

The Influence of Flexpool Design and Management in the Health Care Sector on Employee Behavior and Organizational Flexibility

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Abstract

Within health care organizations flexpools are a commonly used concept to reply to the growing need of flexibility and, at the same time flexpools serve as a means to reduce costs that primarily occur due to the employment of external agencies workers. This research paper deals with the impact that the design and management of flexpools within the health care sector, with special focus on the employees' motivation and commitment and the organization's ability to meet demand and supply fluctuations. There is neither any research about flexpool design and management nor about research about flexpool workers on scientific literature available, despite the fact that organizational flexibility and new means and ways of employee flexibility play an increasing role especially for the health care sector.

This research is conducted by making use of theories and approaches from scientific literature and interviews with health care institutions. The widely applied HR architecture model by Lepak and Snell and the core-periphery model by Atkinson are both considered as suitable to implement into the theoretical framework of this research. The results however, deviate from the assumptions made in the theory as the concept of the flexpool differs from the concept of external labor flexibility given the internal employment of flexpool workers. Further, it is suggested that flexpools need to be designed according to the degree of flexibility and environmental predictability, especially in terms of clients' demands. It is highly important to embed an organizational wide understanding of how important and valuable the flexpool and its workers, involving the participation in the ILM. Moreover, the external environment, especially the political and legal environment has a large impact on the management and design of flexpools and health care institutions in general. Organizations are increasingly required to respond precautious by making sure measures to retain and recruit high-qualified personnel.

The low sample size lowers the validity and reliability of the findings. Yet, the research is able to identify the most important aspects that influence the management and design of flexpools and points out further research areas and the relevance of this research topic.

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1. INTRODUCTION

Within the context of health care institutions, flexpools are a widely used concept to organize the flexibility of labor within an organization and/or within a small network of organizations in order to maintain continuity of work processes. It serves as a means to provide the organization flexibility in terms of labor flexibility. Additionally to the regular workforce, flexpool workers are internally hired (no use of a third party) under zero-hour and min-max contracts and this pool enables the ability to meet demand and supply fluctuations (de Heer & Verweij, 2011). The internal employment of flexible workers, like core workers, is the main aspect that differs flexpool workers from flexible workers, which are according to a common understanding, externally hired by means of employment agencies. However, the concept of the flexpool shows deficits in its implementation. Among other problems, it is mainly regarded as a gate for being laid off and consists of increasingly less motivated and committed workers (de Heer & Verweij, 2011). Further, organizations neither have an overview of the costs of flexible workers, nor an overview of the employee market development and future employee availability (Hulsebos, 2010). The problems as pointed out by de Heer and Verweij and by Hulsebos indicate that the design of a flexpool plays a significant role that impacts its efficiency and effectiveness.

With regard to flexible workers literature underlines the importance of flexible work arrangements that primarily refers to externally employed workers and is researched in an industry sector. Employee flexibility is suggested to provide the employer (1) provision of special skills that are not available in-house; i.e. specialized consultancy and (2) smoothing out fluctuations in labor demand, which is in association to reduction of uncertainty due to labor scarcity/shortage, as can be summarized by Kalleberg et al. (Kalleberg, Reynolds, & Marsden, 2003). Striking is the focus on motivation, commitment/loyalty that is argued to be lower in the case of flexible and temporary workers as opposed to permanent employees (e.g. Cuyper et al., 2011; De Cuyper et al., 2009; Deery & Jago, 2002; Guest, 2004; Slattery et al., 2008). Low levels of loyalty and commitment is reasoned, among others, by the low psychological contract and the exclusion of the internal labor market (ILM), low perceived job security that has consequence on the job satisfaction and performance (e.g. De Cuyper et al., 2009; Deery & Jago, 2002; Guest, 2004). As the literature mainly refers to externally employed workers, the tripartite employment relationship that usually is the case for employment agency workers is regarded as a further reason for low motivation/commitment and loyalty (de Cuyper et al., 2011; Slattery et al., 2008).

Further, it can be suggested that the external environment, especially the legal, political and economic environment plays a critical role given the fact that health care institutions are highly dependent on this by governmental/political legal and regulative decisions and governmental financial support as indicated by scholars (e.g. De Cuyper, Notelaers, & De Witte, 2009; Guest, 2004; Håkansson & Isidorsson, 2012) and confirmed by all interviewees.

Literature findings unambiguously lay emphasis on the distinction of core and periphery workers based on the model by Atkinson (1984) and further a categorization of employees according his/her strategic value to the firm and the uniqueness of human capital (Boselie, 2010). In this research paper, these two models serve as a theoretical framework, since they are widely referred to within the scientific literature on the one

hand and provide strategic configurations and as tools to segment the employees on the other hand.

Given the issues and problems concerning flexpools as indicated by de Heer and Verweij (2011) and by Hulsebos, (2010) with inclusion of the literature findings it raises the main research question: *how does the design and management of flexpools influence the employee motivation and commitment and the organization's ability to meet demand and supply fluctuations?* The management of flexpools within the health care industry lacks of research. Scientific literature widely deals only with flexible (external) workers under various foci, but the attention to the so-called flexpoolers lacks within the scientific literature. Since flexible workers are a large proportion within the health care sector it needs to be investigated if those can be categorized along the HR architecture model (Lepak & Snell, 1999) and if they have similar characteristics in regard to the core-periphery model by Atkinson.

Due to the missing research, there has not been any approach developed yet that addresses the key issues of flexpool design and management namely, lack of employee motivation and commitment/loyalty on the one hand and the organization's ability to meet demand and supply fluctuation on the other hand. Although there is an importance of flexpools as a HRM tool in terms of employee motivation, development, retention and commitment recognized, further progress and improvement are needed as flexpools do not meet the criterion as HRM tool yet (*gate to become laid off* (de Heer & Verweij, 2011)).

Therefore, the aim of this research is to develop an approach that contributes to the understanding of flexpools within the health care industry (in the Netherlands). This proposes solutions to the main issues of motivation and commitment and the organization's ability to meet demand and supply fluctuations, which are suggested to be influenced by the flexpool design and management.

This research is a qualitative research based on six interviews with health care institution and experts of the health care sector and/or flexpools. Further, present theory and literature will be integrated and compared with the findings of the interviews. Hereby, the HR architecture model by Lepak and Snell (Lepak & Snell, 1999) and the core-periphery model by Atkinson as referred to by Boselie (Boselie, 2010) serve as theoretical framework from which the key research model is derived.

Interviews are semi-structured since the individual designs and structures within the organizations and the various areas of expertise of interviewees require situational adaptation. The interview protocol is based on the key research model, which in turn derives from present literature and theory. Following the collected data is analyzed and the thereof concluding results are used to create the approach for solutions.

2. LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Literature Review

By reviewing the scientific literature, one can notice that flexible work arrangements play an increasing role among scholars. Here it is noteworthy that the literature regards flexible work arrangements as externally employed (agency) workers and researches are conducted from an industry point of view. There are various discussions, views and theoretical approaches aiming at flexible work arrangements and its related issues. Striking is the emphasis on numerical and functional flexibility that is widely discussed for instance upon the core-periphery model by Atkinson (e.g. De Cuyper, Notelaers, & De Witte, 2009; Deery & Jago, 2002; Håkansson & Isidorsson,

2012; Kalleberg, 2001). Further popular approaches and explanations are built on the Resource Based Theory (Kalleberg, Reynolds, & Marsden, 2003; Lepak & Snell, 2002; Lepak & Snell, 1999), Transaction Cost Theory (Kalleberg, 2003; Koene & Riemsdijk, 2005; Lepak & Snell, 1999; Lepak & Snell, 2002) and the Psychological Contract (De Cuyper et al., 2009; Guest, 2004; Kalleberg et al., 2003). Moreover, attention is laid on behavioral and attitudinal differences among regular, permanent and nonstandard, temporary workers, with primary regard on lacking motivation, commitment and job security (De Cuyper et al., 2009; de Cuyper et al., 2011; Deery & Jago, 2002; Slattery et al., 2008). The importance of flexible work arrangement and job security is recognizable, among other reasons, by the increased institutionalization, for instance the documentation of security and flexibility (flexicurity), as a goal by the European Commission (Wilthagen & Tros, 2004).

The concept of the flexpool itself is of Dutch heritage and not a commonly known term/concept outside the Netherlands and especially not known among scholar. However, Dutch human resource related magazines have published articles concerning the current issues of flexpool management and employees and provide useful insight regarding this topic in general (de Heer & Verweij, 2011; Hulsebos, 2010).

2.1.1 Flexpool

Before starting with reviewing the literature concerning flexpools, it needs to be mentioned that the articles used are from a specialized magazine, because articles of scientific journals or similar are not available. However, the two retrieved articles provide definitions about *flexpool* and *flexbureau*. De Heer and Verweij (2011) define flexpool as an instrument that is deployed within a health care institution in order to manage the flexible contracted employees. The authors describe a flexpool as an internal employment agency, the so-called flexbureau. According to Hulsebos (2010) a flexbureau is regarded as a means to offer employees a fixed contract without binding them to a fixed working place. The flexpool in turn enables the organization to employ workers directly and flexible (on an as-needed basis). Hence, the flexpool provides a solution to demand and supply fluctuations (de Heer & Verweij, 2011).

Hulsebos points out that there currently is a tendency to enlarge employee flexibility that is especially recognizable within the health care industry, in which organizations make increasingly use of a so called flexible shield as there is a need recognized that flexibility need to be re-considered as hiring personnel is costly. De Heer and Verweij (2011) suggest, that employee profiles and levels must be registered within a flexpool to ensure consistency of work processes and appropriately qualified employees.

Both articles indicate lack of motivation and loyalty/commitment of flexible employees as one of the main problems that health care institutions with flexpools face. De Heer and Verweij (2011) see the reason in the fact that employees do not provide realistic claims of the way they like to be employed. This in turn reduces the effectiveness of the flexpools and increases the dissatisfaction of the employees. Therefore, flexpools are often considered as gate to be laid off. Unqualified and unmotivated workers, within the flexpool, make this function ineffective as it is unable to meet demand and supply. Further, institutions generally have neither an overview about the costs of employees, despite the fact that employees are mostly the largest costs in organizations, nor do they have an overview of the employee market development and future employee availability (Hulsebos, 2010). Additionally, lack of employee development and mobility

within an organization are part of the main problems concerning flexpools (Hulsebos, 2010).

2.1.2 Flexible Employees

As it can be seen above, flexpool workers can be categorized as flexible, nonstandard workers, since those can be grouped to the contingent workers entailing all non-standard employment contracts, part-timers, self-employed, those working for business services and conventional temporary workers (Guest, 2004). A further definition is provided by de Cuyper et al. (2009), who refer to contingent work as temporary employment; an employment of limited duration as opposed to permanent employment, that is open-ended. This is furthermore confirmed by Kalleberg et al. (Kalleberg et al., 2003), who additionally state that only part time workers have the possibility to establish a relatively unlimited employment relationship with an organization. Among contingent workers are all types of non-standard workers, part time and other specific forms of self-employment (De Cuyper et al., 2009; Kalleberg, 2003). Further alternative work arrangements are independent contractors, temporary help agency workers, contract company workers and on-call workers (Guest, 2004). Fixed term workers are hired by an organization, whereas temporary agency workers are involved in a tripartite employment relationship in which employment intermediaries are involved, such as employment agencies and contract companies (De Cuyper et al., 2009; Kalleberg et al., 2003). In opposition to nonstandard, contingent work arrangement is standard, internal work arrangement, which involves a full-time employment by the focal employer (Kalleberg, 2003).

The dominant reasons for flexible work arrangements can be summarized by Kalleberg's et al. (2003) findings : (1) provision of special skills that are not available in-house; i.e. specialized consultancy and (2) smoothing out fluctuations in labor demand, which is in association to reduction of uncertainty due to labor scarcity. These reasons are in line with the cost theory (coping with variable demand and lower fringe benefits at the same time) and the resource dependent perspective (smoothing out variable labor demand and providing specialized skills; on this way labor uncertainty is reduced by ensuring the supply of needed skills) (Kalleberg et al., 2003). Furthermore, these reasons are coherent with the substitute and complementary perspective provided by Håkansson and Isidorsson (2012). The substitute perspective assumes that temporary contracted and temporary agency workers serve as substitutes for permanent employees by lowering costs and providing flexibility. The complementary perspective suggests that the purpose of using temporary contracted and agency workers is to serve as buffer in order to protect the (user) organization's employees from being laid off. Thereby, user firm employees gain access to the internal labor market and benefit from e.g. promotion opportunities, which, as a consequence, aim at increasing the user firm employees' commitment and cooperation.

The group of flexible employees is commonly termed as peripheral workers that are expected to provide numerical flexibility to the organization as compared to core employees that are expected to provide functional flexibility in return to job and employment security (flexicurity) (Boselie, 2010). The concept of core and periphery workers is in focus of the core-periphery model by Atkinson, which has been used widely by numerous scholars (e.g. Deery & Jago, 2002; Håkansson & Isidorsson, 2012; Kalleberg, 2001). This model and the HR architecture model by Lepak and Snell (1999) will be further elaborated in the following section regarding the theoretical framework. Since periphery workers are of low value and easily replaceable (Koene & Riemsdijk, 2005), they are mostly hired

on a temporary and as needed basis. On this way, an easy transfer of one worker to another is facilitated with minimal investment costs of the user firms, since workers are not part of the internal workforce and payroll; hence, the employer has only small to none obligations regarding the provision of employee development e.g. training or other employment incurring costs (Guest, 2004). Given the minimal obligations an employer has, the employee-employer relationship is described as transactional that is associated with the HR architecture model by Lepak and Snell. This transactional relationship has the consequence that employees have limited attachment to the employer firm, as the psychological contract solely focuses on short-term economic exchanges (De Cuyper et al., 2009; Koene & Riemsdijk, 2005). The psychological contract has been revisited numerous by scholars in regard to temporary work relationships and especially in regard to employee's commitment/loyalty and motivation (e.g. (De Cuyper et al., 2009; Guest, 2004; Koene & Riemsdijk, 2005). As based on Schein's psychological contract of the year 1978, it aims to explain the perception of both parties, the employer and the employee, towards an employment relationship; a set of unwritten reciprocal expectations between an employee and employer. The state of a psychological contract depends on the extent to which promises are kept and how they are perceived to be fair and the degree of trust of the likely delivery in future (Guest, 2004). Employee behavior is likely to explain by the psychological contract, as can be seen (among others) in the articles by Guest (2004), de Cuyper et al. (2009) and De Cuyper et al., (2011). As stated above behavioral issues such as (lacking) motivation and commitment are often in relation to flexible and temporary employees. Therefore, this issue will be evaluated more in detail in the following section.

2.1.3 *Motivation and commitment*

As pointed out by Guest, the state of the psychological contract is important in combination with the individual's perception of the internal and external labor market (Guest, 2004). There is a mutual acknowledgement among scholars that motivation and commitment tends to be lower with temporary, flexible workers as opposed to permanent workers (e.g. Cuyper et al., 2011; De Cuyper et al., 2009; Deery & Jago, 2002; Guest, 2004; Slattery et al., 2008). Compared to permanent workers, temporary workers tend to perceive their employment relationship as transactional, which implies a more limited psychological contract. Insecurity, lack of benefits, uncertain wages and different treatment than permanent workers are seen as main obstacles to build up a healthy employee-employer relationship. Permanent workers display more commitment and organizational citizenship behavior compared to temporary workers; hence, this type of employees tend to have a better state of organizational citizenship (Guest, 2004).

Job satisfaction can be regarded as key determinant that influences an employee's commitment/loyalty, motivation towards an organization and employee turnover (De Cuyper et al., 2009; de Cuyper et al., 2011; Deery & Jago, 2002; Guest, 2004). De Cuyper et al. (2011) indicate that temporary workers show less loyalty as consequence to the low job security they perceive. They do not feel the obligation to return with committing behavior to the employer to such an extent that lacking commitment can have impact in unproductive behavior and/or lower job performance. This is furthermore confirmed by Guest (2004), who states that flexible employees experience disadvantage in respect to job security, which has negative outcomes on job satisfaction, psychological well-being and the life outside work. He also underlines that a person being on the contract of choice increases his/her job satisfaction and well-being. De Cuyper et al. (2009) perceive the level of

employability as a striking factor that influences the employee behavior in terms of commitment, motivation and job satisfaction. The unpredictability of losing a job in near future increases job insecurity and the authors claim that this is more the case for permanent workers as for flexible workers, since they expect limited employment duration.

Another perspective is brought up by Torka and Schyns (2010), who found out that temporary workers do not differ in terms of commitment to permanent workers in case of similar treatment. The authors underline that managers aim to minimize the way in which permanent and temporary workers are treated, especially in terms of HR practices. The organizations' perceived importance of and dependency on temporary worker consequently leads to appealing HR practices and policies – enhancing employee motivation and commitment.

As literature primarily treats flexible workers as external agency workers it is noteworthy to mention that the tripartite employment relationship in which a temporary worker is engaged can be regarded as an important factor that lowers organizational commitment due the two foci lowering the level of organizational identity and commitment (de Cuyper et al., 2011; Slattery et al., 2008).

Following the reasons and main drivers, which impact commitment and motivation, there is an unambiguous opinion observable that temporary, flexible employees should be integrated into the work organization and treated equally in order to enhance motivation and commitment. That involves training with respect to employability enhancement (de Cuyper et al., 2011; Deery & Jago, 2002; Slattery et al., 2008; Torka & Schyns, 2010). Slattery et al. (2008) lay emphasize on new employee development (NED), which integrates employees into the organization including its visions and goals. Well-adjusted employees feel more committed to an organization and have higher intention to stay. Deery and Jago in turn (2002) imply the importance to allow temporary workers to have access to the internal labor market (ILM), which influences the employee's attitude towards the organization in terms job satisfaction, intention to leave and organizational commitment. In addition, the free choice of being a temporary worker or the opportunity to become permanently employed further influence employee motivation and commitment; hence worker's the intrinsic motivation (Torka & Schyns, 2010).

2.1.4 *External factors*

Not only the contextual factors within an organization but also the external contextual factors such as the national legislative environment and employment factors influence an individual's attitudes and experience of being employed on an flexible, temporary contract (Guest, 2004). Contingent work arrangements are common forms of employment in Europe (De Cuyper et al., 2009) with a general increase and growing interest in work flexibility observable; one to two percent increase on average in Europe and highest in the Netherlands with four percent (Håkansson & Isidorsson, 2012). In concern to flexible work arrangements, institutional settings, which differ greatly between countries, are highly affecting the proportion of flexible workers in an environment (Håkansson & Isidorsson, 2012). European wide legislations on flexible contract ensure for instance, that flexible employees are not treated disadvantaged in comparison to permanent employees (Guest, 2004).

The latter refers to the EU concept of flexicurity, which is a policy that attempts to enhance flexibility of labor markets, work organizations and labor relations on the one hand and to enhance security in terms of employment and social security on the other hand (Wilthagen & Tros, 2004). Flexicurity has its

origins in the Netherlands (Tangian, 2007). It became an important policy issue in the EU that embedded this concept in the European Treaty to promote the adaptability of workers and labor markets as well as high levels of employment; hence to achieve a balance between flexibility, security and increased job quality (Wilthagen & Tros, 2004). As response to the EU wide integration, numerous governmental measures of the member states have occurred that aim at encouraging employers to make use of part-time (or similar) employment as means of enhancing flexibility and security (Oorschot, 2004).

2.2 Theoretical Framework

In context with flexible work arrangements one instantly arrives to Atkinson's classical core-periphery model, established 1984, and the Human Resource Architecture Model by Lepak and Snell (1999). Atkinson created a model that is implementable for the so-called flexible firm providing the conditions for employee flexibility in association with various contract forms (Boselie, 2010). Lepak and Snell in turn created four types of employment, namely knowledge work, job-based employment, contract work and alliance/ partnerships that enable to examine the strategic value and uniqueness of human capital embodied within each, as well as the HR configuration and employment used to manage those respective types of employment (Lepak & Snell, 2002).

Starting with the core-periphery model, it is among the most commonly known and modern HRM tools (Bowers & Akhlaghi, 1999) that facilitates a complex and useful means of analysis, by taking into account the changes of work patterns, such as the increased need for flexibility within an organization (Deery & Jago, 2002). Atkinson distinguishes between core and periphery workers, which have been discussed widely among scholars.

Core workers possess high and specific skills and qualifications that are value adding to the organization (Boselie, 2010). As they benefit from internal career paths, core workers are part of the internal labor market (ILM) and high commitment HR management, which involves elements of the High Performance Work System (HPWS) (Deery & Jago, 2002; Kalleberg, 2001). Core workers are anticipated to show functional flexibility in return to job and employment security. Functional flexibility can be defined as internal flexibility that is implemented to design work organizations in which employees are able to vary their work tasks and participate in decision-making (Håkansson & Isidorsson, 2012).

Periphery workers in turn are characterized by numerical flexibility, which involves temporary contract and staff adaptation levels according to demands (Håkansson & Isidorsson, 2012). Periphery workers are seen as secondary workers (Håkansson & Isidorsson, 2012) - part-time and non-standard forms of work (Deery & Jago, 2002) - and as the so-called foot soldiers that are necessary to run the business with a supportive function for other employee groups (Boselie, 2010). Among their common tasks are day-to-day activities, which are important but not vital to the organization (Deery & Jago, 2002). They are hired on a transactional- as opposed to commitment-based relationship, which implies the exclusion of the ILM (Deery & Jago, 2002; Håkansson & Isidorsson, 2012).

According to Hulseboos (2010) temporary work plays a significantly large role in the health care industry, which indicates the importance of flexible workers. De Heer and Verweij (2011) describe the flexpool as an internal employment agency, a widely used tool to organize the flexibility of employees within an organization and/or within a small network of organizations in order to maintain continuity of

work processes. It configures mainly contracts, functions, working time and location to suit to external and internal demands and supplies at the same time. The concept of flexpool suggests that a team of flexible employable workers (under zero-hour and min-max contracts) can be assigned to jobs, according to respective demand and supply fluctuations (de Heer & Verweij, 2011). As this description matches the description of peripheral workers, the so-called flexpool workers can be perceived and dealt in the further analysis as such.

The HR architecture model by Lepak and Snell (1999) is primarily drawn from the transaction cost theory, but also on the resource-based view and the human capital theory. As the transaction cost theory is the root for make-or-buy decisions, it involves decisions of internalization and externalization of assets, in this case human resources. The decision about internalization/externalization should be based on the degree to which skills contribute to the core capabilities of the firm; hence the expected return of employee productivity (Lepak & Snell, 1999). Further, internalization/externalization of employment is driven by differences in employee skills (firm specificity), occupational differentiation, technology etc. and/or differences in human capital such as knowledge, skills, and abilities that have economic value to the firm (Lepak & Snell, 2002).

Given the differences in the human capital, there is a need to identify the configurations of staffing, training, appraisal and reward practices that are appropriate for the various types of employment. The HR architecture model differentiates four types of employment modes, by their respective strategic values and uniqueness with the HR configuration and practices (Lepak & Snell, 1999; Lepak & Snell, 2002). The four employment modes according to Lepak and Snell are contract workers, job-based employees, alliance partner, and knowledge employees, which are distinguished by the dimensions *strategic value of a group of human capital and associated types of knowledge* and *the uniqueness of a group of human capital and associated types of knowledge* (Boselie, 2010). The *strategic value of human capital* is defined as "the potential to improve the efficiency and effectiveness of the firm" (Lepak & Snell, p. 519, 2002). The value of human capital is dependent upon its contribution to the organization's competitive advantage and/or core competence of the firm (1999). The uniqueness of human capital in turn is the "degree to which it is rare, specialized and in the extreme, firm specific" (Lepak & Snell, p. 519, 2002). The uniqueness of human capital is a driver that influences the decision regarding internalizing and externalizing of employment, which is highly dependent on tacit knowledge and expertise development (Lepak & Snell, 1999).

Contract workers are characterized by low strategic value and low uniqueness (Boselie, 2010). This type of worker is mainly hired on temporary basis (Boselie, 2010); hence, a prime candidate for outsourcing and short-term contractual agreements (Lepak & Snell, 2002). In terms of HR configuration and practice the focus lies on worker compliance with set rules and procedures and task accomplishment (Lepak & Snell, 2002).

Job-based employees possess low level of uniqueness and high level of strategic value. There is little attention given to long-term employment, rather the employee-employer relationship is transactional- and performance-based (Boselie, 2010). Skills are not particularly unique (Lepak & Snell, 2002).

Alliance partner have a high level of uniqueness and low level of strategic value. The type alliance partner is needed permanently by the firm, but the work does not have any link to

the business or core processes of the organization (Boselie, 2010) (Lepak & Snell, 2002).

The knowledge-based employee is characterized by high score of uniqueness and high score of strategic value. Knowledge workers possess firm specific core knowledge and, due to the long-term horizon, the relationship between employee and firm is commitment based.

The HR configuration can be divided as follows:

Commitment-based HR configuration counts for knowledge-based employees; compliance-based for contract-based employees; productivity-based for job-based workers and knowledge-workers; collaborative HR configuration is best suited to alliance partners, knowledge employees and job-based workers (Lepak & Snell, 2002).

This model provides an optimal basis on which various employment modes can be categorized and HR configurations and practices applied accordingly. In case of flexpool workers, those are likely to be categorized as job- and contract-based workers, due to their temporary employment, flexible work hours and the membership of the flexpool, which is comparable to a temporary (agency) worker.

3. RESEARCH METHODS

As stated in the introductory section, the aim of the research is to develop an approach that contributes to the understanding of the flexpool concept within the health care industry (in the Netherlands). In order to develop this understanding the main issues impacting the design and the management of flexpools need to be identified by conducting interviews with managers of health care institutions and experts and advisors that have expertise knowledge of flexpools, and/or labor flexibility and health care institutions in general.

As stated before, scientific literature does not provide any (empirical) quantitative data, information and/or knowledge concerning flexpool management and/or design. This requires initiative to acquire information and to develop knowledge of the area of research interest by means of data collection, and a research questions involving qualitative responses. These aspects call for a qualitative research.

According to Babbie (2010): “a qualitative analysis is a nonnumerical examination and interpretation of observations, for the purpose of discovering underlying meanings and patterns of relationships” (p. 394). This implies the interlinking of theory and data collection and the identification of patterns that derive from the analysis of data and theory (Babbie, 2010), or as Crouch and McKenzie (2006) express, a qualitative research is based on a “continuing monitoring of the interview material in relation to theoretical developments” (p. 493). Data collection in a qualitative research typically involves various types of correspondents between researcher and respondent. In-depth interviews as means of qualitative data selections are intended to provide an authentic insight of a particular issue and thereby to generate deep understanding and knowledge. Respondents are rather regarded as (individual) cases as opposed to mere variables/means, that underlies the interactive aspect of a qualitative research (Crouch & McKenzie, 2006).

Crouch and McKenzie argue that the main advantages of interactive aspects (interviews) are the great richness of material, broader scope that is not constrained by a pre-determined grid of questions, dialogue that encourages reflection and greater involvement of the investigator. The latter is supposed to enhance validity and reliability. Validity and reliability are regarded as the main drawback of the interviews

due to interviewer bias, variability of rapport and validity issues related to the interpretation of interview material.

However, the authors underline that a qualitative research is the best method for analytic, inductive and exploratory research (Crouch & McKenzie, 2006). It aims at explaining how or why certain patterns and reasons for certain phenomenon are present. As suggested by Babbie (2010) qualitative researches can be designed according to questions aiming at finding out about frequencies, magnitudes, processes, causes or consequences. These research questions often start with how and what, which indicate the purpose of description, exploration and explanation (Babbie, 2010). Hence, the research question starting with how, as it is the case in this research, intends to describe, and furthermore to understand a situation that is based on cases and/or in-depth interviews (Meredith & McCutcheon, 1993).

Given time, scope and the variety among organizations within the health care sector, this research will be based on interviews that follows a guideline for the purpose of comparability on the one hand but is adjusted either prior or during the conversation, to the interviewees and their organizations on the other hand.

Next to the interviews, the theory is based on the most relevant models, frameworks and researches available in the scientific literature.

In a qualitative research implying in-depth analysis and understanding in which a small sample size is suggested to be appropriate. In this case the number of respondents is selected to be six: two “experts” and four interviews with (flexpool) managers of different kinds of health care institutions. The primary reason for this sample size is the improved opportunity to understand and elaborate the various perspectives, situations and environments an individual respondent faces. Expectedly, each organization manages and designs its flexpool and/or workforce differently and needs to deal with different environments and issues. This is also the case for the experts working in different fields of expertise. Further, this sample size allows closer contact and communication with the respondents in case of further questions, unclear aspects or similar. A more accurate analysis is enabled by the in-depth conversations providing the understanding and lowering the likelihood of misunderstanding and misinterpretation of the respondents.

The following managers of health care institutions and experts have been interviewed:

- Organization 1 is a health care institution for intra-mural mental and psychiatric care, located in the northern part of South Holland. It possesses several locations in this region and has a total number of employees of 2500. Within organization 1, there is one central HR office that is responsible for all HR related issues. The interviewee, manager 1 is one of the coordinators and he is responsible for managing the pool of flexible workers in terms of functions (placement and creation), recruitment, concept/program etc.
- Organization 2 covers various areas of health care in Enschede and Glanerbrug and provides intra- and extra-mural care. The visited location is particularly responsible for dementia and rehabilitation from e.g. heart attacks or strokes. In this organization work 800 people, whereof 40 work in care. The manager’s (2) responsibility is to manage and coordinate the internal, central flexpool.
- Organization 3 is located in the area of Twente and Overijssel (Enschede excluded). This is a health care institution for elderly care, intra- as well as extra-

mural care. The number of total employees is 5000 with 80 locations and 500 teams. Organization 3 has created an internal employment agency/flexpool office two years ago, of which manager 3 is responsible, for with a subordinated team of so-called advisors.

- Organization 4 is an institution for disabled (physical and psychological) health care in the regions Waterland, Zaanstreek and Kennemerland, offering intra- and extra-mural care. The interviewed manager (4) is responsible for the coordination and management of flexible workers.
- Expert 1 is a consultant in a HR consultancy that is specialized for flexpool management in health care institutions.
- Expert 2 is a lawyer in an association for health care institutions, representing the interests of the institutions by means of collective agreements.

The selection of the interviewees is based on the aim to have the highest possible variety in order to be able to incorporate, despite the small sample size, as many views and perspectives various management styles, environments, focus of expertise etc. as possible. Further, the focus on design and management gave reason to have a larger number of health care managers as respondents, namely four, than expert respondents. The two expert interviews provide insight in likely trends, problems and issues that generally effect health care institutions, and they can give recommendations on ideal concepts of flexpool management and design.

As indicated above, the qualitative research lacks of reliability and validity due to the small sample size. The six interviews allow in-depth examination and understanding but conclusions and results derived from these interviews are exposed to biases, misunderstandings and misinterpretations, involving low reliability. Further, the general validity is limited by the small sample size lowering the generalizability of the results and approaches to solutions.

4. KEY CONCEPT AND OPERATIONALIZATION

Following the discussion concerning available literature and theories the theoretical research model has been developed, depicting the relationships of the most relevant factors influencing the efficiency and effectiveness of flexpool management. Based on the main research question: *How does the design and management of flexpools influence the employees' motivation and commitment and the organization's ability to meet demand and supply fluctuations?* The following key variables are present:

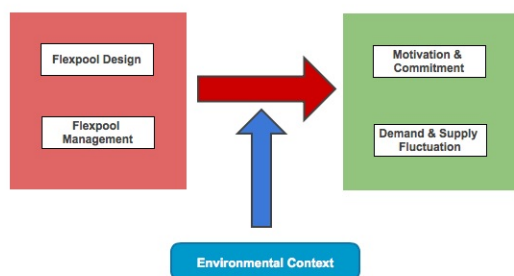


Figure 1: Research model

4.1 Independent Variables:

4.1.1 Flexpool Design

The way in which a flexpool is designed and created is expected to have a significant impact on the entire efficiency and effectiveness of a flexpool in terms of motivated and committed employees and the capability to match employee demand and supply fluctuations. Therefore, the design of a flexpool is an independent variable. The following four attributes are anticipated to be the most relevant aspects that are part of a flexpool design. Further attributes can still arise and need to be taken into account to some extent. However, this variable can be measured by evaluating each dimension individually. Finally patterns are expected that support the evaluation of “successful” and “unsuccessful” flexpool designs.

1. *Proportion of the flexpool:* This aspect refers to the proportion of the flexpool to the proportion of regular and/or permanent workers and aims at determining the various sizes of flexpools. It is assumed that the proportionate size of a flexpool is modified according to the flexibility needed, depending on demand and supply fluctuations. As suggested by Pinker and Larson (2003), each period it is determined by the management how many employees are hired under a permanent and fixed-term contract respectively. Regular contracted workers are used automatically, while the usage of contingent workers (flexible workers) and overtime are decided by the management (Pinker & Larson, 2003). Therefore, the proportion of a flexpool is the percentage number of flexible employees in relation to the total number of employees. This variable can be expressed by the percentage number of flexible workers that matches employee demand and supply fluctuations over a short- and long-term period.

2. *Objective of flexpool:* Primary motivation to make use of contingent/flexible workers is to reduce uncertainties by providing needed skills and to smooth out demand and supply fluctuations (Kalleberg et al., 2003; Pinker & Larson, 2003). Further, flexible workers provide employers flexibility to adjust staffing according to fluctuations and workload (2003). Furthermore, the use of flexpools, next to the increased flexibility is the cost reduction by hiring personnel internally as opposed to externally by employment agencies (Hulsebos, 2010). As indicated in the literature review, de Heer & Verweij (2011) refer to the flexpool as HR tool and means for employee dispatch. Based on the literature the main objectives of flexpools are (1) meeting demand and supply fluctuations; (2) enhancing employee mobility and development; (3) cost efficiency.

3. *Geographic distance:* Geographic distance can be defined as the space between two locations. In this concern it is associated with the distance an employee faces when he/she is assigned to one and/ or various job(s). Distance between the locations is commonly measured by kilometers.

In this context, the geographical distance is assumed to influence “motivation and commitment” and “demand and supply fluctuations”. A high distance, for instance, is assumed to lower number of available employees, as motivation decreases if job assignments are at more distanced locations. Flexible contracted workers are suggested to show less motivation and commitment as opposed to permanent employees (de Cuyper et al., 2011; de Heer & Verweij, 2011; Guest, 2004; Hulsebos, 2010; Slattery et al., 2008). Hence, further distances to job assignments imply larger effort required by an employee. In turn, short distances can be assumed to either strengthen motivation and commitment, as well as demand and supply fluctuation, or it can be assumed that short

distances do not have any positive and / or negative affect on these two aspects.

4. Contract Type: According to de Cuyper et al. (2009), employees hired on a fixed-term contract and temporary agency contracts, also known as contingency employment are common forms in Europe. Among contingent employment are part-time and specific forms of self-employment (De Cuyper et al., 2009). Contingent workers are all hired under a non-standard employment contracts. Guest (2004) distinguishes part-timers, self-employed, those working for business services and conventional temporary workers.

Further, contingency workers can be either fixed-term contracted workers that are directly hired by the organization or temporary agency workers, who are involved in a tripartite employment relationship (employment agency) (De Cuyper et al., 2009).

As opposed to core workers, which are hired on a permanent contract, the so-called periphery workers/ fixed-term or temporary workers are hired on an as-needed basis, i.e. temporary contracts (De Cuyper et al., 2009).

De Heer and Verweij (2011), and Hulsbos (2010) indicate that flexible contracted-employees are less motivated, less acquainted with processes and show less loyalty to the organization. This is furthermore supported by Guest (2004) de Cuyper et al. (2009) and Slattery et al. (2008). Moreover, Guest and de Cuyper et al. refer to the psychological contract. Temporary workers are more likely to perceive their contract as transactional, whereas permanent workers are more likely to perceive their contract as relational (Guest, 2004). The psychological contract in case of the temporary workers implies economic and short-term exchanges (De Cuyper et al., 2009). Slattery et al. (2008) emphasize that contingency workers are exposed to role and conflict ambiguity due to the employment at the agency on the one hand and the client organization on the other hand. This in turn has impact on the employee's attitude i.e. job satisfaction, organizational commitment and turnover intention. Temporary workers are less committed, which enhances the need of new employee development within the client organization.

Based on the articles it can be stated that flexible contracted workers are less committed and less motivated, whereas permanent contracted employees show larger degrees of commitment and motivation towards an organization. Hence, it can be assumed that the type of contract, which is referred to flexible work arrangements, such as min-max hour contract and 0-hour contract have an impact on the employee's behavior, especially in terms of motivation and commitment.

4.1.2 Flexpool Management

The flexpool management incorporates the way a flexpool is operated managed by an individual institution. It is assumed that the way a flexpool is managed has impact on employee demand and supply and on employees' motivation and commitment. Flexpool management can be analyzed along the dimensions *centralized or decentralized flexpool, internal or external, use of ICT and software systems* and finally, the *flexpool management team*. Patterns and categories among the various institutions need be identified to compare the flexpool management of the various health care institutions.

4.2 Dependent Variable

4.2.1 Motivation and Commitment

Meyer, Allen, and Smith (1993) distinguish and define three different themes of commitment, namely: "commitment as an affective attachment to the organization, commitment as a

perceived cost associated with leaving the organization, and commitment as an obligation to remain in the organization" (p. 539). They refer to these three types of commitment as affective, continuance, and normative commitment, respectively. Referred to this distinction Torka and Schyns (2010) describe affective commitment as emotional and normative as commitment that involves emotional obligations. Both are, the most desired ones by organizations (Torka & Schyns, 2010).

Motivation is turn, as cited by Ramlall, who refers to a definition by Robins in 1993: "motivation is the willingness to exert high levels of effort towards organizational goals, conditioned by the effort's ability to satisfy some individual need" (Ramlall, 2004).

Based on the discussion above "motivation and commitment" can be defined as an independent variable as it is highly dependent on the contract type, hence the design of a flexpool.

In order to evaluate motivation and commitment the interviewees' perception about employee motivation and commitment, especially behavioral comparison between flexible and permanent workers need to be analyzed and interpreted.

4.2.2 Employee Demand and Supply Fluctuation

As argued, employee demand and supply fluctuations are highly critical in order to match workers, especially contingency workers according to the respective variations in fluctuations. The size and the management of a flexpool are highly influencing the management of a flexpool in terms of meeting the needs of employee demand and supply. In respect to comparability of results companies and experts are asked about the ability to meet demand and supply fluctuations and which aspects are the main factors impacting the match of demand and supply.

4.3 Moderating Variable

4.3.1 Environmental Context

As commonly known, the macro and micro environmental factors are aspects are those that a company cannot influence directly, but have a significant impact on an organization. Not only the contextual factors within an organization such as design and management, but also the external factors (including national legislation and employment factors) affect the employees' attitude towards, and the experience of being employed on a temporary contract (Guest, 2004). Further, the external environment, the micro and macro, in which an organization operates has a large impact on how it conducts its businesses and consequently on its design and management, as commonly known. Due to the importance of the external environment, economic conditions, legislations and geographical/economic disparities among Dutch provinces/regions need to be identified by conducting the analyses. Of special importance within this context are the conditions of the *labor market* in terms of availability of labor force and (economic) regional differences on the labor market, *economic fluctuations* with the focus on a micro environmental level and the *legal, institutional environment* on a EU, national and regional level.

5. RESULTS

The interviews were semi-structured conducted and took place four times via phone and twice as face-to-face conversations. During the conversations many and numerous issues came up that cannot be integrated fully as it would exceed the scope of the paper. However, the intensive conversations helped to develop an understanding of the various contexts in which the

interviewees are operating in. The interviews lasted between approximately 50 minutes and two hours. The following results came up, structured according to the variables of the research model:

5.1 Flexpool Design

The optimal design of a flexpool is suggested to be a large, central and internally managed flexpool. A large flexpool is supposed to be better able to match demand and supply fluctuations and provides a larger degree of flexibility to the organization and to the employees and this becomes especially important given the political regulation of the change in zero-hour regulation that became effective as at July 1st 2014 (expert 1). All organizations have a centrally managed flexpool and workers are placed in various locations. Although the design and the management of the flexpools vary among the four organizations the respective sizes are all below and close to 20% (around 15-20%), with exception of the last flexpool (manager 4), where the flexpool is below 10%. None of the flexpools is larger than 20%. The size of the flexpool is largely dependent on the type of health care in regard to its predictability and the flexibility required as expert 1 states: *"The size of the flexpool depends on the type of care and the predictability of clients"*. Therefore, it can be assumed that the higher the need for flexibility given to relatively low predictability, the larger the size of a flexpool and vice versa (expert 1; expert 2). *"Institutions establish flexpools in order to reply to unexpected issues"* (expert 2). Maternity care for instance is highly unpredictable, hence this type of health care requires high flexibility, whereas elderly care is more predictable and hence, there is a lower need for flexibility (expert 2). However, the four organizations differ from their type of workers, which are in the pool. Organization 1 solely consists of psychiatric nurses, as psychiatric care requires a highly specialized workforce. All other functions that are needed on a flexible basis are hired externally by employment agencies that count for a proportion of 10% (25% a few years ago) (manager 2). In organization 2, the flexpool primarily consists of level three workers; level one employees for instance need to be organized and provided by the facilities themselves. In organization 3, the internally created flexpool consists of all functions and levels; not only functions within the health care, but also functions such as cooks and service or logistic related jobs (manager 3). At last, in organization 4, there is small flexpool that intends to cover all functions, particularly specialized functions such as deaf language skills, which are needed in mentally and physically disabled care (manager 4). The latter organization has a small flexpool, which has the size of twelve full-time employees as compared to 800 employees. The flexpool intends to cover missing employees that are available, for instance because of illness or holiday. As this requires spontaneous planning and reaction, a constant on-call duty is implemented. These are covered by the team and flexpool managers that are either, in case of missing employees, try to cover by (a) the flexpool, (b) by interchanging regular team worker, or (c) if (a) and (b) are not working, by hiring an external agency worker.

According to expert 2 and confirmed by all the managers, the unambiguous reasons why a flexpool exists within an organization are *"the ability to reply to unexpected issues"* (expert 2). Furthermore, *"flexpools enable an improved matching of supply and demand needs"* (expert 1), efficiency especially in regard to costs (all experts and managers) as covering flexible working shifts only by external agency and also the transfer of employees are costly and require high effort (e.g. administration, coordination etc.).

5.2 Flexpool Management

"The management of the flexpools is depending on the way of doing things within an organization" as stated by expert 1. Worth mentioning is the usage of specified software systems, applied by all four organizations. As pointed out by manager 2: *"these systems do not differ significantly"*, they are similar in their functions but differ in regard to their dashboards. These systems enable coordination and managing the employees and the teams simultaneously and matching employee profiles, availability and capacity with the needs and requirements by the teams (manager 1, 2 and 3). The self-scheduling system either managed manually and/or by a software system, is a commonly used means to schedule employees and ask for their preferences concerning time and location. These systems enable a smooth management of the flexpool in coordination with the employees and managers of the teams. The main issues involved with the management of flexpools is the increasing difficulty to find the right employees. *"We have difficulties finding the right employees despite the fact that enough labor force is available on the market"* (manager 1). This is mainly due to the budget cuts by the government that makes labor increasingly hard to pay (manager 1; manager 4). Related to this, there is a tendency visible that organizations become more critical in the selection and recruitment of flexpool workers. Critical selection and recruitment in turn aim at working efficiently in terms of cost and to enhance the quality and the employees' motivation within the flexpool (expert 1). Further, management becomes more difficult in times of flus and holidays (manager 2). Manager 2 is concerned with the image of the flexpool: *"The flexpool rather has a 'bad' image"* (manager 2). This image involves that this flexpool consists of lower-level and less qualified employees, which damages the aim to be regarded as a pool of specialists, and valuable to the organization. Given this image problem, the primary task of the flexpool managers, but also manager of the entire organization is to create means and ways to enhance the image and to improve the overall quality of the flexpool.

In regard to the main objectives of creating the flexpools it is unambiguously the facilitation of a *"better and more flexible respond to internal and external demands and supplies"* (expert 1), the need to reduce external employment agency costs (manager 2; manager 3), to enable the interchangeability and transferring of employees throughout the teams and the entire organization (manager 2, manager 3). Manager 4 states: *"we have created the flexpool several years ago to become more efficient and further, it enables rotation of our employees, which is also good for the employees to orientate and look around the organization"*.

The assumption that far distances reduce effective and efficient management of a flexpool is not confirmed. All interviewees state that distances do not have any effect. In most cases travel expenses are reimbursed (all managers), company cars and scooters are provided (manager 3) and the radiuses of the individual distances are restricted (manager 2; manager 3). This is due to the sole operation in Enschede, where the highest distances are about 8km (manager 2) or distances are limited as *"long travel distances are time consuming and therefore costly"* (manager 3).

5.3 Employee Motivation and Commitment

The opinions vary in this concern. Expert 2, manager 2, and manager 1 experience flexible workers as a motivated and reliable workforce. This can be reasoned by the sole focus on clients as compared to focusing on the department/organization and the clients at the same time (manager 1). Further *"the flexpool workers are intrinsically motivated to work in the*

health care and the work with clients” as stated by expert 2 and confirmed by manager 2. Flexibility of work shifts enable to balance private life and work, and finally, the change of working locations can be seen as a reason for a low illness rate in the flexpool as it is the case for the organization of manager 2: “My flexpool’s illness rate is just 2.9% as compared to 12 to 13% in some of the teams” (manager 2). Manager 1 even experiences the flexible workers as more motivated than the regular workers within the units. He explains: “the hard physical and emotional work a psychiatric nurse is daily confronted with, is easier to deal with if you change locations regularly”, hence, changing clients, which detaches emotionally from the clients’ problems. Also manager 4 does not see any difference between flexible and permanent workers in terms of motivation. The main difference is: “the workers in teams are more committed to their locations and show more team spirit. Flexible workers in comparison are divided and they come and go” (manager 4).

Contrary, expert 1 perceives flexible workers as less motivated and additionally as less committed than permanent/regular workers. Expert 1 explains: “flexpool workers do not feel like being part of the organization, which reduces the felt responsibility to the organization and to the co-workers. Regular workers and flexible workers often do not know each other”. Manager 3 experiences that flexible workers are often not accepted by the work teams, which is similar to manager’s 2 impression. Manager 3 states: “flexible workers pursuit to be in the flexpool is to become a regular team member and/or a contract with more hours”. Further, flexible workers are less accepted because they have the reputation that they are less qualified and not as good as the regular workers, who achieved a permanent job position (manager 3).

In all four organizations is the flexpool regarded as a HR tool/function having the intention to develop or maintain a pool of highly valued and qualified and specialized workers, where flexible workers enjoy the same benefits from trainings, qualifications etc. In case of organization 1, flexible workers are highly specialized and due to their regular change of locations they are able to adapt quickly, and therefore, “they are able to handle all kinds of new situations” (manager 1). Given this, there is a high interest in retaining the flexible workers and in turn, a so-called “loopbaan center” within the HR department will be established; a development center that intends to focus on the skills, qualifications etc. of the internal employees (manager 1). “Constant trainings and skill developments ensure a qualified flexpool in order to meet demand and supply fluctuations in the long term and it is also a binding instrument” (manager 1). In case of organization 4, the flexpool has the primary intention to change the image of the flexpool. The flexpool is developed as “kweekvijver”, a development pool. Employees asking for any developments of skills, qualifications etc. need to be willing to end the permanent working position and become a flexpool worker. On this way organization (2) aims at establishing a flexpool that has the image of a pool with high qualified and high-level employees (manager 2). At organization 3, a yearly skills lab takes place in which all employees of the care need to undergo an e-learning test that on the one hand aims at performance enhancement and on the other hand it serves as employee performance benchmark. Manager 4 adds that they have, next to trainings etc. a general introduction sessions for all employees, as “it is important to all employees to become familiar with the organization”.

5.4 Employee Demand and Supply Fluctuation

In regard to demand and supply fluctuations it can be stated that higher level (higher than level three) and higher qualified employees within the care sector are scarce and becoming decreasingly available than lower level (lower than level three) and less qualified employees. “Matching external demands with internal supplies is dependent on which level or qualification of workers is demanded” (expert 1). At the moment the organizations do not face significant difficulties in matching demand and supply especially in terms of matching available human resources with the demands needed (quality, level etc.). But the organizations recognize the increasing difficulties to retain and to recruit new high-level employees that are given due to budget cuts by the government: “more and more people are demanded but less money is available; that makes meeting demand and supply increasingly difficulty” (manager 3). It is expected that the peak of the problem will be in about four to five years and will last around eight to ten years (manager 2; manager 3). Manager 4 indicates that currently, special qualification such as deaf language and qualifications to work with especially demanding behaviors are particularly difficult to retain and recruit on the labor market. In general, short-term imbalances usually occur because of holidays and flus or other illnesses and are mainly covered by external employment agencies (e.g. manager 2; manager 4, expert 1). Expert 1 stresses: “it becomes more and more important that organizations work together”. This is in regard to exchange and transfer employees among each other. Manager 2 mentions, that there are already attempts to create a joint flexpool with the leading health care organizations of Enschede. Both, expert 1 and manager 2 underline the difficulty of such a transfer and currently, the tremendous budget cuts are the main reason that organizations focus on the own needs first. In order to avoid major shortages of nurses (level three and higher), manager 1 underlines: “constant observation of the development of the internal labor market and the intention to maintain a flexpool size of 50 to 70 nurses” as a means to maintain a good quality and the flexpool size in the longer term. The retaining of the current level of the flexpool involves improving its quality in terms of labor force is crucial to the flexpool management to be further able to meet demands and supply. This is among other means done by social media platforms that raise the awareness among potential new workforce (manager 2; manager 3). As opposed to most of the organizations, manager 4 explains that they do not hire any new employees because of high insecurity (of the external environment). Manager 4 refers in particularly to the governmental decisions that will be discussed in the following section.

Noteworthy mentioning is a statement by expert 1: “an organization’s ability to meet demand and supply fluctuations is to a high extent dependent on the management’s way of managing” and more importantly, “the management’s attitude towards the flexpool and its employees”. Referring to motivation and commitment: a low valued employee is less likely to show commitment and motivation, given a low perception of responsibility towards the organization and towards colleagues. A low valued attitude of flexpool employees in turn can have consequences on the overall efficiency and effectiveness of the flexpool management.

5.5 External Context

Political and regulative decisions have doubtlessly the main impact on the management of health care organizations and, in turn the flexpools, which have been mentioned by all interviewees. Frequently changing political and governmental

decisions make long-term planning difficult, even impossible for health care organizations (expert 2; manager 2; manager 3; manager 4). Especially the budget cuts that are determined by the government can be regarded as the most impacting concern of the flexpool managers and experts. The tremendous budget cuts will lead to reduced capability to pay the care operations and to attract higher-level and well-qualified employees. The work in the health care is a hard physical and partly emotionally work. *“The combination of the hard work and low payment is a problem that commonly face and/or will face the organizations of the health care sector”* as underlined by manager 3 and confirmed by manager 2. Briefly spoken, there is enough labor available on the market, but labor becomes increasingly difficult to pay, which will cause a critical labor shortage within the health care organizations. A change of the zero-contract regulation has been enforced by the government, which prohibits from July 1, 2014 the signing of new zero-hour contracts. According to expert 1 and expert 2, this newly enforced law will cause difficulties especially to the health care institutions since those rely their operations heavily on zero-hour contracts that provide them the increasingly needed flexibility. *“It is likely that this regulation will lead to highly reduced intra-mural care. Because of the reduction of care-personnel, people need to find work elsewhere (in other industries)”* (expert 1). On the one hand this regulation can give the organizations some degree of security as the employed flexible workers are obliged to work the fixed hours and cannot reject jobs especially, if it comes to unpopular shifts such as evenings, weekends and holidays. On the other hand the obligation to provide hours can be difficult as those cannot be covered constantly, which in turn can lead to lay offs of work force (expert 1). Expert 2 argues: *“it is anticipated that the reliance on hourly contracts will be costly for organizations and jobs of the care level one and two will disappear”*. It is likely that organizations create small-hour contracts (expert 1), or as expert 2 suggests there will be more contract forms that have a limited duration and hours; for instance 500 hours for the duration of one and a half years. Further, as stated by expert 1, expert 2, manager 3, and manager 4 the job market generally provides sufficient labor force for the health care when the economy and general job market is low and when the economy is good and general job market is able to provide many jobs opportunities, the job market for the health care industry becomes more difficult, hence, less workforce is available. Jobs within the health care are unpopular especially for young people; hard word and badly paid. *“Work force is growing older and it is problematic to attract young people”* (manager 2). Manager 1 underlines: *“the health care industry is treated on economic principles that is not possible, as this industry does not follow any economic patterns”*. As an example, the government sets limits for the demand of a particular health care, hence the (yearly) budget is set accordingly. But if this limit is exceeded, i.e. more people than estimated needs care, there will be no additional financial support provided.

Manager 4 furthermore is worried about the upcoming change in January 2015 that the determination concerning who receives care will be made on a local level (the municipality) and not on a national level (the government). Manager 4 explains: *“nowadays the financial control for the health care is on the governmental level and part of that financial control will be transferred to the local level, the municipalities. (...) The government still pays for the care, but the municipality decides in which way the care will be provided”*. This new transfer has the consequence that less people will have the right to receive care, especially intra-mural, as the focus will be set on more care provided by family or friends – privately organized. Hence, the care provided by an organization will be secondary and

decreasingly demanded and can be regarded as a further reason, why the organization does not employ new care personnel.

5.6 Discussion

Bringing these results in association with the previous findings of the literature and particularly with the above described HR architecture model by Lepak and Snell and the core-periphery model by Atkinson it can be anticipated that flexpool workers and people working in care functions generally need to be distinguished from the characteristics of a “typical” periphery worker (Atkinson) and the categorization of workers along the dimensions strategic value of *human capital* and *uniqueness of human capital* (Lepak and Snell).

Summing up the findings of the interviews, one can state that flexible workers are highly regarded workers of the organization. There is a high intention of the management to integrate and involve flexpool workers, given their importance to the organization. Flexpool workers enjoy the same treatment and ILM benefits as regular care workers. Further, they are perceived as motivated, reasoned by their intrinsic motivation and the personal advantages of work flexibility. Whereas the management recognizes and values the importance of flexible workers, there are nevertheless problems concerning the acceptance of flexible workers among permanent team members and colleagues (e.g. organization 3 and partly, 2). The perception of the flexpool and flexible workers possibly depends on how long the flexpool is part of the organization; thus, the age of the flexpool. Organization 2 provides an example where this embeddedness and integration is not present yet and considered as an important organizational goal (change of the flexpool’s reputation), whereas in organization 1, the management and teams agree upon the importance and quality of the flexpool. However, there are too few examples to prove the relationship between the degree to which a flexpool is embedded/integrated in an organization and the age of the flexpool. This can be suggested as further research.

The results of the interviews are largely in contrast to the findings from literature and, in particular the core-periphery and HR architecture model. The main differences to the models and theoretical approaches are given by the internal employment, the nature of health care, and the high dependency on workers for providing care. Raison d’être of health care institutions is to provide care for people by people, which in turn raise the importance of care personnel as vital and critical to the organization. Increasing labor scarcity, especially the scarcity of higher-level employees, labor payment and recruitment suggest that workforce is not considered as easily replaceable. *“Flexpool workers make the organization run”* (manager 2) represents the general opinion of the managers, and therefore, flexpoolers are considered as high value to the organization. These characteristics contradict the concepts of periphery, contract and job-based workers. As stated by the model by Atkinson, periphery worker are important to run the daily business, but they are not vital to the organization and easily replaceable.

Although flexpool employees do not contribute to strategic decisions of the organization they are an important issue of the organizations’ strategy because the need of flexibility and the perceived importance of flexible workers throughout the organization grow; e.g. the cultural change within organization 3. Further, care is suggested as core activity in health care institution, which can be an explanation for the internalization of flexible workers on the one hand and the assurance to remain a high degree of flexibility by offering non-standard contracts on the other hand. This suits to Lepak’s and Snell’s argument that the internalization of employment is necessary when

required skills are a core activity of organization.

The internal employment of the flexpool involving obligations by the organization towards its flexible employees (payroll, insurances, ILM etc.) is another aspect that is not coherent with the findings of the literature stating that flexible workers are hired for the reason to avoid such obligations and the associated costs. As proposed by Atkinson, workers are not considered as part of the ILM and as easily replaceable. The employment is based on short-term contractual agreements, which is a characteristic for job-based workers according to Lepak and Snell. As flexpool workers are not outsourced like contract workers and also job-based workers, implying short-term employment, flexpool workers, especially those with higher qualification (higher than three) are intended to bound to and retained in the organization. The interview results suggest that flexible workers are treated in the same way as regular workers and they only differ in terms of flexible contract arrangements, changing working locations and self-scheduled shifts. This is firstly opposing to Hulsebos's findings that there is a lack of employee development and mobility and secondly, it is contrary to the transactional-based contract under which flexible workers/periphery workers are hired on (Boselie, 2010).

Additionally, there is a need to maintain some degree of continuity and stability of work processes and personnel within the care. Especially in regard to the clients it is not preferred to have constantly different workers, who are neither familiar with the work processes, nor know the clients and their individual needs. Therefore, there are binding and commitment-enhancing measures implemented such as regular trainings and other skills-enhancing tools i.e. the *loopbaan center* by organization 1 and the *e-lab* by organization 2. This shows that flexpools are created in order to meet demand and supply fluctuations and still have high intention keep employees and their respective skills in-house in order to save costs by avoiding hiring employees externally. Comparing with the literature, flexible work arrangements are a means to provide lacking skills and smoothing out labor demand in order to protect the organization's employees from being laid off.

It can be concluded that flexpool workers provide important skills and are intended to become further developed and retained by the organization. This suits to the suggested uniqueness of job-based workers, referred to high-qualified care workers in particular. Focus on task accomplishment (job-based and contract workers) is another point that matches flexpool workers, but also organizational commitment is an important factor that needs to be present as opposed to transactional (Atkinson) and contract-based relationship (Lepak and Snell).

Interesting is also that the assumption of the literature that flexible and temporary workers tend to have lower motivation and commitment than permanent workers, which again, is not confirmed. Flexpool workers are rather more motivated, but still differ in most cases from the regular work force (*the other group of workers*). Unexpectedly, this does not necessarily lead to lower motivation and commitment. Often the opposite is present, for instance in organization 3, where flexible workers show high motivation to become permanently employed and/or to get a larger contract. Similar treatment, participation on the ILM and the organization's dependency are according to the results by Torcka and Schyns (2010) and hence, can be considered as motivating aspects also for the flexpool management. Therefore, there is no evidence that flexpool workers are less motivated or committed. Further, it can be assumed that the flexible work arrangements, mainly min-max and zero-hour contracts (only permitted until July 2014) do not have any impact on employee behavior. The working distances

as factor that demotivates employees is also not confirmed. Organizations have implemented means (company car/scooter, travel expense reimbursement and the circumscribed area) that avoid large travel distances, also given additional costs occurring to the organization in case of larger distances.

At last, the external environment plays a significantly large role, as the organizations of the health care sectors are highly dependent on governmental and political decision (insurances, *CiZ* and *zorgkantoor* etc. included) having impact e.g. on budget and regulations. This is also suggested by the literature, where it is claimed that especially the legislative environment and the employment factors have influence on organizations and employees. The health care sector can be regarded as an unpredictable industry, where long-term planning is difficult, due to frequent governmental/political changes. Nevertheless, as opposed to the assumption by Hulsebos, organizations have an overview about labor availability and are able to forecast the labor market. Additionally, software systems specialized for flexpools support the coordination and management, which enables planning and therefore, matching supply and demand smoothly. Difficulties appear mainly in times of holidays and flus/illnesses. Rather, the political and governmental decisions causing budget cuts and frequently changing regulations are those factors that impede the management, particularly in terms of labor demand and supply. However, the concept of flexicurity that is supposed to be promoted by the Netherlands is at risk given the budget cuts, possibly also due to the changed zero-hour contract regulation. There is already a tendency recognizable that young people rather like to work anywhere else but in health care given the combination of hard work and low payment - the latter again, is caused by the tremendous budget cuts. It can be assumed that young people do not perceive sufficient security in terms of income in health care and therefore are more likely to refrain from personal flexibility by choosing different jobs with less flexibility, but better payment. This in turn, impedes the idea of flexicurity within the health care sector. In regard to the external factors there has been the assumption made that there are regional differences on the labor market. Again, this has not been confirmed by the majority of the interviewees, although worth mentioning is the impression of manager 3. He perceives that in the area of Twente/Overijssel is more labor available in the health care sector than in the Western parts of the Netherlands, especially in the cities Amsterdam, The Hague, and Rotterdam. Manager 3 argues that the population in this region likes to settle down here, or return to Overijssel/Twente, hence more stability and continuity are given - the population's overall characteristics are more suitable to work in a care function. Whereas in the large Western cities, people tend to be more fluctuate and change locations, jobs etc. more frequently and hence, are less likely to work in a care position.

There are few characteristics that flexpool workers possess that match the characteristics according to Atkinson and Lepak and Snell, i.e. foot soldiers that are necessary to run the business, low strategic value, in some cases short-term and result oriented employment, uniqueness of worker. Yet, it can be seen in this analysis that the concepts of external employment as suggested by the literature differs largely to the concept of flexpool workers in terms of organizational value, critical importance to the daily business, the integration and involvement in the health care organizations, participation on the ILM, and the status as core staff in most organizations. Hence, a characterization according to core-periphery model and HR architecture model difficult as such as these merely distinguish between internal and external workers.

6. CONCLUSIONS

In regard to the research question: *how does the design and management of flexpools influence the effectiveness and efficiency in terms of employee motivation and commitment and demand and supply fluctuations?* The following results and conclusion can be made:

Political and governmental environment are hard to influence. Therefore, constant adaptation and precautionary actions are required by the health care organizations. Budget cuts for instance already have significant impacts on the workforce and make it harder to retain and recruit care personnel; higher-level employees in particular. In order to manage flexpools successfully, measures are important that (1) increase and/or maintain a high level of motivated and qualified employees and (2) provide employees opportunities for development that also underlines the value of each flexpool employee. There is a clear opinion that given the political decisions and the labor market development new ways of organizing the care including the flexpool need to be established. Suggested is a trend of creating networks between organizations that interchange especially its flexible employees. Also alternative ideas arise, e.g. the creation a joint flexpool of the health care organizations within a city and/or region. Additionally, it is expected that the care becomes more self-directed with smaller teams and also more self-directed work by the clients is expected, due to lower availability of care personnel and the government's aim to restrict intra-mural care to more home care (manager 3, manager 4, expert 2). Fewer employees are likely to lead to smaller organizations where even more flexibility is demanded (manager 3; manager 4).

Findings furthermore suggest that highly valued and well-qualified flexpoolers are more committed and more motivated than low valued and low-qualified flexpoolers. Henceforth, they are more likely to do good jobs and are reliable and loyal to the organization and to the co-workers. This in turn leads to the importance to integrate and involve flexpoolers in the same way as regular and permanent workers. Integration and involvement does not solely imply formal means such as meetings, development and training opportunities but also informal means such as informal activities (excursions, Christmas parties etc.).

An appreciation and generally perceived importance of flexpoolers need to be developed and embedded throughout the entire organization. Often, flexpoolers are regarded as "the other group" (expert 1) and in a few cases they are regarded as low value to the organization and not well qualified, which equals the *gate to become laid off*. Integration and organizational wide acceptance take time and it is likely that the longer the flexpool exists within an organization the more embedded is the idea of an important pool with well-qualified workers that are in the same way part of the integration. Not to be ignored is the fact that organizations usually experience its flexpoolers as motivated and reliable, and in some cases even more motivated than the regular care personnel.

In regard to the design of the flexpool it is suggested to have one, central and internal flexpool that manages and coordinates the flexpool workers throughout the organization. This is the case for all organizations that argue that a centralized, internal flexpool ensures flexibility, efficiency in terms of costs in particular, interchangeability of employees and a fast response to demand and supply fluctuations. Previously, in many organizations it was the case that teams are managed individually, which impeded the transfer of employees and it was often timely and costly, especially due to the higher amount of externally hired employees. Depending on the care and its respective levels and qualification required it is beneficial to be

able to interchange flexpool employees as much as possible. More exactly, it refers to the organization's ability to assign as many workers as possible throughout the organization's locations and functions to achieve the highest flexibility possible. Software systems are a supportive and helpful tool to coordinate and manage the various needs and demands smoothly, and enables fast reaction to upcoming and/or sudden changes. The size of the flexpool is dependent on the flexibility required. The more flexibility is required, the larger should the flexpool be. Flexibility needed depends on the area of care and its predictability of demand; maternity care for instance requires higher need of flexibility than elderly care. The common size of a flexpool however, is between 10% and 20%, which is measured in relation to the number/percentage of fulltime employees (FTE). The (proportional) size of flexpools has the tendency to grow given higher uncertainty and an increasing need of flexibility. As the research is focusing on the design and management of flexpools one need to consider that the results do not exclusively refer to flexpool workers/flexpools, as organizations offer different types of work arrangements also involving flexible contracts offered to the regular staff. The solutions provided are also applicable to the workers in general as the discussed aspects i.e. integration, required flexibility, transferability of employees, environmental factors do not solely refer to flexpool management but to the health care organization and its HR management as a whole.

Referring to the main research question: in order to ensure a motivated and committed workforce and to be able to meet demand and supply fluctuations, a flexpool need to be designed and managed according to the following aspects:

- Percentage size of the flexpool (and the amount flexible workers) depends on the flexibility needed and the predictability of the type of health care.
- Organizational wide embedded appreciation and value of flexpoolers is crucial to the quality and acceptance of the flexpool within the organization.
- Flexpools have the primary objectives of enhanced flexibility, transferability of employees, reduction of external employment agency and therewith associated cost efficiency.
- Formal and informal integration and involvement of flexpoolers; similar treatment as permanent/regular workers.
- Integration and value of the flexpool and its workers can be reasoned by the age of the flexpool.
- Distances do not hinder the management of flexpools, but in regard to the design, reimbursement of travel expenses, limited distances and/or the provision of company vehicles should be considered.
- Local/regional differences do not differ significantly.
- Fast changing external demands that require more flexibility and alternative/new forms/designs of flexpools i.e. networking with other health care organizations (within a region).

6.1 Research Limitations and Suggestions for Further Research

The health care sector obviously is a sector that differs largely from other sectors especially in comparison to the private sector, which leads to a difficulty to categorize and configure flexpool employees according to commonly used theories and scientific approaches. Given the comparison of two different sectors the characterization according to Lepak and Snell and Atkinson were to a large extent not applicable. This in turn, shows the uniqueness of this sector and its employees, which

yet, lacks of research among scholars. Hence, many areas can be suggested to be researched such as the future development of the sector e.g. the need for co-operation and possibly joint flexpools, how to increase the organizational wide value and acceptance of flexpools, is the integration of flexpools dependent upon the duration of existence within an organization (its age) and which factors are particularly important to integrate a flexpool successfully into an health care organization.

The data does not provide any suggestions to alternative flexpool designs i.e. small and decentralized/localized. A centralized and large flexpool is recommended to provide high flexibility to the firm and further centralization implies high degree of organizational control. In management science, a decentralized structure is commonly associated with higher degree of flexibility and fast response to instable/uncertain market conditions. Since the environment is characterized as uncertain, health organizations are required to response fast. This can be considered as an argument for a decentralized flexpool structure. Fast organization response and decentralized decision making could ensure the matching of demand and supply demands. In addition small flexpools and/or networks of small flexpools possibly enhance the match of skill/quality demanded and the availability of skills/demands. Small flexpools furthermore lower the anonymity of flexpool employees since those are assigned more frequently to a smaller amount of teams. This in turn could strengthen the belonging to the organization and/or location; hence, lowering the perception of being the other group. However, a configuration of various types of flexpools in terms of size (small/large) and structure (decentralized/centralized) is suggested to be a further research issue, requiring a larger sample size.

This paper can only provide a small extract of the current issues flexpools are facing, due to time and scope of the research paper. Especially the time limited the amount of interviews that are further impeded given the difficult time of summer holidays in the Netherlands, where many flexpool managers are highly busy to meet the lacking availability of workforce with the external demands. The low sample size makes limited the comparison among various flexpools and reduces reliability and validity of the findings drastically.

Nevertheless, this research paper is able to point out the most important factors that hinder and foster the management and design of flexpools and provides solution for the stated research question. The research shows how relevant the sector is and the need to be researched along various aspects. A larger sample size and/or an empirical research about this research topic may even lead to divergent results and a holistic framework with more general applicable configurations will then have a larger degree of validity, reliability and applicability.

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8. APPENDIX

8.1 Appendix 1: Interview Protocols

I. Interview Questions: Flexpool Expert

1. *Description: organization; job, responsibilities etc.*

Flexpool Design

(aspects concerning scope of flexpool – one or many – and functions)

2. *In regard to the management of flexible workers: Which are the main issues why they approach you?*
3. *Do you recognize patterns among various types of (health) care institutions?*
4. *What are the most common proportions (in %) of flexible workers to the total amount of employees? (flexible-all)*
5. *What are the proportions of flexible to fixed contracted employees in organizations? (flexible-fixed/temporary)*
6. *What is the relationship between type of organization and the proportion of flexible to permanent workers? (flexible-permanent)*
7. *Do you notice differences among the various institutions in terms of the size of flexible workers/flexpool workers? (e.g. hospitals smaller flexpool; elderly homecare larger flexpool)*
8. *In which way are flexpools most commonly designed (e.g. one flexpool to cover various functions; many flexpools to cover each function separately; external flexpools)*
9. *What are the main disadvantages, general issues and/or benefits within the various designs?*
10. *What are motivational aspects/main drivers of institutions to employ flexible workers?*

Flexpool management

11. *Do you recognize patterns in terms of similarities and/or differences of how a flexpool is managed? Which? (e.g. differences between hospitals and elderly care)*
12. *Are there any guidelines/structures/frameworks in regard to flexpool management available, which are implemented by institutions/which you recommend to implement? (which?)*

Motivation and Commitment

13. *Do you recognize patterns among the institutions in regard to motivation and commitment?*
 - a. *Differences across various flexpool designs?*
14. *Do you perceive flexible workers less motivated and committed than permanent workers?*
15. *Are there any actions / measures in place to enhance motivation and commitment? (Which)*
16. *Are flexible workers usually less integrated in the organization in terms of ILM (internal labor market), informal activities, regular (updating) meetings etc.?*
17. *Do you notice differences in the employee turnover of flexible and permanent worker in the institutions?*
18. *Can flexpools/the management of flexible workers in institutions be regarded as HR means / tool, especially in terms of employee retention and development?*
19. *Is there any tendency visible that flexpools are developed further to a means of HR?*

Employee demand and supply fluctuations

20. *Are institutions able to meet external demands with their available capacity of workers?*
21. *In which situations do organizations face too few / too many flexible workers? (Meeting employee demand and supply over the short and long-term period?)*
22. *How do institutions tend to manage high and low demand fluctuations?*
23. *Are organizations usually able to match high external demands by having the required and qualified/appropriate employees available? (How do you explain a “good” / “bad” match?)*
24. *Is this also the case for flexible workers (are they assigned to appropriate jobs)?*

Environmental context

25. *What are the main external factors impacting (positively and negatively) the efficiency and effectiveness of organizational flexibility (flexpool) of health care institutions? (state of economy, legal and regulative issues, politic etc., regional specific aspects)*
26. *How would you describe the current labor market situation (in respect to health care institutions)?*
27. *Which regional differences exist on the labor market in the Netherlands?*
 - a. *How affect these differences (e.g. labor supply) the health institutions and to which extent*
28. *Is the labor market able to supply enough qualified workers in general/flexible workers?*
 - a. *If no, are any measures applied to improve the labor market situation (e.g. increase in training, incentives?)*
29. *How do institutional (legal) regulations from the EU and/or the Netherlands have impact on the way a flexpool is managed and designed?*
30. *Are there any particular regulations that are supporting / hindering worker flexibility?*

II. Interview Questions: Health Care Institutions

1. Description: organization; job, responsibilities etc.

Flexpool Design

2. Which type of health care institution is this?
3. What types of flexpools consists within your organization?
(Internal / external; one / many)
4. How is the flexpool in this organization designed? (e.g. one flexpool to cover various functions; many flexpools to cover each function separately; external flexpools)
5. How many employees do you have in total?
6. How many (%) employees are under a flexible contract? (size of flexpool, small/large)
7. What are motivational aspects / main drivers of a flexible worker for his/her contract choice?
8. Do employees work in various places and functions or do they remain within one place and function?
9. In case of various functions? Do you experience difficulties in managing the interchangeability of employees between various locations and functions?

Flexpool management

10. How and in which way is your flexpool managed? (organizational pattern, structure etc.)
11. Do you follow any guidelines / recommended structures or similar?
12. Which are the main issues that you have to deal with in the management of the flexpool?

Motivation and Commitment

13. Do you recognize any behavioral differences between permanent and flexible workers in terms of motivation and commitment? Any other behavioral attitudes?
14. What are the main reasons that flexible workers are motivated and committed / less motivated and committed?
15. Are there any actions / measures in place to enhance motivation and commitment? Which? Why not?
16. How is the flexpool generally perceived from the workers' point of view?
17. How is the flexpool generally perceived from the management's point of view?
18. Can the flexpool in your institution be regarded as HR means / tool, especially in terms of employee retention and development? Are flexible workers part of the regular internal labor market?
 - a. Is there any intention to develop the flexpool further to a means of HR? How?

Employee demand and supply fluctuations

19. Are you able to meet external demands and supply with your capacity of workers (also in terms of employee qualification and qualification needed on the job assignment)?
20. Do you have enough resources within the own flexpool to meet demand and supply or are there any situations in which you employ external employees, e.g. from a temporary work agency?
 - b. How do you manage high/low external demands (in regard to workers)?

Environmental context

21. How would you describe the current labor market? Does the labor market supply enough workers in general and enough flexible workers if needed?
22. Is the labor market able to supply enough qualified workers being willing to work on a flexible based contract?
23. What are the main external factors (e.g. economy/fluctuations, environment, political decisions, legal regulations) that are having impact on the management of the flexpool?