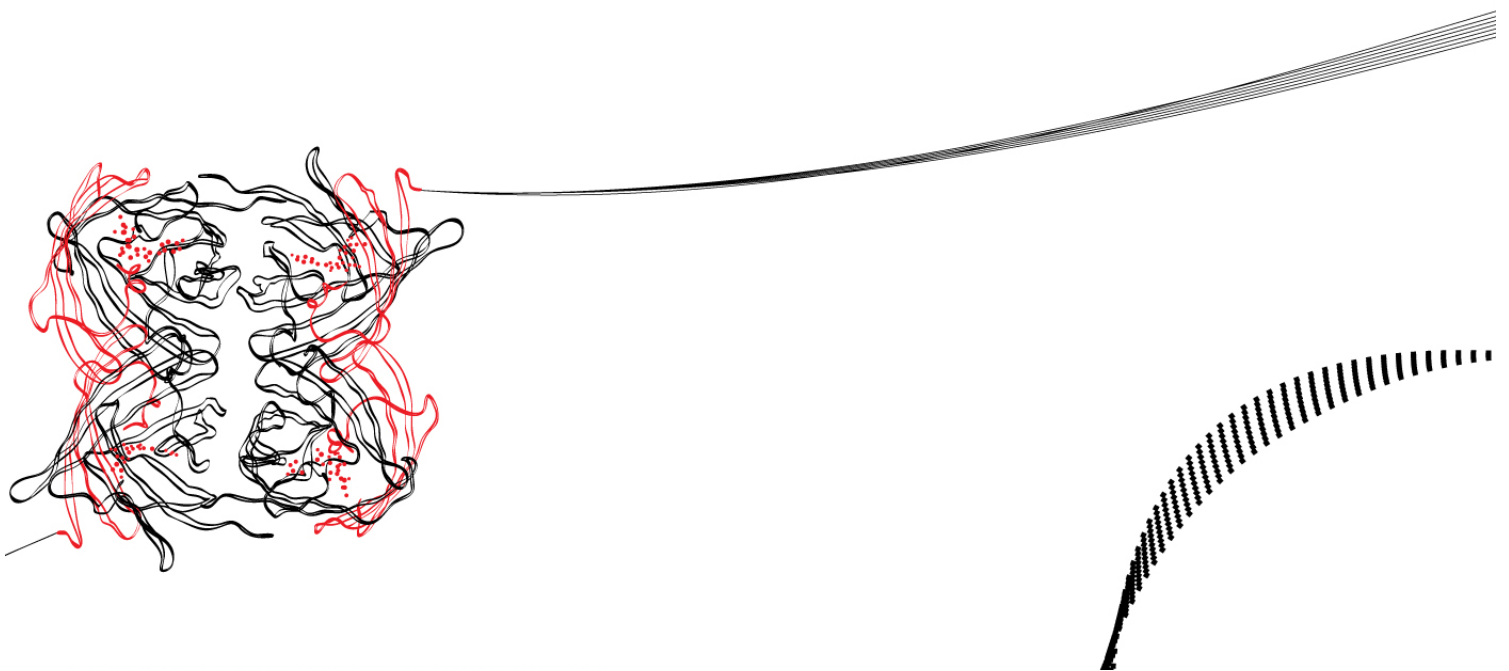
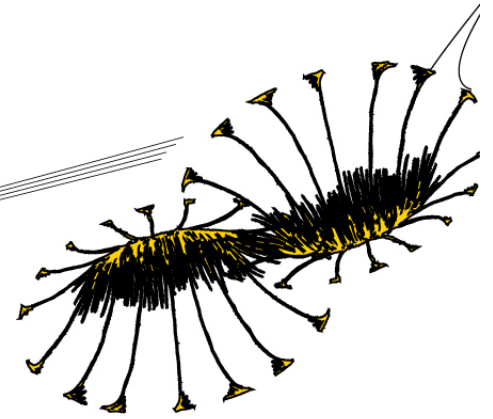


# EXPLORATION OF THE CONTEXT AND ENABLERS OF HRM INNOVATIONS IN DUTCH GENERAL HOSPITALS

An Empirical Study

August 2016



# Exploration of the Context and Enablers of HRM Innovations in Dutch General Hospitals

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## ABSTRACT

Innovation is a hot topic in Dutch general hospitals, due to the increasingly business-like environment. This research explores innovations in HRM departments in these specific hospitals according to three types of innovations, employment, work, and organisational innovations. Next to presenting specific innovations found, this research focuses on sector- and organisation-related factors that possibly influence the occurrence and types of HRM innovations. Findings show a dominance of multi-type innovations, mostly combining employment and work innovations. Furthermore, findings suggest that increased communication and knowledge sharing through internal and external networks, and separate stimulation of younger and older employees within the organisations are likely to increase the occurrence and acceptance of innovative changes in hospitals. The highest threat presents uncertainty and reluctance of medical staff towards changes.

This research suggests that HRM innovations mainly result from changes in the hospital's environment and objectives, and they are not implemented for the purpose of being innovative.

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## Management Summary

Innovation is a topic of supreme importance in numerous different sectors and organisational fields. By now, increasing competition and need for cost efficiency is no longer a typical characteristic of the business sector, but is a crucial aspect of general hospitals. However, research in various fields of these organisations lacks. In consideration of this, this research explores innovations in HRM departments in Dutch general hospitals. Additionally, the presentation of contextual elements should give indications on the presence of the innovations found as well as on possible future aspects that need to be considered when managing human resources within Dutch general hospitals.

This research defines innovations as anything new (processes, tools, practices, etc.) to a hospital that aims at improving current standards. It makes use of three types of innovations that have been identified by van den Broek (2014), which are employment, work, and organisational innovations. Employment innovations are related to traditional HR functions, such as recruitment and selection, compensation, training and development. Work innovations are related to the design of the work itself as well as the employees working conditions, such as job enrichment, job simplification, or teamwork. Organisational innovations are innovations with a broader organisational context and impact, but naturally include a strong HRM component such as knowledge sharing or restructuring programmes within the organisation.

The first part of the research, a literature review, revealed that the Dutch health care sector is characterised by a steady competition among funding bodies and health care providers, whereas the patient is able to influence price competition and service provision standards through insurance arrangements. This in 2005 implemented DBCs payment system increases the hospitals' need for fast and efficient patient treatments as well as flexibility and efficiency of the staff. This shift towards increased efficiency and performance level is often referred to as 'New Public Management' (NPM). Another challenging factor is the scarcity of educated medical personnel, and the ageing of employed staff, which partly results in growing shortage of nurses and medical specialists. Furthermore, the demographic changes pose another challenge as the overall ageing of patients change the demands of health care services.

The second part comprised four case studies of general hospitals across The Netherlands with the aim of identifying and describing available innovations in-depth, including additional related information to enhance the understanding of the mechanisms and the context. The hour-long interviews were conducted with the respective HR manager of each hospital as they were expected to have integrative knowledge on all HR-related aspects within the organisation. All information collected from the interviews as well as the hospitals' websites was classified according to the beforehand identified three innovation-types-categories (employment, work, and organisational innovation) or the fourth category compiled to summarise HR-innovation-related context information. Overlaps between the categories were expected.

Overall findings show a higher number of multi-type than single-type innovations. The majority of single-type innovations is work-, or employment-related and support job enlargement of employees, increase the managements' responsiveness, or focus on recruitment, training and contracting respectively. Organisational innovations are mainly related to cultural programmes that aim at strengthening self-responsibility and trust among employees. By raising the level of these characteristics, HR managers hope to increase the overall efficiency and creativity of the individuals. The majority of two-type innovations consist of two types of innovations, primarily employment-work and employment-organisational innovations. The number of innovations, which combine all three types of innovations, is low.

Information from the interviews and websites were furthermore analysed according to Corral's (2006) identified five influencers of innovative behaviour, which are institutional arrangements, technological and organisational capabilities, organisational learning, risk taking behaviour, and individual intention. This cross-case analysis showed that especially internal communication and knowledge sharing, close external collaborations as well as participation in external and internal networks are key influencer of the innovative level of the hospitals.

Close arrangements between health care institutions increase the possibility of innovative thinking of HR professionals, as they are able to exchange knowledge and ideas, and receive incentives for improvements. Especially regional collaborations seem beneficial as they are influenced by similar prevailing regional-specific conditions and therefore make incentives and collaborations more useful and faster applicable. Furthermore, internal communication and teamwork are likely to increase the chance for developments and innovations. By networking and sharing individuals' knowledge, mutual understanding and interaction can be strengthened, and opportunities for improvements and innovations become more visible. However, from the case studies it appears that teamwork and strong internal communication is still mainly present within wards, whereas interaction among different actors within the organisations is scarce. However, leaders within the hospitals were found to receive comprehensive communication and leadership training. The increased communication and management responsiveness targets the reduction of unknowingness and uncertainty of the general medical staff towards the present and future changes in the hospital sector. Unknowingness and uncertainty pose a great threat as they can result in fear and eventually in resistance, a characteristic, which the interviewed HR managers have increasingly noticed among elderly employees within their organisations.

Examples for innovations, which have been found within the context of this research's case studies are listed in the following table.

**Table 1: Empirically discovered Innovation Examples**

| <b>Innovation Type</b>                | <b>Study Findings</b>   |
|---------------------------------------|---|
| <b>Employment Innovation (EI)</b>     | <ul style="list-style-type: none"> <li>• Recruitment facilitating IT-tool</li> <li>• Adjusted employment contracts</li> <li>• Professional development trainings and workshops</li> </ul>   |
| <b>Work Innovation (WI)</b>           | <ul style="list-style-type: none"> <li>• Job crafting</li> <li>• Reduction of physical workplaces</li> <li>• Self-planning of timetables</li> <li>• ‘Inside profile’ personality questionnaires</li> </ul>  |
| <b>Organisational Innovation (OI)</b> | <ul style="list-style-type: none"> <li>• Cost-control model</li> </ul>  |
| <b>EI + WI</b>                        | <ul style="list-style-type: none"> <li>• Reallocation of recruitment responsibilities</li> <li>• Self-service App for HRM processes</li> <li>• Strategic-personnel-planning tool               <ul style="list-style-type: none"> <li>• New working concept</li> <li>• MD programmes</li> </ul> </li> </ul> |
| <b>EI &amp; OI</b>                    | <ul style="list-style-type: none"> <li>• Uniform forecasting system</li> <li>• Communication and strategic alignment training s</li> <li>• Radbound workshops</li> </ul>  |
| <b>WI &amp; OI</b>                    | <ul style="list-style-type: none"> <li>• Reallocation of strategy-development responsibilities</li> <li>• Internal and external network development</li> </ul>  |
| <b>EI &amp; WI &amp; OI</b>           | <ul style="list-style-type: none"> <li>• Personal budget for each employee</li> <li>• Organisational reconstruction programme</li> </ul>  |

Summarising, this research identifies a number of HRM-related innovations in Dutch general hospitals, which most often relate to the organisations’ anticipated cultural shift towards being more efficient, flexible and self-responsible. The main cause for this shift is the increased adoption of business organisations’ characteristics. Encouraging communication and knowledge sharing in order to enhance accessibility of information to all operational areas within the organisations is crucial for the organisations’ successful transition towards efficiency and innovation. However, through this research it became apparent that external as well as internal networks, and internal communication as well as development are not yet fully developed. HRM departments in Dutch general hospitals are still in the transition towards becoming fully strategically aligned with the organisation as a whole.

## **Preface**

The research “Exploration of the context and enablers of HRM innovations in Dutch general hospitals” has been written as the final assignment of the Business Administration master programme of the University of Twente. It has been conducted in cooperation with HRM department of this university.

The research team consist of three students, who jointly prepared the research framework, theoretical background, and research design of this study. Although the topic was identical and the findings party overlapped, each research was conducted individually. This leads to three separate theses with varying emphases. All three theses are available upon request.

Even though the actual conduction of this research was done autonomously, a number of people have devoted considerable time and effort to ensure its successful termination. Therefore, I would like to thank my supervisor prof. dr. T. Bondarouk as well as my second supervisor dr. J.G. Meijerink for their support and motivational thoughts.

Furthermore, I would like to thank my two fellow research colleagues for their feedback and advice throughout the entire research process.

Finally, another word of thanks goes to all interviewees, who took part in this research.

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# 1. Introduction

## 1.1. Context of Research

Innovation is a topic of supreme importance. Organisations of all kinds are constantly competing for newer and better products, services, processes, and technologies to stay competitive. This is not only due to increasing customer expectations, but also due to reasons of economic growth (Cohen, n.d.), “unyielding pressure for rapid results” (Clarke, n.d., p. 1), and developments in internal business structures and goals possibly caused by mergers or changes in business strategies. Cost reduction in all organisational areas (Cohen, n.d.), digitalisation (Ernst & Young, 2011) and coherence with governmental regulations are only some further reasons for a steady need for innovations. Especially in the health care sector, external and internal factors are wide-ranging. The decreasing availability of nurses, the increasing need for elderly care, governmental regulations, increasing competitiveness among hospitals, as well as the increased need for cost-efficiency are only some elements of this sector (Lansisalmi, Kivimäki, Aalto, & Ruoranen, 2006 ;Kuhlmann, Batenburg, Groenewegen, & Larsen, 2013; Daley, Gubb, Clarke, & Bidgood, 2013; EU Joint Action on Health Workforce, 2014; European Commission, 2013). Hospitals are nowadays facing a great amount of challenges they need to cope with. Not only in terms of new technologies and medical processes, but also in all kinds of organisational areas (Omachonu & Einspruch, 2010; Lansisalmi et al., 2006). Thus, steady adaption to these challenges is essential for survival. How do they do it?

This question seems simple, however, to date research in this field is fair to middling. The NHS (National Health System) of England is for example enjoying great attention and many researchers have concerned themselves with its structure and elements (such as the role of governments, nurses, patients, managers), but also with newest innovations and developments related to various aspects of health care, mostly technologies, medicines or practices (Dixon-Woods et al., 2013; Martin, Currie, Finn, & McDonald, 2011; Cresswell & Sheikh, 2013; Page, 2014). Other countries, in turn, are practically un-regarded in this context – little to none research has been carried out to analyse the respective health care sector and system. The Dutch health care sector has been described and analysed in the past as it is considered to have one of the best health care systems worldwide (Euro Health Consumer Index 2015, 2015). However, some of the incorporated aspects are still widely un-regarded. One of these aspects is the field of human resource management (HRM) in the health care setting. Especially innovations in this field, which respond to sector challenges, have been widely unnoted. This constitutes a great knowledge gap, since HRM is widely accepted as an important contributor related to the innovativeness of organisations. It entails the planned management of an organisation’s human assets, which are perceived as one of (if not even ‘the’) main important asset of any organisation (Keep & James, 2010). The implementation and execution of efficient and well-ordered HRM systems have been

evidently found to not only increase the efficiency of employees (Kepes & Delery, 2007; Lepak, Liao, Chung & Harden, 2006; Jiang, Lepak, Han, Hong, Kim & Winkler, 2012), but to also contribute to the performance and level of innovation of the organisation as a whole (Zhou, Hong and Liu, 2013; Beugelsdijk, 2008; Jiang, Wang & Zhao, 2012; Blau, 1964) by increasing among others the employees' abilities, motivation and creativity. As employees are viewed as one of the fundamental components in health care institutions (Townsend, Lawrence, & Wilkinson, 2013), the investigation on innovative and successful ways of their management can lead to an increased state of knowledge on how given as well as future opportunities and threats posed within the Dutch health care sector can be used or opposed.

In 2014, van den Broek intended to narrow this knowledge gap by researching the characteristics of the diffusion, adoption and implementation of HRM innovations in Dutch health care organisations, as well as the organisations' influence on these innovation processes (van den Broek, 2014). She separates innovations into three different types: employment, work and organisational innovations. Employment innovations relate to what is mainly called "traditional HR functions" – general employment issues such as recruitment, training or appraisal. Work innovations refer to the design of work itself, the employees' working conditions and the style of management. Organisational innovations have a broader context and impact, and affect a greater part of the organisation, such as the sharing of knowledge and restructuring programmes. Among others, van den Broek presented findings two examples of HRM-related innovations in specific Dutch hospitals in her research, including agents, processes as well as underlying causes and risk factors. However, van den Broek also calls for future research on further innovations to determine not only underlying logics and process influencers, but also to understand "the complexity of the institutional environment" (van den Broek, 2014, p. 107), as the author presumes it to have a great influence on the innovation process. This research accommodates this appeal, by exploring what kind of HRM-related innovations exist in Dutch general hospitals corresponding to the three identified types of innovations, and by investigating related environmental elements, risk factors and conditions for these innovations.

This study aims at offering insights into innovation processes, causes and conditions in the specific context of Dutch general hospitals. The combination of the well-regarded topics HRM and innovation presents points of interest for researchers in the public and private sector, especially within the specific context of hospitals. Furthermore, through the elaboration of health-care-sector-specific elements, as well as innovation development and implementation-related processes, conditions, risk factors and actors, such as managers working within this specific sector can find initiations and support for possible adoptions or problem counteracts.

This research is fully explorative even though the research question is based on preliminary literature research in order to develop a research framework. Additionally, this research is part of a larger research, conducted by a team of three researchers in total. Each researcher addresses the same research topic through the conduction of appropriate case studies in Dutch general hospitals. Overlaps in the choice of study

cases are possible although the analysis and interpretation of gained information is performed individually.

## **1.2. Research Goal & Question**

The goal of this research is to identify HRM innovations and lessons learned from HRM innovations in Dutch general hospitals. Thus, the determination of a status quo of HRM-related innovations in the Dutch general hospitals is targeted as the final outcome of this research. The presentation of contextual elements and considerations should eventually give indications on the presence of these innovations as well as on possible future aspects that need to be considered and adapted into the management of human resources within Dutch general hospitals.

The resulting central research question of this research is *'What kind of HRM-related innovations are present in Dutch general hospitals, what characterises their context, and how do these characteristics possibly influence HRM innovations?'*

## 2. Theoretical Framework: Conceptualisation of Key Terms and Elements

The following chapter summarises existing literature on the main elements of this research: innovation, HRM, and the prevailing conditions in the Dutch health care sector. Firstly, the elements are defined and analysed individually, and then secondly, combined in case information could be derived from literature. As this research's focus is greatly under-researched, information on combined research elements is sparse.

### 2.1. Conceptualisation of Innovation and HRM

It is a common perception that organisations should constantly strive for being innovative in order to survive on the market, stay competitive against business rivals, or simply to increase their efficiency. Baregheh, Rowley and Sambrook (2009) note and summarise that “there is agreement that in order to both sustain their competitive position and to strengthen it, organisations and economies must innovate and promote innovation” (p. 1324). The term innovation is used extensively, appearing in literature of all kinds of backgrounds, such as technological, science, administrative, economical, and organisational management. As these fields differ in their nature, there is a great variety of definitions of innovation. “Innovation is studied in many disciplines and has been defined from different perspectives” (Damanpour and Schneider, 2006, p. 216). Subsequently, various researches attempted to develop a universal definition of the term innovation, which, seems to be very difficult because of the different perceptions and backgrounds included. Baregheh et al. (2009) included definitions from seven different literature fields and summarized innovation as follows:

*“Innovation is the multi-stage process whereby organisations transform ideas into new/improved products, service or processes, in order to advance, compete and differentiate themselves successfully in their marketplace”* (p. 1334).

This paper comprehends innovation in a similar way, but there is an important addition to be made. An idea is perceived as new once it is new to a certain organisation, even though it might be already known to or existing in other organisations elsewhere (Van de Ven, 1986).

As innovations have been identified as essential for organisations in order to survive, extensive research has been conducted to identify triggers of innovations. Theory detects various drivers for innovation, such as efficient R&D (Cassiman & Veugelers, 2006), technological capabilities (Horbach, Rammer, & Rennings, 2012), external and internal knowledge sharing (Walker, 2006; Horbach et al., 2012; Cassiman & Veugelers, 2006), and the enhanced creativity and new idea development through strategic and efficient HRM (Mumford, 2000; Jiménez-Jiménez & Sanz-Valle, 2008; Kepes & Delery, 2007; Lepak, et al., 2006; Jiang, et al., 2012).

This research is related to the human resource management field. HRM “deals with the proper management [...] of individuals in the work place” (Marciano, 1995, p.226) and

implies to understand, maintain, develop, utilize, and integrate them (Marciano, 1995) according to specific organisational objectives. Thus, this paper views HRM in a more strategic way than the traditional HRM, which commonly comprises practices such as recruitment, selection, training, appraisal and rewards (Wright and McMahan, 1992). It corresponds to the authors' definition of strategic HRM as "*the pattern of planned human resource deployments and activities intended to enable an organisation to achieve its goals*" (Wright and McMahan, 1992, p.298). Van den Broek (2014) refers to previous literature of HRM and distinguishes between different types of HR practices, namely employment and work practices. On the one hand, employment practices attend to the management of human resource and concern activities related to what this paper beforehand referred to as traditional HRM practices, namely recruitment and selection, training, appraisal, and rewards. On the other hand, work practices attend to the design of work and encompass a broader definition of HRM.

With regard to this paper's definition of HRM and its possible grouping into two practice focuses, innovations are divided into three categories, namely employment innovations, work innovations, and organisational innovations (van den Broek, 2014). Van den Broek (2014) explained the possibility of the distinction of innovations in different types by referring to Boxall and Purcell (2008) definition of HRM, which "encompasses the management of work and the management of people to do the work" (Boxall & Purcell, 2008, p. 3 in van den Broek, 2014, p.9). According to this on one hand, HRM innovations can focus on work design, on the other hand on HRM instruments. During her research process she distinguishes an additional third innovation type, organisational innovations, for innovations that did not match the first two types. This leads to the following definitions of the three innovation types explored in this research. *Employment innovations* are related to traditional HR functions, such as recruitment and selection, compensation, training and development. They concern general employment issues and could be for example electronics recruitment, a new training programme, or variable payment offerings. *Work innovations* are related to the design of the work itself as well as the employees working conditions, such as job enrichment, job simplification, chain of command and reporting, or teamwork. The third type of innovation is *organisational innovations*. These are innovations, which have a broader context and impact, even though naturally include a strong HRM component. Examples could be related to knowledge sharing or restructuring programmes within the organisation. These HRM categories present an adequate summary and coverage of possible innovations, and will therefore be used as a basis for the research on and analysis of innovations in literature and Dutch general hospitals.

## **2.2. The European Health Care Sector**

After the conceptualisation of HRM and its related innovations, and the collection of information on what these terms describe and entail, it is important to gain an understanding on factors, which have a potentially high degree of influence on the degree of innovativeness and efficient HRM. As this research focuses on a very specific sector, namely the Dutch general hospital sector, it is necessary to get an insight into

prevailing sector conditions apart from this specific health care institutions settings. Innovation and HRM influencers are not factors, which can only arise in respective business organisations. They also matter in broader settings, such as in terms of governmental regulations and considerations, but also in even higher contexts for example nation treaties or commissions. In this case, prevailing conditions in the EU setting of a specific business sector can have an influence on the operations and performance of organisational businesses in this respective sector. Thus, the following chapters will present prevailing conditions in the European and Dutch context.

European health care systems increasingly face the challenge of workforce shortages and misdistribution of skills. By 2020, the shortage of health care professionals is expected to rise up to one to one million (EU Joint Action on Health Workforce, 2014), while the existing health care workforce is changing at the same time due to developments related to technology, organisations and professionals (Kuhlmann et al., 2013). Simultaneously, health care demands are expected to rise and change as a result of the increasing elderly population (European Commission, 2013). Kuhlmann et al. (2013) admonish that this can result in a mismatch between health care demands and supply in European countries. The European Commission describes the challenge as “balancing the right number of health care staff with the right skills in the right geographical areas to meet the changing needs of populations and health systems” (European Commission, 2015, p 5). To face this problem, the European Union issued labour market regulations to allow and simplify cross-border mobility and migration between member states and candidate countries (Kuhlmann et al., 2013).

An additional challenge is the large amount of costs arising from the health care sectors among the EU member states. Even though many EU countries face a fractional increase of health care spending as a share of national GDPs compared to other countries around the world, health-spending costs are still expected to increase constantly (OECD, 2015). By 2060, public expenditure on health care and long-term care is expected to grow by one third of current expenditures (European Commission, 2013). In this context the European Commission names the economic crisis, diversifying diseases, as well as structural changes in demography (e.g. increasing population size and structure, national and individual incomes, accessibility of health care services and goods) as the main causes for increasing costs. As a result, EU health care systems are required to become more cost efficient and sustainable (European Commission, 2013). Initiatives suggested by the European Commission (2013), which should lead EU member states to achieve efficiency and sustainability, include among others:

- Structural reforms and efficiency growth of member states: balancing the mix of staff skills through non-financial benefits, continuous professional development and even distribution of health care staff;
- Reduction of unnecessary specialist-use and hospital care while simultaneous improvement of primary health care services in order to increase positions and training opportunities, as well as balance the distribution on general practitioners

- Improved data collection among EU members on health systems on the basis of the European Community Health Indicators (ECHI) in order to compare and increase health systems;
- The introduction of innovative technological solutions, such as the Health Technology Assessment (HTA) (a tool, which summarizes medical, social, economic and ethical issues related to a certain health technology or product), and a number of E-health developments;
- Creation of supporting working conditions and providing employees with opportunities to live healthy and active in order to decrease absenteeism and increase the employees' ability to participate in the labour market.

For the achievement of these objectives, the European Commission initiated numerous supporting programmes, regulations and investments. It for instance started the development of easily accessible and replicable e-health applications, which increase the quality of life as well as the efficiency of the health care provider. Furthermore, it works towards an EU-common sustainable health monitoring system, which enables detailed and cost-effectiveness analyses based on latest figures, expenditure trends, and related information. An EU joint action focuses on the forecast of health workforce needs and, thus, enables effective planning within and among EU member states. It creates the opportunity for EU member states to share labour power and practices. Additionally, the Commission supports projects and tool developments with expected future benefits on national and international levels (European Commission, 2013).

It becomes visible that health systems among European member countries are not only influenced by regional and national factors, but also greatly by international factors, such as above-mentioned EU regulations and supportive programmes. The growing number of influencers, the increasing impact of stakeholders, the continuous need for cost-efficiency, as well as the rising competition for skilled and qualified personnel on national and international level lead to a shift of organisations in the public sector to strategically become more business oriented (van den Broek, 2014; Pollitt & Dan, 2011). Characteristics of this shift are often combined under the term 'New Public Management' (NPM). "New public management is trying to adopt the efficient business organisations management elements in public administration management" (Vienažindienė & Čiarnienė, 2007, p. 44). By making use of business guidelines that are valued in the private sector, organisations in the public sector are encouraged to not only take over the business techniques but also the values (Vienažindienė & Čiarnienė, 2007). Pollitt and Dan (2011) conceptualise NPM as the belief "that the public sector can be improved by the importation of business concepts, techniques and values" (p. 5). When converting this belief into practice, the authors present a set of practices and concepts, such as:

- Setting the focus on performance, i.e. output;
- Establishing lean, flat, small and specialised organisational forms;
- Using market-type mechanisms, such as outsourcing, public-private partnerships (PPPs) and performance-related pay; and

- Considering service users as ‘customers’ and target their satisfaction.

Other authors identify similar characteristics of NPM in the health care sector, namely “using market forces to serve public purposes; demanding organisational performance; fostering greater accountability and transparency from providers; increasing patient financial responsibility; looking for savings; providing higher-quality services; bringing resource allocation closer to the point of delivery; using contracting-out; and enlarging the coalition of players” (Simonet, 2008, p. 619).

In the health care sector, the two main goals of NPM (better service and cost reduction) (Pieterse in Meijer, Boersma, & Wagenaar, 2009) are difficult to achieve as they focus on elements from different logics. The efficiency-striving, business-like logics might not always align perfectly with professional-like logics, which emphasise the quality of care (van den Broek, 2014). The author even argues that the presence of both logics within an organisation could affect the innovation process, due to budget limits or contrasting opinions on priorities and beneficence. This presents a problem, as innovations can support public organisations in improving the service quality and cope with external challenges (De Vries, Bekkers & Tummers, 2014).

### **2.3. The Dutch Health Care Sector**

“In times of limited resources, governments are required to demonstrate workforce planning capability to meet current and future challenges for service delivery and to produce efficiency gains” (Melchor, 2013, Abstract). As presented above, higher authorities and executives, such as the European commission, have a high degree of influence on the recourse planning capability of governments. However, the respective countries’ given conditions (such as the availability of resources, the degree of governmental involvement, the legislative situation) also play a major role in the innovation-, and HRM-related capability of governments as well as institutions and businesses of all kinds. As the context of this research has been set to The Netherlands, prevailing conditions in the Dutch health care sector are presented below.

In 2012, The Netherlands spent 11,8% of GDP on health, whereof approximately 86% of the spending assembled from government and social insurance funds (OECD, 2014). Despite the economic crisis, health spending has increased during the past years, the spending was 12,9% in 2013 (CIA, 2016). The highest share of health care expenditures are related to the hospital and elderly care sectors (Schäfer, Kroneman, Boerma, Van den Berg, Westert, Devillé, & Van Ginneken, 2010). The current life expectancy at birth is on average 81,23 years, whereof the life expectancy for women is 83,47 years and for men 79,11 (CIA, 2016). The median age of the population is 42.3 years (41.3 years for men and 43.2 years for female) (CIA, 2016).

“[The healthcare] sector is one of the largest employers in the Netherlands. Over 13% of the full-time jobs available are jobs in the health [and] social welfare sector; 18% of these are in general hospitals” (Dutch Hospitals Association, n.d., p. 6). The number of nurses is above the average compared to other European countries and “seem sufficient to meet the needs of the population” (Schäfer et al., 2010, p. xxvi). Whereas in Germany



one nurse is responsible for ten and in England for eight patients, a single nurse is responsible for five patients in The Netherlands (Technical University of Berlin, 2012). During the past years, there was an increased trend of transferring responsibilities and tasks of medical professionals to nurses. “New occupations such as practice nurses, nurse practitioners, nurse-specialists and physician assistants are trained to fill the “gap” between [medical professionals] and nurses“ (Schäfer et al., 2010, p. 131). This so-called “substitution“ is mainly caused by the desired increase in efficiency, but also as a means to cope with the increasing workload of medical professionals (Schäfer et al., 2010). These factors might influence findings that The Netherlands has one of the lowest burnout rates of nurses (10%) compared to Germany (30%) or England (42%) (Technical University of Berlin, 2012). Also the European issue of uneven distribution of health care providers (GPs, specialists, and hospitals) and health care labour force is low due to the simple fact that The Netherlands are comparably small and densely populated (Schäfer et al., 2010).

The Dutch health care system is divided in three compartments, namely (1) long-term care (for chronic complaints and treatments, as well as home and elderly care); (2) basic and essential medical care (general practitioner treatments, short-term hospital stays, and specialist services); and (3) supplementary care (e.g. dental, physiotherapy, or cosmetic treatments) (Daley et al., 2013; Schäfer et al., 2010).

Dutch hospitals are segmented in three types: general, academic, and specialised hospitals. General hospitals offer general as well as specialised services, by employing medicals and specialists from various fields. Academic hospitals are connected to a university and are mainly focused on research in the medical field. The third type, specialised hospitals, offers services in a specific medical field, such as e.g. eye-care, trauma centres or children’s hospitals. Due to mergers, a great number of Dutch hospitals operate from multiple locations (Schäfer et al., 2010). Here, especially the three different types of hospitals often form collaborations in order to increase attractiveness through broader service offers and higher capacity for research and development.

In 2014, there were 76 general hospitals in the Netherlands, including six fusions among these hospitals (Dutch Hospitals Association, n.d.). Each general hospital in The Netherlands is a member of one out of three clinical associations: SAZ (Samenwerkende Algemene Ziekenhuizen), STZ (Samenwerkende Topklinische opleidingsZiekenhuizen) and OvA (Overige algemene Ziekenhuizen). The SAZ consists of currently approximately 40 general hospitals, which are considered as smaller in size (SAZ, n.d.; Dutch Hospital Data (DHD), 2015). The STZ represents the larger, top clinical hospitals. These 26 hospitals must meet strict accreditation criteria, which are checked by a visitation every five years. The OvA stands for other hospitals and includes medium-sized hospitals (DHD, 2015).

A significant characteristic of the Dutch health care sector is the role of doctors and specialists. They are either employed by a hospital or self-employed, although there is an increased tendency to the formation of group practices and health centres within the past years (Van Weel, Schers & Timmermans, 2012). The general practice, also not

confirmed by references, is that these doctors often form agreements with hospitals, in which the doctor stays independent and only cooperates with hospitals on specific treatments and services. The formulated agreements contain definitions of the scope of performance and services, and obligations (such as stand-by duty, conferences or workgroup participation). Additionally, overhead costs, such as costs arising from treatments, material as well as personnel costs for supporting staff are determined. The doctors cannot influence the sales price of treatments because these are exclusively negotiated between the hospital and the patient's insurance company. Furthermore, in the case of doctor-hospital agreements, the hospital takes over the role of a mediator within the doctor's remuneration process. The treatment costs are paid by the insurer to the hospital, which then (after deducting accrued expenses) forwards the amount to the doctor. This leads to a certain degree of productivity pressure among self-employed doctors, as they need to have a high number of patients in order to be efficient.

In 2006, a reform package was adopted, which includes nation-wide universal medical care coverage for Dutch citizen, who are required to purchase at least the minimum insurance offered, including basic and essential health care (e.g. medical care, ambulance service, and basic medication). Additional premium packages can be purchased based on the needs and wants of customers. Insurance companies are obliged to accept any applicant, they are not allowed to risk-select customers or risk-assess when negotiating premiums (Schäfer et al., 2010).

Primary care providers such as general practitioners (GPs), psychologists or physiotherapists take the role as gatekeepers. They can send patients to hospitals in case a specialist is required. Thus, patients can only obtain hospital and specialist services through direct referral of a primary care provider (except in acute and emergency cases) (Schäfer et al., 2010). At the same time, gatekeepers take on the responsibility of controlling costs by limiting specialist referrals (Daley et al., 2013).

“The government changed its role from direct steering of the system to safeguarding the process from the distance” (Schäfer et al., 2010, p. xxii). While the government's role now is that of a regulator of the system, including responsibilities such as monitoring the quality of health care and ensuring universality (i.e. affordability and accessibility) of care (Daley et al., 2013), it is the health insurers, health care providers and citizen who influence the price, volume and quality of care. These market players interact on three sub-markets, namely the health insurance market, the health care provision market and the health care market (Schäfer et al., 2010, p. xxvi). As this thesis' focus lies on the health care provision market, the other two sub-markets will not be further discussed.

In the health care provision market, a payment system called Diagnosis and Treatment Combinations (*Diagnose behandel combinaties, DBCs*) has been implemented in 2005. It states that hospitals are paid according to real costs accrued (i.e. the costs needed for a patients care) while simultaneously it enables insurers to negotiate on prices for offered care services based on the quality of these services (Daley et al., 2013; Schäfer et al., 2010). Thus, the DBCs follow the principle “money follows the patient” (Schäfer et al., 2010, p. xxiii). As insurance companies also have the freedom to not contract hospitals in case of poor care service standards or high service prices, the DBCs supports

competition and increased aspiration for improvements on the health-care-service-provider side. At the same time, insurance companies compete for contracts with the best hospitals, which does not only lead to nurturing price changes for medications and services but also to an increased importance of the medical professionals' role as negotiator in this process. The establishment of governmental "watchdog" agencies (Schäfer et al., 2010, p. xxii) should prevent the emergence of undesired market effects in the health care sector.

The formation of the Dutch College of General Practitioners (DCGP), a scientific union of GPs, aims at "[improving] and [supporting] evidence-based general practice" (NHG, n.d.). Their programme, a developing and implementing guideline, aims at managing quality and safety improvement processes for GPs and primary-care-hospital-care collaborations in The Netherlands. The programme is a collaboration between the DCGP and university departments of primary care, in which best practice frameworks are developed. The latter's role in this collaboration is that of the researcher and developer of practice innovations (Van Weel et al., 2012). In 2006, the DCGP additionally introduced a practice accreditation programme, in which practices need to pass a 3-year process. It entails that structures, processes, and outcomes of care are "assessed against prevailing external criteria/standards" (Van Weel et al., 2012, p.15). These DCGP programmes support and increase not only the quality and safety of care but also stimulate the innovativeness of health care practices.

The Swedish NGO Health Consumer Powerhouse (HCP) has selected the Dutch health care system as the best health care system in the EU for the past five years in their annually released Euro Health Consumer Index (EHCI). The study compares health care systems in Europe in 48 categories, with its focus on "patients' rights and information, accessibility, prevention and outcomes", including the patient and consumer point of view (Euro Health Consumer Index 2015, 2015). It aims at improving the understanding of European health care, empowering patients, supporting the detection and correction of weaknesses, as well as providing member states with best practices. The committee described the Dutch health care system as 'a chaos system' (Euro Health Consumer Index 2015, 2015), which, even though patients are granted a great freedom in choosing their health care insurer and provider, is managed efficiently.

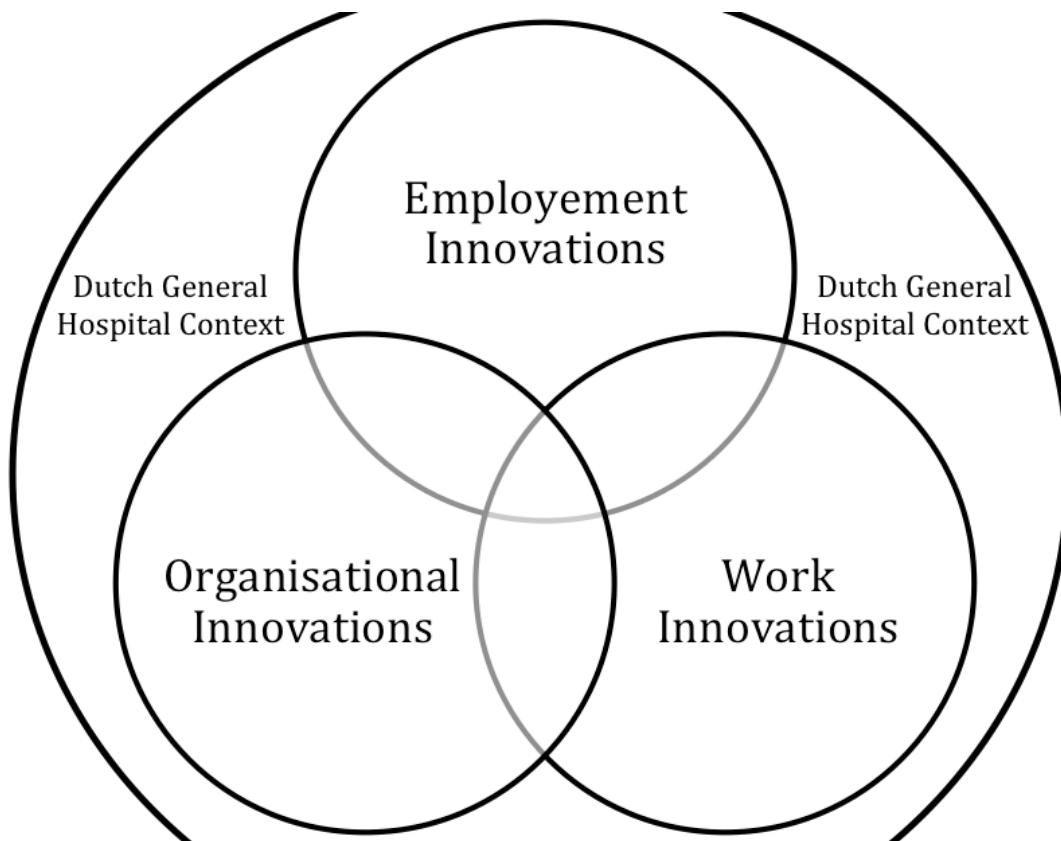
To sum it up, the Dutch health care sector is characterised by a steady competition among funding bodies and health care providers, whereas the patient clearly seems to be in the position of main focus. Even though the patient's choice is not absolute, he or she is able to influence price competition and service provision standards through insurance arrangements, which leads to an increased need for cost-efficiency in hospitals. At the same time this system reduces the level of government involvement as expenditures are not solely funded by the government but also by inhabitants as well as insurance providers through health insurance agreements. Although-, the availability of human resources is comparably high, hospitals still face the challenge of low personnel levels, and additionally, the handling of doctors apparently constitutes a challenge for HRM.

## 2.4. Towards a Research Framework

Given the conceptualisation of innovation, it is possible to differentiate between three types of innovations: (1) employment innovations; (2) work innovations; and (3) organisational innovations. This research suggests that these three types do not solely exist separately but overlap. Furthermore, as suggested by van den Broek (2014), “the complexity of the institutional environment” (p. 107) is likely to have an influence on the innovation process of an organisation and is thus expected to determine the level of innovativeness of each respective HR department.

Therefore, the theoretical research model has been constructed as follows:

**Figure 1: The Research Framework: Types of HRM Innovations in General Hospitals**



HR departments of Dutch general hospitals can develop and implement three types of innovations separately, and at the same time these can overlap. However, internal and external contexts influence the level of innovativeness in both the individual categories and as a whole.

In this framework the Dutch general hospital context symbolises expected possible influencers. For once, these influencers can be beyond the hospitals' control and influence, such as legislative, technological, economic or demographic factors. Therefore, they primarily display the external context of general hospitals that are preexisting in The Netherlands. As identified in the previous chapter the Dutch health care sector is

characterised by a number of specific conditions and regulations, which are expected to impact operations of the general hospitals.

Additionally, factors, which differ from hospital to hospital are included in the framework's hospital context. Here this research makes use of Corral's (2006) most crucial influencers of innovative behaviour in organisations, which are institutional arrangements, technological and organisational capabilities, organisational learning, risk taking behaviour, and individual intention. These aspects present a comprehensive summary of a great variety of previous studies on the influencers of innovativeness, and therefore constitute an interesting opportunity for their application to the public sector. Furthermore, they refer more to the hospitals' internal context.

After identifying this research framework we specify on the research question by empirically exploring the three types of innovations in Dutch general hospitals.

### **3. Research Design: Four Case Studies**

The necessary conceptualisations of the main components of this research have been formulated by means of a literature review. Adequate literature has been collected by the use of various search machines and databases: Scopus, Google Scholar, Web of Science, and the online library of the University of Twente. Articles from a journal, a technical or research report released by a health care related institution, a governmental publication, or reports and papers released by universities have been perceived as adequate. Literature for the conceptualisation of 'innovation' and 'HRM' was chosen based on the number of citations by other researchers. Selection criterion for literature concerning the European and Dutch health care sector was the year of publication. Information should be as recent as possible and not exceed the past three years. However, due to the fact that publications of sector statistics and statements are published approximately two to three years after their occurrence, the selection criteria for sector specific information was changed to the most recent available. The theory collected by the literature review is used as a guideline for the data collection within the case studies. It aims at supporting the investigation of the theoretical framework and unfolding both details of as well as relationships among its components.

Due to the explorative nature of this research, namely the investigation of the status quo of existing HR innovations in Dutch general hospitals, a qualitative research approach is chosen. More specific, qualitative case studies are selected. This type of study enables the investigation of "a contemporary phenomenon within its real-life context [and] copes with the technically distinctive situation in which there will be many more variables of interest than data points" (Yin 1994 in Hsieh, 2004, p. 90f). Furthermore, case studies are widely perceived as suitable for new research areas, as well as those areas with sparse pre-existing research (Eisenhardt, 1989). This correlates to the to date little available research that has been done on the kinds of HR-related innovations in general hospitals in The Netherlands. The conducted case studies take on an exploratory descriptive design in form of open interviews. It enables in-depth presentations of contextual situation description, as well as explanations of cause-effect relationships (Hsieh, 2004). The aim is to identify and describe available innovations in-depth, including information on what, how, and why to enhance the understanding of the mechanisms and the context. The focus lies on innovation-related factors such as innovations' causes, goals, outcomes, obstacles, etc., but also on personal experiences with and opinions on an innovation and its context. Additionally, the case studies are comparative in order to gain information on how and why innovations in a particular hospital are originated, needed, or (un)successfully implemented.

#### **3.1. Interview Sampling**

In order to receive the desired in-depth information on innovations and their context, the interviews were conducted with HR managers of Dutch hospitals. Due to their expected integrative knowledge on all HR-related aspects within the respective organisation, their authority and related participation in decision-making and

development processes, managers were selected as the optimal sample group. In case that the HR manager was not available for an interview, but was interested in the participation in the research, other HR personnel of the respective hospital were invited to participate.

Because of the intentional limitation of the sample, the only selection criteria for hospitals were the status of a general hospital without the existence of a certain treatment-focus, and the geographical positioning within The Netherlands. Factors, such as hospital size, operational region, obtained certificates, or cooperative activities with other hospitals were of no importance within the selection process. General hospitals constitute the biggest health care institutions in The Netherlands, not only because of the high number of care and cure employees, but also because of the great variation of professions. With that in mind, there is a supposedly great need for HR adoptions and intervention in order to manage this great number and variety of employees while coping with various external influencers at the same time.

The participating hospitals were distributed among the three researchers according to the interviewee's agreement, or non- agreement respectively, to conduct the interview in English. Except for hospital D all interviews in this particular research were held in English. In total, four case studies have been performed. The interviews, except for hospital C, took approximately one hour: Hospital A 62 minutes, Hospital B 62 minutes and Hospital D 56 minutes. Hospital C's interview took 48 minutes due to a lack of time of the interviewee. As scheduled respondents from hospitals A, B and C were HR managers of the respective general hospital, hospital D's respondent was the manager of HR Services, a sub department of the overall HR department.

**Figure 2: Mapping of Studied Hospitals**



The above shown figure illustrates the location of the Dutch general hospitals that are studies within this research.



### 3.2. Measurement

By conducting a literature review, exemplary HR innovations have been collected and deliberated. The literature review did not especially focus on sources from the health care sector, but from other sectors also. Widespread and repeatedly mentioned as well as for this specific research potentially interesting information derived from the chosen literature was listed in a table. Afterwards it was individually assigned to the beforehand-defined categories *employment innovations*, *work innovations*, *organisational innovations*, and *additional HR-innovation-related topics* (see *Table 1: Possible HRM innovations resulting from literature review*).

All information that concerned innovations was classified within the first three categories. In case an innovation did not match a single-type-innovation category categories were connected into a multi-type-innovation category. Information that concerned the hospital context, such as innovation barriers, points of criticism, suggested improvements, change requests, etc., were included in the fourth category 'additional HR-innovation-related topics'.

These four generic categories were chosen as they present an adequate summary and coverage of possible innovations, which could be found in the studied papers. These four categories are used as a basis for the open interview with the HR managers. Innovations and topics that the respondents addressed during the interviews were afterwards assigned in accordance with the four categories' definitions. Thus, they were not asked for directly during the interviews but resemble a guideline for possibly appropriate and informative follow-up questions as well as for the subsequent analysis. Separately, each category gives enough scope for the interviewee's personal opinion and contributions. Thus, they do not limit possible findings nor create the possibility for biases through a pre-selection of specific topics or foci. In combination they cover the complete spectrum of the research on HR-related innovations in Dutch general hospitals, as well as their conditions, and success and risk factors. Furthermore, the interviewer's consideration of these categories functions as a mean against digression towards un-related topics. Additionally, the categories are intended to support the data analysis and comparison of findings.

**Table 2: HRM Innovations**

| <b>Category</b>  | <b>Exemplary topics for interviews</b>   |
|--|--|
| <b>Employment innovations:</b><br>Relate to traditional HR functions; concern general employment issues, such as recruitment, training or appraisal                                  | <b>Talent management:</b><br>(e.g. recruitment, selection, retention & dismissal, personal development i.e. training, Skills escalator, waiting time targets, internal employer branding, etc.)                            |
|  | <b>Reward management</b><br>(e.g. variable pay, bonus, etc.)   |
|  | <b>E-HRM</b><br>(e.g. electronic recruitment, etc.)  |
| <b>Work innovations:</b><br>Relate to the design of the work itself, overall working conditions for employees as well as the style of management                                     | <b>Employee empowerment</b><br>(e.g. employee participation in managerial decisions, promotion of an empowerment-based management style, employee voice, employee involvement, idea generation for changes, etc.)          |
|  | <b>Management</b><br>(e.g. management responsiveness, etc.)  |
|  | <b>Job design</b><br>(e.g. team development, empowerment, job enlargement, job enrichment, job rotation, job simplification, job crafting, etc.)   |
|  | <b>Working conditions</b><br>(e.g. stress reduction, healthy food in the canteen, organisational kindergarten, free drinks, fruit baskets, sport activities, staff associating, discounts, staff shop, etc.)               |
| <b>Organisational innovations:</b><br>Have a broader context and impact and concern a greater part of the organisation, such as restructuring programmes or the sharing of knowledge | <b>Culture</b><br>(e.g. Employee voice, through training, etc.)  |
|  | <b>Strategic position HRM</b><br>(e.g. internal marketing, increase of strategic influence / power position, etc.)   |
|  | <b>Communication</b><br>(e.g. cooperation with other healthcare institutions, academic hospitals, employer branding, Internal communication<br>(e.g. knowledge sharing, knowledge brokering, Talent management pool, etc.) |
|  | <b>Digitalization</b><br>(e.g. patient files, no paper, etc.)  |
| <b>Additional HR-innovation-related topics:</b><br>Such as success factors, triggers, opportunities, threats, etc.   | <b>Barriers</b><br>(e.g. money, amount of projects, employee participation, etc.)  |
|  | <b>Causes</b><br>(e.g. internal, external pressure, etc.)  |
|  | <b>Cooperation vs. Competition</b> with other hospitals  |

### 3.3. Data Collection

After the compilation of all hospitals meeting the selection criteria, contact information, such as name, phone number, postal and email address of the responsible HR managers of 66 hospitals were collected via telephone inquiries. Afterwards, participation request letters were sent out to the gathered addresses. Unfortunately, telephone contact with the HR managers or respective secretaries revealed that approximately 90% of the letters did not reach the recipient. In this case, a digital version of the same request letter was sent via email to the adequate address. By repeated telephone contact, interest in research participation was inquired and eventually interview appointments were made. The allocation of the appointments among the members of the research team was mainly determined by interview language possibility (English and Dutch), location-preference criteria, as well as the objective to get an equal distribution in terms of quantity of conducted interviews.

The interviews were scheduled with one and a half hour. They were on-location so that personal and face-to-face interviews were possible. It also simplified voice-recording, which was necessary for the transcription process.

Each interview started with an introduction of the research topic, the researcher, as well as the interviewee. The introduction question concerned the personal understanding of 'innovation' in order to ensure an equal definition of the term for the researcher and participant. The further course of the interview was dependent on the individual interviewee's information contributions.

### 3.4. Data Analysis

"Qualitative research methods involve the systematic collection, organisation, and interpretation of textual material derived from talk or observation" (Malterud, 2001, p. 483). The first step after the conduction of each interview was the written transcription of the voice recording, which was afterwards sent to the respective interviewee. This process represents a member check, a quality control process with which the participant "receive[s] the opportunity to review [his] statements for accuracy" (Harper & Cole, 2012, p. 510). This improves the accuracy, credibility and validity of the recorded interview and consequently decreases the possibility of falsified data and its eventual interpretation (Harper & Cole, 2012). After the reception of the verified transcripts, each interview's content is anonymously sorted alongside the four generic categories (*employment innovations, work innovations, organisational innovations, and additional HR-innovation-related topics*). So the generation of a quick overview on the specific innovations in each category and the comparison of findings is possible. This helps to conduct individual analyses for each respective case, as well as a cross-case analysis to understand differences between hospitals. The manual sorting and analysis of the collected non-numeric data is considered as adequate as the variability in the contents and the choice of words used by the participants is expected to be great and inconsistent.

Information on the particular hospitals and interviewees is not disclosed in this research report so that all information is treated anonymously as well as confidentially. In special cases, full interview transcripts are available upon request.

### **3.5. Reaching Validity**

“The purpose of qualitative research is to describe or understand the phenomena of interest from the participant's eyes, the participants are the only ones who can legitimately judge the credibility of the results” (Trochim, 2006). All respondents of the interviews actively work in the specific field (namely in the HR department of any specific Dutch general hospital) and are therefore able to clearly understand the subject matter as well as all related factors. They are able to formulate own opinions and take positions concerning sector trends, interventions' success, etc. Furthermore, all stories told have been confirmed by the interviewee him-/herself, as written interview transcripts have been sent to and verified by each respective respondent and, thus, a member check has been performed in every case. For these reasons the *internal validity* (credibility) of this research is high.

However, the *external validity* (transferability) is low as there are many threats related to this research, which mainly concern people, place, and time. More specifically, these are personal views as well as opinions, and current situation of the hospital such as geographically or regionally isolation, cooperation vs. competition with other hospitals, reorganisation or fusion, availability and allocation of resources, or downturn. All these factors lead to the fact that the setting within each research sample is unique so that findings cannot be generalised to a wider population. For these same reasons, the research cannot be conducted twice with the expectation of finding similar results. The chosen research form of unstructured and open interviews, the inclusion of personal opinions as well as experiences, and the changes of interview sample settings and environment lead to a low *dependability* of this research. Additionally, the level of conformability is rather low as no external audit of the research has been performed, which creates a high potential for possible biases and distortions by the researcher during the data collection and analytical process.

## 4. Findings: HRM Innovations

The following part describes and summarises findings collected as a result from the conduction of several interviews with HR managers. These findings are presented according to the four generic categories *employment innovations*, *work innovations*, *organisational innovations*, and *additional HR-innovation-related topics* (such as success and risk factors, present as well as future opportunities and threats).

### 4.1. HRM Innovations In Hospital A

*Hospital A* is located in the province South Holland in the Midwestern Netherlands. It occupies 390 beds, and employs approximately 1,550 employees (whereof 1200 work full-time), 110 specialists, and 200 volunteers. The hospital belongs to the SAZ and is thus categorised as a comparably small hospital. Its vision is to be recognised and experienced as a reliable and trustworthy hospital by patients. The HRM department encompasses approximately 20 employees that are subdivided into an academy ('leerhuis'), persons in charge for labour conditions, and HR advisors. Labour conditions responsibilities entails tasks such as the furnishing of offices and wards with table and chairs. HR advisors mainly concern themselves with general advices about personnel matters and represent contact persons for employees in general. The academy represents the biggest part of the HR and is responsible for educating and training employees.

In terms of employment innovations, the hospital found an innovative solution to encounter high costs arising from hiring temporary workers as in for example times of an insufficient nurse availability or high level of sickness leaves. HR was facing the situation that commercial parties enticed away nurses from the organisation and then offered their re-employment with additional costs.

*"There were many commercial parties who did direct search, and people went away from the hospital. And then you could hire them back from the same organisation. The same employee you hire back but with plus 20%, 40%, 50% extra costs. So we didn't want that."*

The solution was the creation of a buyer power by developing and implementing an organisation ('MATCH'), which arranges the employment of such temporary workforce. As soon as the hospital becomes aware of a temporarily missing position, MATCH is informed about all specifications, which then again opens an inquiry to appropriate commercial parties. Consequently, a price competition for every needed position is created as commercial parties quote their services with decreased prices in order to obtain the contract. Apart from the decreased cost for the hospital to employ temporary workers, this innovation has another benefit according to the hospital's HR manager:

*"We were more effective in the measurement of 'how many people do we need?'"*

The interviewee states that threats related to temporary workers for missing positions are not as high as before, because situations in which the hospital is short of nurses or other practitioners due to sicknesses or comparable reasons decreased.

Due to the analysis of HR data, hospital A's HR manager became aware of another problem the hospital was facing:

*"Our sickness rates rise a little every year, and our personnel costs rise a little every year, but at the end it's too much to handle so you must [react]. I found out that we have a problem of people who are 60 years old with a large contract they were more often sick in the year."*

According to him, these older employees with a large contract (i.e. employment until the age of 66) seem to have a greater problem with the performance of their tasks, and additionally had increased private responsibilities such as caretaking for grandchildren. Furthermore, they have a higher sickness rate, and work less hours and are more expensive per hour compared with current contracts because of their existing contracts.

*"So I saw a problem that would grow in the next years. It wasn't a problem yet, but if we want to prevent that it will be a problem, we will have to find something out, a solution."*

The development of a new (voluntary) employment contract was found to be efficient. This contract allows older employees to work half time while getting paid 75% of their usual wage. The remaining 25% are used by the hospital to hire younger employees, who the hospital perceives as more effective, are paid less, and have a lower sickness rate as well as less holidays. The manager is convinced that this business plan provides results, which are expected to break even, and in the long-term even have a positive outcome as money is earned instead of being spent. It is exemplary for a solely employment innovation.

An additional innovative approach is the handling of doctors in the intended case of a merger between two hospitals, which constitutes an example for an overlap of an employment and work innovation. The doctors were planned to form their own "doctors' company" and work for both hospitals.

*"That situation [would be] even more difficult than now. Because when the doctors work for two hospitals, they don't have any loyalty to one hospital, so it was a difficult issue."*

The proposed conclusion from the HR manager for this issue is that each hospital directly employs a certain number of specialised doctors (neurologists, paediatrician, etc.), who then are responsible themselves for choosing and hiring general doctors, such as surgeons from the "doctors' company". The hospital believes that employed doctors are loyal to the hospital because they are paid by it directly, so they are assumed to choose appropriate and good general doctors. With this practice it addresses the objectives of high quality treatment as well as loyalty towards the hospital. As the merger of the two hospitals was carried out, the described approach was not pursued.

Being part of a national programme, hospital A has an extra budget of one million Euros for the next four years starting this year. Apart from spending it on clinical- and technological-related collective programmes, half of the money is spend on the employees. Each employee is given a personal budget, which he or she can use for any project desired.

*“They may choose themselves what they want to do with that money. Lots of companies do that for years. But in a hospital it was a revolution.”*

HR advisors are advised by the HR manager to engage in the employees’ suggestions for budget usage by scrutinising and discussing their choices instead of directly rejecting them. As per the manager, finding out the reasoning behind the choices is one of the programmes objectives according. Another one is further education for employees. Additionally, not only employee voice and empowerment, but also especially the level of trust within the organisation should be increased. This example of a combination between employment (management training and employee development), work (employee voice and management responsiveness) and organisational innovation (culture and trust strengthening) goes hand in hand with the HR manager’s belief in self-responsibility and trust in each other.

*“I think that if you can make people act more responsible by giving them responsibility, they will take responsibility in their job. And when we want people to [...] act more responsible, we have to learn to trust them. [...] Its about how we work together, about our roles, about responsibility, about motivation, that kind of things.”*

A work and organisational innovation related programme was performed a few years ago.

*“We wanted to do something about how people work together in the hospital. That was one goal. Second goal was [to find answers related to] several questions about what is our strategy as a hospital. And the third was, we have leadership in the hospital, how do we want to develop leadership?”*

Instead of facing and treating each problem separately, the hospital found an innovative way to combine all three matters in one programme. All managers, whose responsibilities lie within the cure sector, were given the same question: ‘How is cure organised in 2020?’. Their task was to compile a proposal for the hospital on how it should organise cure within the organisation. The managers were given facilities and coaches, but there were further indications on the matter of the question.

*“[However] we said as a warning in advance ‘we want to give you one warning: don’t forget the other stakeholders’.”*

The interviewee notes that while the managers otherwise were always only cooperating in cases of operational problems and were focused on their own department and ward, they now actually had to firstly communicate and work together. Secondly they had to develop new knowledge, and especially thirdly receive an understanding on stakeholders and other departments.

*“And maybe that was the most important thing: not only managing top-down your own department, but the consciousness that everything you do or change in your processes has consequences for your neighbour.”*

The implementation of the programme revealed that the managers performed stakeholder analyses, and talked to other employees and managers out of their own initiative which resulted in the proposal to implement changes in the philosophy as well as decision making structure of the hospital.

Hospital A is part of a large cooperation between hospitals in the province of South Holland. The cooperation entails approximately twenty cure and care organisations, including general, academic and specialised hospitals. They cooperate on various personnel matters, such as communication with the labour market, employer branding, education of specialised nurses, and sustainability. For the latter two, hospital A's HR manager collected information on the availability and amount of specialised nurses within the association's hospitals. This information concerned the numbers of currently employed specialised nurses, the numbers of those that will leave this year, as well as the numbers of those that were send to school. After using this information to calculate the success ratio of specialised nurses that were send to advanced training programmes, it was possible to develop forecasts for the number of nurses that needed to be send to school in order to have an adequate and sufficient number of specialised nurses. This innovative analysis was performed for all functions within the organisations that were considered as unique. The HR manager remarks that it enables the hospitals to have an overview on the current as well as long-term level of specialised nurses to encounter bottlenecks or understaffing. This type of forecasting mainly presents an employment innovation as it is concerned with the planning of staffing. However, it also partly represents an organisational innovation due to the close cooperation with other hospitals.

#### **4.2. HRM Innovations In Hospital B**

Hospital B is located in the west of The Netherlands in the province North Holland. Its present status and structure is the result of a recent fusion of two neighbouring hospitals. It has approximately 920 beds, employs around 5,600 employees, and 330 specialists. It belongs to the STZ, and therefore is one of the big, top clinical hospitals in the country. Its vision is to be regarded as a hospital in which the best medical treatment and operations go hand in hand with extraordinary hospitality. They want to be recognised as an organisation that inspires people to develop and perform at their best possible. The HR department at present consists of approximately 80 employees, who are organised in four teams. Employees of the service team are in charge of all back office related tasks, and the HR C&CC (capacity and career planning) team are employees are working flexible. The third and fourth team are HR health, and HR advice and developing.



The hospital intends to introduce an App, which digitalises the majority of HR processes. It enables that each process related to recruitment and selection, rewarding, and development could be accessed via a tablet or smartphone. The usage of this App is also possible for managers throughout the entire hospital, and not only limited to the HR employees.

*“As a department manager you can start any HR process of searching for a new employee, raise salary, change job descriptions, change wards, etc.”*

During the interview it became apparent that the hospital expects that changes and personnel requirements can be handled as they occur without any delays emerging from chains of reporting and differenced in areas of responsibilities. According to the HR manager of hospital B, the introduction of this self-service App is a natural reaction to the changing environment. Additionally, she notes that even though many people are probably not used to make use of these digital devices and process, and might find it more convenient to discuss personnel matters face-to-face with the employees of the HR department, digitalisation in all areas and of the majority of processes is anticipated in the long-term.

*“HR is more and more losing their paperwork and is becoming digital, more automatic and more standardised because of the digital surrounding.”*

The implementation demonstrates a combination of employment and work innovation as on the one hand employment issues are affected, and on the other hand managers' jobs are enlarged by increased tasks and responsibilities through the provision of access to the application's content.

Another project, which was developed by the HR department, is the SPP project – the Strategic Personnel Planning project. The instrument is a questionnaire, which team leaders need to fill out, and contains various questions related to each particular team. Exemplary questions of the questionnaire concern the possibility of foreseeable future changes, staffing needs, and the current organisation of the team. The instrument is then used for staffing budgeting for the next coming year.

*“It really works to see what [is needed] - now and in the future [...]. You can predict a kind of scheme”*

The instrument is regarded as very effective and advantageous by the HR manager even though it is not working as well as anticipated. According to her, the main reasons for this are that the completion of the questionnaire is very time-consuming and requires planning and forecasting abilities.

*“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 [...].”*

In order to support the managers, HR advisors are encouraged to talk to the managers and team leaders, show them how the questionnaire is filled out, and convince them of its benefits by explaining the principle and advantages of forecasting. Problems, such as

the current personnel requirement of a hundred nurses at once are expected to diminish by performing a well-elaborated forecast. Again, it is an example for an employment-and-work innovation as it affects recruitment, training, and job enlargement.

The interviewee noticed that due to the recent fusion and changing environment, many employees are overwhelmed and uncertain about the organisations present and future operations. The hospital launched two cultural programmes, which attend at reducing the employees' anxiety. Both programmes show an overlap between employment and organisational innovations as they both aim at training their staff to improve internal communication and to build a culture, which is more open for changes.

*"The changes [that result from] the fusion are really a big deal. People might be afraid to loose 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?'"*

The first programme was for the managers within the organisation, who were hierarchically located right under the management board. They were given a one-and-a-half-year training on leadership, covering topics such as communicating with subordinates, anticipating and coping with the present situation as well as changes, managing efficiently, and making business cases. As the interviewee stated, the training aimed at encouraging and supporting managers in their leadership skills so that especially in consideration of the fusion they can explain and talk about the coming changes with their subordinates.

*"We now have a new mission and a new vision of who we are and I think that should be one of the things you just discuss with your team. What does it mean for our team and how do we want to work if this is what we are?"*

The second programme was organised in cooperation with two representatives of Radboud, who are experts on the context of innovations in the healthcare sector. Employees of all kinds were invited to attend workshops on current developments in the health care sector. These workshops addressed changes in health care sector such as new technologies or practices, and their consequences for the work in this sector. According to the HR manager, many people who are employed in the health care sector are usually working there for a long time. They are used to their surrounding and the field of activity, which complicates the implementation of changes. The realisation of this programme aimed at making employees think and talk about changes in general in order to still their fears, and to create an understanding for the implication and possible benefits for on the one hand the organisation and on the other hand the individuals themselves.

Furthermore, HR advisors encourage and help employees to talk about their fears and needs with supervisors in order to evaluate and possibly negotiate on employer and organisational desires.

### 4.3. HRM Innovations In Hospital C

Hospital C is located in the province of Overijssel in the east of the Netherlands. Approximately 3,700 employees and 235 specialists are employed by the organisation; and 1,070 beds are available, which makes it one of the big hospitals in the Netherlands (category STZ). Its core mission is to promote the health of the inhabitants of the region by providing them with local general and topclinical specialist medical care, education and research. It wants to be recognised as a safe environment for patients, visitors and staff and thus invests in (clinical) leadership and the creation of a culture that contributes to continuous improvement and the reduction of risks to the patient. The HR department currently consists of 60 employees.

The organisation currently is in the stage of development of a reconstruction programme. For the HR department the reconstruction plan implies the entire redesign of sub departments and functions as well as the digitalisation of certain HR processes. The first step of the plan is the dismissal of twelve full-time employees, whose functions in the course of the programme will not be needed any longer in their current way. The hospital's HR manager explains this on one the one hand by referring to the implementation of a digital programme, which affects the regular HR processes from on boarding to the release on an employee. Each employee has a digital file that includes all personal information. In case of changes in the working contract or reimbursements of expenses, an employee's direct supervisor is now able to digitally apply for the transaction of the changes, which is then checked and realised by the HR administration officer. Restating the HR manager's opinion, the implementation of this digital programme reduces the processing time, but also makes the use of those people, who were manually responsible for this process unnecessary. As mentioned on the example of hospital B, such a digital programme demonstrates a combination of employment and work innovation.

On the other hand the reason mentioned during the interview for the dismissal of the employees is the HR manager's ambition to make a greater use of internal and external networks, so that certain responsibilities and tasks can be passed to other actors inside and outside of the hospital.

*"I think it is important that HR changes from knowing everything yourself or having the ambition to know everything yourself, [to trying] to be the director of knowledge. So we don't want to do it ourselves, but we have to know where we can buy knowledge for the problem we want to solve."*

During the interview it emphasised that the construction of such a network is thus one of the goals of the reconstruction plan. Here possible cooperation with service providers, such as cultural or educational programmes is anticipated, but also the participation in professionals' or specialists' networks, such as a network of regional HR professionals. Furthermore, HR advisors for certain business units are instructed to connect among each other, so that an internal network can be built up. However, in the HR manager's opinion one important aspect with regard to networking in general is that information and knowledge should not be simply collected, but that it needs to be an exchange, a

give-and-take in order to be efficient. According to the interviewee these competences are mostly not present yet and thus need to be developed, currently through conversations and discussions. The development of such a network shows a work-and-organisational innovation, as HR advisors are challenged through an increased range of duties and responsibilities, and the internal and external communication is targeted. Once the dismissals of HR employees are realised, the remaining employees should be reorganised in different sub departments, with rethought priority areas and functions. For this, employees will have to fill out an 'inside profile' questionnaire, which grants an overview on the individuals' preferences, behaviour and comfort zone. During conversations the HR manager then expects to get an understanding on their competences, and thus, on their optimal function within the HR team. With this work innovation the interviewee aims at increasing the employees' work-related self-confidence to motivate them to become more efficient in their job, to become more eager to demonstrate their competences, but also possibly to realise the need for a change in tasks and responsibilities. She states that eventually it should increase their understanding on their individual value for the organisation, their contribution to the overall performance of the hospital.

*"And that is the connection I see with innovation: adding value. But people have to do it. And HR can never be the example in the organisation if you don't know how to do it yourself, that is basically my motivation. [...] And maybe people cannot change themselves, but people can get aware of the fact that the organisation needs a different approach. And for me its important for people to see that maybe they are not in the right place."*

The interview revealed that the ultimate goal of the implementation of the HR restructuring plan is the recognition of the HR department of something more than solely an administrative and processing department. According to the HR manager this can only be possible when the strategy, goals and processes are aligned, when communication and cooperation within the team is efficient, and when the roles of individuals are clearly defined and adjusted to the objectives and strategies. She believes that the workflow of traditional and repetitive task should be automatic and well executed; employees should have deep knowledge on their work field and should be able to solve problems by themselves or with appropriate external support. She is positive that once this is achieved as a status quo chances are good to increase the strategic importance of the HR departments within the overall organisational frame by contributing to the productivity of the hospital.

*"I don't think that HR has been able to show what it can do in an organisation. I think that the managers look at HR mostly as an administrator [...]. So I think the organisation and managers don't know what it means if you have a high quality HR service and what it can add for instance in learning, development, cultural change, talent development, [etc.], but also by being a partner in primary processes. They don't know that here. They are not seeing HR in its capabilities."*

The HR restructuring plan is therefore regarded as an innovation, which overlaps all three types of innovations.

#### 4.4. HRM Innovations In Hospital D

Hospital D is located in the biggest province of The Netherlands, Gelderland, which is in the central eastern part of the country. It consists of four locations and is included in the STZ. Each location has its own profile and role of providing care for the region. Currently the hospital occupies approximately 1,000 beds and employs around 5,500 employees and 250 specialists, both often working in multiple locations. HR responsibilities are separated in two parts: the board of directors has corporate staffs, which includes a small piece of HR, which is mainly involved in policies making. The other part of HR is included the shared service organisation, a collaboration between all shared services (facilities, IT, finance, HR service), where HR is responsible for all other HR activities and the support of care units and management. However, currently there are concerns whether this separation should remain or whether it should be merged in one single HR body. Reasons for this are for once arising difficulties from the separation of HR-policy-making responsibilities from all the remaining involved responsibilities, and the overly large number of corporate staff within the board of directors (40 people), which should be reduced to one fourth.

The HR department within the shared services consists of 60 employees, whereof ten employees focus solely on strategic policy, working conditions and health, and five employees function as HR advisors for the 80 heads of operational issues within the organisation. It operates from one location, but is responsible for all four locations. Hospital D's HR department sees the heads of departments of the various operational fields and the internal employees are their clients and thus work according to the following vision:

*"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 HR vision is composed of the three big topics sustainability, self-responsibility, and flexibility of employees.

Sustainability is here regarded as one of the biggest innovations. According to hospital D's HR services manager employees should constantly continue learning and are never fully trained. Even though when an employee performs well in his job, and is confident in and likes it, he should not rest but should keep on expanding his professional knowledge. For this courses and professional development trainings, whereof 60% are e-learning courses, are offered, where 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."*

The interviewee describes the expected aim of increasing and broadening the employees' professional knowledge level is to increase flexibility, so that especially

nurses and medical professionals are able to perform a wider range of tasks and step in e.g. in case of absences due to illnesses. He underlines that this is especially important for hospital D, as it comprises four locations with different medical fields, thus treatments and subsequent services. Increasing flexibility of employees is not only approached through continuous learning, but also through a range of other programmes and changes within the hospital.

Job crafting (a work innovation) is used to narrow areas of responsibilities. Thus, for example, one specific care job is divided into three smaller jobs, where the level of knowledge in order to perform the job is comparably reduced. According to the interviewee it is easier for employees from another field of activity to take on this specific job, so that the goal of increasing the level of flexibility has successfully been achieved.

Furthermore, the eight-hours-day concept should be abolished and instead a new working concept should be implemented:

*"You have to work when there is work"*

This plan contains that in the mornings from 7 to 10 o'clock a higher number of medical personnel should be on the wards, as the mornings tend to be busy. On the contrary, the hospital noticed that between 11 and 16 o'clock work is less so that the number of working employees should therefore be reduced as well. Additionally, the flow of employees should increase: young people, who leave school, to come to work in the hospital should perform the majority of jobs, and elderly people should do lighter work on the ward. The HR manager states that this concept aims at increasing efficiency and flexibility. At the same time he notes its implication on working contracts, which need to be adapted, resulting in smaller contracts. Therefore, it is exemplary for a combination of an employment and work innovation.

*"We are increasingly becoming a high tech hospital, many people stay a shorter period in the hospital. It is part of the care that education is well aligned. Nevertheless, we are also just a production facility and therefore the production and allocation of staff should be properly linked together (flexible allocation of employees: more staff during busy periods, fewer employees when to be performed less work, flexibility between departments)."*

The third programme, which is aimed at increasing flexibility is called "Slimmer werken" ("Work smarter") and applies to the administrative workers within the hospital. It is a pilot project, which approaches reducing the number of physical workplaces. The interviewee remarks that employees responsible for recruitment are mostly with the client, i.e. the heads of the various departments, thus they do not need a permanent workplace in order to perform their jobs.

*"Why do people have to sit here on the twelfth floor when they could also work at home for one day? Why should everyone have a permanent workplace? Facilitate them with a good iPad or laptop and let them work where they should be. And we can save money on accommodation."*

He states that this concept enable employees be more flexible in their work, as they can work onsite (i.e. directly with the client regardless of the location) with flexible working hours. It is an example of work innovations, as the design of the employees' work is affected and employee empowerment is supported by given individuals' the choice of where and how to perform their job. The "Slimmer werken" project has already started, but according to the manager still needs further development in order to be fully operational among the shared services. However, employees approve of this concept and are eager to support its finalisation.

*"This project has just started and [we consider it as] the three B's: 'bricks' (the place where you are), 'bites' (the support of ICT) and 'behaviour' (the culture and behaviour of the employee). And those components need to be filled."*

The interview revealed that hospital D regards self-responsibility as very important, and therefore the organisation intends to shift more responsibility from managers and superiors on to the employee. This results in the need for a cultural change, so that employees do not only accept but also strive for a higher level of self-responsibility. Since two years hospital D offers MD programmes (management development programmes - an employment-and-work innovation), where superiors of various levels and operational areas learn to gain trust in their employees. One exemplary mean is here that they increase their trust by leaving the planning of working timetables to the employees themselves - a new concept, as the planning was previously done by one person. This timetable-planning project is exemplary for job enlargement and thus, represents a work innovation.

Furthermore, since one and a half years the HRM employees' level of passion for their work is targeted. A work innovation concept supports to identify where each individual employee is good at and what he likes to do. As per the interviewee, as a result satisfaction is intended to increase, resulting in higher efficiency, greater creativity and potentially new ideas.

*"And when people come with new ideas, in any case they have thought about them. Then at least give them an afternoon time to work out theses ideas better and then get started. Don't directly push aside ideas, because after the second time the employee will not come any longer."*

Hospital D identified young leaders and managers within the organisation as most promising related to innovative thinking and working. Thus, they have implemented a talent management programme (employment innovation) for this specific group of employees. They are offered workshops and team projects, where the individuals' talents are worked out and further developed, so that they can quickly be introduced to appropriate vacant jobs within the hospital. The interviewee declares that instead of searching externally for somebody suitable, the hospital rather 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'."*

In order to reduce costs, since the beginning of this year the HR department implemented a new control model, which entails that clients do not make use of the departments services by naming a certain budget, but that the client names specific needs. The costs for these needs are then calculated by the HR department and send to the client as an invoice for approval. According to the HR manager, this provides that what is done and paid for is only exactly what the customer really needs, and that there is no pre-determined budget that is completely made up for things that are not needed. As this control model affects the entire organisation it can be categorised as an organisational innovation.

#### 4.5. Summary of Findings

In order to support the further analysis the following tables illustrate the distribution and content of the HRM innovations. The above-identified innovations were categorised and counted according to type (single-typed or combined innovation), as well as the hospital they were detected in. Table 3 summarises the distribution of innovations that became apparent after the performance of the four case studies. Table 4 illustrates the identified HRM innovations by summarising them shortly.

**Table 3: Distribution of Innovations Among Studied Hospitals**

| <b>Innovation Type</b>                | <b>Hospital A</b> | <b>Hospital B</b> | <b>Hospital C</b> | <b>Hospital D</b> | <b>Total</b> |
|---------------------------------------|-------------------|-------------------|-------------------|-------------------|--------------|
| <b>Employment Innovation (EI)</b>     | 2                 | -                 | -                 | 2                 | 4            |
| <b>Work Innovation (WI)</b>           | -                 | -                 | 1                 | 3                 | 4            |
| <b>Organisational Innovation (OI)</b> | -                 | -                 | -                 | 1                 | 1            |
| <b>EI + WI</b>                        | 1                 | 2                 | 1                 | 2                 | 6            |
| <b>EI &amp; OI</b>                    | 1                 | 2                 | -                 | -                 | 3            |
| <b>WI &amp; OI</b>                    | 1                 | -                 | 1                 | -                 | 2            |
| <b>EI &amp; WI &amp; OI</b>           | 1                 | -                 | 1                 | -                 | 2            |
| <b>Total</b>                          | 6                 | 4                 | 4                 | 8                 |              |



**Table 4: Summary of Innovations in the Studied Hospitals**

| <b>Innovation Type</b>                | <b>Hospital A</b>   | <b>Hospital B</b>   | <b>Hospital C</b>  | <b>Hospital D</b>  |
|---------------------------------------|---|---|--|--|
| <b>Employment Innovation (EI)</b>     | <ul style="list-style-type: none"> <li>• IT-tool to match hospital needs of specialists with temporary labour market ('MATCH')</li> <li>• (Voluntary) employment contract with reduced working hours and wages for older employees</li> </ul> | -   | -  | <ul style="list-style-type: none"> <li>• Mandatory professional development trainings</li> <li>• Workshops and team projects for young leaders within the hospital</li> </ul>  |
| <b>Work Innovation (WI)</b>           | -   | -   | 'Inside profile' questionnaire to detect preferences and competences of HR employees | <ul style="list-style-type: none"> <li>• Job crafting</li> <li>• "Slimmer werken" to reduce physical workplaces and increase flexibility</li> <li>• Self-planning of timetables</li> </ul>                             |
| <b>Organisational Innovation (OI)</b> | -   | -   | -  | Control model to reduce unit costs for HRM services  |
| <b>EI + WI</b>                        | Specialist doctors themselves are responsible for recruiting general doctors  | <ul style="list-style-type: none"> <li>• Self-service App for recruitment, development and rewarding processes</li> <li>• Strategic-personnel-planning tool to forecast the staff budget</li> </ul> | Digitalisation of HR processes with increased self-service possibilities             | <ul style="list-style-type: none"> <li>• New working concept relating to core working times and the distribution of tasks to increase efficiency and flexibility</li> <li>• MD programmes to increase trust</li> </ul> |
| <b>EI &amp; OI</b>                    | Uniform forecasting   | • Communication and strategic   | -  | -  |

|                             |  |   |   |   |
|-----------------------------|--|---|---|---|
|                             | system for specialised functions within the cooperating hospitals  | alignment training for managers<br>• Radbound workshops on health care sector trends for the entire workforce |   |   |
| <b>WI &amp; OI</b>          | Passing on the development of the hospital's strategy to managers  | -   | Internal and external network development                             | - |
| <b>EI &amp; WI &amp; OI</b> | Personal budget for each employee, which can be used for any choice. HR advisors should discuss choices with individuals to strengthen trust | -   | Reconstruction programme, reorganisation of departments and functions | - |

Overall it is noticeable that there is a dominance of multi-type innovations over single-types. The majority of combinations consist of two types of innovations, the number of innovations, which combine all three types of innovations is low. Among two-type innovations, employment-work and employment-organisational innovations prevail.

When comparing the distribution among single-type innovations, it becomes apparent that the majority is work-, or employment-related. They support job enlargement of employees, and increase the managements' responsiveness, or focus on recruitment, training and contracting respectively.

Furthermore, the majority of organisational innovations are related to cultural programmes. The strengthening of self-responsibility and trust among employees seems to be one of the greatest goals of the studied hospitals. By increasing the level of these two employee personality characteristics, HR managers hope to increase the overall efficiency and creativity of the individuals. The increased level of high-tech, resulting in faster health care service provision, mainly explains the necessity of this. The demands of patients towards hospitals are changing and patients have a shorter stay at the hospital, thus, the work of nursing personnel and doctors are changing as well. It is therefore important that employees are aware of their own and co-employees' responsibilities, and that managers of all levels trust their employees' abilities so that

the level of performance does not suffer in hectic times, but that employees are flexible and can help out. In order to achieve the goal of increasing self-responsibility of employees and trust of managers, hospitals A and D offered specific programmes for leaders, while hospital A launched a project, where the managers themselves – solely with the support of their employees - were responsible for the outcome.

It is interesting to note that almost each one of the four studied hospitals complained about the lack of communication between the different work fields and managerial levels within the respective organisation. On the ward level, especially the communication among the different wards was exposed to be among the biggest problems. On the supportive service level not only the communication between departments, but also within departments was sometimes criticised. In the first case, the result was that ward managers were not aware of the consequences their actions and choices had on the other wards. In the second case, the responsibilities were not always clearly defined but pushed back and forth among the different service providers, and employees (e.g. HR advisors) solely had knowledge about their own client (i.e. a specific ward or medical field) but not on others.

With regard to an increased need of communication and trust among employees it is interesting to note that all HR managers came from a different professional background, which are all not related to the health care sector. Interestingly, this goes along with hospital B's notation that more and more management from other industries are entering the health care system. This is a positive fact as these managers are often more used to receiving and giving feedback, whereas the health care sector tends to be too caring, too accommodative, too non-confronting. They represent an opportunity to honestly determine matters that go well and matters that need to be improved or changed.

The clash of generations within hospitals extracts to be a main concern for HR managers. This is mainly due to two reasons. Firstly, hospitals change to be more and more high tech hospitals and require increases flexibility, and secondly older employees are associated with high costs.

Due to the increasing progress and implementation of high-tech tools and processes in all various operational areas, employees do not only need to adopt, but also adapt to associating changes. This requires the acceptance of new situations, which seems to emerge as a great challenge within the studied hospitals. Older employees, which represent a comparably high percentage of the hospital staff, seem to both lack knowledge as well as comprehension on how to make use of these new opportunities, or they are reluctant to accept their usage. Reluctance is mostly caused by uncertainty about the changes that come with high-tech implementations and their potential benefits, but also especially more likely because of uncertainty about the specific impacts on their own professional environment and their anxiety of possible dismissals. Hospitals B and D reacted to this challenge by offering programmes to leaders within the

hospital with which they learned how to communicate with their employees, and how to take them their uncertainties and anxieties and make them aware of possible gains and facilitations that come from pursued changes. Hospital B additionally offered workshops for employees of all operational levels to teach them about health care sectors developments and their associated impact on the work in this sector.

The second concern of HR managers of Dutch general hospitals related to the ageing staff is the connected increasing costs. For once, managers notice that older employees are more often affected by illnesses and thus increase the level of sick leaves within the hospital. Sick leaves imply continued payment of wages and loss of sales (i.e. treatments) apart from mentioning disturbance of workflows and possible costs for training of stand-ins. The second matter of expenses is that the older employees mostly have a former contract with the hospital. Compared to new contracts these include a higher hourly wage, less hours of work and more vacation days. From the case studies it can be seen that the ageing of staff is well observed and that there are different approaches to oppose this challenge. Hospital A offers voluntary contract modifications to its older employees, which specify 75% of the previous wage for 50% of the work. In contrast, hospital C changed its organisational regulations from protecting older employees from dismissal to releasing all employees who do not work appropriately and efficiently. The approaches to react to ageing staff are very different. Even though hospitals are aware of the challenge that ageing staffs constitute it is noticeable that they do not have fully elaborated means to approach this matter, yet.

A further important notation should be taken on the fact that all four studied hospitals are not occupied in outsourcing of any of their HR responsibilities. All HR-related service provisions are performed internally, except for in some cases utilisation of organisational associations. These associations of hospitals can either be locally close to each other or spread across the country. The studied hospitals, which are part of associations that operate in the same region, support each other in times of insufficiencies of staff, communicating with the labour market, or share knowledge on professional matters. Locally dispersed association members were found to mainly cooperate on improvements of medical procedures, but also discuss and share ideas on supporting service matters such as ICT or HR. Furthermore, hospital C mentioned regional networks as an important opportunity to share and accelerate knowledge and ideas which then can be used for the own organisation.

To put it in a nutshell, the overall distribution of single and combined innovations is not even, there is a greater existence of multi-type innovations. The majority of combinations consist of two types of innovations, whereas three-type-combinations are rare. The overlaps mostly include employment innovations, whereas single-type innovations are mainly work innovations.

Furthermore, the performed case studies on the four Dutch general hospitals suggest that there is a marbled level of innovativeness related to HR within these specific types of organisations. Hospital A and D can be regarded as more advanced in their openness for innovations, whereas hospital B and C seem to be restrained by the traditional

thinking of hospitals, even though the HR managers seem to be aware of challenges and opportunities and are willing to approach them. Challenges are widely identified as the lack of communication within the organisation, as well as the ageing of the staff and the therewith-associated difficulty of handling the advanced automation and usage of technology. This same advanced automation and technology is at the same time regarded as an opportunity for hospitals to increase their efficiency and to simplify processes within various operational areas. The second opportunity, which was mentioned in each hospital, is the strengthening of self-responsibility and trust among all organisational layers in order to increase flexibility, efficiency and creativity. These latter three characteristics are seen as very important and desirable, in order to be able to operate efficiently and with the ability to react to the changing hospitals environment.

## 5. Cross-Case Analysis

The following chapter's first paragraph analyses the occurrences and contents of the various types of innovations. They are examined individually as well as in combination with other types. It is followed by the analysis of possible influencers of the level of innovativeness of the four studied hospitals. For this purpose, Corral's (2006) study on influencers of innovative behaviour of organisations is introduced and used as a basis for the analysis. 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. This way possible conclusions on innovation triggers and requirements can be drawn.

As mentioned before, there is a higher number of innovation combinations than single-type innovations. There are low numbers of innovations that combine all three types of innovations. Only hospital A's '1-million-€-extra-budget' project and hospital C's organisation-encompassing reorganisation programme have been identified as a combination of employment, work, and organisational innovations. The majority of combinations consist of two types of innovations, whereof especially employment innovations are included. The amount of employment-work innovations is higher than employment-organisational innovations. Work-organisational innovation overlaps are comparably low. The first example for one of these overlaps is the development of a HR network, which is anticipated by hospital C as the HR advisors' duties and responsibilities increase, and the internal and external communication is strengthened. The second example is hospital A's strategy-development project, in which managers were faced with tasks they had not done before, and internal communication was strengthened as increased cooperation between employees and departments was required.

There is a difference of the distribution of individual and overlapping innovation types when looking at the hospitals individually. Whereas innovations of hospital A, B, and C mainly represent combinations of primarily two types of innovations (especially employment-work and employment-organisational innovations), hospital D implemented mainly single-type innovations. In this case an especially high rate of work innovations is noticeable.

When comparing the distribution among single-type innovations, it can be seen that the majority are work-related and employment-related innovations. Work-related innovations aim at job enlargement of employees, and increasing the managements' responsiveness. Employment-related innovations generally relate to issues such as recruitment, training and contracting. Hospital D has an especially high occurrence of work innovations in comparison to the other three hospitals. On the contrary, hospital A has a noticeably high number 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.

In his study, Corral (2006) refers to several researchers and summarises the most crucial influencers of innovative behaviour of organisations. Among 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. In this context, Corral refers to Ajzen (1991), who states that human behaviour is characterised by three factors: the (a) individual's attitude toward the behaviour, (b) perceived behavioural control, and (c) subjective norm.

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 factor mentioned by Corral (2006), *institutional arrangements*, is respectively high for all four hospitals with regard to medical and technological interaction and knowledge sharing. All hospitals are engaged in associations and collaboration with other hospitals in order to ensure and increase the quality of care. This enables them to share knowledge and experiences on new technologies, treatments and procedures and thus makes it possible to incite adaptations or adoptions for own hospital standards. Additionally, mutual exchange on non-medical subjects, such as supportive-services-issues, is an important benefit of these institutional arrangements, and is emphasised by each interviewed HR manager. They offer an opportunity to stimulate idea development, set standards, and receive feedback on thoughts, practices and ideas.

Hospital A transpires to be a striking and unique example. Together with locally close organisations they have established an intense and efficient cooperation on personnel issues in order to overcome the problem of scarce personnel resources by synchronising calculations of staff requirements, communicating with the labour market, and rising sector work awareness among sophomores. Even though the individual organisations within this association are in competition (especially due to their regional closeness), those responsible for HR see themselves as colleagues and are not hesitant to share information about ideas and processes. Compared to the other hospitals, this close collaboration is unique. It is regarded as a valuable innovation by hospital A, and makes it outstanding compared to other regionally close or distant collaborations. Truly, such an intense and close collaboration has not been mentioned by any of the hospitals but has been identified as desirable by hospital C's HR manager.

Thus, it can be said that institutional arrangements and networks between hospitals and related organisations seem to have a beneficial effect on the level of improvements and innovations within hospitals. All four performed case studies exposed that HR managers saw collaborations were enhancing innovative thinking by exchanging ideas and knowledge and by receiving incentives for own improvements or changes. Furthermore, close and efficient cooperation between hospitals and other care organisation within one region were found to be especially valuable in this context, assumingly, which might

be because of similar regional-specific conditions and therefore better opportunity for cooperative elaboration and usability of ideas. This proposition is based on the comparison of the number of innovations introduced by hospital A compared to hospital B, C, and D.

## **5.2. Possible Influencer of Innovations: Technological and Organisational Capabilities**

The second factor, which theory identified as one of the most crucial influencers of innovative behaviour of organisations, is *technological and organisational capabilities*.

Capabilities are “the collective skills, abilities, and expertise of an organisation, [that] are the outcome of investments in staffing, training, compensation, communication, and other human resources areas. They represent the ways that people and resources are brought together to accomplish work” (Ulrich & Smallwood, 2004, p. 119). Even though capabilities are difficult to determine and to measure, they are deemed as unique for each organisation, and are very difficult to be copied by competitors. (Ulrich & Smallwood, 2004).

With regard to the examined hospitals there are certain capabilities that can be identified either uniquely in a single hospital or in a similar manner in several hospitals. The close cooperation of hospital A’s association members, which was described above, certainly is an example for an organisational capability as factors such as high willingness for intense cooperation in all kinds of operational areas, and substantial reduction of competitive thinking have extracted to be difficult to meet when comparing the other studied cases. Another capability that hospital A possesses is the internally developed forecasting system for specified nurses and medical professionals. It is one of the results from the close cooperation with other regional medical institutions resulting. Forecasting requires efficient planning, equipment, training, and evaluation of targeted factors (Hospital Preparedness Program (HPP), 2012), and the development of their staff forecasting process supports hospital A in order for being prepared for eventualities of staff shortages or absence of specialised personnel. The process represents a well-functioning combination of close internal and external communications as well as a coordinated and supporting IT system. Internal communication is distinguished by the exchange of proactive status quo of staffing on the various positions and wards in order to identify possible needs for continuation education or new hires. The external communication happens with two entities. On the one hand, hospital A communicates with the medical organisations (especially hospitals) that are part of the local association that hospital A belongs to. On the other hand, the hospital is in contact with the commercial parties, which offer temporary employees. The association’s hospitals exchange information on staff requirements, suggestions or success rates for training programmes, which are then incorporated in hospital A’s planning forecasting process. This inclusion of regionally close entities presents a benefit for hospital A as staffing levels, requirements and opportunities can be dependent on local factors (e.g. availability of education programmes or institutions, and availability of skilled and experienced medical staff). When comparing the level of



external communication of hospital A with other regional hospitals, it is high with an additionally high willingness for intense cooperation and low competitive thinking. Talent management and leadership development are capabilities, which are existent and encouraged in all four hospitals. Hospital A grants each individual employee a certain budget, which he or she can use for any kind of education and training. Hospital B insists on continuous renewal of accreditations and even determined in its collective employment agreements that 3% of the salary costs are allocated for education. Hospital C offers trainings in order to ensure high quality and value adding in all operational areas. And hospital D believes that employees are never fully trained and therefore support continuous learning throughout the entire organisation. At the same time, hospital D has a special programme for young talented personnel that are trained to take on leadership positions within the hospital. Hospital A and B promote leadership by cooperating with external training parties. The transmission of trust and self-responsibility are values, which all leaders within all four hospitals are encouraged to communicate. All leaders are taught to listen to their employees' proposals, ideas or remarks and show an interest in them. There appears to be no great difference in the existence and promotion of talent management and leadership development among the four studied hospitals. Nevertheless, hospital D gives the impression of being especially active in this field. It places much value of continuous learning and development of its staff, and specifically recruits young leaders internally in order to increase creativity and innovativeness

Another factor, which can be seen as an organisational capability, is internal communication and knowledge sharing. However, this appears to be lacking with regard to the performed interviews. Three out of four hospitals criticise that the communication between wards and departments does not function well enough and that sometimes, even within single departments, the communication is lacking. This is especially crucial with view to HR advisors, who need to communicate with each other in order to have a certain degree of knowledge on all units, and not solely their units of responsibility. With regard to increasing the innovative level, the degree of interdependence within the individual HR departments appear to be relatively high as the study's examples stress the need for employees from different remits to connect, communicate and exchange knowledge in order to exchange ideas and accelerate processes. Furthermore, theory shows that the higher the interdependence in a department is, the more information and knowledge exchange among department and team members is necessary in order to achieve the required performance (Mannix, Neale, & Goncalo, 2009). The support of others increases the level of interaction, coordination, cooperation and communication among team members and those of other teams. By communicating within and among teams, each employee has access to a broader set of knowledge and expertise than his own, and is therefore able to connect different process aspects in a simplified way, which therefore enhances finding innovative solutions or ideas. Furthermore, ideas, which have not yet been elaborated fully, can be developed and refined quicker and more comprehensively until their implementation is considered as worth striving, and possibly increases the value for the organisation and the employees. Subramaniam and Youndt (2005) state that the

knowledge, which is shared through interactions among individuals and their networks of interrelationships (in their paper conceptualised as social capital), positively influences innovation, regardless of whether they are radical and incremental. Thus, it can be said that increased knowledge sharing is likely to lead to more creativity and hence, leads to higher innovative behaviour of individuals.

The technological capability, which has been identified through the performance of the case studies, is the adoption of a supporting IT system. If the system is well developed, it has the advantage that particular workflows are digitalised and simplified. HR employees are then able to focus on core responsibilities as the amount of standardised tasks are reduced. Hospital C recently started a digitalisation process, where basic processes (such as reimbursement of costs, employee on boarding or exit) were included into a digital workflow accessible by all superiors. Hospital B also implemented employee and management self-service by making their workflow digital and reachable for the entire staff, and it is additionally planning to digitalise everything concerning recruitment and selection, rewarding, training and development which will then be accessible via an app with which department managers can start any HR process autonomously. Hospital D monitors its personnel's development digitally, offers 60% of its training as e-learning courses and supports HR employees that work from home with IT devices and services. Further, hospital A developed a recruitment platform in cooperation with IT services. Thus, it can be said that all hospitals are aware of the increasing digitalisation of processes within the organisation and are slowly adapting to these changes. However, it became apparent that all interviewed managers would welcome an even higher inclusion of IT services than what is currently possible as they intend to further simplify basic work processes and tasks.

To sum it up, the technical and organisational capabilities, which have been identified through the case studies, are continuous digitalisation adoptions, close external communication, talent management, leadership development, and internal communication and knowledge sharing. It became apparent that especially external as well as internal communication, and a specifically trust-conveying leadership style are important for increasing innovativeness. The latter was mentioned and encouraged in all four hospitals. Targeted programmes and meetings were offered in which leaders are shown how to correctly communicate with their employees in order to convey feelings of trust and support, and how to be recognised as contact persons for remarks and suggestions of all kinds. External communication promotes information exchange on general and local concerns, and supports creative and comprehensive solution finding, which then can be incorporated in own processes. As mentioned before, hospital A has an especially close communication with external parties and has developed and implemented a number of innovative ideas. However, internal communication seems to be too little present within the organisations, even though all HR managers recognise it to be important to increase knowledge sharing, creativity, and efficiency among all kinds of employees.

### 5.3. Possible Influencer of Innovations: Organisational Learning

*Organisational learning* is the process of creating, retaining, and transferring knowledge within an organisation. Marquardt (1996) summarises characteristics of a learning organisation, which among others 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 leaning 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 very great majority of these characteristics are fulfilled by all four hospitals, even though the overall approach to some of these aspects differs. As mentioned before, each hospital offers courses and training opportunities to various groups of employees within their respective organisation (leadership programmes, specialisation courses or school programmes for nurses, etc.). However, hospital D appears to especially attach value to continuous learning of the entire organisation as it embeds expanding and promoting knowledge in its HRM strategy, and is eager to offer a great amount of (e-learning) courses.

However, differences in approaches become apparent when having a look at especially the lower half of Marquardt's (1996) characteristics of learning organisations. The first small visible difference is connected to the characteristic 'the organisation is able to respond to environmental changes by continuously adapt, renew, and revitalise itself'. The greatest, during the interviews recognised environmental changes are the demographic of the hospital staff, and the proceeding digitalisation. Hospital A reveals the ageing of nurses as the greatest challenge and found an innovative solution by introducing shortened contracts to older nurses in order to use the amount of saved salaries for the recruitment of younger personnel. At the same time, hospital B focuses on the challenge coming from female nurses between 30 and 40 years, who are at the age of becoming mothers. They want changes in their working hours and the hospital reacts by increasing the level of cooperation on terms of flexible working hours.

Digitalisation is recognised in all studied cases. The difference merely lies in the acceptance and intensity of adoption. Hospital B and C are currently in the process of digitalising and automating the great majority of its traditional HRM processes, and training department and ward managers in being able to access and make use of these

processes on their own. For hospital C this is a large change as digitalisation was not yet basic and many processes were still performed manually or even on paper.

In the context of being able to respond to environmental changes, it is specifically interesting to point out hospital B that offers Radboud workshops to all layers of personnel in order to receive an insight into current changes in the hospital sector and decrease their fear of uncertainties. On the contrary, according to the HR manager the hospital was unfortunately not able to make great use of the opportunity for the development and implementation of changes, which the fusion of two organisations held. At the moment the hospital is concerned with internal processes and is therefore distracted from occurrences and opportunities in the external environment.

A further difference lies in the accessibility of information resources, and participation in internal and external networks, the last two listed characteristics of learning organisations. The difference in the usage of external networks has been analysed before. However, internal networks present a great difference. Apart from all hospitals' encouragement of increased communication between leaders and employees, teamwork and especially teamwork learning is a factor, which often seems to be unattended. This presents an interesting finding as organisational learning has been detected as a trigger for innovation.

Available research on teamwork shows that it is crucial for the innovative work behaviour of employees within an organisation. Beugelsdijk (2008) states that teamwork gives employees the opportunity to "expose a broad range of perspectives and information" (p.824). He especially raises attention to cross-functional teams, which are characterised by people from different functional areas within an organisation, and which are a "critical organisational design for fostering creativity and innovation" (p.824). He draws the conclusion that a diversity of perspectives proposes more resources for individuals to draw on, offers them a greater possibility to gain knowledge, and thus leads to a more creative and innovative behaviour. Supportively, Jiang, Wang and Zhao (2012) conclude that teamwork is positively related to creativity, and that the development of innovative ideas mainly occurs through creative employees. In this regard they define creativity as "the development of new ideas" and innovation as "the process of actually putting the new ideas into practice" (p. 4027). The authors refer to former researchers, such as West (2002), Nemeth, Owens and West (1996), and Ernst (2004), and state that the efficient management of teams is fundamental to enhance creativity and thereby innovation. Management possibly motivates team members "to perform at higher levels of creativity" (p.4031) due to the provision of standard comparisons and feedback for both, individuals and teams. Subramaniam and Youndt (2005) underline the social relationships among employees within an organisation (internally as well as externally) by stating that "unless individual knowledge is networked, shared, and channelled through relationships, it provides little benefit to organisations in terms of innovative capabilities" (p. 459).

Thus, the reinforcement of teamwork, especially the interaction of members of different operational areas, which hospital A achieved through the performance of their strategy-development programme, is a possible determinant for their advanced innovative behaviour. While hospital A, B and C criticise the lack of communication between the

different departments and wards within the organisation, there was no mention of project or programmes in order to overcome this problem. On the contrary, hospital C even criticised that teamwork was not yet enough encouraged.

To put it in a nutshell, all four studied hospitals promote organisational learning. All organisations recognise that continuous learning is essential in order to stay competitive and thus pursue comparable approaches to stimulate their employees in this thinking and its execution. Small variations can be visible in the recognition of environmental challenges, and the ability and speed to respond to changes. These factors reflect differences in the level of organisational learning, as respective knowledge is created and transferred at different speed. The greatest difference presents the accessibility of information resources and internal as well as external networks, which already has been partly found previously during the analysis of the hospitals' institutional arrangements. In addition to those findings, the analysis of internal networks exposed that teamwork supposedly has a greatly positive effect on the level of learning and thus on the level of innovation of the organisation. Apart from hospital A, no hospital referred to specific implemented teamwork-promoting activities.

#### **5.4. Possible Influencer of Innovations: Entrepreneurial or Risk Taking Behaviour**

The fourth influencer of the level of innovation of an organisation retrieved from previous theory is *entrepreneurial or risk taking behaviour*.

Considering and including various definitions of entrepreneurship and entrepreneurial behaviour, the latter can be summarized as an organisation's behavioural style that encourages innovation and innovative thinking by examining and exploiting potential opportunities regardless of currently controlled resources. Entrepreneurial behaviour is also characterised by a pro-risk-taking attitude, which makes it more likely to exploit opportunities.

Stevenson and Jarillo (1990) propose a number of propositions on entrepreneurial behaviour based on previous research findings. Among others these include that the level of entrepreneurial behavioural is higher when firstly, internal and external networks are established and knowledge is shared, secondly, individuals within the organisation are put in a position, and are trained to detect opportunities and thirdly, when individuals of all organisational layers show a positive attitude towards a certain opportunity. With regard to this research, individuals within the hospital are divided in two groups, HR staff and medical staff. They are analysed separately in order to define differences and find possible causes for the level of innovativeness.

As mentioned before, institutional collaborations and participations in networks were found to positively relate to the innovativeness of the studied hospitals' HR departments. They offer opportunities to exchange knowledge and receive feedback and thus stimulate creativity and innovativeness. All four hospitals are engaged in associations with other hospitals as well as related medical institutions, and are eager to establish or strengthen a broad network of various medical and/or specialised organisations. However, it appears that these collaborations are on a still too profound level in some cases which is possibly due to an either too far distance between institutions, or a too low willingness or close regional cooperation and a too high

competitive thinking. Additionally, it became apparent that internal communication and teamwork promotion between departments as well as individuals within the hospitals was still lacking and thus making knowledge sharing more difficult. This possibly reduces the level of detecting opportunities on the overall organisational as well as the individual employee level. With regard to the latter, the analysis of the four hospitals shows a difference between employees in leadership and non-leadership positions, even though all four hospitals promote continuous learning on all operational levels. The case analyses create the impression that the capability of detecting opportunities for improvement or innovations is rather low on the individual non-leader employee levels due to reduced knowledge on and capability to adapt to current trends in the health care sector. Nurses, especially those of the higher age groups, were said to be solicitous about current changes, which is why all four hospitals focus leadership development on transmitting trust and security among the medical staff.

Stevenson and Jarillo's (1990) first two propositions on entrepreneurial behaviour require that internal and external networks are established and knowledge is shared, and individuals within the organisation are put in a position, and are trained to detect opportunities. Based on this, the studied hospitals seem to be mostly willing to behave entrepreneurial, however are not fully capable of showing this behaviour, yet. Knowledge sharing through efficient external and internal networks, and internal communication as well as development is not yet fully aligned with the level, which is necessary for detecting and exploiting opportunities. The promotion of close internal and external cooperation seems overshadowed by organisational competitive thinking, anxiety on the non-leadership level, and underdeveloped leader-member exchange (LMX, i.e. the relationship between supervisor and employee). Additionally, the absence of truly entrepreneurial behavior is a possible result of the default of the third proposition of Stevenson and Jarillo (1990).

This third proposition states that the level of entrepreneurial behavioural is higher, when individuals of all organisational layers show a positive attitude towards a certain opportunity. It corresponds to the three characterisations of human behaviour, established by Ajzen (1991) - the fifth factor *individual intention*, which they identify as one of the most crucial influencers of innovative behaviour of organisations.

### **5.5. Possible Influencer of Innovations: 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).

As mentioned before, the interviewees point out a rather high level of anxiety and uncertainty towards changes in the hospital sector among the older nurses due to a lack of knowledge or incapability of application. It can result in a prejudiced view on related innovations, which negatively influences the attitude towards the change and likely increases resistance against adaptation. When information and benefits of adaptation to changes are not fully transmitted to the individuals within an organisation, positive attitudes towards these changes are more difficult to develop. This becomes especially apparent in the context of increased digitalisation of hospital and administrative processes, as it can be for example seen in the case of hospital B and C.

Moreover, the increasing speed of digitalisation and health care related workflows cannot be controlled by the organisations because they are external environmental changes. Thus, the hospitals sooner or later need to adapt to these changes in order to stay competitive and therefore keep pushing the implementation of necessary changes forward. It leads to an increased pressure on employees to adapt themselves to these changes. Furthermore, especially older employees are affected as it became apparent that they have especially difficulties with the developments in the health care sector when compared to the younger generation of employees. This 'clash of generations' emerged from all interviews and can possibly result in resistance.

The interviewees argue that managers and leaders within the health care sector are usually not used to giving feedback or thinking with foresight to what challenges might be imminent and what measures need to be taken. This also applies to the HRM department within these hospitals, which seem used to a rather administrative than strategic role within the organisation. This possibly shows a difficulty of performing the required behaviour of being creative and innovative in order to manage the organisations staff towards the achievement of organisational objectives.

The Ulrich model (1997) is a well-fitting method to demonstrate the differences between possible HRM roles and contributions [see Appendix Figure 3: The Ulrich Model of HR Roles (Shah, 2015)]. On the one hand, the role of the 'administrative expert', which is managing the organisation's infrastructure by re-engineering processes, and the 'employee advocate', managing transformation and change by listening and responding to employees, have an operational focus. On the other hand, the 'change agent' and 'strategic partner' role have a strategic focus (Hunter & Saunders, 2005, p. 11). The 'strategic partner' responsibility is to manage human resources within the organisation according to strategic objectives by aligning the HR strategy with the overall business strategy. The 'change agent' responsibility is to react to and "meet the challenges of the changing business environment and positioning the business to execute strategy" (Hunter & Saunders, 2005, p.11). Thus, managing the human resources in a way to transform and change it towards a targeted organisational infrastructure. From the case studies it can be derived that all HRM departments successfully took on the roles of the administrative expert even if the performance within the other three roles is not fully efficient. The cause for this seems to be the increased need for the execution of the 'strategic partner' role. As the hospital sector becomes more and more business-like, the organisational strategies and objectives become increasingly business-like as well. The incorporation of the HRM department is

recognised as being essential for the achievement of the renewed objectives, which moves the HR departments into taking on the 'strategic partner' role. The change of the strategy seems to create uncertainty and anxiety among (especially older) employees within the hospital. This in turn demands greater effort in terms of 'employee-advocate' activities, which are listening and responding to employees, and eventually 'change-agent' activities. It is necessary that HR professionals within the hospitals are aware of the transition towards the business orientation, and the arising consequences. At present, the change from the operational focus to the strategic focus is not yet entirely implemented. The current role of HRM in the hospitals is not yet aligned with the required role for efficiently contributing to the new organisational objectives and strategic direction.

To sum it up, the relatively low level of innovativeness of HRM in Dutch general hospitals can possibly be explained by the low individuals' intention to initiate and adopt innovations. In this case especially a negatively attitude of the staff towards changes in the health care sector seems to be predominant. A great part of the staff consists of elderly employees, who are not experienced, conformable or even willing to adapt possible changes in their workspace. Overstraining or excessive pressure from anticipated changes for the individual himself or herself possibly creates fear, which can then result in a state in which the situation becomes threatening and resistance increases. Additionally, the HRM staff seems to not yet be fully capable of accepting the new role it needs to take on in order to be a strategic partner in the newly business-like environment of Dutch general hospitals.

The following table summarises the possible influencers of HRM innovations according to the four studied hospitals.

**Table 5: Summary of Influencers of HRM Innovations**

| Possible Influencers              | Hospital A  | Hospital B   | Hospital C  | Hospital D  |
|-----------------------------------|---|--|---|---|
| <b>Institutional Arrangements</b> | <ul style="list-style-type: none"> <li>• Intense and efficient cooperation with regional health care institutions</li> <li>• Despite recognizing other institutions as competition, the HR managers see themselves as colleagues</li> </ul> | <ul style="list-style-type: none"> <li>• Monthly meetings of HR managers which are all part of a cooperation that is geographically dispersed, discussion of HR policies and ideas</li> <li>• Additionally, part of the STZ</li> </ul> | <ul style="list-style-type: none"> <li>• Monthly meetings of HR managers which are all part of a cooperation that is geographically dispersed, discussion of HR policies and ideas</li> <li>• Little participation in regional networks, yet</li> </ul> | <ul style="list-style-type: none"> <li>• Part of the STZ</li> </ul> |



|  |  |   |   |   |
|--|--|---|---|---|
|  | <ul style="list-style-type: none"> <li>• Cooperation is viewed as valuable</li> <li>• Additionally, part of the SAZ</li> </ul>   |   | <ul style="list-style-type: none"> <li>but participation is desired</li> <li>• Additionally, part of the STZ</li> </ul>   |   |
| <b>Technological &amp; Organisational Capabilities</b> | <ul style="list-style-type: none"> <li>• Good internal and external communication and knowledge sharing</li> <li>• Talent management and leadership development</li> <li>• Advanced digitalisation adoptions</li> </ul>  | <ul style="list-style-type: none"> <li>• Talent management and leadership development</li> <li>• Standard digitalisation adoptions</li> </ul>   | <ul style="list-style-type: none"> <li>• Talent management and leadership development</li> <li>• Standard digitalisation adoptions</li> </ul>   | <ul style="list-style-type: none"> <li>• Enhanced talent management and leadership development</li> <li>• Advanced digitalisation adoptions</li> </ul>  |
| <b>Organisational Learning</b>                         | <ul style="list-style-type: none"> <li>• Support of continuous learning</li> <li>• Broad and effective participation in external networks</li> <li>• Increased internal communication</li> <li>• Reinforcement of cross-functional teamwork</li> <li>• Advanced access to information resources</li> </ul> | <ul style="list-style-type: none"> <li>• Support of continuous learning</li> <li>• Promotion of strengthening internal communication</li> <li>• Participation in external networks and thus access to information resources</li> <li>• Non-serving of fusion-related opportunities because of internal focus</li> </ul> | <ul style="list-style-type: none"> <li>• Support of continuous learning</li> <li>• Promotion of strengthening internal communication</li> <li>• Participation in external networks and thus access to information resources</li> <li>• Request for broader participation in networks</li> </ul> | <ul style="list-style-type: none"> <li>• Strong support of continuous learning</li> <li>• Participation in external networks and thus access to information resources</li> <li>• Promotion of internal communication</li> </ul> |
| <b>Risk Taking Behaviour</b>                           | <ul style="list-style-type: none"> <li>• Internal and external networks are effective and knowledge is shared</li> </ul>   | <ul style="list-style-type: none"> <li>• External networks are established and knowledge is shared</li> <li>• Rather low internal communication</li> <li>• Non-serving of fusion-related opportunities because of internal focus</li> </ul>   | <ul style="list-style-type: none"> <li>• External networks are established and knowledge is shared</li> <li>• Low internal communication</li> </ul>   | <ul style="list-style-type: none"> <li>• External and internal networks are established and knowledge is shared</li> </ul>  |

| <b>Individual Intention</b>              |  |  |  |   |
|--|--|--|--|---|
| <b>a) Attitude towards the behaviour</b> | <ul style="list-style-type: none"> <li>• Uncertainty among the older general staff towards the organisational changes</li> </ul>               | <ul style="list-style-type: none"> <li>• Uncertainty and negativity among the general staff towards the organisational changes</li> </ul>  | <ul style="list-style-type: none"> <li>• Uncertainty and negativity among the older general staff towards the organisational changes</li> </ul>  | <ul style="list-style-type: none"> <li>• Uncertainty among the older general staff towards the organisational changes</li> </ul>  |
| <b>b) Subjective Norm</b>                | <ul style="list-style-type: none"> <li>• Pressure to adapt to external environment and therefore to internal changes</li> </ul>                | <ul style="list-style-type: none"> <li>• Pressure to adapt to external environment and therefore to internal changes</li> </ul>  | <ul style="list-style-type: none"> <li>• Pressure to adapt to external environment and therefore to internal changes</li> </ul>  | <ul style="list-style-type: none"> <li>• Pressure to adapt to external environment and therefore to internal changes</li> </ul>   |
| <b>c) Perceived behavioural control</b>  | <ul style="list-style-type: none"> <li>• Professional background of HR manager is not health-care but business-organisation-related</li> </ul> | <ul style="list-style-type: none"> <li>• HRM takes on a rather administrative than strategic role</li> <li>• Professional background of HR manager is health-care-related</li> </ul> | <ul style="list-style-type: none"> <li>• HR employees mostly miss capabilities to make use of networks and shared information</li> <li>• Intended promotion of training and strategic deployment of HRM staff</li> <li>• HRM takes on a rather administrative than strategic role</li> <li>• Professional background of HR manager is not health-care but business-organisation-related</li> </ul> | <ul style="list-style-type: none"> <li>• Strategic approaches of the HRM department</li> <li>• Promotion of training and strategic deployment of HRM staff</li> <li>• Professional background of HR manager is not health-care but business-organisation-related</li> </ul> |

## 6. Discussion

In general, the respective HRM-innovation types in Dutch general hospitals often have similar characteristics and goals. The majority of employment innovations contain digital programmes that simplify basic HR processes, such as recruitment and appraisal, or present training programmes for the organisations' staff. The high frequency of recruitment-related innovations could be possibly connected to the constant need of personnel, especially younger personnel, who are less costly, more flexible and more open for changes. Leader programmes, which aim at improving communication skills are especially common. In the context of work innovations, job enlargement is especially outstanding as the hospitals greatly encourage increased self-responsibility, continuous learning, and participation in specialisation courses. This all has consequences on the performance, extent, and responsibilities of current jobs. The major concern of organisational innovations is supporting organisational change towards increasing trust and communication among the entire organisation's personnel, and the strengthening of internal and external information networks. There is an even distribution between single- and multiple-type HRM-related innovations in Dutch general hospitals when comparing the overall findings derived from the case studies. When looking at the hospitals individually, it becomes apparent that three out of four hospitals have a higher occurrence of innovation combinations.

The amount of innovation overlaps is high as single innovations often result in the requirement of another adapted innovation. For example the implementation of a digital HRM-self-service portal leads to an increased level of responsibilities on the leaders' side, which again requires aligned training programmes. Thus, a high level of mutual interdependence between the different types of innovations can be seen.

These findings agree to this research's suggestion that the various types of innovations do not solely exist separately, but that they overlap and thus show characteristics of multiple types of innovations.

When comparing tables 3 and 4 (distribution and summary of innovations found) with table 5 (summary of influencers of HRM innovations) some peculiarities are visible. It can be seen that hospitals that strongly promoted continuous learning were dominant in work innovations. Those dominant in employment innovations show advanced internal communication, advanced continuous learning, and reduced negativity of general employees towards changes. Organisational innovations can be seen in hospitals with a greater strategic focus of the HRM department.

Hospitals with an administrative focus show a lower number of single-type innovations. In general it appears that the overall number of HRM innovations is higher when the role of HRM is more strategic, and when the HR manager's background is business-related.

We see that three-type-innovations are present when internal networks are established. Additionally, the variety of HRM innovation types appears to be greater when internal communication is promoted and external regional networks are effective.

Comparing table 3 and 5, it appears that there is no great difference between the number of HRM innovations in SAZ and STZ hospitals, even though on average the number of innovations in the SAZ hospital is slightly higher than those in STZ hospitals. It can be seen that the negativity of general employees towards changes was lower when internal communication and continuous learning was high.

With regard to the analysis of the Dutch general hospital context, it is visible that it is essentially characterized by a number of legislative, technological, economic, and demographic factors. On the one hand, a number of external factors influence the operations within these types of organisations. The DBCs payment system, which follows the “money follows the patient” principle, results in a great pressure of hospitals to be efficient. At the same time, the changing demands and the increased speed of the health care sector result in a greater need for flexibility of hospital operations and personnel. So is the increasing speed and distribution of digitalisation, which presents opportunities as well as challenges to Dutch hospitals. Digitalisation can result in simplifying processes and facilitate the work of employees of various operational areas. However, it requires an advanced level of technological capabilities and can also create anxiety and uncertainty among employees, especially among older employees.

All these combined external factors, including the legislative, economic, and technological factors, require hospitals to change their thinking towards being more business-like. At the beginning of this thesis, a set of practices and concepts of *NPM* (New Public Management) as mentioned by Pollitt and Dan’s (2001) was listed. When comparing these practices and concepts with the findings derived from the case studies, full compliance applies. For once, hospitals target the patients’ satisfaction and react to their changing needs as these have a great influence on their performance. Patients can state their preference to a GP when being referred to a hospital, and if a hospital is unattractive to patients for some reason, it is not competitive. Moreover, hospitals set their focus on performance because they are paid according to the number of treatments. The medical departments and activity fields within hospitals seem to be greatly reduced and specialised so that procedures are relatively small and clearly defined. This represents the enhancement of the lean concept within the organisations. As tasks are small and well defined, it is easier for the individual to take on an unknown task, and perform a greater variety of tasks. Furthermore, outsourcing is used in order to reduce costs and increase efficiency. However, in this respect it is striking that the great majority of the studied hospitals is making a rather low use of outsourcing. If outsourcing takes place, it mostly only happens with cleaning and kitchen services, whereas laboratories or specialised medical services are rarely outsourced. This phenomenon is possibly related to the traditional thinking of hospitals, which was mentioned by all interviewees. Taking care of people seems to be still more important than being as efficient as possible, which could be the reason for not outsourcing medical processes that are not the hospital’s core business.

The *NPM* characteristics do not only apply in the case of hospitals in general, but also with regard to their HRM departments.

In accordance with the organisations' overall goal of being efficient and increasing the level of performance, HRM services become more strategically aligned. 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. Within HR departments, digitalisation and automation of basic processes is increasingly used to implement self-service portals, with which the number of actions and actors is reduced. In some cases ward managers can start any HRM process, such as applying for personnel recruitment or wage increase digitally, and HR professionals simply need to approve the execution. The inclusion of digitalised basic processes seems very common and more advanced with regard to businesses in other sectors. However, in the hospital sector this seems to be not yet disseminated. HR professionals identify another characteristic of business organisation management, namely the utilisation of partnerships, as increasingly attractive and beneficial. Especially the strengthening of professional networks is a valuable objective of the interviewed HR managers, which allow sharing and refining ideas. At the same time, few made use of outsourcing HRM responsibilities other than professional trainings. This is not surprising when thinking about the core business of hospitals, which is caring for patients. Apart from know-how and skills, the performance of hospital services requires close interaction with people, either patients or co-workers. This again requires a great level of commitment, coordination, responsiveness, and attentiveness of individual employees, as well as the compliance with respective hospital values and beliefs. As humans and human capital are especially important in hospitals, aligned and efficient HRM is equally important because it deals with the management of individuals within the organisation. Thus, processes related to recruiting, maintaining, developing, and utilising employees is presumably rather kept in-house in service providing organisations than in manufacturing businesses.

Adding to the technological, legislative, and economic influencers of the health care sector, there are a number of demographic factors, which can be seen as external as well as internal influencers. So, the ageing population does not only influence hospitals in terms of necessary treatment adaptations, but also in terms of their workforce. A great majority of hospital employees are women of the higher age group that often required special treatment. Women in their 30s and 40s are often either less flexible in their working hours due to parenthood, or are on pregnancy or maternity leave, and therefore require adjusted working contracts. Women in their 50s and 60s were found to be increasingly sick, or inflexible because of their physical condition or private responsibilities. Additionally, they often have working contracts, which grant a higher wage for less working hours compared to younger employees. They are also found to be less accepting towards changes resulting from the increased business-like thinking and digitalisation of hospitals, either because of unwillingness or incapability.

When questioning the possible degree of these influencers of the innovative level of Dutch general hospitals, it became apparent that the traditional thinking within hospitals seems to outweigh the business-like thinking, which is required to be innovative and efficient. Even though, managers and employees in general hospitals need to adopt more and more characteristics of business organisations, which seems to be a great challenge. A possible reason for this is the nature of hospitals, which is caring for patients and not operating as fast and efficient as possible. As mentioned before, managers within the health care sector were said to lack specific characteristics, such as giving feedback and thinking with foresight, which are essential in the business organisation context. In this connection the Ulrich model (1997) was given as a demonstration of the differences between possible HRM roles within organisations. Due to the hospital's transition towards becoming more and more business-like, organisational strategies and objectives change accordingly. Therefore, HR professionals within the hospitals need to adapt to the transition towards the business orientation and its consequences. They need to steadily increase their focus on taking on Ulrich's 'strategic partner' role in order to contribute to the organisation's success. However, at present HRM departments within these organisations seem to be still greatly traditionally oriented, which includes mainly taking on roles with an operational focus. It might be even more challenging for those HRM employees, who work in their position for a long time, or for those who originally have a different non-business professional background, e.g. the medical field. The possible first step is here to intra-departmentally increase awareness and know-how in order to convey changes to the rest of the organisation. Except for hospital C, all interviewed HR managers come from a different professional background, 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. Literature from the field of change management identifies leaders within organisations as key enabler in the change process (Hayes, 2014, p. 159; Rothwell & Sullivan, 2005). They represent examples and reflections of organisational values and objectives, and are closest to the employees within the organisation. It can be clearly seen that the studied hospitals are actively encouraging leaders to be more communicative and responsive. They receive special training to increase their skills in this area, and furthermore receive an insight into health care sector opportunities, challenges, and trends. However, the communication still seems to lack as HR managers still describe their employees as uncertain and afraid of what the future holds for them. There are three possible reasons for this. Leaders are either still unsure or unable to apply the learned skills, the training was insufficient, or the employees are reluctant to accept changes. There are initiatives to approach these possibilities, e.g. by training and appointing young leaders, who are more accustomed to the current changes in health care, by offering information events for the ordinary medical staff, or by encouraging communication from the side of HR professionals. However, it is necessary to realise that the different groups within the organisations have different abilities to adapt to changes, and therefore need different

approaches in order to be able to change and to detect opportunities. The younger generation often wants and needs to be challenged, which increases the opportunity for flexibility. Whereas the older generation needs a great amount of communication and information about sector trends, opportunities, and challenges in order to reduce their uncertainty and fear towards the future so that they eventually will realize the necessity and benefits of present and upcoming changes. Hospitals that adjust HR activities to these demands are probably more likely to perform well in the roles of 'employee advocate' and 'change agent', and ultimately in the role of the 'strategic partner'.

Referring to Corral's (2006) five triggers of innovation it becomes apparent that apart from internal communication and knowledge sharing, close external collaborations as well as participation in external and internal networks is a key influencer of the innovative level of hospitals.

External institutional arrangements offer opportunities to exchange knowledge and ideas, and offer a source for additional input in process developments. However, it seems that close regional collaborations are not as exploited as possible, probably because of a high degree of competitive thinking. Due to the "money-follow-the-patient" principle, hospitals need to increase their performance and efficiency. Additionally, the availability of job applicants in the health care sector is low. These two factors lead to an increased competitive thinking of Dutch general hospitals. Competitive thinking is a characteristic of business organisations – a characteristic, which apparently has been well adopted by health care institutions. However, as the case studies show, close regional collaboration with the so-called "healthy amount" of competitiveness can support creativity as well as increased know how, and can thus lead to innovations. It is possible that the non-usage of external collaborations and networks are remnants from the hospital-common traditional thinking. Without high pressure from performance requirements, it is more likely to work at one's own pace, without great need for lean, creativity, or external input. Now, that the pressure on Dutch general hospitals is high, they need to change their behaviour and be open for internal and external stimulations. In this context, internal teamwork and information exchange between different wards and operational areas also seems to be beneficial. As Subramaniam and Youndt (2005) state that "unless individual knowledge is networked, shared, and channelled through relationships, it provides little benefit to organisations in terms of innovative capabilities" (p. 459). Unfortunately it seems that only teamwork within wards is existent and efficient, whereas interaction among different actors is rather rare. This poses a threat, as employees are not aware of consequences of their own or their ward's doings for other employees or wards. It also reduces the chance of detecting opportunities for improvements or innovations. Thus, increasing the understanding, interaction, and communications between the various actors and groups within the hospitals is important to stimulate innovation.

## 7. Conclusion

This research aims at unfolding the context of HRM-related innovations in Dutch general hospitals. The objective is to receive insights on present innovations, their key influencers, and success and risk factors.

Resulting from the analysis of four general hospitals within The Netherlands, it is found that there is a high frequency of multi-type innovations, which combine most often two of the three different types of innovations (employment, work, and organisational) as a consequence of necessary interactions between multiple innovations.

The majority of HRM innovations are related to the digitalisation of basic processes, or the alignment of HRM to the overall organisations' objective to increase flexibility and self-responsibility. Work innovations, such as job simplification are used to decrease the remit and responsibilities of medical jobs, so that it is easier for employees to take on jobs, which e.g. are not originally theirs. Leadership development focuses on job enlargement, and communication trainings to encourage trust and strengthen management responsiveness. In some hospitals the entire staff additionally participates in continuous learning programmes in order to increase know how, creativity, and acceptance of the shift of the hospital towards including more business organisation management elements.

Within HR departments, digitalisation and automation of basic processes is increasingly used to implement a kind of self-service portal, with which the number of actions and actors is reduced so that basic tasks become faster and simpler.

It is this shift, which is often referred to as NPM that is the main causes for Dutch general hospitals to increase their efficiency and performance level. Especially the in 2005 implemented DBCs payment system, which follows the principle "money follows the patient", increases the need for fast and efficient patient treatments. This in return requires flexibility and efficiency of the staff. Additionally, the changing demands of the overall ageing patients, as well as the speeding digitalisation influence this need. 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.

Possible innovation triggers have been analysed in the course of this research. It became apparent that especially increased communication and knowledge sharing through internal and external networks, and separate stimulation of younger and older employees within the organisations are likely to increase the occurrence and acceptance of innovative changes in hospitals.

Close arrangements between regional health care institutions can increase the innovative thinking of HR professionals by exchanging knowledge and ideas, and receiving incentives for improvements. In this context, especially regional collaborations seem beneficial as they are influenced by similar prevailing regional-specific conditions



and thus incentives and collaborations are more useful and possibly need less adaption. Previous literature on HRM-related stimuli for innovation emphasise internal communication and teamwork encouragement to increase the chance for developments and innovations. By networking and sharing individuals' knowledge, mutual understanding and interaction can be strengthened, and opportunities for improvements and innovations become more visible. However, it appears that teamwork and strong communication is still mainly present within wards, whereas interaction among different actors is scarce. This poses a risk as wide-reaching consequences become unnoticed. Additionally, teamwork has a positive effect on the level of learning, which is specifically interesting as continuous learning is a characteristic of learning organisations. Particularly as learning organisations are those organisations, which are held to be innovative. The studied hospitals were all found to recognise that continuous learning is essential in order to stay competitive and thus, promote continuous learning. Especially leaders, which change-management-literature identifies as key enabler in the change process receive comprehensive communication and leadership training. Increased communication and management responsiveness target the reduction of unknowingness and uncertainty of the staff towards the present and future changes in the hospital sector. Unknowingness and uncertainty pose a great threat as they can result in fear and eventually in resistance. In this context, it is beneficial to realise that (and also identify) the different employee groups within the organisations have different abilities to adapt to changes, and therefore need different approaches in order to be able to change and to detect opportunities. Whereas the younger generation needs to be challenged, the older generation needs a great amount of communication and information on sector trends, opportunities, and challenges in order to reduce their uncertainty and fear towards the future, and eventually increase their flexibility and adaptability.

In the course of this research it emerged that outsourcing of HRM activities is rarely used. It corresponds to the theory, which suggests that core competences should be kept in-house. Hospitals are service organisations in which the performance of the staff is very closely related to the overall performance of the hospitals. Thus, human capital is the most important capital in hospitals, and its management should be kept internally.

In summary, this research identified a number of HRM-related innovations in Dutch general hospitals, which most often were multi-type employment or work innovations related to the organisations' targeted cultural shift towards being more efficient, flexible and self-responsible. The main cause for this shift is the increasing necessity for business-like thinking and adoption of business organisations' management characteristics, which also requires HRM to become less traditional and more strategic. Increased accessibility of information to all operational areas within the organisations has been identified as crucial for the organisations' successful transition towards efficiency and innovation in order to raise acceptance and adaption to the new operational mode. Encouraging communication and knowledge sharing throughout the organisation and institutional associations is an effective method to achieve this goal.

However, it became apparent that external as well as internal networks, and internal communication as well as development is not yet fully aligned with the level needed for detecting and exploiting opportunities.

It can therefore be concluded that HRM departments in Dutch general hospitals are still in the transition towards becoming fully strategically aligned with the organisation as a whole. Furthermore, HRM innovations are only elaborated and implemented in order to achieve a certain objective; they are not used for the pure purpose of being innovative.

## **8. Contribution of Research**

This thesis contributes to the scientific field of human resource management and innovations in the health care sector in several theoretical as well as practical ways.

### **8.1. Theoretical Relevance**

This research presents a link between two current subjects, HRM in the health care sector and innovations. Both research fields are enjoying great importance, but are under-researched when combined into one field of interest. This investigative work aims at narrowing this research gap by offering the opportunity to receive insights into innovation processes, causes and conditions in the specific context of Dutch general hospitals. The combination of these specific fields represents relevant information for researchers in the public and private sector, especially within the specific context of hospitals. It generates new insights into current proceedings in the hospital sector, which is not only due to in the course of this work presented findings on HR innovations, but also due to the conceptualization of the specific sector environment, prevailing circumstances as well as elements.

### **8.2. Practical Relevance**

This investigative work also contributes to knowledge in a practical way. By revealing sector-specific elements, processes, conditions, risk factors and actors within innovation development and implementation processes, managers in a similar environment and circumstances can find support and suggestions for possible adoptions or problem counteracts. As the increased competitive rivalry among general hospitals within The Netherlands is decreasing due to various reasons, the own competitiveness constantly needs to be kept or even increased. This research adds to this factor by presenting several innovations to oppose staff turnover or increase cost-efficiency or by adverting to elements that might become relevant in the hospital sector in the future.

## **9. Limitations and Future Research**

This research's findings are limited as the source of information is comprised of a small number of solely HR managers. However, after just two interviews certain influence trends, challenges, and notes on the hospital context emerged. Additionally, comparison of findings with the other junior researchers took place to ensure that the findings can be trusted.

This limitation leads to the possibility for future research on the three types of HRM innovations with other types of information sources, such as other HR specialists or the hospital's unit managers. Furthermore, research on differences in HRM innovations in different levels is possible, such as the organisational, unit, or individual level.

The comparison between the findings in table 1, 2 and 3 exposed peculiarities, which present interesting opportunities for future research. Here, connections between the types of innovations and their influencers can be examined. This would possibly support HRM departments of general hospitals to develop specific changes to oppose challenges or specifically approach certain influencers.

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## Appendix

Figure 3: The Ulrich Model of HR Roles (Shah, 2015)

