Essays on the Integration and Implementation of a Demographically Oriented Human Resource Management

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Abstract

The current demographic developments in the Western world lead to a shrinking labor supply and an aging workforce. In order to cope with these changes, organizations need to find ways to maintain the motivation, commitment and productivity of older workers. Accordingly, there is an increasing body of literature that shows that organizations can address the challenges associated with demographic change through the use of age-appropriate human resource (HR) practices. However, even though research in the realm of strategic human resource management (SHRM) suggests that the effectiveness of these practices is significantly influenced by their integration into wider HR systems and implementation on the operational level, few studies have explored drivers of and barriers to a demographically oriented HRM. The aim of this dissertation is to address this gap and explore if and how HR-practices associated with demographic change are integrated and implemented. It consists of three individual research articles.

The first article, a conceptual paper, builds on the concept of the psychological contract to develop a typology regarding the influence of SHRM on employees' perceptions and reactions. It thereby contributes to a more holistic understanding of the way the integration, implementation and communication of HR-practices influence their effectiveness. The remaining two papers draw on a multiple case study conducted in four German organizations to provide deeper insights into the implementation and integration of demographically orientated HR-practices. Specifically, the second paper explores how the physical, social and task contexts influence the implementation effectiveness of these practices. Finally, the third paper explores how internal dynamics influence the fit and adaption of HR systems to demographic change. Together, these findings contribute to a more holistic and nuanced understanding of the way in which practices relating to demographic change are implemented and integrated. In addition, this dissertation helps to connect findings regarding demographically oriented HRM to the SHRM literature.

Keywords: strategic human resource management, integration, implementation, typology, demographic change

Zusammenfassung

Die gegenwärtige demografische Entwicklung hat zur Folge, dass die Belegschaften der Unternehmen immer älter werden, gleichzeitig aber weniger potentielle Nachwuchskräfte zur Verfügung stehen. Somit stehen Unternehmen vor der Herausforderung geeignete Maßnahmen zu gestalten, um die Produktivität ihrer Mitarbeiter langfristig sicherzustellen. Umfassende arbeitswissenschaftliche Untersuchungen zeigen, dass durch den Einsatz geeigneter demografieorientierter Maßnahmen die Beschäftigungsfähigkeit der Mitarbeiter langfristig erhalten werden kann. Obwohl Forschungen im Bereich des strategischen Human Ressource Managements (SHRM) darauf hinweisen, dass die Integration und konsistente Implementierung von HR-Maßnahmen einen erheblichen Einfluss auf deren Effektivität haben, gibt es wenige Studien, die untersuchen, wie diese Maßnahmen verankert und umgesetzt werden. Daher ist es das Ziel dieser kumulativen Dissertation, diese Forschungslücke zu schließen und mögliche Barrieren und Förderfaktoren bei der Umsetzung einer demografieorientierten Personalpolitik zu untersuchen. Die Arbeit besteht aus insgesamt drei eigenständigen Forschungsartikeln.

Bei dem ersten Artikel handelt es sich um ein konzeptionelles Papier. Auf Basis des Konzeptes der psychologischen Verträge wird eine Typologie über den Einfluss von SHRM auf die Einstellung und das Verhalten der Beschäftigten entwickelt. Hierdurch trägt der Artikel zu einem umfassenderen Verständnis über den Einfluss der Integration, Implementierung und Kommunikation von Personalmaßnahmen auf deren Effektivität bei. Die beiden weiteren Artikel beziehen sich auf Ergebnisse einer multiplen Fallstudie und untersuchen die Implementierung und Integration von demografieorientierten Maßnahmen. Konkret untersucht der zweite Artikel den Einfluss des physischen, sozialen und aufgabenbezogenen Kontexts auf die Effektivität der Implementierung demografieorientierter Maßnahmen. Im dritten Papier wird analysiert, wie interne Dynamiken die Anpassung von HR Systemen an den demografischen Wandel beeinflussen. Zusammenfassend tragen die Ergebnisse der Artikel zu einem differenzierteren und besseren Verständnis bei, wie demografieorientierte Maßnahmen in der betrieblichen Praxis implementiert und in HR Systeme integriert werden und helfen Erkenntnisse über demografieorientierte HR Maßnahmen mit der SHRM Literatur in Verbindung zu setzen.

Stichwörter: strategisches Human Resource Management, Integration, Implementierung, Typologie, demografischer Wandel

Contents

Preface

1. Motivation and Research Objectives

Demographic change leads to ever-growing changes in the age structure of the population and has a profound impact on the composition of labor markets in central Europe. The proportion of people of working age is shrinking and the share of older persons in the population is expected to increase significantly in the coming decades (United Nations, 2013). Germany will be particularly affected by these demographic developments. It is estimated that by 2030, 35% of the total population will be 65 years or older (Statistisches Bundesamt, 2016). For organizations, these changes imply not only that it will become increasingly difficult to recruit new qualified workers, but that the existing workforce will become steadily older. The health and well-being of employees is thus expected to become a business value of strategic importance (Armstrong-Stassen, 2008; Zwetsloot, van Scheppingen, Dijkman, Heinrich, & Besten, 2010).

Research in the realm of SHRM suggests that to efficiently address the challenges associated with demographic change, organizations need to systematically align their HR systems to a more demographically oriented HRM (Boehm & Dwertmann, 2015; Jackson, Schuler, & Jiang, 2014; Kooij & Van De Voorde, 2015). This alignment requires not only the *adaptation of HR systems* in terms of their strategic objectives (vertical fit) and the introduction of internally consistent sets of practices (horizontal fit), but also the effective *implementation* of these practices (Gratton & Truss, 2003; Guest & Bos-Nehles, 2013; Wright & Nishii, 2013). Together, highly aligned HR systems are expected to lead to "powerful connections", where the effect of the entire HR system is greater than the effect of each practice alone (Becker & Huselid, 2006; Delery & Doty, 1996; Gratton & Truss, 2003; Kepes & Delery, 2007). However, while this assumption is considered to be one of the basic tenets of SHRM research, several gaps in the literature remain (Becker & Huselid, 2006; Wright & Nishii, 2013).

First, even though a considerable amount of research has been published on the impact that the alignment of HR systems has on organizational performance (e.g. Boselie, Dietz, & Boon, 2005; Combs, Liu, Hall, & Ketchen, 2006; Guest & Conway, 2011), it remains largely unknown how this relationships unfolds. This has been attributed to the fact that the central role of the employees within this relationship has largely been disregarded within the existing literature (Nishii, Lepak, & Schneider, 2008; Ostroff & Bowen, 2016). As such, the theoretical explanation of the way the alignment of HR systems influences employees' attitudinal and behavioral reactions has become one of the key challenges in the realm of SHRM (Lepak, Jiang, Han, Castellano, & Hu, 2012; Wright & Nishii, 2013).

In a similar vein, while the importance of a consistent adaptation of HR systems to the demographic change has repeatedly been stressed in the literature, studies show that organizations seem to pursue "isolated solutions" that are not integrated into the overarching HR system (Armstrong-Stassen, 2008; Boehm & Dwertmann, 2015). However, to date, research has largely ignored the influence of environmental changes on HR system fit. As a result, it remains largely unknown how these findings can be explained (Bal, Kooij, & Rousseau, 2015; Jackson et al., 2014; Oude Mulders, Henkens, & Schippers, 2016).

Finally, although studies have shown that organizations are increasingly introducing (isolated) practices to address the challenges associated with demographic change, ineffective implementation seems to often undermine the effectiveness of these practices (Hasson, Villaume, Thiele Schwarz, & Palm, 2014; Mellor & Webster, 2013; Weiner, Lewis, & Linnan, 2009). However, despite the increasing amount of research published on the implementation of HR-practices in recent years, this process is still not well understood (Bondarouk, Trullen, & Valverde, 2016; Nielsen & Randall, 2013; Trullen, Bos-Nehles, & Valverde, 2017).

In sum, research in the realm of SHRM has highlighted the importance of the systematic alignment of HR systems to demographic change. However, empirical and theoretical research

on the influence of aligned HR systems on employee reactions, as well as the factors that contribute to or undermine the consistent adaptation of HR systems and the implementation of a demographically oriented HRM, is still rare (Bal et al., 2015; Jackson et al., 2014; Nielsen & Randall, 2013).

This doctoral thesis addresses these gaps by providing insights into the important role of SHRM during demographic change. Specifically, the thesis explores the following research questions:

- How and why does SHRM influence the perceptions and reactions of employees?
- How and why do organizations implement demographically oriented HR practices?
- How and why do organizations adapt their HR systems to pressures relating to demographic change?

To systematically address these questions, this doctoral thesis consists of three individual research articles, which are described in the following paragraphs.

2. Description of Research Articles

Article 1 is a conceptual paper that draws on the psychological contract to explore how and why the alignment of HR systems and their communication influence employees' attitudinal and behavioral reactions. The psychological contract has been repeatedly identified as a particularly useful approach to conceptualize this relationship within the SHRM literature (Kaše, Paauwe, & Batistic, 2014; Ostroff & Bowen, 2016; Wright & Boswell, 2002). However, the way in which SHRM influences the psychological contracts of employees is still largely unknown (Guest & Conway, 2002; Ostroff & Bowen, 2016; Sherman & Morley, 2015; Suazo, Martínez, & Sandoval, 2009; Uen, Chien, & Yen, 2009).

This article addresses this gap by developing a typology of four ideal types of SHRM configurations and providing a holistic and systematic conceptualization of SHRM as an

antecedent of the psychological contract. Drawing on the signaling theory as a theoretical lens, it is proposed that the congruence of the psychological contract is influenced by the coherency of the structural and interactional signals sent through the HR system. The coherency of these signals is, in turn, expected to be influenced by the vertical and horizontal alignment of the HR system and the quality of its implementation (Guzzo & Noonan, 1994; Rousseau, 1995), as well as the distinctiveness, consistency and consensus of the messages sent by the organization (Ostroff & Bowen, 2016). By juxtaposing a dichotomous distinction between incoherent and coherent signals, a typology of four SHRM configurations (incoherent, structural, interactional and coherent) is developed. Each SHRM configuration is expected to lead to the emergence of a distinct type of psychological contract, all varying in their degree of congruence and probability of fulfillment, breach or violation. The configurational arguments embedded in the typology provide a theoretically grounded explanation of how and why the integration, implementation and communication of HR-practices influence the attitudinal and behavioral reactions of employees. The typology emphasizes that, to establish congruent contracts and mitigate the probability of contract breach, organizations need to send consistent signals that are reinforced through highly aligned and efficiently implemented HR-practices. A lack of alignment and poor implementation, on the other hand, can lead to a "rhetoric–reality gap" and mismatched psychological contracts, undermining the effectiveness of these practices.

Therefore, the typology developed in Article 1 emphasizes the importance of the systematic adaptation of HR systems and their consistent implementation for the effectiveness of HR systems. Further to this, the aim of articles 2 and 3 is to explore how organizations actually implement practices relating to demographics and how they adapt their HR systems in this regard.

To address these questions, both articles 2 and 3 draw on the findings of a multiple embedded case study conducted in four German organizations. By using rich data from 28

semi-structured interviews with informants across varied functional areas and hierarchical levels (i.e. senior managers, HR managers, members of the works council and employees) and more than 1 000 pages of internal and public records, these articles provide in-depth insights into the challenges and opportunities associated with the implementation and adaptation of HR systems.

Article 2 is specifically focused on exploring the influence of the organizational context on the implementation of health promotion programs (HPPs). Given their ability to contribute to the health and well-being of employees, HPPs are expected to become increasingly relevant for organizations during demographic change. However, studies have shown that the effectiveness of these programs is frequently undermined by ineffective implementation (Hasson et al., 2014; Nielsen & Randall, 2013). While the literature indicates that implementation effectiveness is substantially influenced by the context in which the implementation occurs, research to date has only acknowledged contextual influences in a narrow and static way (Bondarouk et al., 2016; Cooke, 2018; van Mierlo, Bondarouk, & Sanders, 2018).

To addresses this gap, this study draws on the conceptualization of context by Johns (2006) and explores the influence between contextual factors arising from the physical, social and task contexts of organizations (Johns, 2006). The empirical findings reveal that implementation effectiveness is influenced by a number of factors across these contextual dimensions. A clear distribution of roles and responsibilities, a high level of accountability and the availability of training and support emerged as particularly important factors arising from the task context. In relation to the social context, the strong social influence of different HRM actors towards implementation, a supporting social structure and sufficient staffing levels were seen to influence implementation effectiveness. Finally, in terms of the physical context, the size and structure of the organizations and the working environment were identified as relevant

contextual factors. However, the findings provide evidence for substantial interrelationships between the individual contextual dimensions (e.g. the physical context influences the social context). Based on these findings, a tentative conceptual framework of the influence and interrelationships of these contextual factors has been developed. This framework emphasizes that a complex interaction between the physical, social and task contexts influences the implementation effectiveness of HPPs.

Article 3 investigates how organizations adapt their HR systems to demographic change. The SHRM literature suggests that drastic environmental changes, such as demographic change, should trigger the systematic adaptation of HR systems to retain their fit and effectiveness (Banks & Kepes, 2015; Jackson et al., 2014; Paauwe & Boselie, 2007). In this regard, it has been suggested that the adaptation of HR systems is the result of a complex interaction between competitive and institutional pressures arising from environmental changes and the internal dynamics of organizations (Greenwood & Hinings, 1996; Harney & Dundon, 2006; Oliver, 1997). However, research to date has largely ignored these relationships (Boon, Paauwe, Boselie, & Hartog, 2009; Jackson et al., 2014).

This study addresses this gap and explores how internal dynamics influence the adaptation and fit of HR systems to demographic change. It reveals that organizations face strong and sometimes conflicting competitive and institutional pressures. In the case of the organizations studied, these pressures were primarily related to the increasing age of the work force, a shrinking labor supply, changing legal regulations and collective agreements. However, even though the organizations were subjected to similar pressures, the findings reveal striking variations in HR system fit among the organizations.

By analyzing these differences, the important role of internal dynamics is highlighted and a tentative conceptual framework of the underlying relationships between pressures relating to demographic change, internal dynamics and HR system fit has been developed.

Specifically, this framework suggests that power dependencies between key decision-makers decrease their scope of action. As a result, adaptation requires close cooperation between these actors, which, in turn, is contingent on their goal congruence. However, due to the complex nature of the pressures of demographic change, the interest and "power" to adapt the HR system does not, in itself, lead to a high HR system fit. In this regard, the findings emphasize the importance of the capacity for action, in terms of the resources and expertise required to develop and integrate a consistent approach towards managing the challenges associated with demographic change. In sum, Article 3 provides insights into the complexities underlying the adaptation of HR systems by exploring the role of power dependencies, cooperation between key decision-makers, goal congruence and the capacity for action.

3. Conclusion and Contribution

Research in the realm of SHRM suggests that the effectiveness of HR systems depends on their alignment. Based on this, it has been argued that, to efficiently address the challenges associated with demographic change, organizations need to systematically address these environmental changes through the implementation of demographically oriented HR practices and the systematic adaption of their HR systems. However, knowledge regarding the relationships through which aligned HR systems influence employee reactions is still rare. In a similar vein, despite the increasing relevance of demographic change, limited attention has been paid to investigating the way in which organizations implement HR practices relating to demographic change and adapt their HR systems to a more demographically oriented HRM (Hasson et al., 2014; Kooij et al., 2013; Oude Mulders et al., 2016; van Dalen, Henkens, & Wang, 2015). This dissertation addresses these gaps by:

1) developing a typology of the influence of aligned HR systems and their communication on the psychological contracts of employees (Article 1)

2) providing a tentative conceptualization of the influence of the physical, social and task contexts on the effective implementation of HPPs (Article 2)
3) developing a tentative conceptual framework of the influence of internal dynamics on the adaptation of HR systems to demographic change (Article 3).

Each of the three research articles makes several unique contributions to the literature.

First, the typology developed in Article 1 provides an integrative and systematic conceptualization of the impact of SHRM on the formation of the psychological contract and addresses the call for a more employee-centered analysis of the relationship between SHRM and performance (Kaše et al., 2014; Lepak et al., 2012; Nishii et al., 2008). The configurational arguments embedded in the typology explicitly acknowledge the multi-level nature underlying SHRM research and provide a theoretically grounded explanation for the impact of the integration, implementation and communication of HR-practices on psychological contracts. In this way, the typology contributes to the knowledge about the role of the psychological contract as a linking mechanism between SHRM and the attitudinal and behavioral reactions of employees (Braekkan, 2012; Lepak et al., 2012; Sonnenberg, Koene, & Paauwe, 2011; Uen et al., 2009). The propositions derived from these arguments can guide further research in the realm of SHRM on the impact of aligned HR systems on employees' perceptions and reactions.

Article 2 provides insights into the complex challenges associated with the implementation of HPPs and sheds light on the important role of the organizational context (Hasson et al., 2014; Nielsen & Randall, 2013). While the important influence of context has frequently been emphasized in the existing literature, this framework is among the first to provide a conceptualization of these relationships (Guest & Bos-Nehles, 2013; Mirfakhar, Trullen, & Valverde, 2018; van Mierlo et al., 2018). By exploring the influence of discrete contextual factors (and their interactions), it contributes to the contextualization of implementation research (Cooke, 2018; Johns, 2006). It thereby provides a new angle for

analysis and extends the existing research, which has primarily focused on the role of different HRM actors, such as line managers, the HR department or senior managers (Bondarouk et al., 2016; Bos-Nehles & van Riemsdijk, 2014; Mirfakhar et al., 2018). Together, the findings highlight the constraining or conducive effects that contextual factors can have on the implementation of HPPs and emphasize the need to explicitly account for the influence of the organizational context when investigating implementation.

Article 3 contributes to the literature through the development of a tentative conceptual framework of the relationships between competitive and institutional pressures relating to demographic change, internal dynamics and HR system fit. By exploring how organizations integrate practices to address these pressures within their HR systems, the article extends the research in the realm of HRM beyond its predominant focus on the impact of HR system fit on performance (Cooke, 2018; Jackson et al., 2014; Paauwe, 2004). While previous research has often combined competitive and institutional pressures into a single construct, this study highlights the complex and sometimes conflicting nature of each type of pressure and emphasizes the need to explicitly distinguish between them (Boon et al., 2009; Boxall & Purcell, 2011). Finally, by providing a tentative conceptualization of the influence of internal dynamics on the adaptation of HR systems, this study contributes to the understanding of the way choices are made with regard to the design and fit of HR systems (Greenwood & Hinings, 1996; Harney & Dundon, 2006; Jackson et al., 2014; Paauwe, 2009).

In sum, the dissertation provides rich and in-depth insights into the role of SHRM during demographic change. While the typology (Article 1) highlights the importance of the systematic integration and implementation of HR practices, the empirical articles (articles 2 and 3) shed light on the complexities and challenges associated with these processes. Together, the articles provide several practical implications for organizations on how to address these challenges. In so doing, they serve as a valuable guide for further research.

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Paper 1

The Impact of SHRM on the Psychological Contract of Employees
A Typology and Research Agenda

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The Impact of SHRM on the Psychological Contract of Employees

A Typology and Research Agenda

Abstract

Purpose - The purpose of this paper is to provide a holistic and systematic conceptualization of the impact of Strategic Human Resource Management (SHRM) on the psychological contract. Specifically, this paper aims to explore how the alignment of HR systems and organizational communication influences the congruence and breach of the psychological contract.

Design/methodology/approach - The paper applies the signaling theory as a lens to develop a typology of four 'ideal types' of SHRM configurations, each characterized by differences in the alignment of the HR system and communication quality. Based on this typology, the influence of these different SHRM configurations on the congruence and breach of the psychological contract is being proposed.

Findings –The typology shows that the alignment of HR systems and communication quality impact differently on the formation and breach of the psychological contract. It highlights that employees require both, highly aligned HR systems and a high quality communication to form congruent contract perceptions.

Originality/value - The configurational arguments embedded in the typology allow the conceptualization of the interrelationships between the alignment of HR systems, organizational communication, and the congruence and breach of the psychological contract. The propositions derived from the typology can guide research on SHRM as an antecedent of the psychological contract and shed light on the role of the psychological contract as a linking mechanism between SHRM and the employees' reactions.

Keywords Strategic human resource management, Implementation, Communication, Psychological contract, Typology, Signaling, Alignment

Paper type Conceptual paper

The Impact of SHRM on the Psychological Contract of Employees

A Typology and Research Agenda

A growing body of research suggests that the psychological contract provides a useful linking mechanisms to theoretically explain how and why SHRM influences the employees' attitudinal and behavioral reactions (Braekkan, 2012; Kaše, Paauwe, & Batistic, 2014; Lepak, Jiang, Han, Castellano, & Hu, 2012; Ostroff & Bowen, 2016; Wright & Boswell, 2002). Thereby, the signaling and communication function of SHRM is expected to influence the congruence and breach of the psychological contract, which in turn is associated with a number of negative attitudinal and behavior reactions such as poor citizenship behavior, reduced job satisfaction, and performance (Raeder, Knorr, & Hilb, 2012; Robinson & Wolfe Morrison, 2000; Suazo, Martínez, & Sandoval, 2009; Tekleab & Taylor, 2003).

However, in contrast to the comprehensive research conducted on the consequences of contract breach, research on SHRM as an antecedent of the psychological contract is in need of further refinement (Guest, 2007; Ostroff & Bowen, 2016; Sonnenberg, Koene, & Paauwe, 2011; Uen, Chien, & Yen, 2009). The HRM literature highlights the complex and multi-dimensional nature underlying SHRM. Thereby both, the configuration of the individual HR-practices within overarching HR system, and their communication have been shown to be decisive reactions of the employees (Bowen & Ostroff, 2004; Sanders, Dorenbosch, & Reuver, 2008; Wright & Nishii, 2013). While initial empirical evidence provides support for this assumption and shows that organizational communication has a significant independent impact on the formation of the psychological contract, above and beyond HR-practices (Grant, 1999; Guest & Conway, 2002; Rousseau, 1995), the existing studies frequently conceptualized SHRM as a simple single entity and were focused on either the number or nature of HR-practices or communication properties (see e.g. Braekkan, 2012; Raeder et al., 2012; Sonnenberg et al., 2011; Uen et al., 2009). Thus, how different features of SHRM interact and

jointly influence the formation of the psychological contract remains largely unknown (Guest & Conway, 2002; Sherman & Morley, 2015; Suazo et al., 2009).

This paper aims to address this issue by providing a more holistic and systematic conceptualization of SHRM as an antecedent of the psychological contract that accounts for its complex multi-dimensional nature. Drawing on the signaling theory it will be proposed that SHRM provides both structural and interactional signals to employees which each have a unique impact on the formation and breach of the psychological contract. To facilitate the conceptualization of the complex interrelationships between both types of signals, and the psychological contract a typology of four 'ideal types' of SHRM configurations will be developed. Each ideal type is characterized by a different configuration of SHRM features which are expected to lead to the formation of a distinct type of psychological contract. Based on this assumption, a conceptual model and propositions will be derived that provide a thorough conceptualization of these relationships and operationalize them for further empirical research.

The paper is structured as follows: After a brief overview of the research on SHRM and the psychological contract, the typology will be presented. Based thereupon, propositions describing the relationship between the different configurations of SHRM and the congruence of the psychological contract will be derived to guide further research in this regard. The paper concludes with a discussion of the contribution and limitation of the typology.

Theoretical Background

SHRM can be defined as "the pattern of planned human resource deployments and activities intended to enable the firm to achieve its goals" (Wright & McMahan, 1992, p. 298). Both "pattern" and "plan" describe that the central goal of SHRM is a consistent management of the human resources to develop a shared understanding of the practices to promote collective responses that are in line with the organizations strategic goals (Bowen & Ostroff, 2004;

Ostroff & Bowen, 2016; Wright, 1998). The specification of the conditions under which SHRM leads to shared perceptions by employees has therefore been identified as a key challenge to provide further insights into the SHRM-performance relationship (Lepak et al., 2012; Liao, Toya, Lepak, & Hong, 2009; Wright & Nishii, 2013). To address this issue and theoretically link SHRM with the employee reactions, numerous scholars called for the incorporation of the psychological contract into SHRM research (Braekkan, 2012; Guest, 2007; Ostroff & Bowen, 2016; Sonnenberg et al., 2011; Uen et al., 2009; Wright & Boswell, 2002).

Simply put, psychological contracts are defined as the "[…] individual beliefs, shaped by the organization, regarding the terms of an exchange agreement between the individuals and their organization" (Rousseau, 1995, p. 9). As such, psychological contracts exists at the individual level, in the form of employee beliefs about mutual obligations between them and the organization. While organizations do not have a psychological contract themselves, they assume anthropomorphic identities as principals and provide the context in which employees create psychological contracts through the HR-practices they employ and the agents which represent their intentions, such as top-, HR managers and line-managers (Coyle-Shapiro & Kessler, 2000; Guzzo & Noonan, 1994; Robinson & Wolfe Morrison, 2000; Rousseau, 1995; Suazo et al., 2009).

However, psychological contracts are inherently perceptual and idiosyncratic in nature. As such, creation of a contract hinges much more on the belief that a mutual agreement exists, rather than on actual mutuality (Rousseau, 1995; Rousseau & Tijoriwala, 1998). The degree to which the perceptions regarding the existence and terms of a given obligation correspond to the intentions of the principal(s) responsible for fulfilling that obligation, is defined as the congruence of the psychological contract (Robinson & Wolfe Morrison, 2000; Rousseau, 1995). The congruence of the contract is considered to be an important antecedent of contract breach (Coyle-Shapiro & Kessler, 2000; Grant, 1999; Morrison & Robinson, 1997; Robinson

& Wolfe Morrison, 2000; Turnley & Feldman, 1999), defined as "the subjective perception that the organization has failed to meet one or more obligations within one's psychological contract in a manner commensurate with one's contribution" (Morrison & Robinson, 1997, p. 230). A vast amount of research has shown that contract breach has detrimental effects on both employees' attitudes and behavior such as a decrease in job satisfaction, commitment, trust and performance (Robinson & Rousseau, 1994; Robinson & Wolfe Morrison, 2000; Suazo et al., 2009; Tekleab & Taylor, 2003; Turnley & Feldman, 1999). Given these adverse consequences of contract breach, organizations should find ways to avoid mixed messages and signals unintended by the principal (Grant, 1999; Rousseau, 1995).

In this regard, it has been proposed that SHRM as the coordination and alignment of individual HRM activities can lead to more consistent messages about the organization's intentions and as a result more congruent contracts (Braekkan, 2012; Lepak et al., 2012). However, the complexity and multi-dimensional nature underlying SHRM and the psychological contract has made it extremely difficult to conceptualize the conditions under which SHRM leads to more or less congruent contracts using conventional linear models. As a result, it remains largely unknown how and why the different features of SHRM impact on the formation and breach of the psychological contract (Guest & Conway, 2002; Sherman & Morley, 2015; Suazo et al., 2009). By proposing a typology of the impact of different SHRM configurations on the congruence psychological contract, the aim of this paper is to address this gap. The configurational arguments embedded in typologies, facilitate the conceptualization of complex cause and effect relationships in which the outcome of interest rests not on a single construct, but instead on the relationships and complementarities between multiple constructs (Doty & Glick, 1994; Fiss, 2011). As such, it is considered to be especially useful to provide a holistic and systematic conceptualization of the impact of different features of SHRM and the formation of the psychological contract.

Towards a Typology of SHRM Configurations

In order to conceptualize these relationship using a typology, the underlying concepts need to be embedded in a collective theoretical foundation (Rousseau, 1998). Within typologies this theoretical foundation is operationalized through the first-order dimensions. First-order dimensions are used to specify the ideal types and represent the building blocks of traditional theoretical statements (Doty & Glick, 1994; Ridder, Baluch, & Piening, 2012). Within the HRM literature the signaling theory has frequently been identified as a particularly useful theory to investigate and explain the formation of the psychological contract and will be used to derive the first-order dimensions (Guest & Conway, 2002; Guzzo & Noonan, 1994; Sonnenberg et al., 2011; Suazo et al., 2009).

First-order Dimensions: The Coherency of Structural and Interactional Signals

The basic premise of the signaling theory (Spence, 1973) deals with the reduction of information asymmetry between two parties. Signaling theory suggests that since employees have imperfect information about the intentions of the organization, they rely on the available organizational signals to make sense of their employment relationship (Stiles, Gratton, Truss, Hope-Hailey, & McGovern, 1997; Townsend, Wilkinson, Allan, & Bamber, 2012). These signals convey information about the expected, valued, and rewarded behaviors and determine to a large extent the psychological contracts of the employees (Guzzo & Noonan, 1994; Rousseau, 1995). The more *coherent* the signals are, the more visible the intentions of the sender will be, which in turn increases the congruence of the psychological contracts (Den Hartog, Boon, Verburg, & Croon, 2013; Robinson & Wolfe Morrison, 2000; Rousseau, 1995; Tekleab & Taylor, 2003). Organizational signals can broadly be categorized into one of two specific groups: (a) *interactions* with the agents of the organization, and (b) *structural signals* sent through the HR-practices themselves (Rousseau, 1995; Sherman & Morley, 2015; Suazo et al., 2009). As the major external determinants of the congruence of contracts, the coherency

of the structural and interactional signals will be identified as the 'first-order dimensions' of the typology.

Interactional signals are defined as any direct oral or written form of organizational communication that signals future intent (Rousseau, 1995). Employees view interactions with different organizational agents as interactions with the organizations itself and personify the organizations based in the signals they receive. These signals are therefore considered to be a basic building block of the employment relationship and the primary contract makers (Grant, 1999; Morrison & Robinson, 1997; Rousseau, 1995). They can range from information regarding mission statements, goals and strategic objectives through formal top-down communication by the top-management to issues, such as workload, development, and career opportunities by the HR-management or direct job-related communication from line-managers (Guest & Conway, 2002; Turnley & Feldman, 1999). While ongoing interaction between these agents and employees is expected to provide information about the context and nature of the employment relationship, the involvement of multiple agents in contracting also increases the probability of mixed messages and incongruent contrast (Rousseau, 1995).

Structural signals, on the other hand, convey information directly through the HR-practices the organization employs. Employees frequently view HR-practices in terms of the commitments they convey, and the behaviors they cue. For example, compensation systems or career paths that are focused on loyalty convey the implicit promise that long-term commitment is wanted and rewarded. Employees rely on these signals to derive further interpretations about the context and nature of their employment relationship (Guzzo & Noonan, 1994; Ostroff & Bowen, 2016; Sherman & Morley, 2015; Suazo et al., 2009). Thus, structural signals are often regarded as 'administrative' or 'secondary' contract makers that provide additional information about the expected and rewarded behaviors. However, HR-practices are not just a source for contract related information but also a mechanism that contributes to the fulfillment

or breach of the psychological contract (Rousseau, 1995; Sonnenberg et al., 2011). The tangible and intangible resources HR-practices such as compensation, performance appraisal or career paths contain (i.e. money, authority or autonomy) can be used by the organization to reward or sanction past or present behavior.

As organizations differ between the way they communicate the expected and rewarded behaviors and the HR-practices they employ, the coherency of the structural and interactional signals can be considered along a continuum ranging from a high to a low level of coherency. Juxtaposing a dichotomous distinction between incoherent and coherent structural and interactional signals, four 'ideal types' of SHRM configurations emerge (See Fig. 1). These ideal types describe unique combinations of organizational attributes that are believed to determine the relevant outcome(s) (Doty & Glick, 1994). As such, the term ideal type itself is not employed in a normative sense that conveys a positive or negative connotation.

Insert Figure 1 about here

The proposed ideal types of SHRM configurations are each characterized by a distinct configuration of structural and interactional signals. As can be seen in figure 1, the coherent and incoherent configurations represent the extremes or 'true' forms, scoring high or respectively low on both first-order dimensions. Additionally, two hybrid configurations are expected to exist where only one type of signal is coherent. Even though both types of signals are interrelated they have a unique impact on the congruence of the psychological contract. Thus, each ideal type will lead to the formation of a distinct type of psychological contract, differing in congruence.

Although most signaling models include the coherency of signals as the distinguishing characteristic, 'coherency' has been conceptualized in a wide range of different ways (Guest

& Conway, 2002; Guzzo & Noonan, 1994). As such, it should be understood as a multi-dimensional concept. Correspondingly, the outlined ideal types themselves are complex phenomena that must be specified through multiple, clearly defined constructs in order to explain how and why they impact the formation and breach of the psychological contract. Within typologies, these clearly defined constructs are labelled as 'second-order factors'. The second-order factors provide a more nuanced conceptualization of the first-order dimensions and a multivariate full description of the ideal types (Doty & Glick, 1994; Ridder et al., 2012).

Second-order Factors: Alignment of the HR system and Organizational Communication Quality

As previously argued, SHRM is expected to lead to more consistent HRM that helps employees to develop a shared understanding of what is expected and rewarded in terms of the HR-practices. Given that a shared understanding of the obligations underlying the employment relationship has also been identified as the determinant of the congruence and breach of the psychological contract (Lepak et al., 2012; Ostroff & Bowen, 2016; Sanders et al., 2008), it will be argued that the coherency of the structural and interactional signals can be conceptualization in terms of the consistency of HRM.

Most SHRM researchers argue a consistent HRM depends on the *'alignment' of the HR system.* The alignment of the HR system is influenced by the *vertical,* and *horizontal alignment,* as well as the *implementation quality* of the HR-practices (Clinton & Guest, 2013; Gratton & Truss, 2003). While *horizontal alignment* deals with the internal consistency of complementarity of the individual HR-practices, *vertical alignment,* denotes the fit between the employed HR-practices and the strategic orientation of the organization (Becker & Huselid, 2006; Delery & Doty, 1996; Kepes & Delery, 2007). However, both concepts as defined and operationalized in the realm of SHRM operate only at the strategic or policy level of the organization. Yet, studies have shown that gaps between practices intended at the strategic

level and those actually implemented and applied frequently exist (Khilji & Wang, 2006). Since these gaps would inevitably distort the alignment of the HR system on the operational level, many models of SHRM now include the *implementation quality* as a third dimension. Implementation quality is defined as the overlap between intended and implemented practices (Gratton & Truss, 2003; Kepes & Delery, 2007; Wright & Nishii, 2013). Together highly aligned and well implemented HR-practices are expected to mutually reinforce behaviors that are consistent with the strategic objectives of the organization. This reduces the complexity of the obligations conveyed through the HR-practices and makes the expected and rewarded behaviors more salient across the HR-practices, leading to more congruent contracts (Morrison & Robinson, 1997). Thus, the alignment of the HR system, in terms of vertical and horizontal alignment as well as the implementation quality will be identified as the first 'second-order factor' that influences the coherency of the structural signals.

Apart from the alignment of HR systems, an increasing amount of research highlights the importance of a high *communication quality* to build consensus about HR-practices among employees and facilitates the emergence of shared perceptions (Bowen & Ostroff, 2004; Den Hartog et al., 2013; Ostroff & Bowen, 2016). Communication quality can be defined as 'the process by which a consistent message about HRM content can be sent to employees' (Bowen & Ostroff, 2004, p. 207) and has been conceptualized as a function of the *consensus*, *consistency* and *distinctiveness* of messages send by the organization (Bowen & Ostroff, 2004; Nishii, Lepak, & Schneider, 2008). *Consensus* between the top-management, HR management and line-management, regarding the organizational goals and the desired contribution of the employees leads to more unambiguous and consistent messages regarding the expected and rewarded behaviors (Bowen & Ostroff, 2004; Rousseau, 1995). In a similar vein, highly *distinctive* and *consistent* signals will be more visible and easily comprehensible. Together, a high quality communication will reduce the complexity and uncertainty of the structural signals

and aid the employees' collective sense-making (Guest & Conway, 2002; Ostroff & Bowen, 2016; Rousseau, 1995; Wright & Nishii, 2013). Drawing on these findings, it will be proposed that the coherency of the interactional signals is influenced by the *quality of the organizational communication*, in terms of its consensus, consistency and distinctiveness.

As multivariate full descriptions of the ideal types, these second-order factors can be used to link their theoretical description to characteristics of real organizations (Doty & Glick, 1994; Ridder et al., 2012). The conceptualization of the first order dimension and underlying second-order factors draws attention to the range and complexity of contracting in organizations. Each SHRM configuration is characterized by a specific pattern of second-order factors which are expected to impact differently on the congruence of the psychological contract (Rousseau, 1995; Rousseau & Greller, 1994; Stiles et al., 1997). In the following section, a conceptual model will be delineated in detail to clarify the relationships between the SHRM configurations and the psychological contract by developing theoretical propositions. The first set of propositions explains how each of the four SHRM configurations leads to the emergence of a distinct type of psychological contract, varying in the degree of congruence. Stemming from these variation in type of psychological contract, a second set of propositions are developed that make assertions about the relationship between these distinct types of psychological contracts and the probability of their fulfillment, breach or violation.

Advancing a Conceptual Model and Propositions

In line with the SHRM literature outlined above, it will be argued, first that the second-order factors of 'alignment of the HR system' and 'communication quality' differ between the four ideal types (Bowen & Ostroff, 2004; Delery & Doty, 1996; Gratton & Truss, 2003; Nishii et al., 2008; Wright & Nishii, 2013). Table 1 depicts this differentiation across the four SHRM configurations as well as the operationalization of these second-order factors. In light of these differences, propositions about the relationship between each SHRM configuration, the

formation of the psychological contract and the consequences for its fulfillment breach and violation, will be developed, starting with the configuration with highest signal coherency and ending with the lowest.

Insert Table 1 about here

The Coherent SHRM Configuration

Organizations with a coherent SHRM configuration send highly coherent interactional and structural signals that consistently relate to one another. These organizations are characterized by high communication quality. Thus, the agents involved in the communication process provide highly distinct and consensual information regarding the obligations underlying the psychological contract that are consistent with the intentions of the principal to the contract. The literature suggests that agreement between the principal and agents involved in communicating the psychological contract promotes a single organizational `voice' (Guest & Conway, 2002; Stiles et al., 1997; Turnley & Feldman, 1999). As such, this type of communication is expected to send unambiguous and internally coherent interactional signals to employees which minimizes the 'false consensus effect', whereby two parties wrongly believe that they share the same perceptions (Ostroff & Bowen, 2016; Robinson & Wolfe Morrison, 2000). A number of studies provide support for this assumption and show that high quality information leads to shared *perceptions* and uniform expectations about the expected and rewarded behaviors (see e.g. Guest & Conway, 2002; Nishii et al., 2008; Sanders et al., 2008). Especially, strong organizational cultures, and flat hierarchies with short communication channels, have a substantial influence on the consistency and coherency of organizational communication and can contribute to more coherent interactional signals (Guzzo & Noonan, 1994; Rousseau, 1995; Stiles et al., 1997).

Within the coherent SHRM configuration these expectations are corroborated by aligned and well implemented HR systems. These systems sent messages regarding the expected and rewarded behaviors and shape the day-to-day behaviors of the employees. Within highly aligned HR systems, HR-practices establish unambiguous cause and effect relationships which systemize the beliefs about the expected and rewarded behaviors in a manner that is consistent with the principals' intentions (Raeder et al., 2012; Rousseau, 1995; Uen et al., 2009). Given that both types of signals are coherent and are aligned with the intentions of the principal to the contract, the structural and interactional signals mutually reinforce each other, and function as a single entity. This reduces the ambiguity and complexity of these signals and makes the intentions of the organizations more clearly observable and predictable, leading to more congruent contract perceptions (Morrison & Robinson, 1997; Rousseau, 1995). Thus, it will be proposed that:

P1a: The high communication quality and highly aligned HR systems of organizations with a coherent SHRM configuration send coherent signals to the employees which will lead to the development of congruent psychological contracts.

Congruent psychological contracts are considered to be necessary precondition for contract fulfillment. Only if the agent(s) responsible for upholding the psychological contract and the employees have a congruent understanding of the underlying obligations, they will be able to uphold their part of the psychological contract. However, as previously argued, HR-practices as administrative contract makers, also influence the fulfillment or breach of the psychological contract through the tangible and intangible resources they entail (Rousseau, 1995; Sonnenberg et al., 2011). Within the congruent SHRM configuration, the HR systems is set up in a way to systematically reward behaviors that are in line with the beliefs underlying the prevailing psychological contract. This increases the likelihood that the employees perceives that the organization has generally fulfilled its obligations in an equitable manner,

leading to *contract fulfillment* (McLean, Kidder, & Gallagher, 1998; Morrison & Robinson, 1997; Tekleab & Taylor, 2003). Thus, the second proposition is that:

P1b: Congruent psychological contracts lead to frequent perceptions of contract fulfillment.

While coherent SHRM configurations are desirable they are difficult to achieve and sustain. Contextual factors both internal and external can change rapidly and decrease the coherency of the structural and/or interactional signals.

The Structural SHRM Configuration

Organizations that send coherent structural signals through a well implemented and aligned HR system but fail to provide distinctive, consistent and consensual information regarding the nature and terms of the employment relationship are characterized by a structural SHRM configuration. While all organizations strive to send coherent interactional signals, managing the process of communication is highly complex (Guest & Conway, 2002; Morrison & Robinson, 1997; Wright & Nishii, 2013). Especially in large organizations, numerous individuals can act as organizational agents and send messages on behalf of the organization, while holding a contract on their own (e.g. HR-managers or line-managers). As such, it can be difficult for employees to distinguish between statements that are formally made by them as representatives of the organization and those made informally as contract holders (Coyle-Shapiro & Kessler, 2000; Rousseau, 1995). While information provided by the top-management, as the principals to the contract or their closest representatives, are generally highly consistent and have a particular high signaling value, interactions between them and most employees are limited. As such, signals sent by the top-management are more likely to receive a special form of scrutiny (Guest & Conway, 2002; Rousseau, 1995). In contrast to that, line-managers are frequently in direct contact with the employees and more open for inquiry (Tekleab & Taylor, 2003). Due to the more frequent interactions, signals sent by direct supervisors or line-managers have been shown to have a greater impact on the formation of the

psychological contract (Guest & Conway, 2002). However, these agents are further removed from the principals. As stand-in for another, these agents might make commitments that are inconsistent with the principal's true intent (Rousseau, 1995). The more fragmented organizations are, the more likely it is that different organizational agents will communicate inconsistent messages regarding the expected and rewarded behaviors. Especially, the physical and organizational distance between the principals and agents, as well as the frequency of transfer and turnover have been shown to contribute to an inconsistent and discordant information transfer (Guzzo & Noonan, 1994; Herriot & Pemberton, 1997; Stiles et al., 1997). Due to the low communication quality, the employees must make sense of larger number of ambiguous and sometimes conflicting messages which will lead to idiosyncratic interpretations and incongruent beliefs (Morrison & Robinson, 1997).

Despite this low communication quality, organizations with a structural SHRM configuration employ a highly aligned HR system. Even though the communication process and the HR system are interrelated and jointly influence the psychological contract of employees, they typically function distinctly in organizations. While numerous agents are involved in the communication process, only a few individuals are responsible for the selection and implementation of the HR system. Particularly, highly centralized organizations with an integrated approach to HRM where the HR system is designed by the top-, or HR-management and implemented by HR-professionals throughout the organization might succeed to implement highly aligned HR systems despite a low communication quality. As secondary contract makers, aligned systems systematically reinforce behaviors that are consistent with the intentions of the organization. However, they provide only implicit signals regarding the underlying obligations (Morrison & Robinson, 1997; Robinson & Wolfe Morrison, 2000; Rousseau & Greller, 1994). If the prevailing beliefs about the psychological contract are inconsistent due to a low communication quality, employees might struggle to interpret the

implicit signals sent through HR-practices as intended by the organization. Thus, mixed messages from contract makers are expected to undermine the signaling function of the HR system (Rousseau & Greller, 1994; Stiles et al., 1997).

If contingencies and terms of the psychological contract are left unspecified, the way employees decode these signals depends on the cognitive schemata they employ (Bowen & Ostroff, 2004). In these cases, only some of the signals are perceived as intended by the principal whereas others are not, depending on the construal processes of the individual employees (Grant, 1999). Thereby they fill in missing gaps by relying on prior experience, knowledge or contextual cues (Morrison & Robinson, 1997). The resulting psychological contract can be conceptualized as a *'partial contract'* and reflects a mixture of both congruence and mismatch. Based thereupon it will be proposed that:

P2a: The low communication quality of organizations with a structural SHRM configuration will lead to the formation of incongruent beliefs which are partially rectified by the coherent structural resulting in the development of partial contracts.

Since the psychological contracts of the employees are only partially congruent, employees are likely to perceive some instances of contract breach. For example, an employee might be unaware that pay-level increases are coupled with personal development, instead of seniority due to lack of consistent information and perceive contract breach if his or her tenure within the organization is not rewarded. However, in another cases the employee might correctly interpret the signals sent through the HR-practices and perceive contract fulfillment when his or her performance is rewarded. Given that the HR system itself is aligned and consistently reinforces certain behaviors, the employees will be less apt to blame the organization for apparent inconsistencies and rather attribute it to his or her misperceptions, leading to less intense and less frequent perceptions of contract breach (Morrison & Robinson, 1997). Based thereupon it will be proposed that:

P2b: Partial psychological contracts lead to infrequent perceptions of contract breach.

The Interactional SHRM Configuration

As the polar opposite of the structural SHRM configuration, organizations characterized by an interactional SHRM configuration send coherent interactional but incoherent structural signals. These organizations have a high communication quality and provide distinctive, consistent, and consensual information regarding the obligations underlying the psychological contract. As the primary contract makers the communication from organizational agents has a particularly strong impact on the formation of the psychological contract. Accordingly, the highly distinctive, consistent, and consensual messages send by organizations with an interactional SHRM configuration will lead to shared contract perceptions among the employees. (Grant, 1999; Rousseau, 1995). However, researchers in the field of HRM note that organizational communication frequently portrays and ideal state, that the agents would wish to see as reality but does not necessarily reflect reality of work in the organization itself. This 'rhetoric-reality' gap is especially likely if the messages communicated are not reinforced through the applied HR-practices (Grant, 1999; Gratton & Truss, 2003; Guzzo & Noonan, 1994).

Given that organizations with an interactional SHRM configuration employ weakly aligned HR systems they will lack exactly this kind of reinforcement. While research in the realm of SHRM has long suggested that the successful implementation of a business strategy requires an aligned HR system, in practice, alignment is not always easily achieved (Gratton & Truss, 2003; Kepes & Delery, 2007). In highly fragmented and decentralized organizations, the individual HR activities are often handled largely autonomously from each other. Recruitment and training might be done by local managers or supervisors while compensation and benefits are handled by the HR-department (Rousseau & Greller, 1994; Rousseau & Wade-Benzoni, 1994). This devolution of HR-practices to multiple agents has been shown to

undermine the implementation quality and decrease the alignment of the HR system (Gratton & Truss, 2003; Khilji & Wang, 2006). In a similar vein, smaller organizations often lack a systematic approach to human resource management and do not possess a strategically integrated and autonomous HR-function with the necessary knowledge, resources and power to design and implement a coherent HR system (Gratton & Truss, 2003). Additionally, the adaption of HR-practices to competitors or local conditions as well as changes in laws and regulations, can introduce practices that are misaligned with the prevailing system and at odds with the expectations of the employees, even if done with constructive intent (Rousseau, 1995).

Thus, lack of alignment, contributes to a mismatch between the employed HR-practices and the rhetoric of management. In these situations, the uniform beliefs established through the high quality communication are not systematically reinforced through the applied HR-practices (Boxall, Purcell, & Wright, 2007; Braekkan, 2012; Robinson & Wolfe Morrison, 2000; Stiles et al., 1997). As a result, the employees perceive that the rhetoric of the management does not reflect the 'reality' of their work within the organization. The resulting psychological contract can be conceptualized as *mismatched*. In contrast to the partial contract, the employees beliefs underlying the mismatched psychological contract are congruent in a way that they are consistently derived from the information provided to them by the organization. However, the shared beliefs instilled through the interactional signals do not reflect the behaviors actually reinforced through the weakly aligned HR system (Grant, 1999). Thus, it will be proposed that:

P3a: The high quality communication quality of organizations with an interactional SHRM configuration will lead to the formation of congruent beliefs that are not reinforced by the weakly aligned HR system, resulting in the development of a mismatched psychological contract.

For example, employees who have been promised seniority-based compensation system will feel deceived if the organization introduces results-based performance criteria.

Given the inconsistencies between the organizational communication and the 'reality' of the applied HR-practices, large parts of the workforce will feel that they have been intentionally misled by the rhetoric of management and perceive contract breach (Braekkan, 2012; Grant, 1999; Stiles et al., 1997). Studies show that situations in which employees feel that their contract has been intentionally breached, will additionally lead to *contract violation* and more intense negative attitudinal and behavioral reactions (Robinson & Rousseau, 1994; Robinson & Wolfe Morrison, 2000; Tekleab & Taylor, 2003). Contract violation can be defined as the "[...] affective and emotional experience of disappointment, frustration, anger, and resentment that may emanate from an employee's interpretation of a contract breach and its accompanying circumstances" (Morrison & Robinson, 1997, p. 242), leading to the following proposition:

P3b: Mismatched psychological contracts lead to frequent perceptions of contract violation.

The Incoherent SHRM Configuration

Finally, organizations with an incoherent SHRM configuration provide neither coherent structural nor coherent interactional signals. As previously argued, there are many reasons why organizations might struggle to implement aligned HR systems or fail to provide high quality information with regard to the expected and rewarded behaviors. Reorganization or restructuring within organizations, changes in laws and regulations, as well as mergers and acquisitions might lead to changes in the HR system that impair its alignment and undermine a consistent and consensual communication. Especially if the HR-practices themselves fail to establish unambiguous cause and effect relationships managers will struggle to provide consistent and consensual information. Thus, the misaligned HR-practices underlying this SHRM configuration can further contribute to a low communication quality (Rousseau & Greller, 1994; Townsend et al., 2012).

Since organizations with an incoherent SHRM configuration send neither coherent structural nor interactional signals, the employees must make sense of a large number of

complex, intangible and incoherent signals. Every employee will perceive, interpret and remember different aspects of these signals and fill the missing gaps based on the cognitive schemata they employ (McLean et al., 1998; Morrison & Robinson, 1997; Robinson & Wolfe Morrison, 2000). As a result the perceptions of the employees, are likely to be idiosyncratic and differ from those intended by the principal, resulting in incongruent contracts (Morrison & Robinson, 1997). Thus, it can be proposed that:

P4a: The low communication quality and weakly aligned HR systems of organizations with an incoherent SHRM configuration send incoherent signals to the employees, resulting in the development of incongruent psychological contracts.

Incongruent contracts are problematic for two reasons. First, in order to elicit the behaviors required for the implementation of a certain strategy, the employees have to understand what is expected of them. Secondly, when two parties have incongruent understandings of their respective obligations, they will not be able to uphold their part of the psychological contract, simply because they are unaware of the other party's expectations. For both of these reasons incongruent contracts have been linked to frequent perceptions of contract breach (McLean et al., 1998; Morrison & Robinson, 1997; Robinson & Wolfe Morrison, 2000). However, employees with incoherent psychological contracts are less likely to perceive that the organization has intentionally been breached (i.e. contract violation) and rather will attribute breaches to misperceptions or honest oversights. Based thereupon it will be proposed that:

P4b: Incongruent psychological contracts lead to frequent perceptions of contract breach.

The conceptual model and propositions put forward in this section highlight the complex interrelationships between structural and interactional signals and the formation of the psychological contract. Each SHRM configurations is expected to lead to a distinct type of

psychological contract (congruent, partial, mismatched, incongruent), with unique implications for their fulfillment, breach or violation.

Discussion and Future Research

While it has long been suggested that the psychological contract is a useful linking mechanism between SHRM and the employees' reactions, research in this regard lacked an integrative conceptualization of the impact of SHRM on the formation of the psychological contract (Braekkan, 2012; Lepak et al., 2012; Sonnenberg et al., 2011; Uen et al., 2009). It has long been suggested that both, the configuration of the HR-practices and organizational communication albeit interrelated, have a distinct impact on the formation of the psychological contract (Guest & Conway, 2002; Rousseau, 1995). For example, while the influential concept of the 'strength of the HRM system' by Bowen and Ostroff (2004) is focused on SHRM processes, they explicitly acknowledge that HRM system strength *along* with the signaling function of the HR system influence the psychological contract of employees (Ostroff & Bowen, 2016, 204). However, the influence of both features of SHRM, the HR system and organizational communication as well as possible interrelationships between them has seldom been addressed.

The typology proposed in this paper addresses this gap and provides a holistic and systematic conceptualization of the relationship between SHRM and the psychological contract that explicitly accounts for the complex and multi-level nature. It extends the existing literature by highlighting the differential impact of interactional and structural signals on the formation of the psychological contract. Specifically, it shows that while a greater coherency of structural signals always decrease the probability of contract breach, leading to either congruent or partial contracts, coherent interactional signals can lead to mismatched psychological contracts and contract violation if they are not reinforced through an aligned HR system. As such, the model

emphasizes the importance to control for both the communication quality and the alignment of the HR system when investigating SHRM as an antecedent of psychological contracts.

Yet, the model is not without its limitations. A key premise underlying this conceptualization is the assumption that highly aligned HR systems that are clearly communicated will lead to more congruent contracts regardless of the nature of the HR-practices or their strategic orientation. However, to establish congruent contracts might be more critical and difficult to achieve for some types of HR systems than for others (Lepak et al., 2012; Ostroff & Bowen, 2016; Rousseau, 1995). Lepak and Snell (1999) distinguish between commitment-, productivity-, compliance- and collaborative-based HR systems. They propose that different HR systems should be employed for different groups of employees depending on their strategic value. While compliance- and productivity-based systems are characterized by few HR-practices focused on economic exchanges and control, commitment- and collaborative-based systems are more complex and include socio-emotional exchanges (Lepak & Snell, 1999). Since these HR systems are more complex and focused on the exchange of intangible resources, i.e. trust and commitment, it might be more difficult for organizations to establish congruent contract perceptions for these systems.

In this regard, the psychological contract literature distinguishes between transactional and relational psychological contracts. While transactional contracts consist of more specific short-term, monetary obligations and entails limited involvement of both parties, relational contracts entail broad, open-ended and long-term obligations that exceed the exchange of monetary rewards and focuses on socio-emotional elements such as loyalty, support and commitment (Morrison & Robinson, 1997; Rousseau, 1995). Organizations might use different HR systems to signal the desire to establish either transactional oriented and relational oriented contracts (Lepak et al., 2012). While congruent contracts are expected to be an important predictor of contract breach regardless of the contract type, relational contracts are considered

to be more complex and prone to idiosyncratic perceptions. Studies show that breaches of relational contracts are more common and not only change the perceived obligations and entitlements but additionally remove the elements of trust and respect and thereby shifting the employment relationship from a relational to a transactional one (Morrison & Robinson, 1997). Given these differences, the congruence of relational contracts might be more susceptible to incoherent signals than relational contracts. To investigate the influence of the nature of the HR system and type of contract on the relationships proposed within this article is therefore an important array for further research.

Furthermore, the present paper treated the second-order factors as distinct with an equal impact on the employees' perceptions. However, it is likely that some of the second-order factors are more critical to establish congruent contracts than others. For example, without a high implementation quality, vertically and horizontally aligned HR-practices might lead to incongruent contracts even if they are communicated in a distinct, consistent and consensual manner. Similarly inconsistent messages between top-management, HR-management, and line-management might send incoherent interactional signals, even if they are communicated in a distinct and consensual manner (Ostroff & Bowen, 2016). Thus, studies need to be conducted to identify the relative importance of the individual second-order factors, to assess which of these factors are most critical to establish congruent contracts.

A final issue that needs to be addressed is the role or usefulness of the psychological contract as a linking mechanism in general. The psychological contract is not without criticism and has been labeled as a metaphor rather than a theoretical construct (Guest, 1998). These early critics argued that the psychological contract suffers from definitional ambiguity, concept redundancy and inadequate explanatory power (Conway & Briner, 2009). However, theoretical and empirical research on the psychological contract has progressed considerable in the recent years. Studies in this regard provide support for the validity of the concept (Robinson & Wolfe

Morrison, 2000; Rousseau & Tijoriwala, 1998) and contributed to an increasing academic interest in the psychological contract culminating in recently published reviews and meta-analysis which generally support its underlying predictions (Conway & Briner, 2009; Zhao, Wayne, Glibkowski, & Bravo, 2007). This has also been one the reasons that scholars in the field of SHRM advocated to incorporate the construct in the first place (Kaše et al., 2014; Lepak et al., 2012; Ostroff & Bowen, 2016; Wright & Nishii, 2013).

As such, the application of the psychological contract to SHRM research can provide a link between the individual and higher levels of analysis and explain how employees respond to HR-practices. The propositions put forward within this article can guide researchers in providing the necessary qualitative and quantitative evidence on the relationships suggested by the typology. Given the complexity of the relationships underlying the typology, qualitative studies case-studies could be used to investigate the alignment of the HR system and their communication quality to classify organizations based on the degree of proximity to the identified ideal types. These qualitative assessments could then be combined with existing quantitative measures to assess the congruence or breach of the psychological contract of employees (Robinson & Wolfe Morrison, 2000; Rousseau & Tijoriwala, 1998). Alternatively quantitative methods could be used to assess the similarity of real organizations to the theoretically derived ideal profile using the mathematical models proposed by Doty and Glick (1994). The investigation of these issues will contribute to the knowledge about the role of the psychological contract as a linking mechanism between SHRM and the attitudinal and behavioral reactions of the employees and help to address the call for more employee-centered analysis of the relationship between HR-practices and performance (Kaše et al., 2014; Lepak et al., 2012; Nishii et al., 2008).

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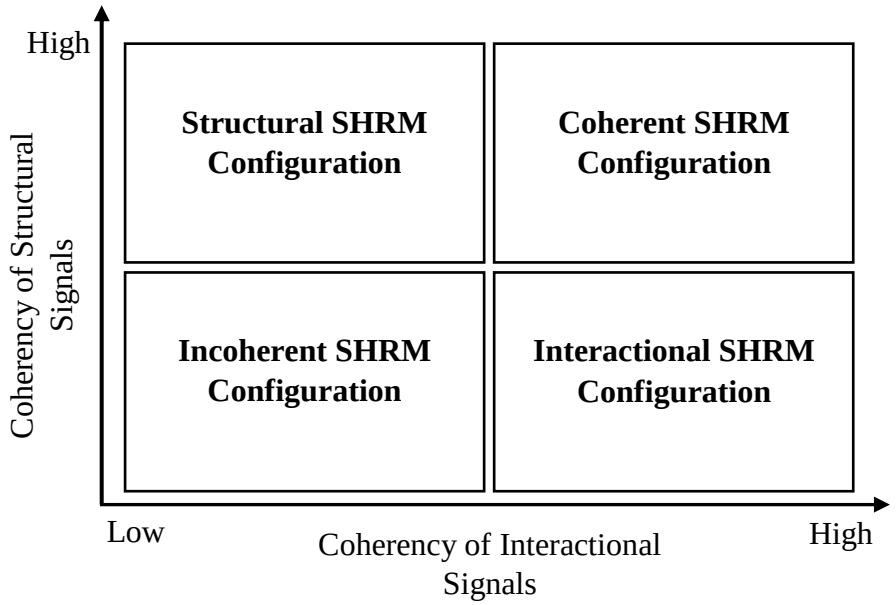
Table 1

Ideal Types of SHRM Configuration and Underlying Second Order Factors

	Alignment of the HR-system			**Organizational Communication Quality**		
	Vertical Alignment	Horizontal Alignment	Implementation Quality	Distinctiveness	Consistency	Consensus
Incoherent SHRM Configuration	Weak	Weak	Low	Low	Low	Low
	Incoherent Structural Signals			Incoherent Interactional Signals		
	Incongruent Psychological Contracts					
	Frequent Perceptions of Contract Breach					
Coherent SHRM Configuration	Strong	Strong	High	High	High	High
	Coherent Structural Signals			Coherent Interactional Signals		
	Congruent Psychological Contracts					
	Frequent Perceptions of Contract Fulfillment					
Interactional SHRM Configuration	Weak	Weak	Low	High	Moderate	Moderate
	Incoherent Structural Signals			Coherent Interactional Signals		
	Mismatched Psychological Contracts					
	Frequent Perceptions of Contract Violation					
Structural SHRM Configuration	Strong	Strong	Moderate	Low	Moderate	Low
	Coherent Structural Signals			Incoherent Interactional Signals		
	Partial Psychological Contracts					
	Infrequent Perceptions of Contract Breach					

Figure 1

A Typology of SHRM Configurations



Paper 2

Putting Implementation into Context: Exploring the Influence of Physical, Social, and Task Contexts on the Effective Implementation of Health Promotion Programs

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Based on the following previous versions:

Roehl, M. T. (2018): Exploring the Implementation of Worker Health Promotion Programs through the AMO Model; presented at the 78th Annual Meeting of the Academy of Management. August 10-14 in Chicago, Illinois, USA.

Roehl, M. T. (2017): Implementing Sustainable Human Resource Management: Exploring the Role and Influence of Different Actors during the Implementation of Health Management Programs; presented at the 10th Biennial International Conference of the Dutch HRM Network. November 9-10, in Nijmegen, Netherlands.

Putting Implementation into Context: Exploring the Influence of Physical, Social, and Task Contexts on the Effective Implementation of Health Promotion Programs

Abstract

This study sheds light on the influence of organizational context on the effective implementation of health promotion programs (HPPs). While HPPs have been identified as useful practices to contribute to the health and well-being of employees, their effectiveness is frequently undermined by poor implementation. Although research has acknowledged the important influence of organizational context, little attention has been devoted to the contextual effects in the human resource management (HRM) literature. Drawing on the conceptualization of context by Johns (2006), this article explores the influence of physical, social, and task contexts on effective implementation using a multiple-case study approach. It contributes to the literature by developing a conceptual framework that highlights the complex interrelationships between different contextual factors and implementation effectiveness. Specifically, the framework highlights that task-related factors such as task demands and accountability shape how HRM actors approach the implementation process. However these factors are strongly influenced by the wider social context, including elements such as social structure and social influence. The physical context, in turn, provides the "background" for the development of social influence. By highlighting these interrelationships, this study provides a new angle of analysis and contributes to the contextualization of implementation research.

Keywords*:* implementation, case study, health promotion programs, line manager, organizational context

Putting Implementation into Context: Exploring the Influence of Physical, Social, and Task Contexts on the Effective Implementation of Health Promotion Programs

Demographic change leads to aging workforces within most organizations in the Western world (Bieling, Stock, & Dorozalla, 2015; Kulik, Ryan, Harper, & George, 2014). German organizations are particularly affected by these developments. It is estimated that by 2020 employees aged 50 to 65 years will represent the largest share of the working population (Statistisches Bundesamt, 2009). Due to these developments the health and well-being of employees are becoming matters of strategic importance (Armstrong-Stassen, 2008).

To address these challenges, organizations increasingly rely on health promotion programs (HPPs) (Zwetsloot, van Scheppingen, Dijkman, Heinrich, & Besten, 2010). These programs are defined as workforce-based initiatives to change or maintain health behaviors and consist of multiple components including health management and promotion, ergonomic work design and sports programs (Goetzel & Ozminkowski, 2008; Weiner, Lewis, & Linnan, 2009). While empirical evidence suggests that organizations can contribute to the health and well-being of their employees through the effective use of these programs, their implementation is considered to be a challenging task (Kompier, Cooper, & Geurts, 2000; Nielsen & Randall, 2013). Given that even well-designed practices will be ineffective if they are not properly implemented (Bos-Nehles, van Riemsdijk, & Looise, 2013; Khilji & Wang, 2006), researchers have argued that rigorous attention needs to be paid to the investigation of potential drivers and barriers to the implementation of HPPs (Hasson, Villaume, Thiele Schwarz, & Palm, 2014; Nielsen & Randall, 2013).

Due to the important performance implications of effective implementation, this topic has received an increasing amount of attention during the recent years (Bondarouk, Trullen, & Valverde, 2016; Hasson et al., 2014). The majority of existing studies in this regard were focused on the roles of different organizational actors, such as line managers (LMs) (see e.g.

Hutchinson & Purcell, 2010; McGovern, Gratton, Hope-Hailey, Stiles, & Truss, 1997), HR professionals (Gilbert, Winne, & Sels, 2011; Trullen, Stirpe, Bonache, & Valverde, 2016), or senior managers (Stanton, Young, Bartram, & Leggat, 2010). Together, these studies provided important insights into the role and influence of these actors and made a valuable contribution towards a better understanding of HRM implementation. However, it has been increasingly recognized that effective implementation cannot be understood without considering the context in which the implementation occurs (Bondarouk et al., 2016; Bos-Nehles & van Riemsdijk, 2014; Mirfakhar, Trullen, & Valverde, 2018). Leading researchers to argue that to study "the effectiveness of line managers in HRM implementation, one clearly needs to take a range of organizational context variables into account." (Bos-Nehles et al., 2013, p. 873).

To date, however, most studies have acknowledged context in a narrow and static way by focusing on individual contextual factors, or by relegating contextual characteristics to the status of "control variables" (Cooke, 2018; van Mierlo, Bondarouk, & Sanders, 2018). Moreover, this treatment of contextual factors does not follow the diverse and multifaceted nature of "context" whereby different contextual factors interact and jointly influence organizational behavior (Johns, 2006). Thus, it has been argued that a better understanding of the implementation process requires a more refined treatment of the organizational context (Bondarouk et al., 2016; Cooke, 2018; van Mierlo et al., 2018).

The aim of this study is to address this gap by asking the following question: *How and why does the organizational context influence the implementation effectiveness of HPPs?* Given limited prior theory and empirical research, this study employs a multiple-case study approach (Eisenhardt & Graebner, 2007; Yin, 2018). Specifically, the implementation of HPPs within four German organizations operating in the chemical industry has been explored. This research design is considered to be particularly appropriate to address this question due to its ability to illuminate contextual effects (Johns, 2006; Nielsen & Randall, 2013). By using rich

data from 28 semi-structured interviews of relevant HRM actors including LMs, HR managers, and senior management as well as extensive internal and public records, the case study provides rich and detailed insight into contextual effects.

To guide the investigation, it will be drawn on the recent conceptualization of context by Johns (2006), who distinguishes between task, social, and physical context. Exploring the relationships between these contextual dimensions and implementation effectiveness of HPPs, this study extends the growing body of literature on the implementation process (Bos-Nehles et al., 2013; Mirfakhar et al., 2018; Trullen et al., 2016). The central contribution is the development of a tentative conceptual framework of the influence of the task, social, and physical contexts on implementation effectiveness. By focusing on contextual effects, this study provides a new angle of analysis and addresses the call for the contextualization of implementation research (Bondarouk et al., 2016; Cooke, 2018). The tentative framework contributes to a more holistic understanding of the pitfalls and opportunities associated with implementation of HPPs and provides a guide for further research (Hasson et al., 2014; Kompier et al., 2000; Nielsen & Randall, 2013).

Theoretical Background

Surveying the literature, there seems to be little doubt that organizations can contribute to the health and well-being of employees through investments in HPPs (Rongen et al., 2014; Weiner et al., 2009; Zwetsloot et al., 2010). However, research suggests that the impact of these programs is significantly influenced by the effectiveness of their implementation (Hasson et al., 2014; Nielsen & Randall, 2013; Weiner et al., 2009). In HRM research, implementation effectiveness is usually understood as the overlap between the way practices were intended by senior management or the HR-department and the way they are actually implemented and applied by LMs (Guest & Bos-Nehles, 2013; Trullen et al., 2016; Wright & Nishii, 2013).

Unsurprisingly, most of the existing research has been focused on the role of these actors during the implementation, most notably on the barriers and facilitators associated with the involvement of the LMs (Bos-Nehles et al., 2013; Hasson et al., 2014; McDermott, Fitzgerald, van Gestel, & Keating, 2015). These studies identified a number of potential barriers to the effective implementation by LMs such as a lack of HR-related knowledge, desire or time to implement HR-practices (Bond & Wise, 2003; Gilbert et al., 2011; McGovern et al., 1997) but also indicated that LMs can be effective implementers if they receive the adequate guidance and support from senior management and the HR-department (McDermott et al., 2015; Stanton et al., 2010; Trullen et al., 2016). However, these different HRM actors do not operate in a vacuum. Instead, their roles and interactions are expected to be shaped by the context in which the implementation occurs (Bos-Nehles & van Riemsdijk, 2014; Mirfakhar et al., 2018).

As such, researchers have increasingly called for more attention to the exploration of contextual effects on effective implementation. However, while existing studies have identified some contextual factors (e.g. size, culture, hierarchical position) that are expected to influence implementation effectiveness, insights into the role of the organizational context are still limited and no integrated model or theory of contextual effects has emerged from this research (Bos-Nehles & van Riemsdijk, 2014; van Mierlo et al., 2018; Weiner et al., 2009). As such, it remains largely unknown how or why certain contextual factors individually or jointly create an environment that is more or less favorable for implementing certain practices.

The aim of this study is to build on the existing research and offer new insights into the way organizational context contributes to or undermines effective implementation. To guide the investigation into the complex and multifaceted nature of context and to provide an indication were to look for relevant evidence (Eisenhardt, 1989), it will be drawn on the influential conceptualization of context by Johns (2006). He defined context "as situational

opportunities and constraints that affect the occurrence and meaning of organizational behavior as well as functional relationships between variables." (Johns, 2006, p. 386) and differentiates between *omnibus* and *discrete* context. The *omnibus context* refers to the broad, overarching aspects of context, i.e. the characteristics of a sample or research setting, which can be described by answering who, what, when, where, and why (Bell, Fisher, Brown, & Mann, 2018; Johns, 2006). Nested within the overarching omnibus context is the *discrete context.* The discrete context represents "the particular contextual variables or levers that shape behavior or attitudes." (Johns, 2006, p. 391). In this regard, he distinguishes between three interrelated contextual dimensions that are expected to influence organizational behavior: the *task*, *social*, and *physical context* (Johns, 2006, 2017). Following this distinction, it can be suggested that implementation effectiveness will be shaped by contextual elements stemming from the task, social and physical context of the implementation and their interaction. During the next sections, these dimensions will be defined and described in relation to the context of HRM implementation.

The *task context* refers to the specific requirements underlying the achievement of an objective as well as the available systems, processes or resources (Johns, 2006). For example, regarding the implementation, it has been discussed that the nature or complexity of the HR-practices can have a substantial influence on the HR-related skills required for their implementation (Evans, 2016; Trullen et al., 2016; Woodrow & Guest, 2014). Similarly, studies suggest that the distribution of roles and responsibilities between LMs and the HR-department, the availability of trainings, or prior experiences can affect the perceived complexity of the implementation (Cunningham, James, & Dibben, 2004; Hutchinson & Purcell, 2010; McConville & Holden, 1999). Moreover, the way the task is structured, i.e. the existence of policies, incentives, or monitoring, has also been identified as a factor that can

potentially influence the involvement of LMs (McGovern et al., 1997; Stanton et al., 2010; Watson, Maxwell, & Farquharson, 2006).

The *social context* is related to the interpersonal elements of context that influence interactions between different organizational actors (Bell et al., 2018; Dierdorff, Rubin, & Morgeson, 2009; Johns, 2006). With regard to the implementation, subtle factors such as the organizational climate, norms or management style might have a significant influence on the interactions between different HRM actors (Guest & King, 2004; Stirpe, Trullen, & Bonache, 2013). In addition, studies suggest that the cooperation and support of these actors might be influenced by more obvious contextual factors such hierarchical distance between the different HRM actors, their authority or spans of control (McConville & Holden, 1999; Trullen et al., 2016; Watson et al., 2006).

The physical context refers to the setting or environment in which a task occurs (Dierdorff et al., 2009; Johns, 2006). Examples of contextual factors relating to the physical context of the implementation can be the size or structure of an organization (Hutchinson & Purcell, 2010; McDermott et al., 2015; Stanton et al., 2010). Within large multinational enterprises (MNEs) the implementation process has to be coordinated across different divisions or locations which can increase the complexity of this task and the need for coordination between the individual actors (Bos-Nehles & van Riemsdijk, 2014; Bos-Nehles, van Riemsdijk, Kok, & Looise, 2006). In a similar vein, the prevailing production processes, work flows and technical equipment could contribute or undermine the complexity of the implementation (Cunningham et al., 2004; Mirfakhar et al., 2018). For example, the implementation of performance-based pay might be easier were performance is easily measurable such as assembly line work or sales.

Together, it can be suggested that different factors relating to the task, social and physical context of the implementation might facilitate or constrain its effectiveness. However,

given the absence of comprehensive and systematic investigation into contextual effects it remains largely unknown which contextual factors are related to the individual contextual dimension, if and how they interact, or how and why they contribute to or undermine implementation effectiveness (Bondarouk et al., 2016; Cooke, 2018).

Method

Given the limited theory and empirical evidence regarding contextual effects, this study employs a multiple-case study approach that allows replication in order to strengthen the inferences drawn from the data (Eisenhardt & Graebner, 2007; Yin, 2018).[1] This research design is appropriate for addressing "how and why" questions within areas where there is little empirical substantiation, as targeted here. By enabling the replication of findings across cases, it facilitates the identification of constructs, their relationships and contributes to the development of conceptual frameworks (Edmondson & Mcmanus, 2007; Eisenhardt, 1989; Ridder, 2017). Therefore, evidence from multiple-case research is typically considered to be more robust and generalizable (Eisenhardt & Graebner, 2007; Yin, 2018). Given that the exploration of contextual conditions is explicitly part of qualitative studies, this research design is able to yield particularly rich insights in the multifaceted nature of context, avoiding the 'omitted variables problem' of many quantitative approaches (Creswell, 2009; Johns, 2006; Marshall & Rossman, 2011).

The next sections will be used to outline the research setting and data collection. By addressing *what, where, when, why* and *who* was studied these descriptions reflect the omnibus context of this investigation (Bell et al., 2018; Johns, 2006).

Research Setting

To answer the research question, the implementation of HPPs within four organizations operating in the chemical industry in northern Germany were investigated in 2016. This research setting is considered to be particularly appropriate for addressing the research question

for multiple reasons. All cases operate within the same industry and region and were particularly affected by demographic change. Due to the high average ages of their workforce (above 40 years in all organizations) and recent changes in legal and union regulations, the organizations faced strong pressures to adopt HPPs. The implementation of many practices considered part of HPPs were mandated or promoted by these regulations (i.e. reintegration management and health management). Thus, even though the intended HPPs differed in scope and complexity, the organizations implemented similar programs during the same period of time. By selecting cases that are comparable with regard to their external environment and the design and content of the HPPs, the study controls for rival explanations concerning the influence of the external context and the nature of HR practices. This, in turn, facilitated the replication of findings and provided particularly detailed insights into the relationship between the task, social, and physical contexts and implementation effectiveness (Davis & Eisenhardt, 2011).

Data Collection

To facilitate triangulation, the study employed a multi-method design consisting of two data sources: an analysis of documents and semi-structured, in-depth interviews (Eisenhardt, 1989). A detailed description of the cases and data sources is provided in Table 1.

Insert Table 1 about here

In total, more than 1000 pages of internal and public records (e.g. bylaws, company agreements, annual and sustainability reports, and presentation materials) were collected and analyzed to identify the nature and content of the intended HPPs and asses the broader contextual characteristics of the organizations (i.e. size, structure and strategy). The main sources of data were semi-structured interviews. Consistent with previous studies in the field

of HRM (see e.g. Piening, Baluch, & Ridder, 2014; Trullen et al., 2016) a total of 28 interviews, each lasting 45 to 90 minutes were conducted. The interview questions were informed by the conceptualization of task, social, and physical context as well as insights from the HRM literature regarding the role and influence of various HRM actors. The section of interviews relating to the implementation had multiple parts. First, it covered general information about the organization and the design of the HPP. Second, information regarding task, social, and physical characteristics were gathered. Finally, the interviews included questions about the process of the implementation, problems that occurred, and the status of implementation. Altogether over 35 hours of interviews were recorded, transcribed, and anonymized.

To avoid information bias, this study followed the call to rely on multiple informants in order to capture comprehensive information about the implementation (Mirfakhar et al., 2018; Trullen, Bos-Nehles, & Valverde, 2017). Interviews included relevant HRM actors across different organizational levels. These actors were identified through prior meetings with the heads of the HR departments or CEOs. In addition to the actors commonly named in the literature (i.e. LMs, senior management, HR professionals), as well as health managers and members of the works councils. Finally, employees were interviewed to incorporate their views of the implementation and its effectiveness (see Table 1).

The triangulation within and between the different data sources helped to cross-check and augment contradictory evidence, which enhanced the reliability of the findings by reducing inaccurate data and information biases (Marshall & Rossman, 2011). To further increase the robustness and validity of the findings, tentative relationships identified through the data were presented before panels consisting of the head of the HR department, HR professionals, and members of the works council for all participating organizations except CleanCo[2]. This practice, known as member checking, was used to determine whether these participants feel that tentative relationships identified through the data analysis were accurate. The comments

gathered during these meetings were used to further refine and extend the analysis (Creswell, 2009).

By triangulating data from multiple informants across organizational levels and extensive internal and public records as well as the subsequent member checking, a rich blend of diverse data sources were obtained that offered in-depth insights into the implementation.

Data Analysis

The main data analysis occurred in several iterative steps. In line with the underlying replication logic, each case was treated as a distinct analytical unit (Yin, 2018). The within-case analysis began with the initial coding and compilation of the data based on constructs from the HRM literature relating to the contextual dimensions. To provide a more systematic approach to the coding process, a code book was developed prior to the data analysis and updated as new codes emerged (DeCuir-Gunby, Marshall, & McCulloch, 2011). During the second step, "case histories" for each organization were constructed based on the coded interview data and documents (Bingham & Eisenhardt, 2011; Eisenhardt & Graebner, 2007). These histories described the content of the HPPs, their implementation, and the broad organizational context. These case histories were used for both the within- and cross-case analysis.

The next step of the within-case analysis centered on the assessment of the implementation effectiveness. Two sources of information were used in this regard. First, the informants were directly asked to rate the implementation effectiveness. Second, it was assessed by comparing descriptions of the applied practices with documents describing the intended HPPs. By triangulating these direct and indirect ratings, the implementation effectiveness within each case was assessed and scored from high to low (Miles, Huberman, & Saldaña, 2014). During the final step of the within-case analysis, inferences about the contextual conditions were made by "working backwards" from these scores to uncover how

they were influenced by the organizations context. This lead to emerging patterns between contextual factors and implementation effectiveness within each case (Eisenhardt, 1989; Johns, 2006).

As the analysis progressed, a cross-case analysis using replication logic was conducted to confirm and refine these patterns across the cases (Eisenhardt & Graebner, 2007; Miles et al., 2014). Using tables and charts, the contextual conditions under which a high or respectively low implementation effectiveness occurred were listed and systematically compared across the cases. Based on these patterns, tentative constructs and their relationships were identified. By returning to the raw data and symmetrically verifying their occurrence across the cases these constructs and their relationships were refined (Edmondson & Mcmanus, 2007; Eisenhardt, 1989). To further strengthen the internal validity of these findings, they were compared with prior literature to identify similarities and differences (Eisenhardt, 1989). As a result of this iterative process, the relationships between contextual factors originating from the physical, social, and task contexts and their influence on effective implementation were identified, visualized in the tentative conceptual framework depicted in Figure 1. Table 2 provides an overview of these factors and their definitions.

Insert Table 2 about here

Findings

A brief overview of the findings is useful before the components and relationships underlying the conceptual framework are outlined in detail. Multiple factors across the three dimensions of context proposed by Johns (2006) were found to have influence on implementation effectiveness (see Table 2). Table 3 highlights the patterns between the contextual factors and implementation effectiveness for each organization. A deeper analysis

of these factors and the comparison of patterns facilitated the identification of their underlying relationships and contributed to the development of the conceptual framework. The framework shows that the individual dimension are highly interrelated as well as the extent to which these contextual dimension were found to be more distal (i.e. physical context) versus proximal (i.e. task context) to implementation effectiveness (see Figure 1). The description of the findings will begin with the most distal layer of context.

Insert Table 3 about here

Insert Figure 1 about here

Physical Context

The data analysis revealed two types of contextual factors that stemmed from the physical context of the organizations (see Table 2). While the *working environment*, which entails both the work processes and equipment, directly influenced the implementation, the influence of the *size and structure* of the organizations was mediated through their impact on the social context.

Given that the investigated organizations operate within the same industry, they were characterized by similar *working environments*. The majority of workplaces were characterized by physically demanding jobs, highly structured work processes and complex technical systems. Multiple informants across the organizations noted that such an environment impedes the implementation of certain measures "*Often it doesn't work for technical reasons or the process simply won't allow it*" (HR-manager, CoppCo). For example, informants within

CleanCo noted that the implementation of ergonomic work design would require the reconstruction of the entire production line (see Table 3).

Moreover, the data revealed the important influence of the *size and structure* of the organizations. Both ChemCo and CoppCo consisted of multiple geographically dispersed locations, ChemCo was additionally part of a corporate group which contributed to larger hierarchical and physical separation, longer communication channels, and intricate reporting relationships between the HRM actors. This, in turn, increased the administrative effort associated with the implementation process and the need for coordination between the individual actors: "*Our small locations are actually far ahead of us. We always have to move a complex bureaucratic apparatus." (*Head of works council, CoppCo).

In line with these findings, Figure 1 portrays the physical context as the largest and most distal contextual dimension, with others intersecting. The findings indicate that the physical characteristics of the organizations, influence more proximal contextual layers (i.e. social and task contexts) and thereby the implementation effectiveness.

Social Context

With regard to the social context, three factors emerged as relevant for implementation effectiveness: the *social influence*, the *social structure* and the *staffing level*.

First, the findings show that the attitudes displayed, and the strategic priorities set by both the senior management and works council had a significant influence on the behaviors and attitudes of other HRM actors. As such, these actors emerged as a powerful source of *social influence.* Thereby, the visible and mutual support of both actors were seen to increase the perceived importance for the HPP and to contribute to an effective implementation. As noted by the head of the health management within CleanCo: "*It* [the implementation] *worked because we were able to start at the top.* […] *A top management that really supports this*

program and frequently reinforces its importance at every occasion, is the best possible way towards a successful implementation" (Health management specialist, CleanCo).

While the senior management and works council within ChemCo and CleanCo were seen to frequently emphasize the importance of the implementation (see Table 3), the detrimental effect of a lack of social influence was visible within CoppCo and PlastCo: *"A greater commitment of our top-management towards health management would have definitely helped us with the implementation."* (HR manager CoppCo). A strong focus on cost-effectiveness of the senior management and conflicts with the works council regarding the design of the HPPs, send mixed messages to the LMs. As a result, they prioritized more tangible business objectives over their HR-responsibilities: *"If you look at how they* [the senior management] *handle these issues, it's terrible. You always have to look at what the company wants and how the senior management acts. And if they don't play along, then you have lost."* (Head of works council, CoppCo).

However, the findings suggest that the ability of the senior management or works council to exert social influence was affected by the size and structure of the organization. For example, even though multiple informants within ChemCo noted that the senior management strongly supported the implementation and frequently emphasize its importance, the large hieratical and geographical separation were seen to decrease their visibility. As such, the social influence of the senior management undermined by the size and structure of the organization: "*This topic* [health management] *is frequently promoted from the top-management but I think it gets lost in translation. I frequently ask myself if we really reach the managers on the lower levels or if it gets lost somewhere along the way."* (Head of works council, ChemCo).

In this regard, the strategic orientation of the organizations emerged as another powerful source of social influence. The strategies within both ChemCo and CleanCo were explicitly focused on sustainability and emphasized the importance of health and well-being. These

strategic objectives were frequently communicated throughout the organizations, e.g. within meetings or through flyers and emails. The findings suggest that the strategic objectives served as an important signal of the priorities set by the senior management. Thus, the explicit integration of health and well-being into the strategic objective of the organization and their visible display within ChemCo mitigated the lower social influence of the senior management and increased motivation of the LMs to contribute to the health and well-being of their employees. As noted by one LM within ChemCo: "*A goal that is mentioned again and again is the topic of health, that the employee should retire healthy. And that we are supposed to do a lot in this regard.* [...] *Well, I think that's the highest thing on the agenda at the moment."* (Line manager, ChemCo).

Beyond that, the *social structure* emerged as another crucial aspect of the social context. The social structure was related norms of communication established by the organizations which shaped the interactions between the different HRM actors. The nature and frequency of the interactions, in turn, influenced the availability and impact of the functional and administrative support provided by the HR departments and health managers.

The social structure within CleanCo and ChemCo was characterized as relationship-orientated and collaborative. It was seen to contribute to an open and trusting communication and frequent interaction between the HRM actors. A health manager noted in this regard: "*The simplest and most effective way is to just talk to each other. And for that I require an open culture, which is actively lived here.*" (Health manager, ChemCo). Additionally, both organizations actively promoted interaction and the exchange of information across different functional domains and hierarchical levels by establishing cross-functional teams: "*The steering committee exists since the beginning. […] I have a health agent at every location. […] Additionally we have someone from HR-department and the managing director.*" (Health manager, CleanCo).

By contrast, both PlastCo and CoppCo were characterized by bureaucratic social structures with highly regulated, procedural and hierarchical work-flows. Informants within these organizations indicated that this bureaucratic structure limited the interaction between different functional domains and across hierarchical areas. As a result, the LMs were seen to be hesitant to approach the HR department or health managers for help which decreased the amount of support they were seeking and receiving: "Y*ou would first have to change the entire leadership culture. The entire culture here is strictly hierarchical. So if you really want it to work, you would require an open and trusting cooperation. But that has never worked here before"* (Head of works council, PlastCo).

Within both organizations, the social structure was further undermined by frequent transfers of key personnel. During the period of the implementation, the position of health agent within CoppCo was replaced three times; similarly, the head of the HR-department at PlastCo was replaced two times. The results indicate that these transfers disrupted established patterns of interactions, trust and relationships, which had to then to be rebuilt by the newly hired health agents or department heads: "*We've had several personnel changes during the last years. Let's see who we get this year. The last one actually did very well. We could certainly have done a lot with him. But there was a conflict between him and the senior management and that why he left*" (Head of works council, CoppCo).

Finally, the data analysis revealed the *staffing level* to be another important factor that shaped the social context. Across the organizations, a low staffing level was perceived to have led to an increasing workload and decreased the time the HRM actors were able or willing to spend on the implementation. As one LM within ChemCo mentioned: *"The day-to-day business is just too demanding. We barely have time to think about it."* (Line manager, ChemCo). To ease the demands placed on the LMs and lessen their workload, both ChemCo

and CleanCo employed health management departments and hired additional health managers to support the implementation (see Table 2).

The effects of the low staffing level were especially visible within CoppCo. While both CoppCo and PlastCo employed a single health agent, the health agent within CoppCo was responsible for almost 20 times as many employees. This high workload, was seen to decrease the ability of the health agent to efficiently support the implementation and has also been cited as a reason for the frequent turnover of the health agent position: *"I believe that this issue will become a never-ending story in our company. The individual departments are understaffed. Our staffing level in general is just too low."* (Line manager, CoppCo).

As such, the staffing level was seen to have a direct influence on the implementation effectiveness. However, as depicted in Figure 1, the impact of the social influence and social structure were mediated by the task context.

Task Context

The task context has been identified as the most proximal layer of context. Three salient elements of the task context emerged during the data analysis that were seen to influence implementation effectiveness: *role clarity*, *accountability,* and *task demands.*

The findings show that multiple HRM actors across different organizational levels were involved in the implementation process, including the senior management and works council on the strategic level, as well as HR- managers, health managers and LMs on the operational level. As such, a clear allocation of roles and responsibilities between these different actors emerged as a basic requirement for an effective implementation.

In this regard, informants within all organizations emphasized the crucial role of LMs. Due to the LMs' intimate knowledge about the workplaces and their close contact with the employees, they were expected to relay information regarding the HPP to the employees, encourage their participation, and solve problems during the implementation or application of

HPPs: *"We wanted to place the task where it belongs, to the managers. That is their responsibility"* (Head of health management, CleanCo).

However, while these responsibilities were formalized and officially added to the job descriptions within ChemCo and CleanCo (see Table 3), no formal policies existed within CoppCo and PlastCo. As such, the HR-related duties were only functionally, but not formally part of their job description. The lack of role clarity was, however, not just limited to the LMs but extended to the HR department and health agents as well. The roles and responsibilities of both HRM actors with regard to the implementation were often informally allocated based on personal preferences. The findings show that this not only increased the need for coordination between these actors but also decreased the support the LMs were receiving during the implementation: "*But it is also due to some coincidences and preferences that one topic may have been dealt with by the company doctor and another by the HR-department*" (Head of HR, CoppCo).

This was further abetted by a low *accountability* of these actors. The results suggest that the degree to which the individual HRM actors were held accountable for their role in, and performance during the implementation, substantially influenced their involvement in terms of time and effort devoted to the implementation. Thereby, the evaluation and monitoring of the implementation by the senior management or HR-department emerged as particularly important factors in this regard. However, within CoppCo and PlastCo the progress and quality of the implementation was neither systematically assessed nor evaluated. As a result, the LMs had limited incentives to invest time and effort into the implementation and frequently prioritized other business targets, i.e. production goals over their duties with regard to the implementation. As a LM within PlastCo noted: *"So far, this whole thing's been going on rather incidentally. Everybody knows there's something to do but I think that's secondary for most people."* (Line manager, PlastCo).

In contrast to that, within ChemCo and CleanCo explicitly goals with regard to the implementation process were developed based on the strategic objectives. The achievement of these goals was monitored and reported to the senior management. Within CleanCo, this evaluation was subsequently part of the performance review of the LMs. Together with the social influence exerted by the senior management and works council, the monitoring and evaluation of the implementation process, were seen to increase the accountability of the LMs and their involvement in the implementation process: "*We integrated a report on the progress of health management into the biennial top management team meetings. The CEO is then responsible to take corrective actions if necessary."* (Head of health management, CleanCo).

Finally, the results suggest that to be efficiently implemented, the *task demands* associated with the implementation, need to match the ability of the HRM actors. In this regard, the findings emphasize the importance of trainings and support networks. The interviews reveled that to efficiently perform their duties, the LMs required extensive HR-related capabilities, such as knowledge about the practices and legislation, an engaging leadership style and a general awareness for health and well-being. However, the *task demands* placed on LMs were seen to frequently exceed their abilities: *"I am just a small lab technician who got promoted to a managerial position. I was sent to two manager seminars. There I was told to look after the health of my subordinates but I was not being told how.* […] *Since this wasn't part of my vocational training it would have been helpful to learn how to address these issues."* (Line manager, ChemCo).

CleanCo was the only organization that provided extensive mandatory trainings to contribute to the HR-related capabilities of the LMs. In the eyes of the informants, these trainings contributed to a better understanding of health management and increased the implementation effectiveness of the LMs: *"We decided to make the trainings obligatory. Otherwise, we wouldn't have reached one-third of the managers. But now everybody has the*

same understanding of the topic." (Head of health management, CleanCo).

In addition to trainings which increased the ability of LMs to meet the task demands, the findings indicate that an extensive support networks could decrease the task demands placed on the LMs. However, the results suggest that the scope and quality of these networks were influenced by the social structure and staffing level (see Fig, 1). The collaborative social structure and high staffing level of the HR and health management departments within ChemCo and CleanCo were seen to have increased the amount and availability of the support the LMs received which, in turn, alleviated the task demands placed on them: "*They* [the health managers] *usually know what has been done in other departments. They have the necessary knowledge and information that help us to find solutions to our specific problems."*(Line manager, ChemCo).

Contrary to this, the low staffing level and the bureaucratic and hierarchical social structure within CoppCo and PlastCo were perceived to have decreased the availability of support. Furthermore, given that the health agents were formerly members of the HR-department and had no prior experience with regard to the implementation of HPPs they themselves were seen to be overwhelmed by their task demands and workloads: "*I would say that I have a different sense for this topic* [health management] *based on my meetings with the employees but I am still unable to see the bigger picture.* […] *There is always something that you do not know about and this could be of importance for an employee."* (Health agent, PlastCo).

Linking Context to Effective HPP Implementation

Building on the preceding discussion, it will now be outlined how the task, social and physical contexts influenced the implementation effectiveness within the case companies. First, across the organizations, the highly structured work processes and the low staffing levels of LMs were perceived to have impaired the effective implementation of HPPs. However, within

both CleanCo and ChemCo, a collaborative social structure, high social influence of the senior management and works council, and the involvement of well-staffed health management and HR departments created a social context supportive of an effective implementation. Facilitated by a supportive social context, both organizations were able to clearly define the roles and responsibilities of the LMs, lessen the task demands through extensive support by HR and health managers, and increase the LMs' accountability through clear performance objectives and their evaluation. Thus, within CleanCo, the physical, social, and task contexts were seen to have contributed to highly effective implementation: *"I'd say we're not on a good path, we're on a very good path. And our performance indicators prove that."* (Health managers, CleanCo).

However, in contrast to CleanCo, ChemCo did not provide trainings for LMs or included their implementation performance in the annual performance reviews. The findings suggest, that this led to differences in the way the LMs approached the implementation. As a result, the implementation of practices that required the initiative of LMs, such as ergonomic work design and health management, occasionally differed between individual departments. An employee noted in this regard: "*So, when I worked in production I had the feeling that he* [the LM] *was looking after this. But now I work in maintenance I don't think that my new boss is looking at these issues*." (Employee, ChemCo). The measures coordinated by the HR department (i.e., reintegration management and company sports), on the other hand, were implemented as intended, suggesting a moderate implementation effectiveness: *"So I'd say the world isn't white or black. The truth is somewhere in between. I wouldn't want to sell it as a success story because I'm honest. But we are on the right track."* (Head of works council, ChemCo).

In contrast, the findings with regard to CoppCo and PlastCo, indicate that the HPPs existed mainly on paper. An unclear distribution of roles and responsibilities, high task

demands, and a lack of accountability were seen to have decreased the time and effort invested into the implementation. As a result, relevant adjustments with regard to health management or ergonomic work design were not always made, and where they were made, the implementation process was often seen as slow and tedious. This was abetted by a heavy workload due to a low staffing level and a bureaucratic social structure. In particular at CoppCo, where the interactions were further complicated by the organization's large size and structure, the implementation suffered from a lack of support. The health agents were perceived to be overwhelmed by the scope of their responsibilities, while the HR departments were preoccupied with administrative tasks. As a result, in each of these two cases, multiple gaps were visible between the intended HPPs and the practices actually implemented. For example, although both organizations officially introduced reintegration management in 2004, they only began applying this practice between 2015 and 2016. Similarly, while trainings with regard to health-focused leadership were advertised on the homepage of CoppCo, they have yet to be implemented. Together, the findings provide evidence for a low implementation effectiveness in both organizations: "*I will be totally honest, many of these things have not really been implemented. Some things are just incredibly tedious*" (HR-manager, CoppCo).

Discussion and Conclusion

The aim of this article is to provide a deeper understanding of the way the organizational context influences the implementation effectiveness of HPPs. By drawing on the conceptualization of context by Johns (2006) the role of the physical, social, and task contexts has been investigating using a multiple-case study approach. In so doing, this paper provides rich and valuable insights into the complex and multifaceted nature of context.

Although context has been theorized as a key aspect of effective implementation (Guest & Bos-Nehles, 2013; Mirfakhar et al., 2018), research to date has frequently acknowledged context only as a control variable or has been focused on individual contextual factors (Cooke,

2018; Johns, 2006). Thus, by highlighting the influence and interrelationships of contextual factors across different contextual dimensions, this study addresses the call to contextualize implementation research and contributes to a more nuanced and holistic conceptualization of context as an antecedents of effective implementation (Bondarouk et al., 2016; Nielsen & Randall, 2013; van Mierlo et al., 2018).

One of the main contributions of this study is the development of a tentative conceptual framework that highlights the complex interrelationships between physical, social, and task contexts and their influence on the implementation effectiveness of HPPs. These findings extend the existing literature in several ways. Thereby, the framework suggests that the working environment can have a substantial influence on the implementation. However, given that the existing literature on HPP implementation has largely taken an actor perspective (Hasson et al., 2014; Mellor & Webster, 2013; Nielsen & Randall, 2013), few studies have acknowledged that the physical context of the organization might simply impair the implementation of certain parts of HPPs.

In addition, this study emphasizes that the different contextual dimension have a substantial influence on the roles and influence of different HRM actors. While the importance of senior management or HR support have frequently been emphasized within the literature (McDermott et al., 2015; Stanton et al., 2010; Stirpe et al., 2013; Trullen et al., 2016), they have seldom been considered in light of the organizations context. However, this study shows that a low staffing level, bureaucratic and hierarchical social structures, and frequent transfers might all impair the ability of these actors to efficiently support the LMs. As such, it clearly highlights the need to take contextual factors into account when investigating the role of these actors during the implementation

One of the few contextual factors discussed within the existing literature has been the size of the organization. In this regard, it has been argued that due to more informal and flexible

environments, HR-practices might be taken less seriously and their implementation could find more resistance (Mirfakhar et al., 2018; Woodhams & Lupton, 2006). This, however, could not be confirmed within this study. On the contrary, CleanCo was the only organization that clearly defined roles and responsibilities, provided extensive trainings, and systematically evaluated the implementation process. Thus, while the size and structure might impose different requirements on the implementation process (see e.g. Hutchinson & Purcell, 2010; Stanton et al., 2010), the implementation effectiveness was more closely related to the social and task context of the organization.

Beyond that, the study also sheds light on roles of the works council and health managers, which have received limited attention in the existing literature (Cunningham et al., 2004; McDermott et al., 2015). Given the significant influence their support, or the lack thereof, on the task demands and implementation effectiveness, it seems surprisingly that the role of the actors is rarely investigated within existing studies on the implementation of HPPs (see e.g. Hasson et al., 2014; Nielsen & Randall, 2013). As such, this study reaffirms the need to move beyond the almost exclusive focus of implementation research on LMs and the call for more research from a multi-stakeholder perspective (Bondarouk et al., 2016; Trullen et al., 2016).

Similarly, while previous studies have shown that LMs frequently lack the HR-related skills required for the implementation (Hutchinson & Purcell, 2010; McConville & Holden, 1999), the present findings show the capabilities required (i.e. task demands) are influenced by support networks and the social structure. In this regard, a lack of desire or time to implement practices have also been identified as barriers to the effective implementation by LMs (Cunningham et al., 2004; McGovern et al., 1997). However, it could be shown that the social influence and accountability associated with the implementation as well as the staffing level of can have a substantial influence and the motivation and involvement of these actors during the implementation.

In sum, the conceptual framework clearly emphasizes the importance of considering the full range of discrete contextual factors (and their interactions) when studying implementation (Johns, 2006). Given that the factors were found to be closely interrelated across the different contextual dimensions, focusing purely on a single contextual factor without considering its interrelationships with other contextual factors may distort empirical findings. Together these insights provide organizations with several practical suggestions on ways to increase the implementation effectiveness of HPPs.

Practical Implications

The findings show that the implementation of HPPs is a complex task that requires the adaptation of organizational systems and the involvement of multiple actors. Thus, simply devolving the implementation to LMs will lead to poor results. Instead, organizations need to explicitly consider their physical, social, and task contexts in order to develop an integrated approach toward the implementation.

Based upon these findings several initiatives organizations can take to create a context supportive of the implementation can be identified. Especially within large organizations, where the visibility of the senior management is undermined by the structure, clear strategic objectives with regard to health and well-being can be used to emphasize the importance of the implementation. Thus, the collaboration between the different actors can be facilitated through an open and supportive culture or the establishment of cross-functional teams. In a similar vein, to ensure adequate support, organizations may need to consider the staffing level and workload of the individual actors. Simply adding tasks to the already extensive responsibilities of LMs or HR departments is likely to overwhelm them. In this regard, the findings also show that given the specialized nature of HPPs, a serious contribution to the health and well-being of employees might require the involvement of experienced health managers. Finally, the findings suggest that the involvement of the actors in the implementation process can be facilitated

through a clear distribution of roles and responsibilities as well as the systematic monitoring and evaluation of the implementation process.

Limitations and Future Research

The findings of this case study should be considered in light of its limitations. To control for the influence of external factors, the organizations were subject to similar environmental conditions. While this facilitated the exploration of the influence of the organizational context and the systematic replication of findings (Eisenhardt, 1989; Yin, 2018), it limits the generalizability of the findings. Some practices considered part of HPPs are statutory in Germany, which could have influenced the resources devoted to the implementation in terms of time and personnel. Similarly, due to the system of co-determination, the works councils had a particularly strong influence within these organizations (Muller-Camen, Croucher, Flynn, & Schröder, 2011). As such, the social influence of the works council may be of lower importance for organizations in other settings.

Additionally, it has to be noted that potential performance implication of the implementation effectiveness have not been assessed. Thus, it remains unknown whether the more effective implementation of HPP within ChemCo and CleanCo lead to the desired outcomes. Furthermore, given the nature of the cases, it is not possible to assess whether certain factors have substitutive or synergistic effects, for example, whether a supportive social context may be less needed in situations where LMs possess sufficient HR-related abilities or vice versa.

However, the rich blend of data obtained from informants from different organizational levels and the triangulation of data sources, as well as the subsequent member checking, have enhanced the validity and robustness the present findings and allowed in-depth insight into the organizational context (Creswell, 2009),

Future research may be conducted to address all the issues mentioned above and to extend the findings. For example, comparative case studies in different contexts could be used to strengthen the validity of these findings. Additionally, studies could expand the framework by exploring the role of the external context or the nature of HR practices (i.e., with regard to the legal context, industry, or the HR practices implemented). The analysis could also be extended to further explore the interrelationships between the contextual factors and dimension to explore whether they have substitutive or complementary effects.

Despite these limitations, this study provides a new angle of analysis. By highlighting the important role of context, it provides insights into the complex challenges associated with the implementation of HPPs and as to why these implementations might fail (Hasson et al., 2014; Nielsen & Randall, 2013). The conceptual framework, presented in Figure 1, is expected to provide a valuable starting point for forthcoming studies. Thus, the underlying relationships can be operationalized and tested within large-scale qualitative surveys or comparative case studies, to refine, extend and validate the framework.

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Footnotes

[1]The study itself was part of a larger research project focused on the exploration of the integration and implementation of practices relating to the demographic change.

[2]The Head of HR of CleanCo retired shortly after the interviews were conducted. The newly appointed Head of HR was not available for member checking.

Table 1
Case Overview and Summary of Data Collection

Firm	Organizational Characteristics							Data		
	No. of employees	Revenue in mio. €	Form	Structure	Strategy	HR Strategy	Content of HPP	Interview		Documents[a]
ChemCo	>1500	2.500	Multinational Enterprise (Part of publicly traded corporate group)	Centralized/ hierarchical Matrix organization	Employee-centered (Sustainability)	Sustainable Employment	Reintegration management Health management and promotion Ergonomic work design Company sports	CEO Head of HR Head of works council Line manager Company doctor HR professional Health manager Employees	1 1 2 2 1 1 1 2	49
CoppCo	>2000	3.000	Multinational Enterprise (Publicly traded)	Centralized/ hierarchical Divisional Structure	Shareholder-orientated (Cost-effectiveness)	None	Reintegration management Health management Ergonomic work design	Head of HR Head of works council HR manager HR professionals Line manager Employees	1 1 1 2 1 2	16
CleanCo	<500	220	Regional Firm (Family-owned/ LLC)	Decentralized/ autonomous Divisional Structure	Employee-centered (Sustainability)	Sustainable Employment	Reintegration management Health management and promotion Ergonomic work design Company sports	Head of HR Head of health management Head of works council Health manager	1 1 1 1	16
PlastCo	<500	56	Regional Firm (Part of privately owned cooperate group)	Centralized/ hierarchical Divisional Structure	Customer-oriented (Cost-effectiveness)	None	Reintegration management Health management Ergonomic work design	CEO/ Interim Head of HR Head of works council Line manager HR professional Health agent	1 1 1 1 1	4

[a] Documents included public records (i.e. press releases, annual and sustainability reports) and internal records (i.e. bylaws, company agreements, presentation materials and internal communication such as Emails and flyers).

Table 2
Overview and Definition of Contextual Factors

Contextual Dimension	Contextual Factors	Definition	Illustrative quotes
Physical Context	**Work Environment**	The surrounding conditions in which practices are implemented including the work processes (e.g. continuous shifts) and technical equipment	"*We tried to make the working places more ergonomic but we just don't have the room to use the machines we would require to make the task easier.*" (Health manager, CleanCo)
	Size and Structure	The number of workers, scope of operation and hierarchical arrangement of lines of authority and communications	"*We have a matrix organization and we are a multi-divisional location. This is all very complicated and you always have to look at who you have to communicate with.*" (HR manager, ChemCo)
Social Context	**Social Influence**	The influence of a HRM actors on the attitudes and behaviors of other actors involved in the implementation	*"The critical point is, that if it's not exemplified by the senior management, then it won't work. […] The senior management's behavior is always a valid excuse. "They didn't do it so we don't have to do it either."* (Head of HR, CoppCo)
	Social Structure	The patterns of social interactions between different HRM actors, established by the organization and regulated through norms, values and culture.	*"We regularly exchange experiences with all our managers and ask: what went well, what was missing, what must we improve? And the input we get is used to plan our next steps"*(CEO, ChemCo)
	Staffing level	The number of HRM actors in relation to each another (i.e. the number of health management professionals in relation to LMs or the number of LMs in relation to the number of subordinates)	*"Because we are so big we would need a department dedicated to health management. We had a single person that worked part time as a health agent.*" (Head of works council)
Task Context	**Role Clarity**	The degree to which tasks and responsibilities of the different HRM actors with regard to the implementation are clearly defined	*"At the beginning they* [the LMs] *were opposed against the new responsibilities.* […] *By now they perceive it to be part of their regular leadership role."* (Health manager, CleanCo)
	Task Demands	The demands (i.e. in terms of the ability or time required) associated with the roles of the individual HRM actors during the implementation	"*I would require a lot more input* [regarding health management]. *At the moment I am learning-by-doing and have to see how the employees react."* (Line manager, PlastCo)
	Accountability	The degree to which a HRM actor is (perceived to be) held accountable for the fulfillment of his or her role during the implementation	*"It's certainly the case that these issues tend to have a low priority. Sure that's the danger* [of a lack of accountability]*."* (HR manager, CoppCo)

Table 3
Patterns of Context and Implementation Effectiveness

Firm	Physical Context	Social Context	Task Context	Implementation Effectiveness
ChemCo	**Work Environment** • Highly structured work flows and complex machinery impedes the implementation of ergonomic work design **Size and Structure** • Multiple divisions and matrix organization leads to complex communication channels	**Staffing Level** • High staffing level increases availability of support **Social Structure** • A cooperative culture and the implementation of cross-functional teams increase interactions **Social Influence** • Direct social influence of senior management and works council undermined by size and structure • Integration of health and well-being into strategic objectives increase perceived importance of implementation	**Role Clarity** • Clear allocation of roles and responsibilities through explicit policies **Accountability** • Systematic evaluation of implementation progress increases accountability **Task Demands** • Support by well-staffed HR and health management departments decreases task demands on LMs	**Medium** • Ergonomic work design only partially implemented (due to working environment) • Departmental differences in the implementation of health management • Health promotion, reintegration management and company sports implemented as intended
Illustrative quotes:	*"Very complex, very difficult. Under certain circumstances it prevents us from making quick decisions or implementing something quickly. But sometimes it also has advantages. That always depends on who acts where and in which area."* (Head of HR)	*"This is supported and supervised. We have hired people to take care of it and it is financially supported."* (Head of works council)	*"Every manager has certain requirements with regard to the management of the environment, health and safety. They sign up for this and have to fulfill them. In my opinion, this is a rather easy topic in the context of their managerial tasks."* (CEO)	*"I think that's not just a first step but maybe even three or four steps in the right direction. But it is a continuous process and we always have to look for room for improvement."* (Health manager)
CoppCo	**Work Environment** • Highly structured work flows, physically demanding jobs and complex machinery impedes the implementation **Size and Structure** • Large size and strictly hierarchical structure leads to long reporting relationships and increases need for coordination	**Staffing Level** • A low staffing level increases the workload of HRM actors and decreases the availability of support **Social Structure** • Frequent transfers of key actors (health agents) disrupts social structure • Bureaucratic and hierarchical work flows decrease interactions across hierarchical levels or functional domains **Social Influence** • Strategic focus on cost-effectiveness and conflicts of interest between HRM actors decrease perceived importance of implementation	**Role Clarity** • Unclear definition of roles and responsibilities increases need for coordination **Accountability** • Low accountability due to lack of evaluation or monitoring decreases time spent on implementation **Task Demands** • Lack of support, experience and trainings lead to gap between task demands and abilities of LMs and health agents	**Low** • Reintegration management inconsistently implemented and applied • Large departmental differences with regard to health management and ergonomic work design • Many intended practices not implemented (i.e. trainings programs)

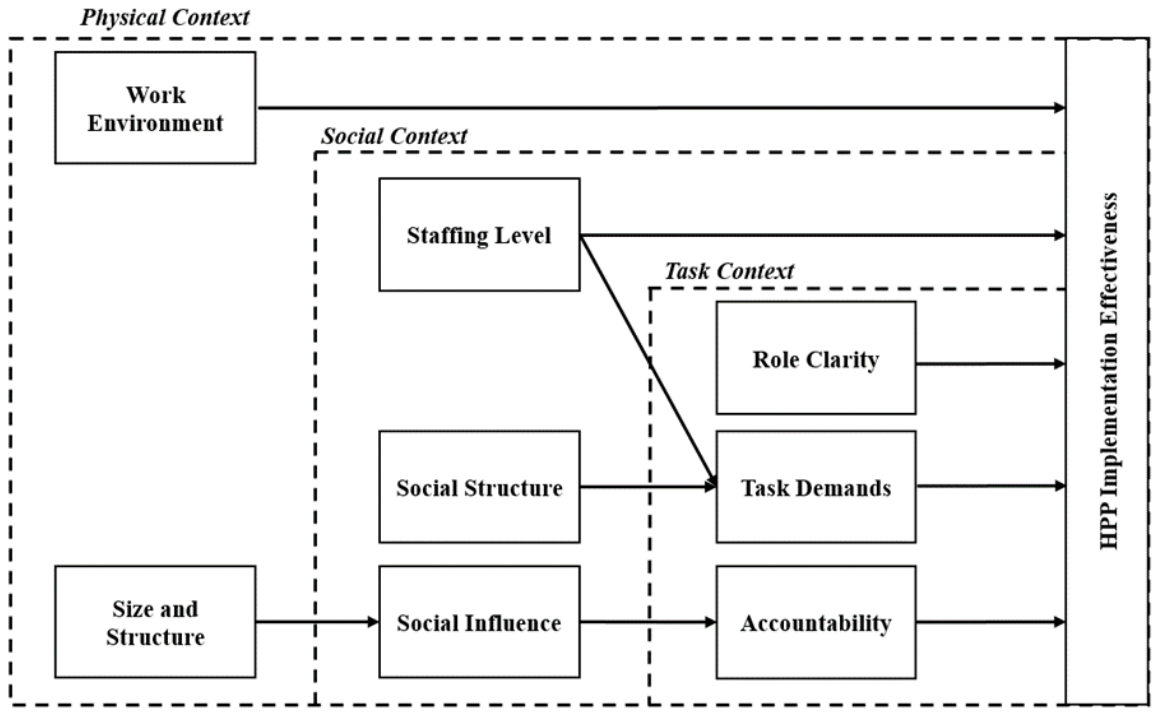
Table 3 (continued)

Firm	Physical Context	Social Context	Task Context	Implementation Effectiveness
Illustrative quotes:	*"We are old economy. It will just take a longer time till this topic* [ergonomic work design] *really reaches us here in the heavy industry"* (HR manager)	*"11 years ago we were merged with another department but we took our work with us and got additional duties. So they combined two workplaces into one. Now they want to merge us again."* (Line manager)	*"We lack the necessary expertise. Today you are a HR officer and tomorrow you are a supposed to be a health agent and have to provide support. You first have to develop the necessary expertise."* (Head of works council)	*"I will be totally honest, many of these things have not really been implemented. Some things are incredibly tedious."* (HR manager)
CleanCo	**Work Environment** • Highly structured work flows and complex machinery impedes the implementation of ergonomic work design **Size and Structure** • Small size and short distances increases the familiarity and direct interactions between different HRM actors	**Staffing Level** • Establishment of health management department increases the availability of support **Social Structure** • Cross-functional teams and a collaborative and supportive culture increase interactions between HRM actors **Social Influence** • Visible support and strategic integration of health and well-being emphasize strategic importance of implementation	**Role Clarity** • Clear distribution of roles and responsibilities through policies developed with LMs **Accountability** • Systematic monitoring and evaluation of implementation as part of performance review increase time devoted to the implementation **Task Demands** • Mandatory HR-related trainings for LMs decrease gap between task demands and abilities of LMs • Support by well-staffed HR and health management departments decreases task demands	**High** • Reintegration management, health management, health promotion and company sports implemented as intended • Ergonomic work design partially implemented (due to work flows)
Illustrative quotes:	*"Yes, this makes it terribly complicated. At some point you will come to the conclusion that you can only do it correctly if you rebuild it."* (Health manager)	*"I like to refer to our corporate principles which have been developed with the employees. They are all about 'cooperation'. This is an important aspect."* (Head of HR)	*"The responsibilities have been developed and defined together by all managers across the company and subsequently been implemented."* (Head of HR)	*"Our health management program is a success story. And we are also seeing that the sick rate is falling, but also the culture is improving rapidly."* (Head of health management).
PlastCo	**Work Environment** • Highly structured work flows and complex machinery impedes the implementation **Size and Structure** • Small size and short distances increases interactions between different HRM actors	**Staffing Level** • A low staffing level increases the workload of the HRM actors **Social Structure** • Frequent transfers of key actors (Head of HR/ CEO) disrupt social structure	**Role Clarity** • Unclear definition of roles and responsibilities increases need for coordination **Accountability** • Low accountability due to lack of evaluation or monitoring decreases time spent on implementation	**Low** • Reintegration management inconsistently applied • Large departmental differences with regard to health management and ergonomic work design

Table 3 (continued)

Firm	Physical Context	Social Context	Task Context	Implementation Effectiveness
		• Bureaucratic and hierarchical work flows limit interactions between functional domains and hierarchical levels **Social Influence** • Conflicts between the works council and senior management as well as the strategic focus on cost-effectiveness decrease perceived importance of implementation	**Task Demands** • Lack of support, experience and trainings increases gap between task demands and abilities of LMs as well as health agents	
Illustrative quotes:	"*You can certainly do a lot more and that's just a matter of space and investment, I'd say. But you can't just rebuild such a big warehouse. So it won't always work.*" (Line manager)	*"I believe that the works council should have a mediating role. But to do that they must have a vision and health management must be a priority. And we still don't have that at the moment […] I haven't reached an agreement with them yet."* (CEO/ Head of HR)	"*A good leader would have to devote at least 20% of their time to people management. At the moment they are investing 0%.*" (Head of the works council)	"*I think there's still a lot to do. To be honest, we are still in our infancy, at least in my opinion.*" (HR professional)

Figure 1
Influence of Organizational Context on the Implementation Effectiveness of Health Promotion Programs



Paper 3

Demographic Change and HR System Fit: Exploring the Influence of Internal Dynamics on the Adaptation of HR Systems

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Demographic Change and HR System Fit: Exploring the Influence of Internal Dynamics on the Adaptation of HR Systems

Abstract

The strategic human resource management (SHRM) literature suggests that drastic environmental changes such as aging workforces and a shrinking labor supply owing to demographic changes, can lead to complex competitive and institutional pressures that can decrease the 'fit' and effectiveness of HR systems if they are not adapted. While it has been argued that the adaptation of HR systems to these pressures is influenced by the internal dynamics of an organization, to date, limited attention has been devoted to these relationships. This article aims to address this gap using a multiple-case study approach. By systematically comparing the response of four German organizations, it highlights how internal dynamics influence the adaptation of HR systems to demographic change. The findings suggest that the adaptation of HR systems is influenced by a complex interaction of power dependencies, goal congruence, cooperation, and capacity for action of key decision-makers. This article contributes to the literature by developing a tentative conceptual framework of these relationships to guide further research. Thereby, it address the call for a more holistic approach to research in the realm of SHRM and contributes to a more nuanced and holistic understanding of the adaptation of HR systems to the demographic change.

Keywords: strategic human resource management, fit, HR system, demographic change, internal dynamics

Demographic Change and HR System Fit: Exploring the Influence of Internal Dynamics on the Adaptation of HR Systems

Demographic change is considered one of the most powerful environmental pressures affecting organizations in the Western world and is leading to dramatic shifts in the size and structure of workforces. In addition to a shrinking working population, the share of older persons in the population is expected to increase significantly in the coming decades (United Nations, 2013). For organizations, these changes imply that as the average age of their employees rises, it will become increasingly difficult to replace them (Kulik, Ryan, Harper, & George, 2014; Muller-Camen, Croucher, Flynn, & Schröder, 2011). Thus, organizations face the challenge of maintaining the productivity and commitment of their aging workforce while simultaneously attracting younger qualified workers in tightening labor markets (Kooij & Van De Voorde, 2015; Zwetsloot, van Scheppingen, Dijkman, Heinrich, & Besten, 2010).

Drawing on insights from the best-fit (or contingency) approach, research in the realm of strategic human resource management (SHRM) suggests that for organizations to remain competitive, these drastic changes should trigger the systematic adaptation of HR systems to the demographic change in order to maintain or increase its 'fit' (Banks & Kepes, 2015; Jackson, Schuler, & Jiang, 2014; Paauwe & Boselie, 2007). Otherwise, even internally consistent HR systems could become misaligned with environmental pressures and lose their effectiveness. Based on these arguments, it has been suggested that to efficiently address the challenges associated with demographic change, organizations should introduce consistent bundles of age-appropriate practices and align their strategies accordingly (see e.g. Armstrong-Stassen, 2008; Boehm & Dwertmann, 2015; Kooij, Jansen, Dikkers, & De Lange, 2014; Rau & Adams, 2013).

However, empirical studies show that organizations seem to frequently deal with demographic change in a non-systematic way and rely on isolated initiatives that are not

integrated into their HR systems (Oude Mulders, Henkens, & Schippers, 2016; Rau & Adams, 2013; van Dalen, Henkens, & Wang, 2015). While this is in line with prior findings from the realm of SHRM, which suggest that organizations often employ HR systems with a low fit owing to rapid environmental changes, the rationale behind such organizational decisions remains largely unknown (Boon, Paauwe, Boselie, & Hartog, 2009; Cooke, 2018; Jackson et al., 2014; Paauwe, 2004).

To advance our understanding of the influence of environmental pressures on HR system fit, there have been repeated calls for a more holistic approach to SHRM (Banks & Kepes, 2015; Jackson et al., 2014; Martín-Alcázar, Romero-Fernández, & Sánchez-Gardey, 2005; Paauwe & Boselie, 2005). Researchers making these calls generally argue that environmental changes such as demographic change can create complex and sometimes conflicting competitive and institutional pressures (Farndale & Paauwe, 2007; Oliver, 1997; Paauwe & Boselie, 2007). How organizations respond to these pressures by adapting their HR systems is expected to depend on their internal dynamics (Boon et al., 2009; Greenwood & Hinings, 1996; Harney & Dundon, 2006; Pache & Santos, 2010). As such, a clear understanding of the role of internal dynamics is expected to be vital to explain how organizations respond to competitive and institutional pressures relating to the demographic change.

However, despite these prevailing conceptual arguments, to date, empirical research has largely ignored these relationships (Boon et al., 2009; Cooke, 2018; Paauwe & Boselie, 2005; Schuler & Jackson, 2014). As a result, the SHRM literature is characterized by a limited theoretical and empirical understanding of the way internal dynamics influence the adaptation of HR systems to demographic change. The aim of this article is to address this gap by answering the following research question: *How and why do internal dynamics influence the*

adaptation of HR systems to competitive and institutional pressures relating to demographic change?

To address this question, this study employs a multiple case study approach conducted within four German organizations. The research setting is the chemical industry in northern Germany. Using rich data from semi-structured interviews and internal and public documents, the adaptation of HR systems to the demographic change is compared across these organizations. These companies face particularly strong pressures with regard to the demographics change and therefore, create a revealing comparison of the way internal dynamics influence the adaptation of HR systems. This is in line with recent suggestions from the SHRM literature for more qualitative investigation into the complexities of HR system fit (see e.g. Samnani & Singh, 2013; Schuler & Jackson, 2014).

By exploring the research question, this study addresses the calls for a more holistic approach to SHRM research and provides valuable insights into the complex reality of adapting HR systems (Banks & Kepes, 2015; Jackson et al., 2014). The central contribution of this article is the development of a tentative conceptual framework that highlights the complex relationships through which internal dynamics influence HR system fit in light of pressures relating to demographic change. This framework contributes to a better understanding of how and why certain choices are made with regard to the adaptation of HR systems and can serve as a useful guide for future research into the important role of internal dynamics (Cooke, 2018; Farndale & Paauwe, 2018; Kooij et al., 2014; van Dalen et al., 2015).

Theoretical Background

The assumption that HR system fit will be related to organizational effectiveness has been described as one of the defining characteristics of research in the realm SHRM (Becker & Huselid, 2006; Kepes & Delery, 2007; Wright & Gardner, 2002). This argument derives directly from the best-fit (or contingency) approach, which suggests that HR systems consisting

of mutually reinforcing practices that are systematically aligned with an organization's overarching strategy as well as other contextual factors will lead to synergistic effects and increase organizational effectiveness (Banks & Kepes, 2015; Delery & Doty, 1996; Lepak & Shaw, 2008). Two broad dimensions of 'fit' are usually distinguished within the SHRM literature. First, *vertical fit* refers to the degree to which the individual components of the HR system architecture (strategies, philosophies, policies, and practices) are set up in a way to consistently reinforce the behaviors required for the implementation of a given strategy (Becker & Huselid, 2006; Clinton & Guest, 2013; Delery & Doty, 1996; Kepes & Delery, 2007). Second, *horizontal fit* is related to the degree of internal consistency among HR practices. It suggests that the effectiveness of each HR practice depends on its complementarity with the other practices applied by an organization (Banks & Kepes, 2015; Delery & Doty, 1996; Guest, 2011).

Together, a high HR system fit is expected to lead to 'powerful connections' where the effect of the entire HR system is greater than the effect of each practice alone and ensures that the human resources are directed to achieve the primary objectives of an organization (Becker, Huselid, Pickus, & Spratt, 1997; Kepes & Delery, 2007).

However, rapid environmental changes, such as demographic change, create a dynamic context for the design and adaptation of HR systems. Without consistent adaptation, even HR systems with a high fit will become misaligned with environmental pressures and, as a result, will be less effective (Jackson et al., 2014; Kepes & Delery, 2007; Wright & Snell, 1998). Thus, it has been argued that to understand the drivers of, or barriers to, HR system fit, their interdependencies with the environment in which they are embedded need to be considered (Boxall & Purcell, 2011; Harney & Dundon, 2006).

To account for these interdependencies, authors in the realm of SHRM have drawn upon an array of different theoretical perspectives and concepts, most notably the resource-based

view (RBV), and neo-institutional theory, human agency and strategic choice, to identify drivers or barriers of HR system fit (Boon et al., 2009; Jackson et al., 2014). Based thereupon, these authors have distinguished between two types of environmental pressures that shape the context for the adaptation of the HR system: *competitive* and *institutional pressures* (Farndale & Paauwe, 2007; Oliver, 1997; Paauwe & Boselie, 2007).

Competitive pressures have been conceptualized as pressures arising from market conditions, such as the nature of products or services, labor markets, the intensity of competition and the price-setting power of customers (Boxall, 2007; Farndale & Paauwe, 2018). Drawing on the RBV's (Barney, 1991) economic rationality assumption, authors have suggested that organizations are motivated from an economic perspective to increase their efficiency, effectiveness, and profitability (Oliver, 1997; Paauwe & Boselie, 2003, 2007). The nature of the competitive pressures imposes different requirements on the design of the HR system (e.g. cost-effectiveness, productivity, flexibility, or quality). For example, organizations competing in tight labor markets face strong pressures to differentiate themselves from their competitors to attract and retain valuable human capital (Farndale & Paauwe, 2007; Oliver, 1997). However, this does not necessarily imply that all organizations adapt their HR system in the same way. Management might simply not see value in adapting the HR system or may decide to compete in other ways (e.g. by reducing the demand for human capital through automation) (Boxall, 2007).

Institutional pressures, on the other hand, have been defined as pressures arising from the social, political, cultural, and legal aspects of the operating environment and capture the influence of governments and unions on the design of HR systems (Boxall, 2007; Farndale & Paauwe, 2018). To underpin the influence of these pressures, authors usually refer to neo-institutional theory and suggest that organizations need to conform to rules and expectations of different stakeholders to be seen as legitimate and receive support from potential exchange

partners (Boon et al., 2009; Paauwe & Boselie, 2003). Thus, from this perspective, the design of HR systems might not always reflect the most effective or efficient option. Instead, organizations may adapt HR practices to comply with legislation or to seek approval from a stakeholders (Boon et al., 2009; DiMaggio & Powell, 1983; Oliver, 1997).

Based upon these arguments it has been suggested that drastic environmental changes, such as demographic change, can potentially lead to conflicting competitive and institutional pressures with regard to competitiveness and legitimacy that influence or even constrain HR system fit (Boxall & Purcell, 2011; Farndale, Brewster, & Poutsma, 2008). However, it has been argued that due human agency and strategic choice, organizations can and will use different ways to respond to these pressures, leading to differences in the design and fit of HR systems (Farndale & Paauwe, 2007; Paauwe & Boselie, 2007). To capture the influence of these mechanisms, authors have frequently drawn on the concept of *internal dynamics* (see e.g. Boon et al., 2009; Harney & Dundon, 2006; Paauwe, 2004; Paauwe & Boselie, 2007; Pache & Santos, 2010).

Internal dynamics have originally been conceptualized by Greenwood and Hinings (1996) as the interests, values, power dependencies, and capacity for action of the actors involved in the interpretation, adoption, or rejection of pressures for change. Drawing on this conceptualization, researchers in the realm of SHRM have suggested a broad range of factors that might influence the adaptation of HR systems, including the size and structure of the organization, its ownership, the management style, the availability of resources, and the presence of trade union representatives (Boon et al., 2009; Harney & Dundon, 2006; Jackson et al., 2014; Paauwe & Boselie, 2007). A common argument has been that to organizations will differ in their ability to recognize weaknesses in their existing HR system and resources to implement changes, which has been defined as their capacity for action (Farndale & Paauwe, 2007, 2018; Greenwood & Hinings, 1996). Furthermore, the adaptation of HR systems can be

influenced by human agency. For change to occur, organizational actors must be motivated by having personal or professional interest or by seeing (economic) value in the adaptation (Boxall, 2007; Greenwood & Hinings, 1996). Finally, it has been argued that to adapt the HR system according to their interests, the organizational actors require the necessary power or scope of action to do so. However, SHRM research has highlighted that decision-making power in the organization is often distributed among numerous key decision-makers (i.e. senior managers, HR-managers, board members, and employee or union representatives). Owing to these power dependencies, it has been argued that the consistent adaption of HR systems might require the cooperation of multiple key-decision makers (Farndale & Paauwe, 2007; Greenwood & Hinings, 1996; Harney & Dundon, 2006).

However, perpetuated by the absence of a theoretical or conceptual framework to understand and explain the influence of internal dynamics, SHRM research has almost exclusively been focused on the effects of 'fit' on performance (see e.g. Banks & Kepes, 2015; Delery & Doty, 1996; Lepak & Snell, 2002). By contrast, the way internal dynamics contribute to, or undermine the adaptation of HR systems and their subsequent fit to changing competitive and institutional pressures has been ignored in much of the empirical research (Harney & Dundon, 2006; Jackson et al., 2014; Paauwe, 2009). Thus, even though the important role of internal dynamics has repeatedly been stressed in the SHRM literature, it remains largely unknown how or why internal dynamics influence the adaptation of HR systems to changing environmental pressures.

Methodology

Given the limited theory and empirical evidence, a multiple-case study approach has been adopted. The value of case studies to contribute to our limited understanding of the complexity of HR systems fit has increasingly been recognized within the SHRM literature (Jackson et al., 2014; Martín-Alcázar et al., 2005; Samnani & Singh, 2013). Thereby, this

method is considered particularly useful to illuminate and extend constructs and their relationships, as targeted here (Eisenhardt & Graebner, 2007; Ridder, 2017). Additionally, a multiple-case study design permits the systematic replication of relationships and is expected to lead to more accurate and generalizable findings (Eisenhardt & Graebner, 2007; Yin, 2018).

Research Setting

In line with the replication logic underlying multiple-case study design, four organizations that were subject to similar institutional and competitive pressures were chosen. The selection of cases subject to similar environmental pressures helps to control for rival explanations and facilitates the exploration of the role of the internal dynamics in explaining why organizations might adapt their HR system in different ways to the same pressures (Davis & Eisenhardt, 2011; Greenwood & Hinings, 1996). Specifically, all four organizations operate within the chemical industry in the state of Lower Saxony in Germany[1]. This research setting is expected to provide particularly valuable insights for multiple reasons. First, Germany has been described be Europe's "first and biggest test of the problems caused by an ageing and declining population" (Berg, Hamman, Piszczek, & Ruhm, 2018, p. 495), and the chemical industry is especially affected by these developments (Bundesarbeitgeberverband Chemie e.V. [BAVC], 2018). Second, while the German government is systematically abandoning policies that promote "early exit" from the labor force and promoting the inclusion of older workers, unions still strongly promote early retirement pathways (Muller-Camen et al., 2011; Schröder, Muller-Camen, & Flynn, 2014). Given that these organizations have experienced particularly strong and complex pressures with regard to demographic change, the systematic comparison of the responses across these four cases is expected to yield particularly compelling evidence with regard to the way the internal dynamics influenced the HR system fit (Eisenhardt, 1989).

Data Collection

A multi-method design consisting of an analysis of documents and semi-structured interviews was adapted for data collection (Eisenhardt, 1989). More than 1000 pages of internal and public records (e.g. press releases, bylaws, company agreements, annual and sustainability reports, and presentation materials) were collected and analyzed regarding the organizations' HR strategies, practices, and the competitive and institutional pressures faced. Subsequently, a total of 28 interviews, lasting between 45 and 90 minutes were conducted (8 in ChemA, 11 in ChemB, 4 in ChemC, and 5 in ChemD), which is consistent with previous studies in the field of HRM (Boon et al., 2009; Harney & Dundon, 2006; Trullen, Stirpe, Bonache, & Valverde, 2016). Informants were selected through initial meetings with the CEO or HR department heads. They included key decision-makers during the adaptation of the HR systems to the demographic change, such as CEOs, HR directors, managers, and members of the work councils. Table 1 provides a detailed description of the organizations, the interviewed informants, and documents collected.

Insert Table 1 about here

The interview guides were based on the former identified constructs and consisted of four main parts: (1) background information on the interviewee; (2) questions with regard to the competitive and institutional pressures faced by the organizations; (3) questions with regard to the HR systems, including the HR strategy, policies and practices; (4) questions regarding the internal dynamics, including the key decision-makers involved in the design of the HR system and the factors that influenced the choices of HR practices.

Several steps were taken to ensure the validity of the data. First, to avoid information bias, this study engaged with multiple informants from varied functional areas and hierarchical levels (Becker & Huselid, 2006; Guest, 2011). The triangulations of statements made from

different perspectives and different data sources, decrease the subjectivity of the obtained information and create a more accurate understanding than single-source data. Therefore, the assurance of anonymity and confidentiality is expected to encourage the informants' accuracy (Davis & Eisenhardt, 2011).

Second, to avoid attributional bias and determine whether the participants felt that the data analysis was accurate, patterns that emerged during the analysis were presented before panels consisting of members of the senior management, works councils, and HR departments in a practice known as member checking[2]. The comments gathered during these meetings were used to further refine and extend the analysis, marking a further step to increase the validity and robustness of the findings (Creswell, 2009; Yin, 2018). Together, the rich blend of data sources well as the ongoing triangulation during the data collection contributes to a holistic picture of the way the internal dynamics influenced the adaptation of the HR systems in the four organizations.

Finally, to provide a more systematic approach to the coding process, a code book was developed prior to the data analysis and updated when new codes emerged from the data. The codes were carefully defined in accordance with the previously identified concepts (Creswell, 2009; DeCuir-Gunby, Marshall, & McCulloch, 2011).

Data Analysis

The data was analyzed in several iterative steps of aggregating the data from the within- and cross-case analysis (Miles, Huberman, & Saldaña, 2014). In line with the replication logic, each case was treated as a distinct analytical unit (Eisenhardt & Graebner, 2007; Yin, 2018). The within-case analysis consisted of two steps. First, the data gathered through the documents and interviews were synthesized into HRM 'profiles' for each organization (Eisenhardt, 1989). These profiles describe the main institutional and competitive pressures the organizations face and the 'fit' of the HR system fit. HR system fit, as the focal outcome of interest, was assessed

by triangulating statements made from informants regarding HR strategies, policies and practices and their integration with information gathered through internal and external documents. To facilitate the identification and comparison of patterns, the vertical and horizontal fit within each organization was scored from 'low' to 'high' (Miles et al., 2014). Second, after assessing the HR system fit, the within-case analysis centered on uncovering the way internal dynamics influenced the adaptation of the HR system to identify emergent patterns.

As the analysis progressed, a cross-case analysis using replication logic was conducted to compare and confirm these patterns across the cases (Eisenhardt & Graebner, 2007; Yin, 2018). Using tables and charts that listed tentative constructs, similarities and differences between the cases were systematically identified (Miles et al., 2014). Based thereupon, tentative relationships between these constructs were developed and further refined via replication logic (Yin, 2018). By iterating between constructs, tentative relationships and data, their underlying logic and relationships were further sharpened. These findings were subsequently compared with prior literature to identify similarities and differences and strengthen their internal validity (Eisenhardt, 1989). As a result of this iterative process, a tentative conceptual framework of the way internal dynamics mediate the relationship between competitive and institutional pressures and HR system fit has been developed.

Findings

In this section the findings of the case study will be presented, starting with the identification of the main competitive and institutional pressures the organizations face regarding demographic change. Based thereupon, the assessment of HR system fit will be presented. Finally, the relationships through which internal dynamics influenced the adaptation of the HR systems to the demographic change and their subsequent fit will be outlined.

Competitive and Institutional Pressures Relating to Demographic Change

In line with the replication strategy used within this study, there was extensive overlap in the competitive and institutional pressures mentioned across the organizations. The competitive pressures closely resemble those mentioned within the existing literature and were primarily related to the increasing age of the workforce and a shrinking labor supply (see Table 2).

Insert Table 2 about here

The changes caused a several HR-related challenges for these organizations. In this regard, especially the declining work-ability of an ageing workforce and the associated loss of productivity have repeatedly been mentioned as a challenge: "*I think one of the biggest challenges is to maintain the workability over a long period of time. We have a high share of physical work [...] And in this environment it is really difficult to keep older employees fit for work"* (HR Manager, ChemA).

Additionally, owing to the high mean age, the organizations faced the challenge of having to replace an increasing number of retiring workers in increasingly tight labor markets: "*We are approaching a situation where most of our employees will leave us at relatively short intervals. And then, we must find suitable replacements in a short period of time in a market that is getting narrower and narrower. So, this is a challenge.*" (CEO, ChemB).

In addition to these competitive pressures, the data analysis revealed diverse and complex institutional pressures originating from the European and German governments as well as the social partners of the chemical industry (i.e., trade unions and employers association) (see Table 2). In particular, the discontinuation of subsidies that promoted the early exit of older employees ('Altersteilzeitgesetz') and the systematic increase of the retirement age led to HR-related challenges. These changes further aggravated the problems arising from

an aging workforce and increased the pressure to find ways to maintain the work ability and motivation of older employees: "*We are increasingly confronted with the fact that employees are going to retire later and later. […] I think they are discussing 73 now. Thus, we have to think about how to keep employees healthy and motivated."* (CEO, ChemB).

Furthermore, owing to the discontinuation of subsidies, early retirement path ways, which were strongly promoted from social partners and implemented in all organizations suddenly became unattractive and forced the organizations to adapt their HR systems: *"This was regulated by collective agreements and also supported by the state. The state support expired in 2009 and then it was simply no longer attractive for the employees. […] We had the old model that we can no longer offer and new ones that are not attractive."* (Member HR-Department ChemB).

Additionally, the organizations faced institutional pressures form social partners in the form of collective agreements, which in contrast to the German government, still promoted early retirement (i.e. long-term accounts, partial retirement). In addition to the financial resources required for the implementation of these measures, the increasing loss of manpower owing to the age-related working time reduction emerged as a particular challenge that required the adaptation of the HR system: "*We do not have the possibility to create compromises. The older the workforce becomes, the more employees are affected by age-related working time reductions which leads to capacity losses*." (CEO/ Interim Head of HR, ChemD).

In sum, these findings show that the organizations faced strong, and sometimes conflicting, competitive and institutional pressures regarding the adaptation of the HR system. However, while all organizations adapted their HR systems to these pressures, how they were adapted in terms vertical and horizontal fit differed substantially between them.

Assessment of HR systems Fit

By assessing the vertical and horizontal 'fit' of the HR system of each organizations and comparing them to each other, two broad patterns of 'fit' can be identified, which will be outlined in the following section (see Table 3).

Insert Table 3 about here

Vertical fit. ChemB and ChemC explicitly addressed the increasing pressures arising from an aging workforce through their HR-strategies and philosophies by aligning them towards the health and well-being of the employees. They developed explicit sustainability policies regarding health management and age-appropriate work design "*that enables all employees to maintain and increase their work ability*", long-term personnel planning, knowledge management, and recruitment: *"In order to maintain and promote the health and performance of our employees, we take a holistic view of company health management. This begins with the improvement of technical and organizational conditions."* (Sustainability brochure 2016, ChemC).

These policies were subsequently translated into comprehensive work-life and health management practices. In the eyes of the informants, these practices enabled them to contribute to the work ability and commitment of their employees, while simultaneously increasing the attractiveness of their organizations as an employer: "*What we offer is useful to make our employer brand better known and to stabilize it. We also realized that the famous Generation Y asks for what we offer in this regard. Especially with regard to work-life management. Through that we can increase the commitment of our employees and the attractiveness of our organization."* (Head of HR, ChemB).

In contrast, ChemA and ChemD were characterized by low vertical fit. Neither organization had developed any explicit HR-strategies or philosophies. However, ChemA was

in the midst of realigning its strategy from a strong focus on cost-effectiveness and shareholder returns towards responsibility and sustainability to address the pressures related to demographic change. While rudimentary health management policies had been developed, these policies have not been systematically translated into actual practices: *"The active management of health and safety has taken on a different focus, and I would say that it has have moved up from second or third to first priority. At least on the strategic level. It will still take a couple of years until it reaches the operative level."* (Head of HR, ChemA).

Regarding the institutional pressures, ChemA, ChemB, and ChemD implemented long-term accounts for early retirement to comply with the collective agreement. However, in the eyes of the informants, these practices were unrelated to the competitive pressures or the strategic objectives of their organizations, i.e. it did not contribute to the work ability of the employees or increase their productivity: *"[I]f someone stands at a machine for 8 hours a day, the long-term account doesn't really help him much."* (Member of HR department, ChemD).

ChemC, on the other hand, balanced the competitive and institutional pressures by allocating the demography fund to flexible work, paid leaves during family emergencies, and a disability insurance. The informants indicated that these practices were explicitly chosen because they contribute to the strategic objectives of the organizations: "*That's the right way. You can change a lot through it* [life-phase oriented working time organization] *and ultimately sustain the work ability of the employees.*" (Health Manager, ChemC).

Horizontal fit. The data analysis revealed substantial differences regarding the horizontal integration of the practices adopted to address the institutional and competitive pressures. Both ChemB and ChemC coordinated the development of practices relating to demographic change through overarching strategic projects. These projects were specifically initiated to identify challenges associated with demographic change and to develop practices to address them in an integrated way.

A high integration of practices was visible within ChemB and ChemC. Both organizations used information gathered through the mandatory demographic analysis and reintegration management (i.e. 'BEM'-talks) for the development and improvement of their health management programs and the introduction of ergonomic work design: *"We have these BEM talks and we use the information gathered there to identify measures to help the employee. Then we get the health manager involved and inspect the workplaces to see what we can do better."* (HR Manager, ChemB).

Within ChemC the reintegration management was extended beyond the legal requirements to take place even after short absences. To further improve its effectiveness they were combined with mandatory trainings for managers, which were financially supported through an EU initiative (EQUAL Community Initiative). Through this integrated approach, they were able realize synergistic effects and improve the integration and effectiveness their health management program: *"Our health management is a success story. And we also notice […] that not only the sickness rate is decreasing but also the BEM cases that we have, that they are rapidly decreasing. Because we prioritize everything strategically*." (Head of Health Management, ChemC).

In contrast to that, ChemA and ChemD introduced isolated initiatives that were not coordinated or aligned with the other practices already in place. For example, the information gathered through the demographic analysis were not used further, and the analysis was not regularly repeated. Similarly, the informants noted that even though reintegration management has been mandated since 2004, it has only recently been actually implemented and applied: *"Last year, I started to actively introduce the BEM-talks within our company. We used to do this a bit sporadically. Of course there was a legal obligation, but we didn't really apply it. We only started this last year in August or September."* (Health Agent, ChemD).

Additionally, the introduction of mandated age-related working time reductions has led to an artificial reduction of the workforce and increased the challenge related to the impending loss of human capital. These problems were further exacerbated within the companies that implemented long-term accounts for early retirement (ChemA, ChemB, ChemD), indicating a low horizontal fit of these practices. Informants within these organizations noted that a misalignment of these practices with personnel planning led to staff shortages, caused overtime and reduced productivity. Owing to the rising mean age of the workforce, an increasing number of employees will be affected by these regulations, which is expected to further increase the challenges related to the impending loss of human capital: "*Overtime is caused by the fact that shifts are not filled, that there are not enough people. So, all in all, I can understand the idea of age-related working time reductions. However, they are not sustainable in my view."* (Head of HR, ChemA).

In sum, the findings have revealed striking variations in HR system fit across the organizations. While the HR systems of ChemB and ChemC, were characterized by a strategic alignment with the competitive pressures and interrelated sets of practices across the different policy areas (i.e. work design, health management, and personnel planning), the HR systems of ChemA and ChemD were rated as 'low' in terms of both their vertical and horizontal fit. These variations in HR system fit point to the important mediating role of internal dynamics, which will be outlined in the next section.

The Mediating Role of Internal Dynamics

The findings suggest that the relationship between competitive and institutional pressures and HR system fit is mediated by an organizations internal dynamics. Specifically, five major types of highly interrelated constructs that constituted the internal dynamics of the organizations and influenced the level of HR system fit were identified within the four organizations: power dependencies, the cooperation between key decision-makers, goal

congruence, and the capacity for action. Table 4 portrays these constructs, their sub-constructs, and definitions. Table 5 highlights the internal dynamics, in terms of these categories for each organizations. The following section will be used to outline these relationships in greater detail.

Insert Table 4 about here

Insert Table 5 about here

Power dependencies. The findings suggest that even though senior management and HR departments have been identified as the actors primarily responsible for the design and development of the HR system, power dependencies influenced their decision-making scope. These power dependencies were related to *structural dependencies* of the organization and the *social dependencies*.

Relating to *structural dependencies*, the findings suggest that being part of a corporate group structure increases power dependencies. Within ChemB and ChemC, the adaptation of the HR system required the coordination with, and approval of, the corporate headquarters. In the eyes of the local CEOs and HR managers this restricted their power to adapt the HR system to local challenges and implement an integrated set of practices. For example, within ChemB the decision to adopt long-term accounts despite their poor fit was driven by the corporate headquarters to establish equal working conditions across the corporate group: *"I believe that based on the decision of the corporate headquarter we had no other choice than to follow their orders."* (Head of Works Council, ChemB).

In addition, *social dependencies* between the different key decision-makers increased their power dependencies. In this regard, the system of co-determination emerged as a

particularly important factors. Within all organizations, the implementation of practices relating to the working time, health, and safety, as well as the collective agreement, required the approval of the works council: "*Strategic issues are negotiated between the works council and the management or our boss. In the case of operational issues, we are also involved*." (HR professional, ChemB).

However, even though all organizations were subject to co-determination, they differed in HR system fit. Thus, power dependencies alone do not explain the observed differences. Instead, the findings show that the influence of power dependencies on HR system fit is mediated by the emergence of coalitions favoring the adaptation of the HR system.

Cooperation between key decision-makers. Given the power dependencies between the senior management, HR departments and works councils no party had the necessary decision-making power to assert its interest without the consent of the other. As such, their cooperation during the design and development of the HR system emerged as an important prerequisite for a high fit within the investigated organizations.

The detrimental influence of a lack of cooperation was visible within ChemA and ChemD. Both organizations were characterized by a strained relationship between senior management and the works council, which limited their cooperation. Within both organizations, the works council and the HR department developed practices independently of one another and only then met to decide which way to pursue: *"That everyone comes together and discusses what the challenges are and how we want to approach them does not happen. Nothing happens."* These negotiations frequently resulted in compromises that none of the parties was completely satisfied with and lead to the introduction of practices with a low horizontal and vertical fit: "*I would have preferred a more target-group-specific approach, but that was politically unfeasible because of the involvement of the works council*." (Head of HR, ChemA).

In contrast, the senior management within ChemB and ChemC involved the works council as a 'strategic partner'. The close cooperation between both actors emerged as was seen to facilitate the development of practices that were in the interest of both parties and contributed to a more systematic approach towards the adaptation of the HR system: "*We have involved the works council from the outset and they are a massive supporter of this process. I think we benefit from a very good relationship."* (Head of Health Management, ChemC).

In this regard, the goal congruence between senior management and the works councils emerged as an important factor that was seen to facilitate the cooperation between the actors.

Goal congruence. The works council, as the employee representatives at the strategic level, was characterized by similar goals and interests across the organizations. In addition to enabling early retirement and decreasing the burdens of older employees (i.e. through age-related working-time reductions), they placed a strong emphasis on the health and well-being of the workforce. As such, the members of the works council strongly advocated the implementation of practices that contribute to a more ergonomic work design, work-life balance, and health promotion: "*Staying healthy and fit and able to work is in everyone's interest. At the end of the day everyone wants to grow old and be healthy. This is our primary goal."* (Head of Works Council, ChemB).

In contrast, the goals and interests of the senior management differed substantially among the organizations, which was particularly visible in their espoused strategic objectives. As previously noted, ChemB and ChemC were characterized by highly employee-centered strategies. In line with these strategies, the well-being, satisfaction and commitment of the employees were regularly assessed through company-wide employee surveys, and used to develop performance indicators to evaluate managers: "*We have an 'Action Planner' through which we develop and define practices. First, we conduct an anonymous employee survey. Then, we look at how the results are. Where they are good, they are labeled as 'green' and we*

*don't have to do anything. But where they are 'red' we have to look deeper into the issues and develop measures to change this." (*HR professional, ChemB).

Thus, addressing the challenges associated with demographic change had a high strategic priority for the senior management within these organizations and was seen as a potential means to realize other strategic goals: "*Our primary strategic objective is to be the best possible workplace. To accomplish this, we have developed several goals: Becoming a more sustainable employer, increasing teamwork. These are the goals we have worked on in recent years.*" (CEO, ChemB). Owing to this strategic emphasis, contributing to the health and well-being emerged as a common goal, which contributed to a good relationship and close cooperation between senior management and the works councils within ChemB and ChemC: "*It* [the cooperation] *works because it's always goal orientated."* (Head of Works Council, ChemC).

ChemA and ChemD, on the other hand, were characterized by a strategic focus on cost-effectiveness and shareholder return. As a result, senior management and the HR departments within both organizations were primarily focused on efficiency goals and financial performance indicators. Thus, investments in the health and well-being of the employees were largely seen under cost considerations and perceived to be unrelated to the primary business objectives: *"This requires more resources and leads to higher costs and extra work. I'm an economist and that's why I look at these things from an economic point of view*." (Head of HR, ChemA). This, in turn, led to goal conflicts between senior management and the works council: *"There are different interests represented. [...] We really had a conflict regarding these issues."* (Head of Works Council, ChemA).

These findings show that a high goal congruence facilitates the cooperation between senior management, HR-departments and works councils, which, in turn, mitigates the power dependencies between these actors. However, having the necessary decision-making scope and

interest to align the HR system, alone, does not lead to a high HR system fit but additionally requires the necessary capacity for action.

Capacity for action. The capacity for action describes the capability of the organization to develop a vertically and horizontally integrated set of HR practices. The findings suggest that this capacity is influenced by the *involvement of experts* and the *allocation of the necessary resources*. Informants within all organizations noted that given the highly complex nature of the competitive and institutional pressures, the development of an integrated set of practices requires the involvement of health management professionals that have a sufficient understanding of the challenges faced by the organizations, the skills and competencies to design and integrate practices into the HR system, and the necessary resources to implement and apply these practices.

However, the analysis revealed substantial differences between the organizations in this regard. In line with their strategic objectives, ChemB and ChemC were characterized by a high allocation of both monetary and personnel resources. Within these organizations, dedicated health management departments, staffed with experienced health management professionals were responsible for the development and design of practices relating to health and well-being as well as the implementation of the collective agreements in close cooperation with the HR-departments and senior management. As noted by the informants, the expertise of the health management professionals contributed to a more structured and systematic approach which, in turn, increased the 'fit' of the practices: "*They* [the health management department] *contribute something that had been missing. They had conceptual ideas and started with the development of a comprehensive concept with regard to health promotion, strongly supported by our HR-department.*" (Head of Works Council, ChemC).

ChemA and ChemD, on the other hand, employed individual health agents. These health agents were formerly part of the HR-departments and had no prior experience with

health management. These health agents were primarily responsible for administrative and operative tasks and not involved in development of practices. As a result, they were seen to possess neither the possibility nor the knowledge to contribute to a more structured approach towards the adaptation of the HR system: "*You need a specialized department to coordinate this process. Our 'department' was just a part-time employee."* (Head of Works Council, ChemA).

In both organizations, this was further abetted by a low resource allocation. Owing to the strong focus on cost-effectiveness and the conflicts between the works council and senior management, financial resources were either not allocated by the senior management or not approved by the works council which was considered as obstructing the development and integration of practices: "*We have a decent sum. But now we have to decide how to use these funds and there it's difficult to find a sensible solution because the management and the works council have different ideas. One would like to do this, and the other wants to do something else. It's difficult and we have to work on this issue*." (HR professional, ChemD).

Discussion and Conclusion

The article contributes to the SHRM literature through the development of tentative conceptual framework that highlights the relationship between competitive and institutional pressures relating to demographic change, internal dynamics, and HR system fit (see Figure 1). This framework sheds light on the complexity underlying the 'translation' of environmental pressures into HR system fit. It suggests that differences in HR system fit in light of demographic pressures are related to the internal dynamics of organizations. To develop practices with a high 'fit', organizations require the necessary resources and expertise (i.e. capacity for action). By itself, however, a high capacity for action will not lead to a high HR system fit. Instead, key decision-makers must have the necessary decision-making power and interest to adapt the HR system, which, depending on their power dependencies, requires a

close cooperation with other organizational actors. A high goal congruence between the key decision-makers is expected to facilitate their cooperation and the allocation of resources. By highlighting these relationships, the framework extends the existing literature in several ways (Boon et al., 2009; Farndale & Paauwe, 2007; Harney & Dundon, 2006).

Insert Figure 1 about here

First, while previous research in the realm of SHRM frequently combined competitive and institutional pressures into a single 'external environment' construct, this study suggests that both types pressures should be explicitly distinguished (Boon et al., 2009; Lepak & Shaw, 2008). The investigated organizations face complex, and sometimes conflicting, competitive and institutional pressures that can lead to the introduction of conflicting HR practices. Combining both types of pressures into a single 'external environment' construct disregards the complexity of developing HR systems in organizations and might exaggerate conceptions of rationality and strategic choice (Boxall & Purcell, 2011; Harney & Dundon, 2006). The complexity of these pressures was visible in the different levels of HR system fit of the organizations. Within ChemA and ChemD the adopted HR practices did not reflect the coherent sets of practices frequently suggested within the literature (see e.g. Boehm & Dwertmann, 2015; Kooij et al., 2014). Thus, universalistic prescriptions of certain bundles or sets of practices to address demographic change seems to be undermined by the complexity of the institutional and competitive pressures (Guest, 2011; Harney & Dundon, 2006; Martín-Alcázar et al., 2005).

Second, this study is among the first to provide a tentative conceptualization of the way internal dynamics mediate the relationship between competitive and institutional pressures and HR system fit. It shows that the concept of 'internal dynamics' is a useful conceptual lens to

better understand why certain choices are made with regard to the design and fit of the HR system (Greenwood & Hinings, 1996; Harney & Dundon, 2006; Jackson et al., 2014; Paauwe, 2009). Specifically, the framework suggests that while power dependencies decrease the decision-making scope of organizational actors, a close cooperation can mitigate this effect. The degree of cooperation is expected to depend on the goal congruence between principal actors. Together, close cooperation and goal congruence are expected to increase the capacity for action, required for the development of an integrated approach.

The findings regarding internal dynamics extend the existing literature in several ways. Previous research has frequently suggested that smaller organizations are more likely to have informal and underdeveloped HR practices (see e.g. Fuertes, Egdell, & McQuaid, 2013; Oude Mulders et al., 2016; Samnani & Singh, 2013; van Dalen et al., 2015). This, however, could not be confirmed within this study. On the contrary, ChemC as one of the smaller organizations was characterized by highly sophisticated and aligned HR systems and the highest HR system fit. Rather than size, the findings suggest that capacity for action is an important prerequisite for HR system fit. Even though ChemC and ChemD were of similar size, ChemC was characterized by significantly higher capacity for action owing to the involvement of a health management department and the allocation of the necessary resources.

The present study emphasizes the importance of goal congruence among key decision-makers. While previous studies suggest that short-term financial goals undermine the adaptation of HR systems (Boon et al., 2009; Oliver, 1991), the present findings provide deeper insights into this relationship. Specifically, the short-term financial goals within ChemA and ChemD led to frequent conflicts between senior management and the works council regarding the design of the HR system. Owing to their power dependencies, neither party was able to exert its interest, leading to a low HR system fit. Thus, the nature of the goals *per se* did not influence HR system fit, but rather the cooperation between key decision-makers.

In this regard, it might also help to explain the mixed findings of previous studies concerning the influence of social partners. While some studies suggested that the involvement of social partners restricts the development of HR system others have shown that organizations can benefit from a high involvement of unions and works councils (Boon et al., 2009; Brandl & Pohler, 2010; Farndale et al., 2008; Monks & Loughnane, 2006). The present findings suggests the high influence of works councils owing to the system of co-determination led to greater power dependencies between the different key decision-makers. However, this in itself did not influence HR system fit. Instead, HR system fit was influenced by the cooperation between senior management and the works council and their goal congruence.

Practical Implications

Although this was an exploratory case study, the tentative framework provides several implications for practitioners. In particular, the findings suggest that given the dynamic nature and complexity of pressures regarding the demographic change, practitioners can benefit from actively monitoring competitive and institutional changes. If these pressures necessitate adaptation of the HR system, they need to be aware of potential interrelationship between the individual components of their HR system. Changing one practice might ultimately decrease the efficiency of other practices. Thus, the systematic adaptation of the HR systems requires a holistic perspective on HRM and the constant analysis and comparison of each practices regarding the overarching strategy.

Practitioners can benefit from the involvement of health management specialist in the development and implementation of consistent sets of practices. Given the detrimental effect of a strained relationship between senior management and the works council, efforts should be made to include the works council as a ‘strategic partner’ during the design and development of practices by focusing on common goals and mutual interests.

Limitations and Further Research

The findings should be considered in light of their limitations. First, the specific setting of this study needs to be taken into account when interpreting the findings. The structure of co-determination within Germany increased the power dependencies between senior management and the works council (Brandl & Pohler, 2010). Thus, the influence of the works council during the adaptation of an HR system might be significantly lower within other contexts. Nonetheless, the German setting provided particularly valuable insights owing to its strong competitive and institutional pressures from the demographic change and helps to expand SHRM research beyond its dominant focus on Anglo-Saxon countries (Farndale et al., 2008; Paauwe & Boselie, 2007). Therefore, the selection of cases enabled an in-depth investigation of the research problem and facilitated the replication of findings, which increased the validity of the results (Eisenhardt, 1989; Yin, 2018). Another limitation is that the performance implications of the adaptation process have not been assessed within this study. Thus, while existing research strongly suggests that HR system fit is related to organizational effectiveness (Banks & Kepes, 2015; Delery & Doty, 1996; Lepak & Snell, 2002), it remains unknown if higher levels of fit increased organizational effectiveness.

Forthcoming research may address all the issues mentioned above. For example additional quantitative and qualitative research in other contexts could be conducted to strengthen the generalizability of the findings regarding the power dependencies. Additionally, longitudinal research designs might provide deeper insights into the way internal dynamics influence the adaptation of HR systems over time and illuminate cross-level effects (Cooke, 2018). In a similar vein, forthcoming studies could expand these findings to address other types of environmental pressures (i.e. globalizations or digitalization) and explore whether the HR system fit is influenced by similar interrelationships.

Despite the limitations mentioned above, the tentative framework helps to explain variations in HR system fit in the light of demographic change by highlighting the mediating

role of internal dynamics and thereby contributes to a deeper understanding of the complexities underlying HR system fit (Oude Mulders et al., 2016; Rau & Adams, 2013; van Dalen et al., 2015). Therefore, the relationships identified through the tentative framework serve as a valuable basis for further investigations (Boon et al., 2009; Farndale & Paauwe, 2007; Nijssen & Paauwe, 2012).

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Footnotes

[1] This study is part of a larger research project conducted in 2016 that explored the integration and implementation of HR practices relating to demographic change.

[2] Owing to a change in the leadership of the HR-department, ChemC was the only organization that chose not to participate in the member checking process.

Table 1
Case Overview and Summary of Data Collection

Case	Organizational Characteristics			Data		
	No. of employees	**Revenue in mio. €**	**Form**	**Interview**		**Documents[a]**
ChemA	>2000	3.000	Multinational Enterprise (Publicly traded)	Head of HR Head of Works Council HR Manager HR Professionals Line Manager Employees	1 1 1 2 1 2	16
ChemB	>1500	2.500	Multinational Enterprise (Part of publicly traded corporate group)	CEO Head of HR Head of Works Council Line Manager Company doctor HR Professional Health Manager Employees	1 1 2 2 1 1 1 2	49
ChemC	<500	220	Regional Firm (Family-owned/ LLC)	Head of HR Head of Health Management Head of Works Council Health Manager	1 1 1 1	16
ChemD	<500	56	Regional Firm (Part of privately owned cooperate group)	CEO/ Interim Head of HR Head of Works Council Line Manager HR Professional Health Agent	1 1 1 1 1	4
				Total	**28**	**85**

[a] Documents included public records (i.e. press releases, annual and sustainability reports) and internal records (i.e. bylaws, company agreements, presentation materials and internal communication such as Emails and flyers).

Table 2
Overview of Competitive and Institutional Pressures relating to the Demographic Change

Type of Pressure		Source of Pressure	HR-Related Challenges	Illustrative Quotes
Competitive Pressures	**Labor Market**	• **Rising mean age of employees** - Mean age of above 42 years in all organizations; over 50 years in ChemD • **Shrinking labor supply** - Increasing lack of skilled applicants	➔ Declining work ability and productivity due to increasing number of older workers ➔ Human capital losses due to increasing number of retiring employees ➔ Retention, training and replacement of skilled workers on tight labor markets	*"We are experiencing the increasing age of our workforce through the fact that we will have to replace the whole commercial sector till 2030."* (Head of HR, ChemA) *"It didn't use to be like that. We still have enough applications but we struggle to find suitable candidates. Maybe it is the demographic change."* (Head of Health Management, ChemC)
Institutional Pressures	**European Legislation**	• **EQUAL Community Initiative** - Financial support of initiatives toward the development of human resources with a view to lasting high employment	➔ Inclusion of older workers	*"The training practices we used to introduce the welfare and reintegration talks have also been* [financially] *supported by the EU."* (Head of Works Council, ChemC)
	German Legislation	• **Mandatory reintegration of physically or mentally impaired employees since 2004** ('BEM') • **Discontinuation of the 'block model' of part-time retirement in 2009** (*'Altersteilzeitgesetz'*) • **Stepwise increase of retirement age**	➔ Inclusion of older workers ➔ Abolishment of early retirement path-ways and raise of retirement age (increases aging of the workforce)	*"I can't imagine how an employee is supposed to carry out the work that we do here until his retirement age."* (HR Manager, ChemA) *"We will no longer have the partial retirement. We can no longer do this because the legal foundations have been removed."* (Head of HR, ChemB)
	Social Partners	• **Collective agreement of the chemical industry (1992)** - Mandatory age-related working time reductions (3.5 hour per week for employees older than 57 years) • **Collective Agreement "Lebensarbeitszeit und Demografie" (2008)** - Mandatory performance of a demographic analysis - Mandatory implementation of either: Long-term account; Partial retirement; Occupational disability insurance or Pension fund - Recommended implementation of ergonomic work design and health management	➔ Increasing costs and productivity losses due to working time reductions ➔ Creation of early retirement path-ways (increases human capital losses)	*"Due to the increasing retirement age, more and more employees are effected by the working time reductions and they are becoming more and more expensive. To be able to afford this we have to increase our profitability."* (Head of HR, ChemA) *"I believe that we are moving in the wrong direction here in Germany. We have the legislator on the one hand and the bargaining parties on the other hand and there the legislator is not involved." (CEO/Head of HR, ChemD)*

Table 3
The Adaptation of HR Systems to Demographic Pressures

Case	Vertical Fit	Horizontal Fit
ChemA	**LOW** - Strategic focus on cost-effectiveness and shareholder returns - No explicit HR strategy or philosophies - Rudimentary health management policies - Adoption of long-term account unrelated to strategic goal	**LOW** - Reintegration management and demographic analysis not consistently integrated or applied - Age-related working time reductions and long term account not aligned with personnel planning - Isolated health management practices
Illustrative Quotes:	*"Our goal is to generate attractive returns for our shareholders from secure structures and to achieve sustainable international growth."* (Annual Report 2010/11) *"We had different ideas in this regard, but as I said they have not yet been implemented."* (HR Manager)	*"We didn't account for it* [working time reductions] *with regard to our production staff which caused us major problems."* (Head of Works Council)
ChemB	**HIGH** + Employee-centered strategy + HR-strategy and philosophies focused on sustainable employment + Explicit policies with regard to sustainable recruitment, health management, and work design + Comprehensive health management, and work-life management programs - Adoption of long-term account unrelated to strategic goals	**MEDIUM** + Demographic analysis and reintegration management used for the development of health management programs in an integrated way + Health management, personnel development and work organization coordinated through overarching project - Age-related working time reductions, long-term accounts not aligned with personnel planning
Illustrative Quotes:	*"We create the framework to maintain the employability of our employees at all stages of their lives and to ensure the availability of skilled workers." (Consolidated Management Report 2016)*	*"So I know that we always did it a bit half-heartedly and got complains about staff shortages, and then we actually sat down and conducted an analysis within our production departments and found out, that if we add it all up we lack four employees."* (HR Professional)
ChemC	**HIGH** + Employee-centered strategy + Strategy and philosophies aligned towards health and well-being + Explicit policies focusing on health management, work-life management and work design + Comprehensive health, and work-life management programs + Adoption of life-phase oriented working time organization, paid leaves during family emergencies and disability insurance in line with strategic goals	**HIGH** + Demographic analysis and reintegration management systematically used for the development of a comprehensive health management program + Personnel development (financed through EU grants) aligned with reintegration management to increase its quality and effectiveness + Leadership development, work-life management and health management systematically coordinated
Illustrative Quotes:	*"We act responsibly to protect people and the environment."* (Corporate Principles Brochure) *"In order to maintain and promote the health and performance of our employees, we take a holistic view of company health management. This begins with the improvement of technical and organizational conditions."* (Sustainability Brochure 2016)	*"We need to look at these issues in an integrated way. […] We started to look into all documents and analyses we had in this regard but that still wasn't enough to develop a strategic approach. For this reason we conducted a companywide health survey." (Head of Health Management).*

Table 3 (continued)

Case	Vertical Fit	Horizontal Fit
	LOW	**LOW**
ChemD	- Strategic focus on cost-effectiveness - No explicit HR strategy or HR philosophy - Rudimentary health management policies - Adoption of long-term account unrelated to strategic goals	- Age-related working time reductions, long-term accounts not aligned with personnel planning - Reintegration management and demographic analysis not consistently integrated or applied - Isolated health management practices
Illustrative Quotes:	*"The interesting thing is that this company has no strategy. […] That is something that has been ignored for years and we have an urgent need to address this issue."* (CEO/ Head of HR)	*"It's quite clear. This year was a practice year for us. […]. We have to coordinate these issues better and develop solutions. This year we identified many problems, and now we have to see that we develop approaches to address these problems."* (CEO/ Head of HR)

Table 4
Overview of Internal Dynamics

Construct	Sub-construct	Definition	Example Quote:
Power Dependencies		The degree to which a HRM actor is inhibited from exercising his/her full decision-making power regarding the adaptation of the HR system owing to:	
	• **Structural Dependencies**	• The structural characteristic of the organization (i.e. the distribution of power between subsidiaries and holding companies).	*"That was a corporate decision. In the end, it was just due to this decision."* (Head of Works Council, ChemB)
	• **Social Dependencies**	• The distribution of power among other organizational actors (i.e. the works council).	*"I would have preferred a more target group specific approach. But that was politically unfeasible due to the involvement of the works council."* (Head of HR, ChemA).
Goal Congruence		The consistency between the goals of the senior management (i.e.in terms of the strategic objectives), and the goals of the works council with regard to the adaptation of the HR system.	*"A goal that is mentioned again and again is the topic of health, that the employee should retire healthy."* (Line Manager, ChemB)
Cooperation Between Key Decision-Makers		The joint or collaborative effort of key decision-makers (i.e. senior management and works council) to contribute to a shared goal with regard to the adaptation of the HR system.	*"We have involved the works council from the beginning and they are a massive supporter of this process. I think we benefit from a very good relationship."* (Head of Health Management, ChemC).
Capacity for Action		The ability to adapt the HR system in a consistent way owing to:	
	• **Allocation of Resources**	• The availability and mobilization of the resources required for the adaptation (e.g. money, time, manpower).	*"But you have to see, the whole thing costs a lot of money. And we will only be able to change practices if we get them properly financed."* (Head of HR, ChemA)
	• **Involvement of Experts**	• The involvement of actors with the skills and competencies required to plan and implement the consistent adaptation of the HR system	*"You will certainly need experts at one point or another. [...]You really need someone who knows what kind of areas are affected and how they are interrelated."* (Head of Works Council, ChemB).

Table 5
The Influence of Internal Dynamics on HR System Fit

Case	Power Dependencies	Cooperation between Key Decision-Makers	Goal Congruence	Capacity for Action	HR System Fit
ChemA	**Structural dependencies** • Standalone corporate structure increases the scope of action of senior management **Social dependencies** • System of co-determination increases power dependencies between senior management and the works council	• Incongruent goals lead to conflicts of interest between the works council and senior management which decreased their cooperation and aggravates the influence of the power dependencies	• Short-term focus on cost-effectiveness and shareholder returns of senior management vs. emphasis on health and well-being of employees of work council leads to goal conflicts with regard the adaptation of the HR system	**Allocation of resources** • Focus on cost-effectiveness and conflicts between senior management and the works council decrease resource allocation **Involvement of experts** • Health agent lacks necessary knowledge and influence to contribute to development of integrated sets of practices	**Low HR System Fit**
Illustrative Quotes:	*"This is generally a bit difficult, because the HR department, the works council, the executive board, all have to agree."*(HR Manager)	*"We really had a conflict back then."* (Head of Works Council)	*"You have to look at it from the market and the customer side. None of this is an end to itself. Such a company only has the right to exist if it generates revenue. And then you just have to look at what it takes for that."* (Head of HR)	*"I simply believe that there is a lack of expertise. Today they are personnel officers and tomorrow they are supposed to be health agents."* (Head of Works Council)	
ChemB	**Structural dependencies** • Corporate group structure decrease decision-making scope of local senior management **Social dependencies** • System of co-determination increases power dependencies between senior management and the works council	• High goal congruence facilitates the cooperation between senior management and the works council which mitgates the power dependencies	• Focus on sustainable employment and healthy workplaces leads to mutual goals between senior management and the works council regarding the adaptation of the HR system	**Allocation of resources** • High strategic importance of health and well-being of and close cooperation between key decision-makers increases resource allocation **Involvement of experts** • Strategic involvement of health management professionals facilitates alignment of HR system	**High Vertical and Medium Horizontal HR System Fit**
Illustrative Quotes:	*"That was a corporate decision. In the end, it was just due to this decision."* (Head of Works Council)	*"The HR department, we as the works council and in cooperation with our health manager and, depending on the case, also with the company doctor. We all work on this together and this works well."* (Head of Works Council)	*"We aim to be a sustainable employer. We want to be a sustainable employer and we want to be a great place to work and we want satisfied employees. Our principle is hire to retire."* (CEO)	*"The money is there and it's being made available. We have hired people to take care of work-life management and that it is financially supported, yes."* (Head of Works Council)	

Table 5 (continued)

Case	Power Dependencies	Cooperation between Key Decision-Makers	Goal Congruence	Capacity for Action	HR system Fit
ChemC	**Structural dependencies** • Standalone corporate structure increases the scope of action of the senior management **Social dependencies** • System of co-determination increases power dependencies between senior management and the works council	• High goal congruence and close working relationship facilitate the cooperation between senior management and the works council which mitgates the power dependencies	• Strategic focus of senior management on health and well-being leads to the emergence of common goals with the works council regarding the adaptation of the HR system	**Allocation of resources** • Support of owner family, senior management and works council increases the availability and allocation of personnel and monetary resources **Involvement of experts** • Strategic involvement of health management professionals facilitates alignment of HR system	**High HR System Fit**
Illustrative Quotes:	"*And this family structure is very helpful. If the owner really supports this process, then in the long run it is the best way to go."* (Health Manager).	"*I believe we benefited from a very good relationship with the works council*." (Head of Health Management)	"*This is also part of our HR-strategy. That human capital, even if I don't like the word, is just as valuable as financial capital*." (Head of HR)	*"With our strategic support, we can create synergistic effects. This is very valuable. This is a recipe for success here.*" (Head of Health Management).	
ChemD	**Structural dependencies** • Lack of [financial] support from corporate group limits the scope of action of senior management and the works council **Social dependencies** • System of co-determination increases power dependencies between senior management and the works council	• Incongruent goals lead to conflicts of interest between the works council and senior management which decreases their cooperation	• Short-term focus on cost-effectiveness of senior management and focus on health and well-being of works council leads to incongruent goals with regard to the adaptation of the HR system	**Allocation of resources** • Lack of support from corporate group and conflicts between senior management and the works council decrease resource allocation **Involvement of experts** • Health agent lacks necessary knowledge and influence to contribute to the development of integrated sets of practices	**Low HR System Fit**
Illustrative Quotes:	"*We don't get any support from our corporate group. Our investment ratio has been below our depreciation rate for years. This severely restricts our scope of action*." (Head of Works Council)	"*There's no point in a collective agreement. To reach these people you need to find organizational specific ways. Thereby the works council must have a mediating role and the same vision or a preference for health. And we are not there yet*." (CEO/ Head of HR)	"*We are negotiating about these thing and in this regard he* [the CEO] *he said that taking care of the health of employee should not be an issue for the social partners but rather for the health insurance. I thought he must be crazy when I heard this*." (Head of Works Council)	*"I would say that I have a different sense for this topic based on my meetings with the employees but I am still unable to see the bigger picture. […] There is always something that you do not know about and this could be of importance for an employee*." (Health Agent)	

Figure 1
Influence of Internal Dynamics on the Adaptation of HR-System to Competitive and Institutional Pressures Relating to the Demographic Change