visits to short-term hospital stays and specialist appointment or procedures
3. Supplementary care, e.g. dental work, physiotherapy, cosmetic procedures

(Daley & Gubb, 2013)

Besides these three compartments are Dutch hospitals divided in three types:

1. General hospital: provides standard health care for less specialized problems, eventually refers patients to more specialized facilities, employs medicals from various fields
2. Academic hospital: allied with a university, focus lies on a variety of researches, also provide more specialised care
3. Specialized hospital: offers services in a specific medical field, e.g. trauma centres, rehabilitation hospitals, children's hospitals

General hospitals are subdivided into three categories: SAZ, STZ and OVA. Hospitals belonging to the category SAZ are affiliated to "De vereniging van Samenwerkende Algemene Ziekenhuizen", which in general are the smaller general hospitals. STZ hospitals are affiliated to "De vereniging Samenwerkende Topklinische (opleidings-) Ziekenhuizen and represent the bigger hospitals with have an educational background like academic hospitals. The third category is OVA- "Overige ziekenhuizen", which includes the remaining, medium-sized hospitals. In 2014 the total number of hospitals in the Netherlands was 134 with a subdivision as follows:

Table 1 Number of Hospitals per Category in the Netherlands in 2013

Total number of hospitals	134
General hospitals	83
SAZ	40
STZ	25
OVA	18
Academic hospitals	8
Specialized hospitals	23
Rehabilitation	20

Source: Stichting Dutch Hospital Data, 2016

As mentioned before, resources in the health care sector can have a technological, administrative or human resource nature (Ranmuthugala, et al., 2011). In the Netherlands a dense network of premises, equipment and other physical resources is present. Health institutions are fully responsible for the realization of (re)construction and purchasing equipment. Due to mergers, many hospitals operate from more than one location and in addition to general and university hospitals, independent centres for non-emergency treatments, have become part of the acute hospital sector.

About 7% of the population works in the health care sector and in comparison to other countries the relative number of nurses is particularly high. Most nurses work in home care and in care for the elderly and disabled. The introduction of the reform in 2006 has affected the role of professionals and their relation to health insurers, with whom they have to negotiate about

quality and the price of care. Aside from this the quality of health care professionals is safeguarded by obligatory registration and by various licensing schemes maintained by professional associations. In order to prevent shortages or oversupply of health professionals workforce forecasting and planning of educational capacity is performed. According to Schäfer, et al. (2010) unequal distribution of providers is not a major issue in a small and densely populated country like the Netherlands, although in large cities efforts need to be made to match demand and supply.

Since the reform the Dutch health care system has been voted as the best health service in Europe in 2008 and 2009 by Euro Health Consumer Index (EHCI). Patients have a great degree of freedom when choosing their health insurance from which they receive health care service, what could lead to a chaotic system with little regulations. However, the system is well managed by communication between patients and health care professionals (EurAktiv, 2015). Nevertheless, the system is criticized and still faces problems. Due to increased payment contributions (from €320 in 2005 to €1,035 in 2006) it is questioned whether the new system is affordable for low income earners. Also it was hoped that more choice and effective competition would drive innovation, quality and cost efficiency without compromising access. However, analyses suggest, consumers choose health insurance based on perceived differences in service levels and premiums and not based on the quality of care (Daley & Gubb, 2013).

Summarizing the Dutch health care sector, a continuous competition among insurance companies and health care providers is taking place. A constantly improving degree of quality of care and the individual patient seem to stand central. As one of the biggest employment-sectors the Dutch health care sector still faces the challenge of decreasing workforce, what results in a challenge for HRM.

2.3 Human Resource Management

Human Resource Management (HRM) can be defined as “carefully designed combinations of (...) practices geared towards improving organizational effectiveness and hence better performance outcomes” (Boselie, Dietz, & Boon, 2005, p. 67). In HRM a variety of practices are used to manage employees and their human capital. Many other definitions of HRM have been formulated by researchers, yet in this thesis this definition forms the basis of the understanding of HRM. The impact of HRM on organisational and individual performance has become a dominant research issue in the field as the awareness of the potential of human resources and the need of managerial guidelines increased in the past decades. As a result a diversity of studies confirms a positive relation between HRM and performance (Guest, 1997). The rapidly changing economic environment caused by globalisation, changing customer and investor demands and the increasing product-market competition has led to the necessity of organisations to compete. In order to achieve sustainable competitive advantage organisations must continually improve their performance by e.g. reducing costs, innovating products and services, improving quality and productivity. According to Arthur (1994), Cutcher-Gershenfeld (1991) and MacDuffie (1995) who have done conceptual and empirical work on this issue, human resources are crucial for organisational performance by creating value. Additionally Barney (1991, 1995) suggests, according to the resource-based view, firms “can develop sustained competitive advantage only by creating value in a way that is rare and difficult for competitors to imitate” (p.XX). However, traditional sources of competitive advantage such as natural resources and technology are increasingly easy to imitate. In this case human resource strategies seem to be an especially

important source of sustained competitive advantage as it takes place within an organisation and is often based on communication and actions (Becker & Gerhart, 1996).

The Relation of Innovation and Human Resource Management

As mentioned before, innovations give organisations the possibility of increasing effectiveness, productivity and profitability and therewith operating more successful and gaining competitive advantage (Hashi & Stojčić, 2013). Innovation is a process, which can be defined as “the development and implementation of new ideas by people who over time engage in transactions with others within an institutional context” (Van de Ven, 1986, p. 590). This general understanding can be applied to a wide variety of technical, product, process, and administrative kinds of innovations and also includes the management of human resources. In order to gain the advantages of innovation it is important to understand the four factors that facilitate and inhibit the development of innovations, which are ideas, people, transactions and context over time (Van de Ven, 1986). This thesis primarily focuses on the role of the factor *people*, in other words human resources in relationship to innovation. Additionally, a diversity of drivers for innovation are revealed through research: efficient R&D (Cassiman & Veugelers, 2006), external and internal knowledge sharing (Walker, 2006; Horbach, Rammer, & Rennings, 2012), and the enhanced creativity and new idea development through strategic and efficient HRM (Mumford, 2000; Jimenez-Jimenez & Sanz-Valle, 2008; Kepes & Delery, 2007; Lepak, Liao, Chung, & Harden, 2006).

Several theories refer to the relationship between HRM and innovation. Based on the AMO-model (ability, motivation and opportunities), Zhou, Hong and Liu (2013) argue that HRM develops abilities, motivation and opportunities, which will not only result in increased financial performance, but especially employee performance. If the strategic focus of this employee development is specifically oriented towards the enhancement of creativity, HRM can effectively impact the innovativeness of organisations. The resource based view (RBV) states that organisations achieve sustainable competitive advantage by creating resources that are unique, inimitable, valuable and non-substitutable. Human resources also represent a valuable resource which should, accordingly to Beugelsdijk (2008), be managed towards being unique so that it is superior towards other organisations' human resources. Finally, considering the definitions of creativity as „the development of new ideas“ and innovation as „the process of actually putting the new ideas into practice“ (Jiang, Wang, & Zhao, 2012, p. 4027), the development of ideas mainly occurs through creative employees, individually or in teams. Jiang et al. (2012) also reinforce the importance of human resources in relation to innovation and define the people within an organisation as „the foundation of innovation“ (p.4028) and declare, if an organisation views its employees as the most important asset and invests in it by creating a supportive work environment, employees will feel committed to the organisation. The feeling of being valued leads to an increased impulse to return creativity.

Beugelsdijk (2008) has also researched the relationship between individual HR practices and firm's innovative performance and identifies individual HR practices which have different effects on two types of organisational innovation. Firstly, incremental innovation, which is concerned with the enhancement and upgrading of existing products, services and processes within a company, can be organised by incentive systems and training programs. The individual HR practices to achieve incremental innovation are: training & schooling, job autonomy and performance-based pay. Whereas radical innovations, which are more risky and complex, can be

achieved by giving the employees more job autonomy in terms of tasks, planning and flexible working hours. Concluding Beugelsdijk (2008) states, firms with a decentralized organisational structure and a focus on employee empowerment generate a higher degree of product innovation. Jiang et al. (2012) add creativity as mediator to the relationship between HR practices and organisational innovation. By empowering the ability and motivation of employees to be creative more innovative ideas can be generated. Creativity at employee level may lead to the development of innovative products at organisational level. The following HR practices facilitate creativity: hiring & selection, reward, job design and teamwork.

The Role of Human Resource Management in the Health Care Sector

Most of the research on the role of HRM on improving organisational outcomes has been conducted in the private sector. More recently attention has been given to the public sector, and in particular the health sector where studies have demonstrated links between HRM practices and improved organisational outcomes (Aiken et al., 2000; West et al., 2002). Based on former research outcomes, a labour-intensive, highly motivated, highly skilled professional workforce, as in the health care sector, should be an ideal context for the successful implementation of HR practices (Bartram, Stanton, Leggat, Casimir, & Fraser, 2007).

The challenges in the health care sector, such as ageing population, increasing work pressure and retention of nurses and medical specialists have impact on HRM within the sector. Because of these challenges, technological/medical innovations and in times of major organisational changes due to reforms and governmental regulations the management of employees is highly relevant for health care organisations and its workforce (Van den Broek, 2014). Health care organisations already have introduced HR practices, organisational changes and innovations in order to face these developments. Examples are restructuring nursing and medical functions, innovative forms of learning, talent management to attract and retain highly qualified and motivated employees and integral management. However, Van den Broek (2014) has found, that “HRM and the HR professionals themselves do not seem to be significantly involved in many of the organizational healthcare changes” (p. 48). A controversy arises why on the one hand HRM issues are relevant in health care organisations, while the HRM professionals are not the innovators of organisational changes and deem to be not involved in the change processes.

Types of Innovations in Human Resource Management

In consideration of the definitions of innovation and, HRM in this thesis and van den Broeks’ (2014) research on the topic, HRM-related innovations are differentiated in three categories. The first type is *work innovations*. It includes new practices that are related to the design of work and includes autonomous jobs and quality circles. The second type of HRM innovations is *employment innovations*, which mostly include more traditional HRM instruments such as recruitment and selection, training and development and appraisal practices. Third, a broader category, are organisational innovations. These innovations have a broader context and affect the whole company, yet include HRM significantly. Table 2 shows an overview of the three types of HRM-related innovations with relevant examples as described by van den Broek (2014).

Table 2 Differentiation of HRM-related Innovations in three Categories

Employment innovations	Work innovations	Organizational innovations
Blended learning / e-learning	Introduction of Nurse Practitioner	Organizational restructuring (e.g. management structure)
Talent Management Pool	Introduction of Physician Assistant	Restructuring HR department
Management Development (MD) program	Introduction of lower level nurses	Cultural change programs
Labor market communication program	Dual management	Family centered care
Employer branding	Manager participating in nursing work	Process improvement techniques: Theory of Constraints, Business Process Redesign, Lean management for healthcare (Productive Ward: Releasing Time to Care)
Education and performance program	Changing teams	Capacity management program
Performance management cycle	Job rotation	Centralized scheduling
Development plan employees	Job crafting	Digitalization (paperless office, digital portals, electronic patient files)
Generic job descriptions	Internal mobility paths	Operating room checklist (SURPASS)
Competence management		Safety rounds
Sickness absence management		Networks with other healthcare providers
Introduction of recruitment department		Networks with regional business organizations (e.g. Health2Business)
Flexible labor office		
Monitoring employee satisfaction		
Workability plans		

Source: Van den Broek, 2014, p.41

As Van den Broek (2014) has found, can the different HRM-related innovations not be considered as being completely separated from each other, but rather have the potential to influence one another, automatically come together or emerge as a consequence of the implementation of another innovation (also see 2.5 Research Model). Especially organisational innovations are expected to have an obvious effect on work-and job innovations. Furthermore, it is expected that the individual context of a hospital has influence on the degree of innovativeness in HRM. Contextual influencers can be the size of the hospital (number of beds and employees), the region, overall mission and vision and the individual understanding of innovation in HRM of HR managers. The categorised HRM-related innovations present a thorough coverage of possible innovations, and therefore will function as a basis in this research for the collection, analysis and interpretation of relevant data.

2.4 Private vs. Public Sector

In terms of economy all countries consist of a private and a public sector, which individually and combined support the progress and development of a country. Simplified explained is the public sector run by the government, whereas the private sector is run by private individuals or companies. Businesses in the private sector are seen as being more efficient than the public sector and enjoy less government interference. Enterprises from this sector are divided on the basis of sizes small, medium and large, which are either privately or publicly traded organisations. The main goal of the private sector is making profit, gaining brand reputation and competitive advantage by providing services and goods to citizens. It is also the largest sector in terms of employees. The major services provided by the private sector are:

- Quality education
- Telecommunication services
- IT services
- Courier services
- Infrastructure development

In contrast to the private sector is the public sector a part of a country's economy where the control and maintenance lies by the government. The sector is engaged in the activities of providing government goods and services to the general public. Agencies, organisations and bodies are fully owned and controlled by whether the central, state or local government and are generally established with a service motive and do not seek to generate profit. The following services are provided by the public sector:

- Generation of employment opportunities
- Postal service
- Providing education and health facilities at low cost
- Providing security
- Railway service

Employees in the public sector have a higher job-security along with given benefits of allowances, perquisites and retirement regulations. The working environment in the private sector is more competitive than in the public sector, as this is not established to meet commercial objectives (Surbhi, 2010; The Difference Between the Private and Public Sector, 2015; Global private and public R&D funding, 2013).

Nowadays also public-private partnerships in a diversity of (contractual) arrangements where the two parties share rights, responsibilities and goals are possible (Farquharson, Torres de Mästle, & Yescombe, 2011). The private sector is often affected by governmental regulations, laws and policies, whereas all governments today rely on the private sector for pharmaceuticals and equipment, and increasingly contract with private organizations for training, development and direct service delivery in areas where the government does not provide services. Furthermore, as governmental programs move toward social insurance programs (example: reform of health care system in the Netherlands in 2006) and contracting mechanisms as a way to expand coverage, the interdependence of the public and private sector has increased. In order of improving the performance of health care systems public-private partnerships play a critical

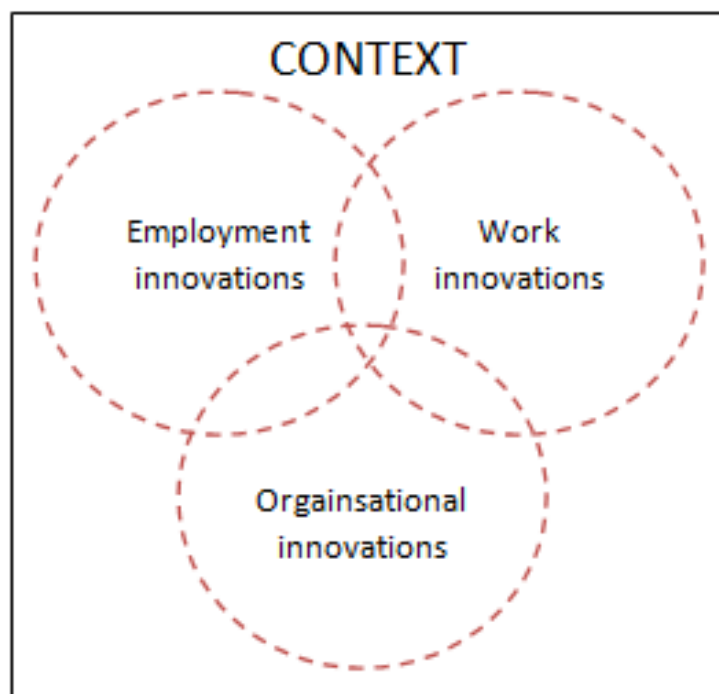
role by bringing together the best characteristics of both sectors to improve efficiency, quality and innovation. Yet, partnerships can fail and are not the key to success (Mitchell, 2014).

2.5 Research Model

Accordingly to the conceptualisation of innovation three types of HRM-related innovations can be distinguished: (1) employment innovations, (2) work innovations, and (3) organisational innovations. The understanding of these types in this research suggests that they are not separated and unrelated to each other, yet are related and share aspects. As mentioned before, “the complexity of the institutional environment” (Van den Broek, 2014, p.107) is expected to have influence on the innovation process in general and consequently also having influence on the status quo of HRM-related innovations in the relevant HR departments of Dutch general hospitals.

Accordingly to this understanding the following research model has been composed.

Figure 1 Research Model: The Relation between HRM-related Innovations influenced by the Context



3. Methodology

This chapter illustrates the methodology used in this research, including the research design, sample selection, data collection and the used method for data analysis. A set of quantitative data is collected through semi-structured face-to-face interviews with HR managers. In order to be able to investigate the problem, answer the research question and reach the research goal data was collected in Dutch general hospitals.

3.1 Research Methodology and Design

Literature Review

The respective conceptualisations of the key topics of this research are based on literature review. A diversity of online search engines and databases (Google Scholar, Scopus, Web of Science, online library of the University of Twente) has been used in order to collect adequate and sufficient literature. Publications from topic-related journals, research reports released by health care related institutions, governmental publications and papers from universities have been perceived as suitable. Literature for the conceptualisation of “innovation” and HRM” was chosen based on the number of citations by other researchers and the fit of found information to the topic. For the conceptualisation of the European and Dutch health care sector the most recent publications have been used. The theory collected by the literature review was used as a guideline for the data collection within this research.

Research Design: Five Case Studies

For this explorative research a qualitative research method with qualitative case studies has been chosen. As the focus lies on the in-depth understanding of opinions and experiences rather than on numbers a qualitative method is appropriate to achieve the research goal. According to Eisenhardt (1989) case studies are perceived as being well suited for research areas which haven't been extensively researched, as well as for areas with scarce existing knowledge and research data. This matches the current state of little available research findings on the kinds of HRM-related innovations in Dutch general hospitals. According to Van den Broek (2014) the Dutch health care sector is currently under-researched and the call for continuing research legitimates qualitative case studies being an appropriate research design. The case studies follow an exploratory descriptive design in form of open interviews, what enables the investigation of contextual situation descriptions, as well as explanations of cause-effect relationships (Hsieh, 2004). The priority lies on the identification and description of present HRM-related innovations and related factors, such as causes for innovation, goals, outcomes, obstacles. The open interview also allows the researcher to get an indication of personal experiences and opinion of respondents.

Criticisms and Limitations of a Qualitative Research Method

Qualitative research is often perceived as being subjective. This means that information conducted in interviews and case studies are open to misinterpretation and observer bias due to the personal involvement of the researcher. Furthermore, as a result of the subjective nature, the level of detail and a small sample size, qualitative findings cannot be generalized to the population at large because the participants do not give an accurate representation of the entire

population. The two main points of criticism are reliability and validity. Reliability refers to the question of whether a repetition by different researchers or the same researcher at another time and place would come to the same result (Silverman, 2006). Achieving perfect reliability is especially difficult in qualitative studies because subjectivity and generalisability play a role. Besides that, qualitative research emphasizes validity, the coherence of the entire research concept, as such a research is designed to ensure a close fit between the data and what people actually say and do (Taylor & Bogdan, 1998).

3.2 Sample selection

The respondents for the open interviews are HR managers of Dutch general hospitals. This target group has been chosen due to their expected knowledge on all HRM-related aspects within the respective organisation, their authority and related participation in the decision-making and development processes. This enables the collection of the desired in-depth information on HRM-related innovation and their context. In case the HR manager was not available for an interview, but was interested in participating in the research, alternative HR personnel, with adequate knowledge about the processes, of the respective hospital was invited to function as a respondent.

The limited amount of hospitals in the Netherlands has minimized the selection criteria for hospitals. Hospitals taking part in this study need to fulfil the following criteria:

- Status of general hospital without existing treatment-focus,
- Located in The Netherlands,
- No academic hospital

The number of employees, beds or operations and collaborations are not considered as being selection criteria, this because of the limited amount of hospitals and the goal of broadening general knowledge about the health care sector. Yet are general hospitals the biggest employer in the Netherlands with a high variation of professions, what indicates a great need for HR-adoptions and interventions in order to manage this great amount and variety of employees, while coping with various external influences and challenges. Academic hospitals are not included in this research due to their extra focus on research and training, what differentiates them from general hospitals and makes a comparison of data not valid. In this research a total of five interviews were conducted. Due to privacy regulations all collected information, as well as names and locations are kept anonymous.

A total of five case studies have been performed. The intention was to conduct interviews with duration of 60 minutes. All interviews took approximately one hour (+/- 5 minutes): Hospital A 57 minutes, Hospital B 67 minutes, Hospital C 59 minutes, Hospital D 62 minutes and Hospital E 56 minutes. Respondents from hospitals A, B, C and D were HR managers of the respective general hospital and the respondent of hospital E was the manager of HR Services, a sub department of the overall HR department. The interviews A, B, C and E were conducted in Dutch, interview D was conducted in English. Furthermore, interview D and E were conducted in collaboration with a co-researcher and are also analysed in the respective research, which is available upon request.

Figure 2 Map of participating Hospitals



Figure 2 illustrates the location of general hospitals that are studied in this research. In appendix B a map of all general hospitals which have been studied by the co-researchers is available.

3.3 Measurement

In preparation for the open interviews a literature review has been conducted in order to collect and deliberate exemplary HRM-related innovations. Because of the limited knowledge about the topic, the focus of the literature research does not exclusively lie on writings from the health care sector, but also from other sectors. Potentially interesting innovations/topics have been listed in a tabular form and were assigned to the beforehand-defined categories *employment innovations*, *work innovations*, *organizational innovation* and *additional HRM-related topics* (see Table 3: HRM-related innovations derived from literature review). The main HRM-related innovations have been deviated from Van den Broeks' (2014) research results (see Table 2: Overview of HRM-related innovations). However, in line with the explorative nature and to keep not limit the scope of the research innovations derived from the collected data have been added to the list of innovations. Each category gives enough space for the respondents' personal opinion and contribution and thus, reduces the possibility of bias caused by a pre-selection of specific topics or focus areas. Together the categories cover the complete spectrum of possible HRM-related innovations in Dutch general hospitals, as well as their conditions, and success and risk factors. The open interviews have been based on the categories, yet the interviewer has not

named them explicitly during the interview, but has used them as a guideline. Therefore, the list of possible innovations does not limit the conduction of additional findings. Ultimately, the categories are intended to support the data analysis and comparison of findings.

Table 3: HRM-related Innovations derived from Literature Review

Category	Exemplary topics for interviews
<p>Employment innovations:</p> <p>Relate to traditional HR functions; concern general employment issues, such as recruitment, training or appraisal</p>	<p>Talent management (e.g. recruitment, selection, retention & dismissal, personal development i.e. training, Skills escalator, waiting time targets, internal employer branding, etc.)</p>
	<p>Reward management (e.g. variable pay, bonus, etc.)</p>
	<p>E-HRM (e.g. electronic recruitment, etc.)</p>
<p>Work innovations:</p> <p>Relate to the design of the work itself, overall working conditions for employees as well as the style of management</p>	<p>Employee empowerment (e.g. employee participation in managerial decisions, promotion of an empowerment-based management style, employee voice, employee involvement, idea generation for changes, etc.)</p>
	<p>Management (e.g. management responsiveness, etc.)</p>
	<p>Job design (e.g. team development, empowerment, job enlargement, job enrichment, job rotation, job simplification, job crafting, etc.)</p>
	<p>Working conditions (e.g. stress reduction, healthy food in the canteen, organisational kindergarten, free drinks, fruit baskets, sport activities, staff associating, discounts, staff shop, etc.)</p>
<p>Organisational innovations:</p> <p>Have a broader context and impact and concern a greater part of the organisation, such as restructuring programmes or the sharing of knowledge</p>	<p>Culture (e.g. Employee voice, through training, etc.)</p>
	<p>Strategic position HRM (e.g. internal marketing, increase of strategic influence / power position, etc.)</p>
	<p>Communication (e.g. cooperation with other healthcare institutions, academic hospitals, employer branding, Internal communication (e.g. knowledge sharing, knowledge brokering, Talent management pool, etc.)</p>

	Digitalization (e.g. patient files, no paper, etc.)
Additional HRM-innovation-related topics: Such as success factors, triggers, opportunities, threats, etc.	Barriers (e.g. money, amount of projects, employee participation, etc.)
	Causes (e.g. internal, external pressure, etc.)
	Cooperation vs. Competition with other hospitals

3.4 Data collection

In total 66 Dutch hospitals met the selection criteria. Contact information of the responsible HR managers has been collected through inquiries via telephone and the websites of the hospitals. Subsequent participation request letter have been sent to the respective manager and hospital. Unforeseen, telephone contact with the HR manager or respective secretaries has revealed that approximately 90% of the participation request letters did not reach the recipient. In this case, a digital version of the same request letter was send via email to the adequate address.

Through telephone contact interest in research participation was inquired and eventually interview appointments were made. The distribution of the appointments among the members of the research team was mainly decided by the interview language possibility (Dutch or English) and location-preference, travel possibilities of the researchers as well as the desire of an equal distribution in terms of the quantity of conducted interviews among the researchers. The interviews have been scheduled with one to one and a half hours, including time for installation of the equipment (voice recorder, notes), introduction and closure of the meeting. The interviews were conducted on-location (at the hospitals) so a personal and face-to-face conversation was possible. All interviews have been conducted in Dutch or English and information of interest was translated to English due to the language criteria of the thesis. Furthermore, the interviews were voice-recorded in terms of validity and the possibility to writing a script of the interview. The interview was started with an introduction question concerning the personal understanding of “innovation” in order to ensure an equal definition of the term. The further course of the interview has been dependent on the contributions and opinion of the respondent. However, it was the task of the interviewer to cover (most) of the categories from the literature research in order to compare the data afterwards. For the interview guide please see appendix A.

3.5 Data analysis

After the conduction of each interview a transcript based on the voice record was written, which afterwards was sent to the respective respondent. This process represents a member check- a quality control process- where the respondent “receive(s) the opportunity to review (his) statements for accuracy” (Harper & Cole, 2012, p.510). This approach supports the improvement of accuracy, credibility and validity of the interview. After the transcript has been verified the individual content of the interview is anonymously sorted based on the three generic categories. By doing this the generation of an overview on the specific innovations in each category was possible, as well as comparing findings from individual interviews. A manual sorting and analysis of the collected non-numeric data was considered as adequate due to the expected variability in the content and the choice of words used by the respondent. Coding-software exists but was considered as time-consuming and possibly inferior as manual conduction. Full transcripts of all interview transcripts are available on request. Furthermore, first an analysis of data per case (hospital) was performed. In a second step, a cross case analysis compared the data of the single case analysis with each other. This comparison enabled the researcher to discover and understand parallels, differences and the influence of the individual context.

3.5 Reaching Validity

“Validity is concerned with the integrity of the conclusions that are generated from a piece of research” (Bryman & Bell, 2011, p. 42). Writers (e.g. LeCompte & Goetz, 1982; Kirk & Miller, 1986; Peräkylä, 1997) argue that the grounding of validity in quantitative research is inapplicable. Therefore alternative criteria of assessing qualitative research are required. In the following these criteria are discussed for this respective research.

Credibility (comparable to internal validity) refers to the objective and subjective components of the believability of a source and exists of two components: trustworthiness and expertise. In this research the respondents are actively involved in the specific field of interest, the HRM department of a Dutch general hospital. Because of this, the respondents are able to clearly understand the subject as well as related factors and own the ability and knowledge to formulate opinions and taking personal positions. Additionally, all interview transcripts have been confirmed by the respective respondent. For this reason the credibility of this research is high. *Transferability* (comparable to external validity) refers to the degree to which the results of qualitative research can be generalized or transferred to other contexts or settings. In this research several threats to transferability are present. The conducted data relies on personal opinions, experiences, verbal formulations and the individual situation of the hospital (geographic orientation, competition, fusion, availability of resources). Therefore, each conducted interview is so unique that findings cannot be generalised to the whole population and is the chance of collecting the same data again in a second research very low. The third criterion for judging qualitative studies is *dependability*, which refers to the stability or consistency of the used processes. Focus lies on whether the researcher has made mistakes in conceptualizing the study, collecting the data or interpreting the findings. In this research several meetings and knowledge sharing among researchers and supervisors have taken place in order to understand the topic and maintain consistent quality of methods. However, the

conduction and interpretation of data was executed individually, what increases the possibility of misinterpretation and mistakes. Therefore the dependability of this research is classified as medium. The last criterion, *confirmability*, refers to the degree to which the results could be confirmed by others. As mentioned before a close collaboration of researches has taken place, yet no external audit has been performed. This enlarged the chance of potential bias or distortion and categorised the confirmability as medium to low.

4. Results: HRM Innovations/ Single Case Analysis

In this research the HR managers of Dutch general hospitals were interviewed to investigate the status quo of HRM-related innovations. A total of five interviews were conducted in five different hospitals spread out in the Netherlands. In the following the findings from the collected data are presented accordingly to the three types, employment, work and organisational innovations and additional HRM-innovation related topics, such as success and risk factors, opportunities and threats to innovation.

4.1 Single Case Analysis of Hospital A

Hospital A is a STZ licensed hospital located in the North of the Netherlands. It holds 630 beds, a total of 3400 people are employed in 2016 and it offers all prevalent medical specialisms. In 2011 a legal fusion with another regional hospital has taken place. The fusion is completed and was not further mentioned in the interview as having influence on the present operation of the hospital.

Since January 2015 the organisational structure of the hospital was modified, which means that a.o. HRM is an integral member of the direction board, what accordingly to the respondent shows the recognition of the importance of HRM within the organisation and is seen as an organisational HRM-related innovation. At the moment of the interview the HR department consists of 47 full-time employees (FTE), all with a university schooling background. The respondent sees the role of HRM in a hospital as being “the facilitating instance for reaching the overall goal”, what is excellent patientcare. With this goal in mind changes and adaptations in HRM are carried out. However, being innovative is not the main goal of neither the hospital, nor the HRM department. The decision of which HR practice or instrument is chosen and implemented is always based on reaching the overall goal. Because of this, both traditional and innovative features of HRM have the same chance of being implemented. Most of the time innovations are implemented in order of process optimisation.

The hospital is the biggest hospital in the region and therefore has “a regional function when it comes to training and education”. In terms of this function and responsibility Hospital A has an in-house schooling academy for nurses, doctors which also covers schooling for HRM- and business management employees. New employees of the hospital receive a six month training at the academy. This is necessary “to prepare a new staff member for the complex processes and regulations within the organisation”. Within the organisation learning and knowledge are seen as a valuable asset and are encouraged throughout all departments. This is as employment innovation, because present and future employees can be trained in the same region, what “attracts employees to work and live in the region what results in advantages for the region itself in terms of unemployment and demographic development”.

According to the respondent in the past the overall goal of the hospitals was dominating the organisation, working more efficient and effective and telling the workforce what to do and how to do it. Today it is more about working together in order to achieve the organisational goal. Managers have realised that each individual employee is important for the hospital and contributes the daily procedures with knowledge, ideas and manpower. The employee stands more central and focus lies on increasing commitment to the hospital.

“In the past we were busy with commanding and dominating employees and processes (...). Today we encourage our employees to dream again. Dreaming about their passion for working in health care and the hospital has the task to help realising these dreams.”

In consideration of this opinion hospital A has implemented a diversity of technologies and processes, such as lean management and e-learning in order to facilitate the employees with possibilities to gain knowledge, increase commitment and job-satisfaction, what ultimately is expected to “support the overall goal of the hospital, excellent patient care”. E-learning has on the one hand been introduced to follow the opinion that continuously gaining and refreshing knowledge is important, especially in the health care sector, and on the other hand to give employees autonomy to schedule own learning schedules.

Process optimisation is a major focus point in hospital A. “HRM has to focus on the most efficient way of facilitating processes”. Yet, not all processes and activities can be optimized by the hospital itself. Therefore the hospital is considering outsourcing as a solution for this problem.

“Many not primary tasks, such as cleaning and catering, are outsourced. We are not specialists in these tasks and our focus lies on patient care. Other companies are specialised in these tasks and perform way better than we do.”

Another focus of process optimisation is the duration of a patients stay in the hospital. The goal is to improve processes, surgery processes but also administrative and communication processes, in order to reduce the stay duration to the minimum.

“If we are able to improve our surgery techniques, for example knee operations, the more knee operations we can execute and the safer the operation becomes. Nowhere are as many bacteria as in a hospital. That’s why we want to send our patients home as fast as possible to reduce the risk of infections”.

According to the respondent is “teamwork the most important feature in working together in the health care sector”. All departments and employees have to communicate in a clear way in order to assure patient safety and health. To improve communication work evaluations take place on a regular basis and team development actions are organised when necessary. The goal is to enhance individual satisfaction amongst the employees, what will result in successful teamwork.

Additionally an electronic patient file helps reducing administrative time, reducing costs and errors and increasing efficiency.

“Research has shown that every time a nurse, doctor or administrative employee uses the old fashioned patient file many mistakes can occur, what can be life threatening for patients when for example wrong amounts of medicine are notated. This does not happen often but it does happen occasionally. An electronic patient file minimises this threat, yet is not one hundred percent dependable”.

For the future a restructuring of the HR department is planned. HR employees will all have a university schooled background and will have more decision-making power and will have less advisory tasks. Furthermore, the hospital plans to outsource more departments and concentrate more on the core business.

The following HR related innovations are derived from the collected data:

Employment innovations	Work innovations	Organisational innovations
In-house schooling academy	Employee empowerment	Employee voice
Trainings	Team development	Lean management
E-learning	Team work	Outsourcing
E-HRM/ electronic recruitment		Communication
Work evaluations on regular basis		Digitalisation: digital patient files
		Organisational restructuring
		Process improvement techniques

4.2 Single Case Analysis of Hospital B

Hospital B is a SAZ licensed hospital located in the central East of the Netherlands. It holds 348 beds and a total of 1700 people are employed in 2016. For 2016/2017 an administrative fusion with another regional hospital is planned with the goal of increasing the quality of care and more purpose oriented working. The fusion is not expected to have influence on the HRM department. Furthermore, hospital B offers almost all prevalent medical specialisms and also provides an in-house schooling for selected specialisms although the hospital is not STZ licenced.

The respondent defines HR-related innovations as being the “stimulation of employees to take part in decision making and thinking solution-oriented”. In order to achieve this every organisational layer has its own responsibilities. “Nurses, team leaders, doctors, managers and the direction board have own tasks to work on and the duty to come after these responsibilities”. This point of view is also part of the strategy of the hospital and its departments. Therefore a so called “Learning-Management-System” has been implemented which facilitates the handling of responsibilities and knowledge.

For hospital B especially sustainable employability has the main focus in HRM. According to the respondent all actions need to have a positive outcome, namely achieving a certain goal.

“The question always is: Will the implementation of my idea help achieving my goals?”

Many actions are taken to increase the employability of the workforce, “it is very important that employees remain vital throughout their time of employment and beyond”. These actions are employee researches on a regular basis, a fund that gives employees the possibility to realize ideas on work related topics, such as quality, safety, patient care and physical activity actions. Additionally do departments which have a high absence rate or lie behind in the annual training

scheme receive extra support by internal and external advisors. Experience has proven that the absence rate and the physical work pressure have declined. Small actions on a voluntary basis, such as IkPas (30 days alcohol abstinence), are organised on a regular basis, to increase the employees' attention for vitality. Another action organised by hospital B is giving subsidiaries for keeping knowledge up to date. The Kwaliteitsimpuls Ziekenhuizen (KIPZ) gives employees the opportunity to study a certain aspect of his or her work field. Yet such study has to "contribute the strategic goals of the hospital and has to be not only beneficial for the individual employee but also for his or her work environment".

The HRM department of hospital B is at the moment especially concerned with retaining a vital workforce. "To reach this we have to invest in our current and future workforce". This is realised by attracting trainees from the region by organising small information-meetings where information about working in a hospital and profession-related information are shared. The goal is to make the young workforce enthusiastic for the work in the health care sector. By doing so, the challenge of decreasing skilled workforce is conquered.

Furthermore, hospital B has chosen not to outsource any departments and tasks. Reasons are high costs and low loyalty of external, hired employees. In line with this decision employer and employee branding are very important for the organisation. Through research the hospital has found that the workforce is very loyal towards the organisation. The goal is to keep the loyalty high without acting too informal with each other, what would result in a decreased work-related communication and feedback. This done by the mentioned actions above and additionally through internally organised training sessions in communication, giving feedback and dealing with complains. Internal coaches can be hired upon request of departments. These coaches can be helpful in solving problems and the optimisation of working together. According to the respondent "coaching and training sessions always require a clearly defined goal in order to make progress". Together with the embracement of the employee voice and the above mentioned activities employees are encouraged to generate ideas, be able to communicate and to a certain extent realise them.

The following HR related innovations are derived from the collected data:

Employment innovations	Work innovations	Organisational innovations
E-HRM: digital selection and recruitment	Teamwork	Lean-management
Employer branding	Employee empowerment	Employee voice
Employee branding		Digital patient files
Sustainable employability		Digital employee files
Learning-Management-System		

4.3 Single Case Analysis of Hospital C

Hospital C is a SAZ licensed hospital located in the mid-West of the Netherlands. It holds 300 beds and a total of 4200 people are employed in 2016. In 2015 a legal fusion with another regional hospital has taken place with the goal of sharing knowledge and increasing quality. The fusion is not completed at the moment of data collection. Furthermore, hospital C offers all prevalent medical specialisms and for the future it is planned to establish an in-house schooling academy. The respondent says, “being innovative can exclusively be achieved by staying up-to-date about developments within the sector, by thinking “out of the box” and taking a certain amount of risk”. To her opinion this is done very rarely in the hospital and in the health care sector in general. Especially the ongoing fusion would have been an opportunity to do things different and implement new practices or instrument. Unfortunately, due to high resistance of management members and financial limitations mainly the already established HR processes have been transferred to the new situation.

“Resistance is time consuming and has to be managed properly. You need time and a fresh mind in order so see innovations and possibilities that could help to improve the processes. Usually managers don’t have time for that and so it does not happen”.

However, for the respondent this is not an acceptable excuse for not thinking about innovation and improvements.

“To my opinion the health care sector is not very innovation oriented when it comes to HRM. In terms of medical technology this is not the case but also the HRM department has the opportunity to become more flexible, efficient and innovative, the facilities exist, we just have to use them.”

According to the respondent not the workforce shows highly resistance against innovations or changes. Especially the management team shows resistance, what is explained by the high amount of work and little time for changes. The organisation of training and internal workshops for managers with clearly set goals, such as communication, handling of change, helps decreasing resistance, especially in the time of the fusion. Furthermore, future plans for lean-management exist, yet are not implemented at the moment. This plan has the goal of constantly working on ideas of improvement and communication among employees and managers.

Sustainable employability is an important strategic topic for the hospital. Especially the fusion has revealed that some employees are redundant and have to be supported in finding a new job. Also the elderly workforce and technological developments are a reason to improve sustainable employability by increasing the mental and physical status of the employees.

In terms of employment innovations digitalisation is very important for hospital C. Digital patient and employees files and e-learning programmes are fully implemented. At the moment the HRM department is busy with implementing a digital programme for administrative practices. The HRM department is one of the last departments in the hospital which is able to schedule working hours, sick days and holidays digitally. A time saving of about 1/3 is expected.

An organisational innovation is outsourcing. The vision of the manager is to not only outsource “standard” departments such as cleaning and kitchen, but also try to outsource components of the HR department. According to the manager the department “does not always need all staff

members and functions within the team. The plan is to only have the employees and functions, e.g. senior advisors, in house which you need to achieve the goals. All other employees will be hired when needed.”

The following HR related innovations are derived from the collected data:

Employment innovations	Work innovations	Organisational innovations
In-house schooling academy (in the future)	Employee empowerment	Employee voice
Training/ internal workshops	Team development	Digitalisation: digital patient and employee files
E-learning	Team work	Outsourcing
E-HRM/ electronic recruitment	Digital work scheduling	Communication
Sustainable employability		

4.4 Single Case Analysis of Hospital D

Hospital D is a STZ licensed hospital located in the central East of the Netherlands. It holds 900 beds and a total of 1700 people are employed in 2016. At the moment of data collection a legal fusion with another hospital is taking place. The HR department contains of 80 employees and is divided in four teams. The service team is in charge of all back office related tasks, and the capacity and career team are flexible working employees. The department also has an HR health and HR advice/ developing team.

According to the respondent is innovation a hot topic at the moment but the hospital is not ready to fully respond to this. The focus lies completely on the ongoing fusion and because of that there is no time and financial possibilities to deal with innovations. All processes in HRM are digital as far as possible and automatically. In the future everything is going to be digitalized. During the ongoing fusion employees are uncertain and concerned about the organisations present and future operations. Two cultural programmes were launched in hospital D to reduce the uncertainty among the employees. Both programmes aim at training the staff in internal communication and building a culture which is more open for changes. Therefore the programmes are considered as employment and organisational innovations.

“The changes in the fusion are really a big deal. People might be afraid to lose their jobs and are really busy with their selves instead of thinking about ‘what is going on?’, ‘how can we manage and develop this organisation so it will sustain for another ten years?’.”

One programme was organised for managers and included a one-and-a-half year training on leadership, including communication with subordinates, anticipating and coping with the present situation as well as changes, managing efficiently, and making business cases. The managers should get encouraged and supported in their leadership skills in order to be prepared for the coming changes during and after the fusion. The second programme, organised in cooperation with Radboud, included training for the remaining employees of hospital D. Workshops on current developments in the health care sector, new technologies and practices, and their consequences were addressed. The goal of this programme was to make the employees think about changes, decreasing their fears and create an understanding of possible benefits of the fusion.

In the past the SPP project – Strategic Personnel Planning project- was developed by the HR department. Team leaders have to fill out a questionnaire which contains questions related to the particular team. The outcome of this internal research is expected to support staffing budgeting for the coming year. However, this instrument is regarded as very advantageous even though it is not working as well as anticipated. According to the respondent the explanation here for lies in the required time-consuming planning.

“Strategic thinking takes time. [...] Most professionals in care are not used to thinking years ahead. A lot of work is ‘ad hoc’, so they’re not looking any further than today or tomorrow’s problems to be solved. Care is all about taking care of the present problems of a patient [...]”

Another down point of this instrument is the resistance of managers and team leaders to fill in the questionnaire. HR advisors are encouraged to convince the respective person of its advantages. This is an example of an employment and work innovation, as it affects recruitment, training and job enlargement.

The following HR related innovations are derived from the collected data:

Employment innovations	Work innovations	Organisational innovations
Training	Employee self-service	Restructuring HR department
e-learning	Employee self-management	Digitalisation
E- HRM	Teamwork	Communication programmes
Strategic Personnel Planning	Team development	Cultural programmes

4.5 Single Case Analysis of Hospital E

Hospital E is a STZ licensed hospital located in the East of the Netherlands. It holds 100 beds and a total of 5000 people are employed in 2016. The hospital A offers all prevalent medical specialisms and the HR department contains of 60 FTE. Ten FTE only focus on strategic policy, working conditions and health, five FTE function as HRM advisors for the 80 heads of operational issues within the organisation. The vision of the HRM department is:

“If we do well, our customers don’t have to think about what needs to be done and thus, can fully focus on the provision of care.”

The strategic HRM vision is based on three topics: sustainability, self-responsibility, and flexibility of employees.

The overall goal of HRM is to facilitate all departments, doctors and nurses with HR related issues, so they can fully concentrate on the care of patients. Innovation is not a goal of HRM. Innovations are seen as “instruments that are used to improve processes for the future”. It does not matter whether HR instruments are traditional or innovative, they have to be supportive in reaching the goal.

HR responsibilities are divided in two parts. The board of direction is mainly involved in policy making, whereas the HR shared service organisation is responsible for all other HRM activities and the support of care units and management. Currently there is a discussion ongoing to merge the responsibilities into one HRM body. Reasons for this are difficulties from the separation of HR-policy making and the remaining responsibilities and the large number of involved staff.

For hospital E sustainability is a very important innovation. Employees should constantly continue learning and are never fully trained. In accordance to this opinion courses and trainings (60% e-learning) are developed and offered to employees. The employees are able to see their progress and status on a digital platform (employment innovation). The trainings are mandatory and cover a variety of subjects.

“Employees must continue to learn, but do not always have to learn. So we need to look for the combination between ‘where is the individual’s need as a man in the age group he is in’ and how can it be filled out with the appropriate work.”

In order to achieve flexibility job crafting is used (work innovation) to narrow down responsibilities. A specific job is divided into three smaller jobs what reduces the level of required knowledge to perform this job. According to the respondent now it is easier for employees from another unit to take over this specific job.

Individual responsibility is encouraged within the hospital. The goal is to increase passion for the job and a better relationship amongst employees. This is done by changing the culture within the hospital and management development programs. The managers have the role of examples but also gain trust in their workforce what is important in order to be able to pass over responsibility. Also self-responsibility is very important and responsibilities are more shifted from managers to employees. This results in a cultural change in which employees are not afraid of being responsible but rather strive for a higher level of self-responsibility. Hospital E offers management development programs (employment and work innovation) where supervisors and managers learn to “gain trust in their employees”. One example is the planning of working schemes performed by

employees. This is also an example of job enlargement and is seen as work innovation. Furthermore, hospital embraces young leaders and managers to work and think in an innovative way. Therefore a talent-management-program (employment innovation) was implemented. This program offers workshops and team projects, where individual talents are worked out and ideas are developed. According to the respondent it is not necessary to search external for suitable employees, yet the hospital prefers to instill its young talents into needed positions.

"I believe more in the human being himself and that one complements the other, rather than if you see one or two skills then you forget about the rest of the person. I believe more in 'this is the direction we want to go, and to do this we need this type of person'."

Only facility related departments are outsourced. All health care related tasks are kept in-house in order to guarantee quality. Within the HR department no outsourcing is taking place at the moment, however sections of the department such as administrative work and salary payment, could be outsourced in the future. This decision is dependent on costs, time and effort that have to be invested to gain the profit of outsourcing.

The following HR related innovations are derived from the collected data:

Employment innovations	Work innovations	Organisational innovations
Management Development (MD) program	Employee empowerment	Strategic position HRM
Talent management	Job crafting	Culture change
Competence management	Self-planning of work schedules	Outsourcing
Workshops and team projects		Management development programme

4.6 Summary of findings

It is noticeable that the presence of employment innovations and organisational innovations in rather evenly distributed. They especially support training and teamwork. Also the strengthening of self-responsibility and the decrease of resistance seems to be one of the greatest goals among the studied hospitals. By increasing these factors managers expect to increase the overall efficiency of employees. The implementation of digital patient files, work schedule programmes and e-learning possibilities support the reaching of these goals.

All studied hospitals are dealing with a lack of communication and miscommunication among the different units of the hospital. Also the communication within departments seems to imperfect due to misunderstanding of responsibilities and poor communication skills (giving

feedback in an understandable and encouraging way). Four out of five hospitals see sustainable employment as very important. For the hospitals it gets more important to train their present workforce in a sustainable way, as well as the recruitment of young and innovative, when possible regional selected, future employees. Herewith also the challenge of clash of generations which concerns managers is faced. As older employees, which represent the major percentage of hospital staff, seem to lack knowledge in high-tech tools and consequently show resistance, additionally programmes and trainings about the benefits and usage of these technologies are implemented in the hospitals. Besides, older employees are more often absent due to sickness, what implies a continued payment of wages and decrease of efficiency, apart from the disturbance of the workflow and short-term lack of needed employees. This also encourages the importance of sustainable employment.

Furthermore, no hospital has outsourced any HRM responsibilities yet. Two hospitals are thinking about outsourcing HRM tasks and see the benefits in cost reduction (less FTE are needed) and the high level of experience of external, professional parties. It is thinkable that due to the enforcement of cost reduction and efficiency exaltation in the future more HRM-tasks are outsourced.

Summarising the findings it is to say that the data collected among the Dutch general hospitals suggests a medium level of the specific types innovations in HRM. Hospitals A, C and D can be regarded as more advances in their openness for innovations and the awareness of those. In contrast hospital B and E are more traditional thinking hospitals and therefore do not stand as open to innovations as the other hospitals. In general the managers are aware of the challenges of the respective hospital and within the health care sector. Simplifying processes, strengthening self-responsibility and employee commitment are seen as the most important factors for the hospitals in order to operate efficiently and having the ability to face the changing hospital environment. . Also in all hospitals the reason for implementation is not the overall goal of being innovative, but rather the general development in HRM towards these instruments and practices.

All hospitals have dealt or are dealing with fusions at the moment. It is expected that in a situation of fusion new opportunities for the HRM department are presented and changes, improvements and developments are implemented. The opposite is the case. The cases where the fusion is ongoing no new HR practices and improvements are implemented due to lack of time, money, high resistance and traditional thinking of employees and managers. Rather than changing during the fusion it is planned to think about changes in the future when the time consuming fusion is over. HR managers see this mismatch but remain unsupported by colleagues within the company.

5. Cross-Case Analysis

The following chapter analyses possible influencers of the level of innovativeness of the five studies hospitals, based on Corral (2006), who studied the influencers of innovative behaviour of organisations. The possible influencers, which are mentioned in Corral's study, are listed and then separately applied and compared with the findings derived from the four case studies so possible conclusions on innovation triggers and requirements can be drawn.

The findings from the single-case analyses show an almost evenly distribution of HRM-related innovations. Yet, work-related and employment-related innovations are the majority of found innovations. Employment-related innovations generally relate to training, talent management and e-HRM. Hospital C has the highest occurrence of employment innovations. When comparing the organisational innovations of the four hospitals, it becomes apparent that they contain mostly cultural programmes, which focus on strengthening self-responsibility and trust among employees. Hospital A holds the most organizational innovations.

Corral (2006) has researched the most crucial influencers of innovative behavior of organisations. These influencers are (1) institutional arrangements, (2) technological and organisational capabilities, (3) organisational learning, and (4) entrepreneurial or risk taking behaviour. Furthermore, he refers to individual factors that also influence the overall innovative behaviour of organisations. Especially the (5) individuals' intention to take on certain behaviour is essential for predicting innovative behaviour of an entire organisation. When applying these seven aspects on the findings retrieved from the four performed case studies, it is possible to see that there are variations between the hospitals in each aspect.

5.1 Possible Influencer of Innovations: Institutional Arrangements

The first influencer mentioned by Corral (2006), institutional arrangements, is high for all five hospitals with regard to medical and technological interaction and knowledge sharing. Associations and collaborations are important and performed by all hospitals mainly to increase the quality of care. This also enables the hospitals to share experiences on technologies, treatments and procedure and makes it possible to implement adaptations in the own hospital standards. These collaborations also offer the opportunity to stimulate idea development and receiving feedback on practices. In this context also the completed, ongoing and future fusions of hospitals have to be mentioned. Apart from administrative and organizational benefits fusions also enable the named advantages of institutional arrangements. However, in all hospitals the proper realization of fusion-goals seems to be difficult. Time pressure, financial issues and resistance of employees are reasons. Only hospital C, D and E have already developed programs to face these risk factors. Holistically, institutional arrangements between hospitals and related organisations are regarded as being beneficial on the level of innovations in hospitals. All HRM managers are aware of the enhancement of innovative thinking by sharing knowledge, ideas and receiving feedback from others.

5.2 Possible Influencer of Innovations: Technological and Organisational Capabilities

Second the influence of technological and organisational capabilities is crucial for innovative behaviour. Capabilities can be defined as collected skills, abilities and expertise of an organisation which result from investments in staff, training, compensation, human resources and communication (Ulrich & Smallwood, 2004).

Talent management and leadership development are present in all studied hospitals. Hospitals B and E give employees the opportunity to work out ideas and increase their knowledge. All hospitals offer trainings to insure high quality and value adding in all departments of the organization. The opinion of hospital E, that employees are never fully trained, sustains and supports the continuous learning process throughout the entire duration of employment. Additionally the hospital has a special program for young talented employees that are trained to take leadership functions within the hospital. All hospitals organize trainings internally, but consult external professionals when needed. Furthermore, in all hospitals it is expected that managers and team leader encourage the generation of improvement suggestions among employees. Especially hospital D and E give the impression of being very active in this.

Communication, another factor of organizational capability, is lacking in all hospitals. Communication among colleagues, departments and throughout the entire hospitals is difficult. In terms of the HR departments communication between HR advisors is crucial as they have to gain knowledge about all decisions of the hospital in order to operate consistently. The respondents see communication as very important, as it enables employees to access a broader set of knowledge and expertise and therefore enhances the capability of finding innovative solutions for problems. Communication also increased the collection and creativity of ideas that have not been mentioned and thought of before, regardless whether these ideas get implemented or not.

In terms of technological capabilities the adoption of supporting IT-systems has to be mentioned, such as digital patient/employee files, digital work scheme planning and digital recruitment. All hospitals are aware of the benefits which these systems can have, namely simplification of workflows, cost/time/work reduction, decreased chance of errors and increased safety for patients. For HRM employees this results in the reduction of standardized tasks and the possibility to focus on core responsibilities. All hospitals have digital patient files and are busy with implementing digitalized workflows of basic processes. Also in hospital B, D and E monitor the employees' state of training and rewarding. E-learning is implemented in all hospitals and forms the majority of annual obligated trainings. In summary, the presence of technological and organizational capabilities is high throughout all hospitals, yet the capability of communication needs to be improved.

5.3 Possible Influencer of Innovations: Organisational Learning

Organisational learning is concerned with the process of creating, retaining, and transferring knowledge within an organisation. According to Marquardt (1996) the characteristics of a learning organisation are:

- Systems thinking is fundamental;

- The importance of on-going organisation wide learning is recognised throughout the whole organisation;
- Learning is accomplished by the organisational system as a whole;
- Continuous learning is embedded into the organisational strategy;
- Creativity and continuous learning are anticipated;
- Change is embraced, and failures are viewed as learning opportunities;
- The organisation is able to respond to environmental changes by continuously adapt, renew, and revitalise itself;
- The corporate climate encourages, rewards, and accelerates individual and group learning;
- Everyone is driven by a desire for quality and continuous improvement;
- Employees participate in internal and external networks;
- Employees are granted access to information resources.

The majority of these characteristics are fulfilled by the studied hospitals, yet the approaches can differ. As mentioned before, all hospitals offer training opportunities with various goals (teambuilding, leadership skills, reduction of resistance). Hospital E sees continuous learning as very crucial as this is part of the HRM strategy and a high amount of courses is offered.

Another factor is the organisations ability to respond to environmental changes. In the health care sector these changes primary are demographic changes and technological developments. Here differences between the hospitals can be found. Whereas hospital B and E see sustainable employment as the most important factor in handling the demographic change, hospital A does not consider this as an challenge at all. At the same time hospital D focusses on the challenge coming from female nurses between 30 and 40, who are at the age of becoming mothers. The hospital faces this challenge by modifying the working hours into flexible working hours. As a technological development, digitalisation is present in all hospitals, yet in other levels of presence. Digital patient files are present in all hospitals, whereas the digitalisation of HRM processes is only present in hospital B, E and a beginning is made in hospital C.

In summary, all hospitals perform organisational learning and recognise continuous learning as essential in order to achieve organisational goals, stay competitive and encourage innovative thinking. Additionally, in all hospitals teamwork is seen as having a positive influence on the level of learning and thus the level of innovative thinking.

5.4 Possible Influencer of Innovations: Entrepreneurial or Risk Taking Behaviour

Entrepreneurial behaviour is an organisations behavioural style that encourages innovation by exploiting potential opportunities. A high willingness of taking risk is seen as increasing entrepreneurial behaviour, as it enlarges the chance of exploiting opportunities. The level of entrepreneurial behaviour is expected to be higher when, internal and external networks are established, knowledge is shared, employees of an organisation are trained to discover opportunities and show a positive attitude towards opportunities.

As mentioned above in all hospitals institutional collaborations were found and contribute the innovativeness in a positive way. However, the collaborations are situated in a rather basic level of development. Reasons could be a low willingness for cooperation or a too high level of competitive thinking. Accordingly to the lack of communication in the hospitals the level of detecting opportunities is reduced. It is to say, that the studied hospitals show willingness for entrepreneurial behaviour, yet are not fully capable of acting this way. The improvement of communication and denser network collaborations would increase the recognition of opportunities and innovative thinking in general.

5.5 Possible Influencer of Innovation: Individual Intention

Ajzen (1991) states that human behaviour is characterised by three factors, which are the individual's attitude toward the behaviour, the subjective norm, and the perceived behavioural control. These factors are described as following:

- Attitude towards the behaviour “is the degree to which a person has a favourable or unfavourable evaluation or appraisal of the behaviour in question”;
- Subjective norm “is a social factor, is the perceived social pressure to perform or not to perform the behaviour”;
- Perceived behavioural control “is the perceived ease or difficulty of performing the behaviour and it is assumed to reflect past experience as well as anticipated impediments and obstacles” (Ajzen, 1991, p.188).

Pressure on employees increases as the pressure of digitalisation and the optimisation of health care related workflows proceeds developing in the current speed and pressure to engage in these developments. This cannot fully be controlled by hospitals and probably are forced to push changes and implementations forward, regardless whether the employees are ready or not. This increased the pressure on employees, what can result in resistance and fear. The findings of this research show a medium level of innovativeness in HRM departments in Dutch general hospitals. This can be explained by a low individuals' attention for innovations. Especially the high resistance against change, the aging workforce and fear of using technology hinder the needed positive attitude and conviction of the benefits of the adoption of innovations.

6. Discussion

The found HRM-related innovations in Dutch general hospitals show similar characteristics and goals. Employment innovations mainly are digital programmes which simplify basic HRM processes or are training programmes for the workforce of the hospitals. Especially programmes that improve communication and leadership skills are widely distributed. Also other programmes that increase teamwork, talent management, regional recruitment, and e-HRM belong to the main employment innovations. In terms of work-related innovations job-enlargement, employee empowerment and job-design stand out as the hospitals encourage self-responsibility and continuous learning. The focus of organisational innovations lies on increasing communication, digitalisation and the extension of internal and external networks. As expected, the found innovations overlap and influence each other. For example, the change of culture towards an open-minded and innovation embracing culture also influences the communication among employees in a positive way. Also, have digitalisation and outsourcing impact on job-design, as processes are digitalised and HRM employees get the possibility to focus more on other tasks. Furthermore, the findings show that hospitals with a focus on sustainable employment often have the most work innovations. In general it appears that the amount of innovations is higher, when the role of HRM has a more strategic nature, such as in hospitals A and E. Also the establishment of networks and cooperations seems to be positively influencing the presence and amount of all types of innovations. Considering the characterisation of SAZ or STZ hospital this has no influence on the number of innovations in general.

When analysing the context, it becomes clear that Dutch general hospitals and HRM-related innovations are influenced by technological, economic and demographic developments. Economic developments pressure hospitals to being more efficient, whereas changing patient demands and the demographic changes demand a greater need for flexibility of the workforce and processes. Digitalisation can result in increasing flexibility and simplifying process, however it can create fear and resistance among employees and requires a high level of technological capabilities. Outsourcing is used in order to reduce costs, focus on the core business and increase efficiency. The studied hospitals do not outsource HRM-related tasks yet, but solely outsource the cleaning and catering. However, plans for future outsourcing of parts of HRM are present and probably will be realized in the future. Furthermore in all hospitals innovation is not the focus point of the entire organisation, or the HRM department. Excellent patient care, high quality and safety are the most important foci of Dutch general hospitals. This focus is more important than efficiency and earning money. By changing the culture towards being more self-responsible and flexible, HR professionals intend to increase the flexibility and efficiency of employees. Hospital stays become shorter and nurses are trained so that they can perform tasks of medical professionals. At the same time, they need to have self-confidence so that they are easily able to perform new tasks in case they have to serve as stand-ins for staff on sick leave, which is why job simplification and continuous learning are reinforced.

The analysis of the possible influencers of the innovative level of Dutch general hospitals shows a traditional thinking in hospitals. Are more open-minded and risk-taking thinking is required to chances of innovation along the way. HRM departments seem to be mainly traditionally oriented. The interviewed HR managers, expect for one manager, come from different professional backgrounds, which were all not related to the health care but different other business sectors. Thus, they are possibly more aware of required changes and consequences because they are

accustomed to business-like thinking. However, the awareness and readiness among other employees within the different HRM departments partially seem to be not fully developed, but was still in the process of slowly increasing.

7. Conclusion

The purpose of this research is to identify the status quo of HRM-related innovations in Dutch general hospitals and to broaden the knowledge about the contextual elements influencing the process of innovation in HRM by determining best practices, success and risk factors.

This research found, that there is a relatively high amount of HRM-related innovations present in Dutch general hospitals. Most innovations are related to the digitalisation of HRM-processes or the enhancement of sustainable employment, flexibility and self-responsibility. Work innovations, such as employee empowerment and job-design are used to increase flexibility and autonomy. Other innovations mainly focus on communication and training in order to increase knowledge, creativity and changes occurring from fusions, technological developments and organisational changes. Within the respective HRM departments digitalisation is increasingly used to reduce time and costs. Another challenging factor is the external scarcity of educated medical personnel, and the internal ageing of staff, which partly results in growing shortage of nurses and medical specialists. These are all factors, which shape the Dutch health care sector and which distinguish the operational modes of local general hospitals.

Also possible triggers for innovation have been analysed in this research. Especially a high degree of communication and knowledge sharing through internal and external networks stimulate the occurrence and acceptance of innovation in general hospitals. The openness for innovations is positively influenced by communication and training as both encourage knowledge sharing and the awareness of the benefits of innovations. Furthermore, teamwork has a positive effect on the level of learning, which is a characteristic of learning organisations. These organisations are perceived as being more innovative as a higher degree of knowledge enables employees and managers to generate ideas, recognise problems and find solutions for these problems. In this research all studied hospitals have recognised that continuous learning is essential for staying competitive and therefore promote learning and gaining knowledge.

In summary, this research has identified a number of HRM-related innovations in Dutch general hospitals and has investigated the nature and contextual characteristics of these innovations. It is to say, that in Dutch general hospitals a variety of innovations are present, yet is there a possibility of improvement. This research has not shown that hospitals with a higher amount of innovations operate better or more efficient. However, in comparison, hospitals with a better awareness and knowledge about innovation possibilities and challenges are expected to maintain more competitive advantage for the future.

8. Contribution of Research

The following elaborates on the academic and practical contribution to the scientific field of HRM and innovations in the health care sector of this research.

8.1 Academic Contribution

This research is expected to generate new insights in the research fields of the Dutch health care sector and HRM-related innovations, as both enjoy great attention of researchers, however, are under-researched when combined into one field of interest.

Furthermore, the research complements the generalizability of the current theoretical state of knowledge concerning HRM and innovation. The specific context of this research presents relevant information for researchers in the public as well as in the private sector, for example whether HRM-related innovations are as important for the health sector as they are for private businesses. Consequently, the research contributes to theory and gives new directions for future research.

8.2 Practical Contribution

More insights into the status quo of HRM-related innovations in Dutch general hospitals were needed to understand the sector specific factors regarding innovation in HRM, as well as processes, (dis)advantages and success/risk factors. The enhancement of knowledge on this topic contributes to the improvement and consistent performance of processes in practice in the future.

Furthermore, the research findings enable (HRM) managers of organisations, persisting in similar environmental circumstances, to find inspiration and practical guidelines for facing current challenges and to maintain competitive advantage. Also, the insights provide new insights and the necessary understanding of the possibilities to be able to e.g. increase staff turnover and the overall management of human resources. The knowledge generated by this research is not only beneficial for the health care sector but also for related sectors (e.g. technology, insurance, pharma), who all are dependent on resources from the labour market.

9. Limitations and Future Research

9.1 Limitations

The research design of this study enables an in-depth investigation of HR related innovations in Dutch general hospitals and allows an overview of the contextual influences, yet some limitations should be mentioned.

The qualitative nature and individual contextual background of the findings do not allow generalizability to other hospitals and countries. However, the contextualized methodology is suitable to the investigation of HR related innovations in other contexts. Furthermore, this research focusses on general hospitals in the Dutch health care sector, which is part of the public sector and strictly connected and dependent to governmental regulations, insurance companies and patient demands. Academic, specialized and privatised hospitals might not be as dependent on these factors and business-originated approaches and developments could be more present and influencing. Due to the amount of all general hospitals and the limited amount of time only a limited amount of cases are included in the study. Besides the in-depth insights it is certain that the findings will become less reliable over time, due the fast changing health care environment. Would this study be conducted again over a year the chance of finding different results is high, yet a basis of understanding of the status quo of HRM and its innovativeness in general hospitals is made and should be further studied in the future.

9.2 Future research

This study indicates interesting approaches for future research. Due to the limitation of generalisability and the limited sample size it is interesting to continue studying the same context in the remaining Dutch general hospitals in order to gain a complete overview of the topic. Also, the inclusion of academic, specialised and private hospitals in the Netherlands could result in interesting observations on contextual differences and approaches. Furthermore, also HR departments from organisations in the private sector and other sectors can be studied with this research. In general the Dutch health care sector requires more investigation. This research shows that HRM plays an important role in hospitals, but that innovation processes and implementation need more attention. Specifically, more research is needed on how general hospitals can benefit from HR related innovations and practices in general. The results of this study show the willingness of HR managers to do more with HRM in general but simultaneously point out the risk factors, resistance, financial issues and strict regulations. Future research could address these risk factors in the context of general hospitals and try finding solutions for this problem.

References

- Ajzen, I. (1991). *Theory of Planned Behavior. Organizational behaviour and human decision processes*, 50, 179-211. Retrieved August 2016, from <http://xa.yimg.com/kq/groups/78997509/701520272/name/Oct+19+Cited+%231+Manage+THE+THEORY+OF+PLANNED+BEHAVIOR.pdf>
- Bartram, T., Stanton, P., Leggat, S., Casimir, G., & Fraser, B. (2007). Lost in translation: exploring the link between HRM and performance in healthcare. *Human Resource Management Journal*, Vol 17 No 1, pp. 21-41.
- Becker, B., & Gerhart, B. (1996). The Impact of Human Resource Management on Organizational Performance: Progress and Prospects. *The Academy of Management Journal*, Vol. 39, No 4, pp. 779-801.
- Beugelsdijk, S. (2008). Strategic Human Resource Practices and Product Innovation. *Organization Studies*, 29 (6), pp. 821-847.
- Boselie, P. (2010). *Strategic human resource management. A balanced approach*. (U. K. Berkshire, Ed.)
- Boselie, P., Dietz, G., & Boon, C. (2005). Commonalities and contradictions in HRM and performance research. *Human Resource Management Journal*, 15 (3), pp. 67-94.
- Bryman, A., & Bell, E. (2011). *Business Research Methods*. New York, USA: Oxford University Press Inc.
- Corral, C. (n.d.). What triggers change and innovation? . *Technovation*, 1-3.
- Dahlgaard, J., Pettersen, J., & Dahlgaard-Park, S. (2011). Quality and lean health care: A system for assessing and improving the health of healthcare organisations. *Total Quality Management & Business Excellence*, 22(6), pp. 673-689. doi:10.1080/14783363.2011.580651.
- Daley, C., & Gubb, J. (2013). *Healthcare Systems: The Netherlands*. Civitas.
- Dubois, C., McKee, M., & Nolte, E. (2006). United Kingdom: Open University Press.
- Dubois, C., McKee, M., & Nolte, E. (2006). *European Observatory on Health Systems and Policies - Human resources for health in Europe*. United Kingdom: Open University Press.
- Eisenhardt, K. (1989). Building Theories from Case Study Research. *The Management Review*, 14 (4), pp. 532-548, doi: 10.2307/258557.
- EurAktiv. (2015). Retrieved from The Netherlands continues to have the best health care system in de EU: <http://www.euractiv.com/section/health-consumers/news/the-netherlands-continues-to-have-the-best-health-care-system-in-the-eu/>
- Farquharson, E., Torres de Mästle, C., & Yescombe, E. (2011). *How to Engage with the Private Sector in Public-Private Partnerships in Emerging Markets*. Washington: The World Bank.

- Global private and public R&D funding*. (2013, May). Retrieved March 2016, from Scienceogram UK: <https://scienceogram.org/blog/2013/05/science-technology-business-government-g20/>
- Guest, D. E. (1997). Human resource management and performance: a review and research agenda. *The International Journal of Human Resource Management*, 8 (3), pp. 263-276.
- Hashi, J., & Stojčić, N. (2013). The impact of innovation activities on firm performance using a multi-stage model: Evidence from the Community Innovation Survey 4. *Research Policy*, 42 (2), pp. 353-366. doi:10.1016/j.respol.2012.09.011.
- Health Care Initiatives, Employment & Training Administration (ETA). (2015). U.S. Department of Labor.
- Horbach, J., Rammer, C., & Rennings, K. (2012). *Determinants of eco-innovations by type of environmental impact. The role of regulatory push/ pull, technology push and market pull*. Retrieved July 2016, from <http://www.econstor.eu/bitstream/10419/44979/1/65649719X.pdf>
- Jiang, J., Wang, S., & Zhao, S. (2012). Does HRM facilitate employee creativity and organizational innovation? A case study of Chinese firms. *The International Journal of Human Resource Management*, 23 (19), pp. 4025-4047.
- Jimenez-Jimenez, D., & Sanz-Valle, R. (2008). Could HRM support organizational innovation? *The International Journal of Human Resource Management*, 9(7). Retrieved from The International Journal of Human Resource Management, 9(7): Retrieved from DOI: 10.1080/09585190802109952
- Jimenez-Jimenez, D., & Sanz-Valle, R. (2008). Could HRM support organizational innovation? (R. f. 10.1080/09585190802109952, Ed.) *The International Journal of Human Resource Management*, 9(7), 255-268.
- Kepes, S., & Delery, J. (2007). *HRM system and the problem of the internal fit*. In: P.Boxall, J.Purcell, and P. Wright (eds.), *The Oxford Handbook of Human Resource Management* (p.358-404). Oxford University Press, NY. ISBN: 978-0-19-928251-7.
- Kirk, J., & Miller, M. (1986). *Reliability and Validity in Qualitative Research*. Newbury Park: CA: Sage.
- Laursen, K., & Foss, N. J. (2003). New human resource management practices, complementarities and the impact on innovation performance. *Cambridge Journal of Economics*, 27, 243-263.
- LeCompte, M., & Goetz, J. (1982). Problems of Reliability and Validity in Ethnographic Research. *Review of Educational Research*, 52, 31-60.
- Lepak, D., Liao, H., Chung, Y., & Harden, E. (2006).). A conceptual review of human resource management systems in strategic human resource management.

- Marquardt, M. (2016, August). *Building the Learning Organization*. Retrieved from <http://www.unhas.ac.id/hasbi/LKPP/Hasbi-KBK-SOFTSKILL-UNISTAFF-SCL/Learning%20Organization/referMarquardt.pdf>
- Mitchell, M. (2014). An Overview of Public Private Partnerships in Health. *Harvard School of Public Health*.
- Mumford. (2000). *Managing Creative People: Strategies and Tactics for Innovation*. Retrieved July 2016, from Human Resource Management Review, 10(3): [http://sfx.utwente.nl:3210/prod?sid=google&auinit=MD&aulast=Mumford&atitle=Managing+creative+people:+Strategies+and+tactics+for+innovation&id=10.1016/S1053-4822\(99\)00043-1&title=Human+resource+management+review&volume=10&issue=3&date=2000&spage=313&issn=1](http://sfx.utwente.nl:3210/prod?sid=google&auinit=MD&aulast=Mumford&atitle=Managing+creative+people:+Strategies+and+tactics+for+innovation&id=10.1016/S1053-4822(99)00043-1&title=Human+resource+management+review&volume=10&issue=3&date=2000&spage=313&issn=1)
- Peräkylä, L. (1997). Reliability and Validity in Research Based on Transcripts, in D.Silverman (ed.). *Qualitative Research: Theory, Method and Practice*. Londo: Sage.
- Problemen in de zorg*. (2012). Retrieved March 2016, from Alan Turing Institute Almere (ATIA): <http://www.alanturinginstitutealmere.nl/sites/alanturinginstitutealmere.nl/files/uploads/images/120828%20LinkedIn%20Zorgvragen%20samengevat.pdf>
- Ranmuthugala, G., Plumb, J. J., Cunningham, F. C., Georgiou, A., Westbrook, J. I., & Braithwaite, J. (2011). How and why are communities of practice established in the healthcare sector? A systematic review of the literature. *BMC Health Services Research*, DOI: 10.1186/1472-6963-11-273.
- Rogers, E. (2003). *Diffusion of innovation*. New York: Free Press.
- Schäfer, W., Kroneman, M., Boerma, W., van den Berg, M., Westert, G., Deville, W., & van Ginneken, E. (2010). The Netherlands- Health system review. *Health Systems in Transition Vol. 12 No. 1*.
- Silverman, D. (2006). *Interpreting Qualitative Data- Methods for Analyzing Talk, Text and Interaction*. London, Thousand Oaks: New Delhi: Sage Publications.
- Stichting, D. (2016, May). *Dutch Hospital Data Kengetallen Nederlandse Ziekenhuizen 2014*. Retrieved from https://www.nvz-ziekenhuizen.nl/_library/33659/RapportageKengetallen2014.pdf
- Surbhi, S. (2010, May 20). *Difference Between Public Sector and Private Sector*. Retrieved May 2016, from <http://keydifferences.com/difference-between-public-sector-and-private-sector.html>
- Taylor, S., & Bogdan, R. (1998). *Introduction to Qualitative Research Methods- A Guidebook and Resource*. Chichester: John Wiley & Sons Inc. .
- The Difference Between the Private and Public Sector*. (2015, August). Retrieved March 2016, from Privacysense.net: <http://www.privacysense.net/difference-between-private-public-sector/>

- Townsend, K., & Wilkinson, A. (2010). Managing under pressure: HRM in hospitals. *Human Resource Management Journal*, 20, 332-338.
- Van de Ven, A. (1986). Central Problems in the Management of Innovation. *Management Science* Vol. 32 No. 5, pp. 590-607.
- Van den Berg, M., Heijink, R., Zwakhals, L., Verkleij, H., & Westert, G. (n.d.). Health care performance in the Netherlands. *Eurohealth Vol 16 No 4*.
- Van den Broek, J. (2014). Taking Care of Innovation, The HRM innovation process in healthcare organizations (not published).
- Walker, R. (2006). Innovation Type and Diffusion: an Empirical Analysis of Local Government. *Public Administration*, 84(2), 311-335.
- Why business innovation is important*. (2015, September). Retrieved March 2016, from Queensland Government: <https://www.business.qld.gov.au/business/business-improvement/becoming-innovative-business/why-business-innovation-important>
- World Health Organization*. (2013, November). Retrieved from Global health workforce shortage to reach 12.9 million in coming decades: <http://www.who.int/mediacentre/news/releases/2013/health-workforce-shortage/en/>
- Zhou, Y., Hong, Y., & Liu, J. (2013). International commitment or external collaboration? The impact of human resource management systems on firm innovation and performance. *Human Resource Management*, 52 (2), pp. 263-288.

Appendix A

Interviewschema, Masterthesis onderzoek: Innovation in HRM in Dutch general Hospitals

Datum	
Begintijd/ lengte van het interview	
Locatie / Adres	
Onderzoeker	Juliane Winkler
Respondent (naam)	
Functie van respondent (positie in het ziekenhuis)	
Email adres	
Telefoon (wanneer toepasselijk)	

Notes:

Introductie

Goede morgen/middag,

Ik zal mij eerst voorstellen. Mijn naam is Juliane Winkler en ik ben Business Administration master studente aan de Universiteit Twente in Enschede. Ik maak deel uit van een onderzoeksteam wat de status quo van innovaties in HRM in Nederlandse algemene ziekehuizen in kaart wil brengen. Ziekenhuizen vanuit het hele land doen mee aan dit onderzoek en het verzamelen van data, dus het afnemen van interviews is volop gang. Het interview zal ongeveer een uur duren en graag wil ik mij alvast voor uw tijd en medewerking bedanken.

Het interview zal doormiddel van een voice recorder worden opgenomen en de opname gebruik ik alleen om het gesprek uit te werken. Wij zijn benieuwd naar uw persoonlijke mening over dit onderwerp en de huidige status van innovaties op het gebied van HRM in dit ziekenhuis. Alles wat u zegt wordt anoniem behandeld en wordt uitsluitend voor dit onderzoek gebruikt. De informatie worden niet aan derden

doorgegeven en dienen niet ter vergelijking van de verschillende ziekenhuizen. U kunt alles vertellen wat u te binnen schiet.

Binnenkort ontvangt u van mij via e-mail de transcriptie van het interview en dan wil ik u vragen om het door te lezen en te checken of uw mening juist is overgekomen bij mij. Als u wilt kunt u ook het eindverslag van het onderzoek ontvangen.

Tijdens het interview zal ik af en toe aantekeningen maken om voor mezelf de lijn van het gesprek vast te houden. Heeft u tot zover nog vragen?

Laten wij beginnen.

Het thema van het onderzoek en van dit interview is innovaties in HRM in Nederlandse algemene ziekenhuizen. Innovatie is een "hot topic" en daarbij is te denken aan:

- Groeiende competitie op het gebied van nieuwere of verbeterde producten, services en processen;
- Toenemende verwachtingen van klanten en groeiende kennis van klanten over producten/services.
- Kostenbesparing in alle afdelingen van organisaties, digitalisering en samenwerking of afhankelijkheid van de overheid

...om maar een paar voorbeelden te noemen. Maar ook in de gezondheidszorg:

- De toenemende behoefte aan goed opgeleide verpleegkundigen en de steeds belangrijker wordende ouderen zorg.

Dit zijn voorbeelden die wij in de literatuur hebben gevonden en ik weet zeker dat u ze herkent en waarschijnlijk nog meer kunt noemen.

Voor de duidelijkheid hebben wij het grote thema "innovaties in HRM" in drie categorieën verdeelt:

1. **werkplek of baan innovaties (employment innovations):** traditionele HR functies, zoals werving en selectie, salaris/ vergoeding, algemene arbeidsvoorwaarden

Werving/selectie	→	online werving/ selectie
Salaris/ vergoeding	→	verschillende salaris uitbetalingen/ bonussen
Alg. Arbeidsvoorwaarden		
Talent management	→	Trainingsprogramma
E- HRM/ E- Learning	→	Electronisch patiënten dossier
Job enrichment	→	
Job crafting	→	
Job simplification	→	
Job design	→	teamwork
Rapportage	→	
Werkomstandigheden: stress mindering, fitness, medewerkers vereniging		
Management stijlen		
Vertrouwen/ eigeninitiatieve van medewerkers		

3. organisatie innovaties (organisational innovations): innovaties met een groter impact en grotere context, zoals: het delen van kennis of reorganisatie

Delen van kennis	
Reorganisatie	
Communicatie	
Digitalisering	→ elektronisch patiënten dossier
Strategische positie van HRM in het ziekenhuis	
Cultuur	

Graag wil ik deze drie categorieën met u doorgaan en uw ervaring en mening erover horen.

- Als eerste, kunt u mij vertellen wie u bent en wat precies uw functie en taken zijn hier in het ziekenhuis.
- Wat betekent voor u het woord “innovatie”? Hoe begrijpt u “innovaties in HRM”? Wat is uw mening over HRM in Nederlandse ziekenhuizen (problemen, voordelen, nadelen,...)?

Afsluiting

Laatste vragen:

- Als u een miljoen euro voor HRM zou hebben, wat zou u daarmee willen doen/bereiken?

Volgens mij hebben wij alles besproken,

- Wilt u nog iets toevoegen of aanmerken wat niet aan bod is gekomen?
- Kunt u mij feedback geven over hoe het interview is gegaan. Wat kan ik verbeteren? Aandachtspunten voor het volgende interview.
- Kunt u mij misschien een collega aanbevelen om te contacteren?

Nogmaals hartelijk dank voor uw tijd en moeite. De informatie zullen ons helpen met het onderzoek. Ik zal u nog mijn contactgegevens geven voor het geval dat u nog opmerkingen of vragen heeft. Zou ik u in het geval van onduidelijkheden tijdens het uitwerken mogen contacteren?

Appendix B

Map of all studied Dutch general hospitals within this research, including the studied cases of the co-researchers.

